# THADOMAL SHAHANI TSEC ENGINEERING COLLEGE THADOMAL SHAHANI ENGINEERING COLLEGE

# **1.1.1** The Institution ensures effective curriculum delivery through a wellplanned and documented process

| Sr. No. | Description   | Page No. |
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SEC THADOMAL SHAHANI ENGINEERING COLLEGE

# **1.1.1** The Institution ensures effective curriculum delivery through a well-planned and documented process

THADOMAL SHAHANI

| Sr. No | Activity Name         |
|--------|-----------------------|
| 1      | Syllabus Scheme R2019 |
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THADOMAL SHAHANI ENGINEERING COLLEGE

# Syllabus Scheme R2019





# Syllabus Structure Rev 2019 Computer Engineering



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### **Program Structure for Second Year Computer Engineering**

## UNIVERSITY OF MUMBAI (With Effect from 2020-2021) Semester III

| Course<br>Code | Course Name  |           | aching S<br>Contact I |       |                     |                               | Credits      | Assigned        |       |
|----------------|--|-----------|-----------------------|-------|---------------------|-------------------------------|--------------|-----------------|-------|
| Coue           |  | Theory    | Pra                   | ct.   | Tut.                | Theory                        | Pract.       | Tut.            | Total |
| CSC301         | Engineering Mathematics-<br>III                                    | 3         |                       |       | 1*                  | 3                             |              | 1               | 4     |
| CSC302         | Discrete Structures and<br>Graph Theory                            | 3         |                       |       |                     | 3                             |              |                 | 3     |
| CSC303         | Data Structure   | 3         |                       |       |                     | 3                             |              |                 | 3     |
| CSC304         | Digital Logic & Computer<br>Architecture                           | 3         |                       |       |                     | 3                             |              |                 | 3     |
| CSC305         | Computer Graphics  | 3         |                       |       |                     | 3                             |              |                 | 3     |
| CSL301         | Data Structure Lab   |           | 2                     |       |                     |                               | 1            |                 | 1     |
| CSL302         | Digital Logic & Computer<br>Architecture Lab                       |           | 2                     |       |                     |                               | 1            |                 | 1     |
| CSL303         | Computer Graphics Lab  |           | 2                     |       |                     |                               | 1            |                 | 1     |
| CSL304         | Skill base Lab course:<br>Object Oriented<br>Programming with Java |           | 2+2                   | )*    |                     |                               | 2            |                 | 2     |
| CSM301         | Mini Project – 1 A   |           | 4\$                   | ;     |                     |                               | 2            |                 | 2     |
|                | Total  | 15 14 1   |                       |       |                     | 15                            | 07           | 1               | 23    |
|                |  |           | •                     |       | Exa                 | mination Scl                  | neme         |                 |       |
|                |  |           |                       | Theor | y                   |                               | Term<br>Work | Pract<br>& oral | Total |
| Course<br>Code | Course Name  | Interna   | l Assess              | ment  | End<br>Sem.<br>Exam | Exam.<br>Duration<br>(in Hrs) | VV OI K      |                 |       |
|                |  | Test<br>1 | Test2                 | Avg   |                     |                               |              |                 |       |
| CSC301         | Engineering Mathematics-<br>III                                    | 20        | 20                    | 20    | 80                  | 3                             | 25           |                 | 125   |
| CSC302         | Discrete Structures and<br>Graph Theory                            | 20        | 20                    | 20    | 80                  | 3                             |              |                 | 100   |
| CSC303         | Data Structure   | 20        | 20                    | 20    | 80                  | 3                             |              |                 | 100   |
| CSC304         | Digital Logic & Computer<br>Architecture                           | 20        | 20                    | 20    | 80                  | 3                             |              |                 | 100   |
| CSC305         | Computer Graphics  | 20        | 20                    | 20    | 80                  | 3                             |              |                 | 100   |
| CSL301         | Data Structure Lab   |           |                       |       |                     |                               | 25           | 25              | 50    |
| CSL302         | Digital Logic & Computer<br>Architecture Lab                       |           |                       |       |                     |                               | 25           |                 | 25    |
| CSL303         | Computer Graphics Lab  |           |                       |       |                     |                               | 25           | 25              | 50    |
| CSL304         | Skill base Lab course:<br>Object Oriented<br>Programming with Java |           |                       |       |                     |                               | 50           | 25              | 75    |
| CSM301         | Mini Project – 1 A   |           |                       |       |                     |                               | 25           | 25              | 50    |
|                | Total  |           |                       | 100   | 400                 |                               | 175          | 100             | 775   |

\*Should be conducted batch wise and

\$ indicates workload of Learner (Not Faculty), Students can form groups with minimum 2 (Two) and not more than 4 (Four), Faculty Load: 1 hour per week per four groups

# Program Structure for Second Year Computer Engineering UNIVERSITY OF MUMBAI (With Effect from 2020-2021)

# Semester IV

| Course<br>Code | Course Name                                  |           | eaching S<br>Contact I |         |                                  | Credits Assigned |              |                 |       |  |  |  |
|----------------|--|-----------|------------------------|---------|----------------------------------|------------------|--------------|-----------------|-------|--|--|--|
| Code           |  | Theory    | Prac                   | t. [    | Гut.                             | Theory           | Pract.       | Tut.            | Total |  |  |  |
| CSC401         | Engineering Mathematics-<br>IV               | 3         |                        |         | 1*                               | 3                |              | 1               | 4     |  |  |  |
| CSC402         | Analysis of Algorithm                        | 3         |                        |         |                                  | 3                |              |                 | 3     |  |  |  |
| CSC403         | Database Management<br>System                | 3         |                        |         |                                  | 3                |              |                 | 3     |  |  |  |
| CSC404         | Operating System                             | 3         |                        |         |                                  | 3                |              |                 | 3     |  |  |  |
| CSC405         | Microprocessor                               | 3         |                        |         |                                  | 3                |              |                 | 3     |  |  |  |
| CSL401         | Analysis of Algorithm Lab                    |           | 2                      |         |                                  |                  | 1            |                 | 1     |  |  |  |
| CSL402         | Database Management<br>System Lab            |           | 2                      |         |                                  |                  | 1            |                 | 1     |  |  |  |
| CSL403         | Operating System Lab                         |           | 2                      |         |                                  |                  | 1            |                 | 1     |  |  |  |
| CSL404         | Microprocessor Lab                           |           | 2                      |         |                                  |                  | 1            |                 | 1     |  |  |  |
| CSL405         | Skill Base Lab Course:<br>Python Programming |           | 2*+                    | 2       |                                  |                  | 2            |                 | 2     |  |  |  |
| CSM401         | Mini Project 1-B                             |           | 4\$                    |         |                                  |                  | 2            |                 | 2     |  |  |  |
|                | Total  | 15        | 15 16 1 15             |         |                                  |                  | 7            | 1               | 24    |  |  |  |
|                |  |           |                        |         | Exam                             | ination Scl      | neme         |                 |       |  |  |  |
|                |  |           |                        | Theorem | ry                               |                  | Term<br>Work | Pract<br>& oral | Total |  |  |  |
| Course<br>Code | Course Name                                  | Intern    | al Assess              | ment    | EndExam.Sem.DuratioExam.(in Hrs) |                  | n.<br>ion    |                 |       |  |  |  |
|                |  | Test<br>1 | Test 2                 | Avg.    |                                  |                  |              |                 |       |  |  |  |
| CSC401         | Engineering Mathematics-<br>IV               | 20        | 20                     | 20      | 80                               | 3                | 25           |                 | 125   |  |  |  |
| CSC402         | Analysis of Algorithm                        | 20        | 20                     | 20      | 80                               | 3                |              |                 | 100   |  |  |  |
| CSC403         | Database Management<br>System                | 20        | 20                     | 20      | 80                               | 3                |              |                 | 100   |  |  |  |
| CSC404         | Operating System                             | 20        | 20                     | 20      | 80                               | 3                |              |                 | 100   |  |  |  |
| CSC405         | Microprocessor                               | 20        | 20                     | 20      | 80                               | 3                |              |                 | 100   |  |  |  |
| CSL401         | Analysis of Algorithm Lab                    |           |                        |         |                                  |                  | 25           | 25              | 50    |  |  |  |
| CSL402         | Database Management<br>System Lab            |           |                        |         |                                  |                  | 25           | 25              | 50    |  |  |  |
| CSL403         | Operating System Lab                         |           |                        |         |                                  |                  | 25           | 25              | 50    |  |  |  |
| CSL404         | Microprocessor Lab                           |           |                        |         |                                  |                  | 25           |                 | 25    |  |  |  |
| CSL405         | Skill Base Lab Course:<br>Python Programming |           |                        |         |                                  |                  | 25           |                 | 25    |  |  |  |
| CSM401         | Mini Project 1-B                             |           |                        |         |                                  |                  | 25           | 25              | 50    |  |  |  |
|                | Total  |           |                        | 100     | 400                              |                  | 175          | 100             | 775   |  |  |  |

\*Should be conducted batchwise and

\$ indicates workload of Learner (Not Faculty), Students can form groups with minimum 2 (Two) and not more than 4 (Four), Faculty Load: 1 hour per week per four groups.



# Program Structure for Third Year Computer Engineering UNIVERSITY OF MUMBAI (With Effect from 2021-2022)

|                  |  |           | Seme               | ster v | V                  |                               |              |                |          |
|------------------|--|-----------|--------------------|--------|--------------------|-------------------------------|--------------|----------------|----------|
| Course<br>Code   | Course Name                            |           | eaching<br>Contact |        |                    |                               | Credits A    | ssigned        |          |
| coue             |  | Theo      | ry                 | Prac   | ct.                | Theory                        | Prac         | et.            | Total    |
| CSC501           | Theoretical Computer<br>Science        | 3         |                    |        |                    | 3                             |              |                | 3        |
| CSC502           | Software Engineering                   | 3         |                    |        |                    | 3                             |              |                | 3        |
| CSC503           | Computer Network                       | 3         |                    |        |                    | 3                             |              |                | 3        |
| CSC504           | Data Warehousing &<br>Mining           | 3         |                    |        |                    | 3                             |              |                | 3        |
| CSDLO501x        | Department Level<br>Optional Course- 1 | 3         |                    |        |                    | 3                             |              |                | 3        |
| CSL501           | Software Engineering<br>Lab            |           |                    | 2      |                    |                               | 1            |                | 1        |
| CSL502           | Computer Network Lab                   |           |                    | 2      |                    |                               | 1            |                | 1        |
| CSL503           | Data Warehousing &<br>Mining Lab       |           |                    | 2      |                    |                               | 1            |                | 1        |
| CSL504           | Professional Comm. &<br>Ethics II      |           |                    | 2*+    | -2                 |                               | 2            |                | 2        |
| CSM501           | Mini Project: 2 A                      |           |                    | 4\$    |                    |                               | 2            |                | 2        |
|                  | Total                                  | 15 14 15  |                    |        |                    | 15                            | 07           |                | 22       |
|                  |  |           |                    |        | Exam               | ination Scl                   | neme         |                |          |
|                  |  |           |                    | Theo   | ry                 |                               | Term<br>Work | Pract<br>&oral | Total    |
| Course<br>Code   | Course Name                            |           | nternal            |        | End<br>Sem<br>Exam | Exam.<br>Duration<br>(in Hrs) |              |                |          |
|                  |  | Test<br>1 | Test<br>2          | Avg    |                    |                               |              |                |          |
| CSC501           | Theoretical Computer<br>Science        | 20        | 20                 | 20     | 80                 | 3                             | 25           |                | 125      |
| CSC502           | Software Engineering                   | 20        | 20                 | 20     | 80                 | 3                             |              |                | 100      |
| CSC503           | Computer Network                       | 20        | 20                 | 20     | 80                 | 3                             |              |                | 100      |
| CSC504           | Data Warehousing &<br>Mining           | 20        | 20                 | 20     | 80                 | 3                             |              |                | 100      |
| CSDLO501x        | Department Level<br>Optional Course -1 | 20        | 20                 | 20     | 80                 | 3                             |              |                | 100      |
| CSL501           | Software Engineering Lab               |           |                    |        |                    |                               | 25           | 25             | 50       |
| CSL502           | Computer Network Lab                   |           |                    |        |                    |                               | 25           | 25             | 50       |
| CSL503           | Data Warehousing &<br>Mining Lab       |           |                    |        |                    |                               | 25           | 25             | 50       |
|                  | Timing Date                            |           |                    | 1      | 1                  |                               |              | 1              |          |
| CSL504           | Professional Comm. &<br>Ethics II      |           |                    |        |                    |                               | 50           |                | 50       |
| CSL504<br>CSM501 | Professional Comm. &                   |           |                    |        |                    |                               | 50<br>25     | <br>25         | 50<br>50 |

### Semester V

\* Theory class to be conducted for full class and \$ indicates workload of Learner (Not Faculty), students can form groups with minimum 2(Two) and not more than 4(Four). Faculty Load: 1hour per week per four groups.

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# Program Structure for Third Year Computer Engineering UNIVERSITY OF MUMBAI (With Effect from 2021-2022) Semester VI

| Course         | Course Name                                       | Tea       | ching Sontact H | cheme          |                        | Cı                            | edits As     | Credits Assigned |       |  |  |  |  |  |
|----------------|---|-----------|-----------------|----------------|------------------------|-------------------------------|--------------|------------------|-------|--|--|--|--|--|
| Code           |   | Theory    |                 | Pract.<br>Tut. |                        | Theory                        | Pract        | . 1              | otal  |  |  |  |  |  |
| CSC601         | System Programming &<br>Compiler Construction     | 3         |                 |                |                        | 3                             | 3            |                  | 3     |  |  |  |  |  |
| CSC602         | Cryptography & System<br>Security                 | 3         |                 |                |                        | 3                             |              |                  | 3     |  |  |  |  |  |
| CSC603         | Mobile Computing                                  | 3         |                 |                | 3                      |                               |              | 3                |       |  |  |  |  |  |
| CSC604         | Artificial Intelligence                           | 3         |                 |                |                        | 3                             |              |                  | 3     |  |  |  |  |  |
| CSDLO601x      | Department Level Optional<br>Course -2            | 3         |                 |                |                        | 3                             |              |                  | 3     |  |  |  |  |  |
| CSL601         | System Programming &<br>Compiler Construction Lab |           |                 | 2              |                        |                               | 1            |                  | 1     |  |  |  |  |  |
| CSL602         | Cryptography & System<br>Security Lab             |           |                 | 2              |                        |                               | 1            |                  | 1     |  |  |  |  |  |
| CSL603         | Mobile Computing Lab                              |           |                 | 2              |                        |                               | 1            |                  | 1     |  |  |  |  |  |
| CSL604         | Artificial Intelligence Lab                       |           |                 | 2              |                        |                               | 1            |                  | 1     |  |  |  |  |  |
| CSL605         | Skill base Lab Course:<br>Cloud Computing         |           |                 | 4              |                        |                               | 2            |                  | 2     |  |  |  |  |  |
| CSM601         | Mini Project Lab: 2B                              |           | 4 <sup>\$</sup> |                |                        |                               | 2            |                  | 2     |  |  |  |  |  |
|                | Total   | 15        |                 | 16             |                        | 15                            | 08           |                  | 23    |  |  |  |  |  |
|                |   |           |                 | Theory         | 7                      | ation Sche                    | Term<br>Work | Pract.<br>&oral  | Total |  |  |  |  |  |
| Course<br>Code | Course Name                                       | Interna   | al Asses        | sment          | End<br>Sem<br>Exa<br>m | Exam.<br>Duration<br>(in Hrs) |              |                  |       |  |  |  |  |  |
|                |   | Test<br>1 | Test<br>2       | Avg            |                        |                               |              |                  |       |  |  |  |  |  |
| CSC601         | System Programming &<br>Compiler Construction     | 20        | 20              | 20             | 80                     | 3                             |              |                  | 100   |  |  |  |  |  |
| CSC602         | Cryptography & System<br>Security                 | 20        | 20              | 20             | 80                     | 3                             |              |                  | 100   |  |  |  |  |  |
| CSC603         | Mobile Computing                                  | 20        | 20              | 20             | 80                     | 3                             |              |                  | 100   |  |  |  |  |  |
| CSC604         | Artificial Intelligence                           | 20        | 20              | 20             | 80                     | 3                             |              |                  | 100   |  |  |  |  |  |
| CSDLO601x      | Department Level Optional<br>Course -2            | 20        | 20              | 20             | 80                     | 3                             |              |                  | 100   |  |  |  |  |  |
| CSL601         | System Programming &<br>Compiler Construction Lab |           |                 |                |                        |                               | 25           | 25               | 50    |  |  |  |  |  |
| CSL602         | Cryptography & System<br>Security Lab             |           |                 |                |                        |                               | 25           |                  | 25    |  |  |  |  |  |
| CSL603         | Mobile Computing Lab                              |           |                 |                |                        |                               | 25           | -                | 25    |  |  |  |  |  |
| CSL604         | Artificial Intelligence Lab                       |           |                 |                |                        |                               | 25           | 25               | 50    |  |  |  |  |  |
| CSL605         | Skill base Lab Course:<br>Cloud Computing         |           |                 |                |                        |                               | 50           | 25               | 75    |  |  |  |  |  |
| CSM601         | Mini Project :2B                                  |           |                 |                |                        |                               | 25           | 25               | 50    |  |  |  |  |  |
|                | Total   |           |                 | 100            | 400                    |                               | 175          | 100              | 775   |  |  |  |  |  |

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# Program Structure for Computer Engineering UNIVERSITY OF MUMBAI (With Effect from 2021-2022)

| Department Level<br>Optional Courses   | Semester | Code & Course   |
|--|----------|---|
| Department Level<br>Optional Course -1 | V        | CSDLO5011: Probabilistic Graphical<br>Models<br>CSDLO5012: Internet Programming<br>CSDLO5013: Advance Database<br>Management System |
| Department Level<br>Optional Course -2 | VI       | CSDLO6011: Internet of Things<br>CSDLO6012: Digital Signal & Image<br>Processing<br>CSDLO6013: Quantitative Analysis                |

# **Department Optional Courses**

# **Syllabus Structure Rev 2019 Information Technology**

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Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College

Bandra (W), Mumbai - 400 050.

# Program Structure for Second Year Engineering Semester III & IV **UNIVERSITY OF MUMBAI** (With Effect from 2020-2021)

**Semester III** 



| Course<br>Code | Course Name   | Т         | eaching<br>Contac      |                 | me                   |            | Credits Assigned |      |       |  |  |
|----------------|---|-----------|------------------------|-----------------|----------------------|------------|------------------|------|-------|--|--|
| Code           |   | Theor     | y Pi                   | act.            | Tut.                 | Theory     | Pract.           | Tut. | Total |  |  |
| ITC301         | Engineering Mathematics-III                                     | 3         |                        |                 | 1                    | 3          |                  | 1    | 4     |  |  |
| ITC302         | Data Structure and Analysis                                     | 3         |                        |                 |                      | 3          |                  |      | 3     |  |  |
| ITC303         | Database Management System                                      | 3         |                        |                 |                      | 3          |                  |      | 3     |  |  |
| ITC304         | Principle of Communication                                      | 3         |                        |                 |                      | 3          |                  |      | 3     |  |  |
| ITC305         | Paradigms and Computer<br>Programming Fundamentals              | 3         |                        |                 |                      | 3          |                  |      | 3     |  |  |
| ITL301         | Data Structure Lab  |           |                        | 2               |                      |            | 1                |      | 1     |  |  |
| ITL302         | SQL Lab   |           |                        | 2               |                      |            | 1                |      | 1     |  |  |
| ITL303         | Computer programming<br>Paradigms Lab                           |           |                        | 2               |                      |            | 1                |      | 1     |  |  |
| ITL304         | Java Lab (SBL)  |           |                        | 4               |                      |            | 2                |      | 2     |  |  |
| ITM301         | Mini Project – 1 A Front end<br>/backend Application using JAVA |           |                        | 4 <sup>\$</sup> |                      |            | 2                |      | 2     |  |  |
|                | Total   | 15        |                        | 14              | 1                    | 15         | 07               | 1    | 23    |  |  |
|                |   |           |                        |                 | Ε                    | xamination | Scheme           |      |       |  |  |
|                |   |           |                        | The             | ory                  |            | Total            |      |       |  |  |
| Course<br>Code | Course Name   | Intern    | Internal Assessment Se |                 | End<br>t Sem<br>Exar | . Duration | h                |      |       |  |  |
|                |   | Test<br>1 | Test2                  | Avg             | •                    |            |                  |      |       |  |  |
| ITC301         | Engineering Mathematics-III                                     | 20        | 20                     | 20              | 80                   | 3          | 25               |      | 125   |  |  |
| ITC302         | Data Structure and Analysis                                     | 20        | 20                     | 20              | 80                   | 3          |                  |      | 100   |  |  |
| ITC303         | Database Management System                                      | 20        | 20                     | 20              | 80                   | 3          |                  |      | 100   |  |  |
| ITC304         | Principle of Communication                                      | 20        | 20                     | 20              | 80                   | 3          |                  |      | 100   |  |  |
| ITC305         | Paradigms and Computer<br>Programming Fundamentals              | 20        | 20                     | 20              | 80                   | 3          |                  |      | 100   |  |  |
| ITL301         | Data Structure Lab  |           |                        |                 |                      |            | 25               | 25   | 50    |  |  |
| ITL302         | SQL Lab   |           |                        |                 |                      |            | 25               | 25   | 50    |  |  |
| ITL303         | Computer programming<br>Paradigms Lab                           |           |                        |                 |                      |            | 25               | 25   | 50    |  |  |
| ITL304         | Java Lab (SBL)  |           |                        |                 |                      |            | 25               | 25   | 50    |  |  |
| ITM301         | Mini Project – 1 A Front end<br>/backend Application using JAVA |           |                        |                 |                      |            | 25               | 25   | 50    |  |  |
|                | Total   |           |                        | 100             | 400                  |            | 150              | 125  | 775   |  |  |

\$ indicates work load of Learner (Not Faculty), for Mini Project.

## Program Structure for Second Year Engineering Semester III & IV UNIVERSITY OF MUMBAI (With Effect from 2020-2021)



Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.

## **Semester IV**

|                | 1  |           | emestel            |       |             |             |              |                |       |
|----------------|--|-----------|--------------------|-------|-------------|-------------|--------------|----------------|-------|
| Course<br>Code | Course Name  |           | eaching<br>Contact |       |             |             | Credits As   | signed         |       |
| Coue           |  | Theor     | y Prac             | t. I  | Fut.        | Theory      | Pract.       | Tut.           | Total |
| ITC401         | Engineering Mathematics-IV                             | 3         |                    |       | 1           | 3           |              | 1              | 4     |
| ITC402         | Computer Network and Network Design                    | 3         |                    |       |             | 3           |              |                | 3     |
| ITC403         | Operating System                                       | 3         |                    |       | 3           |             |              | 3              |       |
| ITC404         | Automata Theory  | 3         |                    |       |             | 3           |              |                | 3     |
| ITC405         | Computer Organization and<br>Architecture              | 3         |                    |       |             | 3           |              |                | 3     |
| ITL401         | Network Lab  |           | 2                  |       |             |             | 1            |                | 1     |
| ITL402         | Unix Lab   |           | 2                  |       |             |             | 1            |                | 1     |
| ITL403         | Microprocessor Lab                                     |           | 2                  |       |             |             | 1            |                | 1     |
| ITL404         | Python Lab (SBL)                                       |           | 4                  |       |             |             | 2            |                | 2     |
| ITM401         | Mini Project – 1 B Python based<br>automation projects |           | 4\$                |       |             |             | 2            |                | 2     |
|                | Total  | 15        | 14                 |       | 1           | 15          | 7            | 1              | 23    |
|                |  |           |                    |       | Exam        | ination Sch |              | 1              |       |
|                |  |           |                    | Theo  | ry          |             | Term<br>Work | Pract/<br>oral | Total |
| Course         |  |           |                    |       | End         | Exam.       |              | orui           |       |
| Code           | Course Name  | Intern    | al Asses           | sment | Sem<br>Exan |             |              |                |       |
|                |  | Test<br>1 | Test 2             | Avg.  |             |             | ,            |                |       |
| ITC401         | Engineering Mathematics-IV                             | 20        | 20                 | 20    | 80          | 3           | 25           |                | 125   |
| ITC402         | Computer Network and Network Design                    | 20        | 20                 | 20    | 80          | 3           |              |                | 100   |
| ITC403         | Operating System                                       | 20        | 20                 | 20    | 80          | 3           |              |                | 100   |
| ITC404         | Automata Theory  | 20        | 20                 | 20    | 80          | 3           |              |                | 100   |
| ITC405         | Computer Organization and<br>Architecture              | 20        | 20                 | 20    | 80          | 3           |              |                | 100   |
| ITL401         | Network Lab  |           |                    |       |             |             | 25           | 25             | 50    |
| ITL402         | Unix Lab   |           |                    |       |             |             | 25           | 25             | 50    |
| ITL403         | Microprocessor Lab                                     |           |                    |       |             |             | 25           | 25             | 50    |
| ITL404         | Python Lab (SBL)                                       |           |                    |       |             |             | 25           | 25             | 50    |
| ITM401         | Mini Project – 1 B Python based automation projects    |           |                    |       |             |             | 25           | 25             | 50    |
|                | Total  |           |                    | 100   | 400         |             | 150          | 75             | 775   |

\$ indicates work load of Learner (Not Faculty), for Mini Project.

## Program Structure for Third Year Engineering Semester V & VI UNIVERSITY OF MUMBAI (With Effect from 2021-2022)

Semester V





|                |  | ben                                      | lester   | V          |                    | Danu                          | ra (W), Mullibai - 4 | Participanti de la constante de |       |
|----------------|--|--|----------|------------|--------------------|-------------------------------|----------------------|---|-------|
| Course<br>Code | Course Name                                    | Teaching<br>Scheme<br>(Contact<br>Hours) |          |            |                    | Credits Assigned              |                      |   |       |
|                |  | Theory                                   |          | Pra        | ct.                | Theory                        | Pract.               |   | Total |
| ITC501         | Internet Programming                           | 3  | 3        |            |                    | 3                             |                      |   | 3     |
| ITC502         | Computer Network Security                      | 3  | 3        |            |                    | 3                             |                      |   | 3     |
| ITC503         | Entrepreneurship and E- business               | 3  | 3        |            |                    | 3                             |                      |   | 3     |
| ITC504         | Software Engineering                           | 3  | 3        |            |                    | 3                             |                      |   | 3     |
| ITDO501X       | Department Optional Course –<br>1              | 3  | 3        |            |                    | 3                             |                      |   | 3     |
| ITL501         | IP Lab   | -  |          | 2          |                    |                               | 1                    |   | 1     |
| ITL502         | Security Lab                                   | -  |          | 2          |                    |                               | 1                    |   | 1     |
| ITL503         | DevOPs Lab                                     | -  |          | 2          |                    |                               | 1                    |   | 1     |
| ITL504         | Advance DevOPs Lab                             | -  |          | 2          |                    |                               | 1                    |   | 1     |
|                | Business                                       |  |          |            |                    |                               |                      |   |       |
| ITL505         | Communication and Ethics                       | -  |          | 2*+2       |                    |                               | 2                    |   | 2     |
| ITM501         | Mini Project – 2 A Web Based<br>Business Model | -  |          | 4\$        |                    |                               | 2                    |   | 2     |
|                | Total  | 15                                       |          | 16         | 5                  | 15                            | 08                   |   | 23    |
|                |  |  |          | Ex         | aminati            | on Scheme                     |                      | I   |       |
|                |  |  |          | Theor<br>y | •                  |                               | Term<br>Work         | Prac<br>/oral   | Total |
| Course<br>Code | Course Name                                    | Inter                                    | nal Asso | v          | End<br>Sem<br>Exam | Exam.<br>Duration<br>(in Hrs) |                      |   |       |
|                |  | Test1                                    | Test2    | Avg        |                    |                               |                      |   |       |
| ITC501         | Internet Programming                           | 20                                       | 20       | 20         | 80                 | 3                             |                      |   | 100   |
| ITC502         | Computer Network Security                      | 20                                       | 20       | 20         | 80                 | 3                             |                      |   | 100   |
| ITC503         | Entrepreneurship and E- business               | 20                                       | 20       | 20         | 80                 | 3                             |                      |   | 100   |
| ITC504         | Software Engineering                           | 20 20                                    |          | 20         | 80                 | 3                             |                      |   | 100   |
| ITDO501X       | Department Optional Course –<br>1              | 20 20                                    |          | 20         | 80                 | 3                             |                      |   | 100   |
| ITL501         | IP Lab   |  |          |            |                    |                               | 25                   | 25  | 50    |
| ITL502         | Security Lab                                   |  |          |            |                    |                               | 25                   | 25  | 50    |
| ITL503         | DevOPs Lab                                     |  |          |            |                    |                               | 25                   | 25  | 50    |
| ITL504         | Advance DevOPs Lab                             |  |          |            |                    |                               | 25                   | 25  | 50    |
| ITL505         | Business<br>Communication and Ethics           |  | 13       |            |                    |                               | 50                   |   | 50    |

| ITM501 | Mini Project – 2 A Web Based<br>Business Model | <br> |     |     | <br>25  | 25  | 50  |
|--------|--|------|-----|-----|---------|-----|-----|
|        | Total  | <br> | 100 | 400 | <br>175 | 125 | 800 |

 $\ast$  Theory class to be conducted for full class

\$ indicates work load of Learner (Not Faculty), for Mini Project

| ITDO501X | Department Optional Course – 1        |
|----------|---------------------------------------|
|          |                                       |
| ITDO5011 | Microcontroller Embedded Programming  |
| ITDO5012 | Advance Data Management Technologies  |
| ITDO5013 | Computer Graphics & Multimedia System |
| ITDO5014 | Advanced Data structure and Analysis  |
| ITDO5014 | Advanced Data structure and Analysis  |



Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.

## Program Structure for Third Year Engineering Semester V & VI UNIVERSITY OF MUMBAI (With Effect from 2021-2022)





Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.

### **Semester VI**

|                |  | Se                 | mester    | · VI                 |    | Bandra (W), Multibal 400 0000 |              |               |       |  |  |
|----------------|--|--------------------|-----------|----------------------|----|-------------------------------|--------------|---------------|-------|--|--|
| Course         | Course Name                            |                    |           | g Scheme<br>t Hours) |    | Credits Assigned              |              |               |       |  |  |
| Code           |  | Theory             |           | Pract.<br>Tut.       |    | Theory                        | Prac         | et.           | Total |  |  |
| ITC601         | Data Mining &<br>Business Intelligence | 3                  | 3         |                      |    | 3                             |              |               | 3     |  |  |
| ITC602         | Web X.0                                | 3                  | 3         |                      |    | 3                             |              |               | 3     |  |  |
| ITC603         | Wireless Technology                    | 3                  | 3         |                      |    | 3                             |              |               | 3     |  |  |
| ITC604         | AI and DS – 1                          | 3                  | 3         |                      | -  | 3                             |              |               | 3     |  |  |
| ITDO601<br>X   | Department Optional<br>Course – 2      | 3                  | 3         |                      |    | 3                             |              |               | 3     |  |  |
| ITL601         | BI Lab                                 | -                  | -         | 2                    | ,  |                               | 1            |               | 1     |  |  |
| ITL602         | Web Lab                                | -                  | -         | 2                    |    |                               | 1            |               | 1     |  |  |
| ITL603         | Sensor Lab                             | -                  | -         | 2                    |    |                               | 1            |               | 1     |  |  |
| ITL604         | MAD & PWA Lab                          | -                  | -         | 2                    |    |                               | 1            |               | 1     |  |  |
| ITL605         | DS using Python Skill based<br>Lab     |                    |           | 2                    |    |                               | 1            |               | 1     |  |  |
| ITM601         | Mini Project – 2 B Based on ML         |                    |           | 4\$                  |    |                               | 2            |               | 2     |  |  |
|                | Total                                  | 15                 |           | 14                   |    | 15                            | 07           |               | 22    |  |  |
|                |  | Examination Scheme |           |                      |    |                               |              |               |       |  |  |
|                |  |                    |           | Theory               |    |                               | Term<br>Work | Prac<br>/oral | Total |  |  |
| Course<br>Code | Course Name                            | Interi             | nal Asses | sment End<br>Exam    |    | Exam.<br>Duration<br>(in Hrs) |              |               |       |  |  |
|                |  | Test1              | Test2     | Avg                  |    |                               |              |               |       |  |  |
| ITC601         | Data Mining &<br>Business Intelligence | 20                 | 20        | 20                   | 80 | 3                             |              |               | 100   |  |  |
| ITC602         | Web X.0                                | 20                 | 20        | 20                   | 80 | 3                             |              |               | 100   |  |  |
| ITC603         | Wireless Technology                    | 20                 | 20        | 20                   | 80 | 3                             |              |               | 100   |  |  |
| ITC604         | AI and DS – 1                          | 20                 | 20        | 20                   | 80 | 3                             |              |               | 100   |  |  |
| ITDO601<br>X   | Department Optional<br>Course – 2      | 20                 | 20        | 20                   | 80 | 3                             |              |               | 100   |  |  |
| ITL601         | BI Lab                                 |                    |           |                      |    |                               | 25           | 25            | 50    |  |  |
| ITL602         | Web Lab                                |                    |           |                      |    |                               | 25           | 25            | 50    |  |  |
| ITL603         | Sensor Lab                             |                    |           |                      |    |                               | 25           | 25            | 50    |  |  |
| ITL604         | MAD & PWA Lab                          |                    |           |                      |    |                               | 25           | 25            | 50    |  |  |
| ITL605         | DS using Python Lab<br>(SBL)           |                    |           |                      |    |                               | 25           | 25            | 50    |  |  |

| ITM601 | Mini Project – 2 B Based on ML | <br> |     |     | <br>25  | 25  | 50  |
|--------|--------------------------------|------|-----|-----|---------|-----|-----|
| Total  |                                | <br> | 100 | 400 | <br>150 | 150 | 800 |

\$ indicates work load of Learner (Not Faculty), for Mini Project

| ITDO601X | Department Optional Course – 2 |
|----------|--------------------------------|
| ITDO6011 | Software Architecture          |
| ITDO6012 | Image Processing               |
| ITDO6013 | Green IT                       |
| ITDO6014 | Ethical Hacking and Forensic   |

## Program Structure for Fourth Year Engineering Semester VII & VIII UNIVERSITY OFMUMBAI (With Effect from2022-2023) Semester VII





|                |                                   |                | Sem                   | ester V        | 11               |                               |              |               |       |  |  |  |  |
|----------------|-----------------------------------|----------------|-----------------------|----------------|------------------|-------------------------------|--------------|---------------|-------|--|--|--|--|
| Course         | Course Name                       |                | ching Scl<br>ntact Ho |                | Credits Assigned |                               |              |               |       |  |  |  |  |
| Code           |                                   | The            | ory                   | Pract.<br>Tut. | Theory           |                               | Pra          | ct.           | Total |  |  |  |  |
| ITC701         | AI and DS –II                     | 3              | 3                     |                |                  | 3                             |              |               | 3     |  |  |  |  |
| ITC702         | Internet of Everything            |                | 3                     |                |                  | 3                             |              |               | 3     |  |  |  |  |
| ITDO701<br>X   | Department Optional<br>Course – 3 | 3              | 3                     |                |                  | 3                             |              |               | 3     |  |  |  |  |
| ITDO702<br>X   | Department<br>Optional Course –4  | 3              | 3                     |                |                  | 3                             |              |               | 3     |  |  |  |  |
| ITIO701X       | Institute Optional<br>Course – 1  | с.,            | 3                     |                |                  | 3                             |              |               | 3     |  |  |  |  |
| ITL701         | Data Science Lab                  | -              | -                     | 2              |                  |                               | 1            |               | 1     |  |  |  |  |
| ITL702         | IOE Lab                           | -              | -                     | 2              |                  |                               | 1            |               | 1     |  |  |  |  |
| ITL703         | Secure Application<br>Development | -              | -                     | 2              |                  |                               | 1            |               | 1     |  |  |  |  |
| ITL704         | Recent Open Source<br>Project Lab | -              | -                     | 2              |                  |                               | 1            |               | 1     |  |  |  |  |
| ITP701         | Major Project I                   | 6 <sup>#</sup> |                       |                | 3                |                               | 3            |               |       |  |  |  |  |
| Total          |                                   | 15             |                       | 14             | 15               |                               | 7            |               | 22    |  |  |  |  |
|                |                                   |                | Examination Scheme    |                |                  |                               |              |               |       |  |  |  |  |
|                |                                   |                |                       | Theory         |                  |                               | Term<br>Work | Prac/o<br>ral | Total |  |  |  |  |
| Course<br>Code | Course Name                       | Interi         | nal Asses             | al Assessment  |                  | Exam.<br>Duration<br>(in Hrs) |              |               |       |  |  |  |  |
|                |                                   | Test1          | Test2                 | Avg            |                  |                               |              |               |       |  |  |  |  |
| ITC701         | AI and DS –II                     | 20             | 20                    | 20             | 80               | 3                             |              |               | 100   |  |  |  |  |
| ITC702         | Internet of Everything            | 20             | 20                    | 20             | 80               | 3                             |              |               | 100   |  |  |  |  |
| ITDO701<br>X   | Department<br>Optional Course –3  | 20             | 20                    | 20             | 80               | 3                             |              |               | 100   |  |  |  |  |
| ITDO702<br>X   | Department<br>Optional Course –4  | 20             | 20                    | 20             | 80               | 3                             |              |               | 100   |  |  |  |  |
| ITIO701X       | Institute Optional<br>Course – 1  | 20             | 20                    | 20             | 80               | 3                             |              |               | 100   |  |  |  |  |
| ITL701         | Data Science Lab                  |                |                       |                |                  |                               | 25           | 25            | 50    |  |  |  |  |
| ITL702         | IOE Lab                           |                |                       |                |                  |                               | 25           | 25            | 50    |  |  |  |  |
| ITL703         | Secure Application<br>Development |                |                       |                |                  |                               | 25           | 25            | 50    |  |  |  |  |
| ITL704         | Recent Open Source<br>Project Lab |                |                       |                |                  |                               | 25           | 25            | 50    |  |  |  |  |
| ITP701         | Major Project I                   |                |                       |                |                  |                               | 25           | 25            | 50    |  |  |  |  |
| Total          |                                   |                |                       | <b>100</b>     | 400              |                               | 125          | 125           | 750   |  |  |  |  |

# indicates work load of Learner (Not Faculty), for Major Project

| ITDO701X | Department Optional Course –3 |
|----------|-------------------------------|
| ITDO7011 | Storage Area Network          |
| ITDO7012 | High Performance computing    |
| ITDO7013 | Infrastructure Security       |
| ITDO7014 | Software Testing and QA       |

| ITDO702X | Department Optional Course –4 |
|----------|-------------------------------|
| ITDO7021 | MANET                         |
| ITDO7022 | AR – VR                       |
| ITDO7023 | Quantum Computing             |
| ITDO7024 | Information Retrieval System  |

 ITIO701X
 Institute Optional Course – 1 ( Common for all branches will be notified )



### Program Structure for Fourth Year Engineering Semester VII & VIII UNIVERSITY OFMUMBAI (With Effect from2022-2023)

In



**Semester VIII** 

Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.

| Course         | Course Name                           |                    | Teachir<br>(Conta |                         |     |                                   | Credits Assigned |               |       |  |  |
|----------------|---------------------------------------|--------------------|-------------------|-------------------------|-----|-----------------------------------|------------------|---------------|-------|--|--|
| Code           |                                       | Theory             |                   | Pract.<br>Tut.          |     | Theor                             | y Pr             | Pract.        |       |  |  |
| ITC801         | Blockchain and DLT                    |                    | 3                 | -                       | -   | 3                                 |                  |               | 3     |  |  |
| ITDO801<br>X   | <b>Department Optional Course – 5</b> |                    | 3                 | -                       | -   | 3                                 |                  |               | 3     |  |  |
| ITDO802<br>X   | Department Optional Course – 6        |                    | 3                 | -                       | -   | 3                                 |                  |               | 3     |  |  |
| ITIO801X       | Institute Optional Course – 2         |                    | 3                 | -                       | -   | 3                                 |                  |               | 3     |  |  |
| ITL801         | Blockchain Lab                        | -                  |                   | /                       | 2   |                                   |                  | 1             | 1     |  |  |
| ITL802         | Cloud computing                       | -                  |                   | 1                       | 2   |                                   |                  | 1             | 1     |  |  |
| ITP801         | Major Project II                      |                    |                   | 12#                     |     |                                   |                  | 6             |       |  |  |
|                | Total                                 | 12                 |                   | 16                      |     | 12                                |                  | 8             |       |  |  |
|                |                                       | Examination Scheme |                   |                         |     |                                   |                  |               |       |  |  |
|                |                                       | Theory             |                   |                         |     |                                   | Term<br>Work     | Prac<br>/oral | Total |  |  |
| Course<br>Code | Course Name                           | Intern             | al Assess         | ment End<br>Sem<br>Exam |     | Exam.<br>Duratio<br>n<br>(in Hrs) |                  |               |       |  |  |
|                |                                       | Test1              | Test2             | Avg                     |     |                                   |                  |               |       |  |  |
| ITC801         | Blockchain and DLT                    | 20                 | 20                | 20                      | 80  | 3                                 |                  |               | 100   |  |  |
| ITDO801<br>X   | <b>Department Optional Course – 5</b> | 20                 | 20                | 20                      | 80  | 3                                 |                  |               | 100   |  |  |
| ITDO802<br>X   | <b>Department Optional Course – 6</b> | 20                 | 20                | 20                      | 80  | 3                                 |                  |               | 100   |  |  |
| ITIO801X       | Institute Optional Course – 2         | 20                 | 20                | 20                      | 80  | 3                                 |                  |               | 100   |  |  |
| ITL801         | Blockchain Lab                        |                    |                   |                         |     |                                   | 25               | 25            | 50    |  |  |
| ITL802         | Cloud computing                       |                    |                   |                         |     |                                   | 25               | 25            | 50    |  |  |
| ITP801         | Major Project II                      |                    |                   |                         |     |                                   | 100              | 50            | 150   |  |  |
|                | Total                                 |                    |                   | 80                      | 320 |                                   | 150              | 100           | 650   |  |  |

# indicates work load of Learner (Not Faculty), for Major Project

Students group and load of faculty per week.

Mini Project 1 and 2 :

Students can form groups with minimum 2 (Two) and not more than 4 (Four) Faculty Load : 1 hour per week per four groups

### Major Project 1 and 2 :

Students can form groups with minimum 2 (Two) and not more than 4 (Four) <u>Faculty Load :</u> In Semester VII – ½ hour per week per project group In Semester VIII – 1 hour per week per project group

| ITDO801X | Department Optional Course – 5 |
|----------|--------------------------------|
| ITDO8011 | Big Data Analytics             |
| ITDO8012 | Reinforcement learning         |
| ITDO8013 | Simulation and Modeling        |
| ITDO8014 | Knowledge management           |

| ITDO802X | Department Optional Course –6 |
|----------|-------------------------------|
| ITDO8021 | User Interface Design         |
| ITDO8022 | Robotics                      |
| ITDO8023 | ERP                           |
| ITDO8024 | Cloud computing and Services  |

ITIO801XInstitute Optional Course - 2 ( Common for all branches will be notified )

AC: <u>23/7/2020</u>

Item No. : <u>126</u>

# **UNIVERSITY OF MUMBAI**



# **Bachelor of Engineering**

in

# **Information Technology Engineering**

Second Year with Effect from AY 2020-21

Third Year with Effect from AY 2021-22

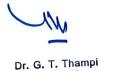
Final Year with Effect from AY 2022-23

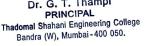
(REV- 2019 'C' Scheme) from Academic Year 2019 – 20

Under

# **FACULTY OF SCIENCE & TECHNOLOGY**

(As per AICTE guidelines with effect from the academic year 2019-2020)





# Syllabus Structure Rev 2019 Electronics and Telecommunication





### Program Structure for Second Year Engineering Semester III & IV UNIVERSITY OF MUMBAI (With Effect from 2020-2021) Semester III





Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.

| Course<br>Code |   |                      | ching Sche<br>ntact Hou |        | Credits Assigned |      |       |    |  |
|----------------|---|----------------------|-------------------------|--------|------------------|------|-------|----|--|
| 0040           |   | Theory Pract. Tut. T |                         | Theory | Pract.           | Tut. | Total |    |  |
| ECC301         | Engineering Mathematics-<br>III                     | 3                    |                         | 1*     | 3                |      | 1     | 4  |  |
| ECC302         | Electronic Devices &<br>Circuits                    | 3                    |                         |        | 3                |      |       | 3  |  |
| ECC303         | Digital System Design                               | 3                    |                         |        | 3                |      |       | 3  |  |
| ECC304         | Network Theory                                      | 3                    |                         | 1      | 3                |      | 1     | 4  |  |
| ECC305         | Electronic Instrumentation<br>& Control Systems     | 3                    |                         |        | 3                |      |       | 3  |  |
| ECL301         | Electronic Devices &<br>Circuits Lab                |                      | 2                       |        |                  | 1    |       | 1  |  |
| ECL302         | Digital System Design Lab                           |                      | 2                       |        |                  | 1    |       | 1  |  |
| ECL303         | Electronic Instrumentation<br>& Control Systems Lab |                      | 2                       |        |                  | 1    |       | 1  |  |
| ECL304         | Skill Lab: C++ and Java<br>Programming              |                      | 4                       |        |                  | 2    |       | 2  |  |
| ECM301         | Mini Project 1A                                     |                      | 4\$                     |        |                  | 2    |       | 2  |  |
| Total          |   | 15                   | 14                      | 2      | 15               | 07   | 2     | 24 |  |

\* Should be conducted batch wise.

\$ Indicates work load of a learner (Not Faculty) for Mini Project 1A. Faculty Load: 1 hour per week per four groups.

|                |  | Examination Scheme |             |        |              |                      |      |        |       |  |  |
|----------------|--|--------------------|-------------|--------|--------------|----------------------|------|--------|-------|--|--|
| ~              |  |                    |             | Theory |              |                      |      |        |       |  |  |
| Course<br>Code | Course Name  | Interr             | nal Assessi | nent   | End          | Exam.                | Term | Pract. | Total |  |  |
|                |  | Test 1             | Test 2      | Avg.   | Sem.<br>Exam | Duration<br>(in Hrs) | Work | & oral | Total |  |  |
| ECC301         | Engineering<br>Mathematics-III                         | 20                 | 20          | 20     | 80           | 3                    | 25   |        | 125   |  |  |
| ECC302         | Electronic Devices &<br>Circuits                       | 20                 | 20          | 20     | 80           | 3                    |      |        | 100   |  |  |
| ECC303         | Digital System Design                                  | 20                 | 20          | 20     | 80           | 3                    |      |        | 100   |  |  |
| ECC304         | Network Theory   | 20                 | 20          | 20     | 80           | 3                    | 25   |        | 125   |  |  |
| ECC305         | Electronic<br>Instrumentation &<br>Control Systems     | 20                 | 20          | 20     | 80           | 3                    |      |        | 100   |  |  |
| ECL301         | Electronic Devices &<br>Circuits Lab                   |                    |             |        |              |                      | 25   | 25     | 50    |  |  |
| ECL302         | Digital System Design<br>Lab                           |                    |             |        |              |                      | 25   |        | 25    |  |  |
| ECL303         | Electronic<br>Instrumentation &<br>Control Systems Lab |                    |             |        |              |                      | 25   |        | 25    |  |  |
| ECL304         | Skill Lab: C++ and Java<br>Programming                 |                    |             |        |              |                      | 25   | 25     | 50    |  |  |
| ECM301         | Mini Project 1A  |                    |             |        |              |                      | 25   | 25     | 50    |  |  |
|                | Total  |                    |             | 100    | 400          |                      | 175  | 75     | 750   |  |  |

| Course<br>Code | Course Name                                       |        | ching Scho<br>ontact Hou |      | Credits Assigned |        |      |       |  |  |
|----------------|---|--------|--------------------------|------|------------------|--------|------|-------|--|--|
| coue           |   | Theory | Pract.                   | Tut. | Theory           | Pract. | Tut. | Total |  |  |
| ECC401         | Engineering Mathematics-<br>IV                    | 3      |                          | 1*   | 3                |        | 1    | 4     |  |  |
| ECC402         | Microcontrollers                                  | 3      |                          |      | 3                |        |      | 3     |  |  |
| ECC403         | Linear Integrated Circuits                        | 3      |                          |      | 3                |        |      | 3     |  |  |
| ECC404         | Signals & Systems                                 | 3      |                          | 1    | 3                |        | 1    | 4     |  |  |
| ECC405         | Principles of<br>Communication<br>Engineering     | 3      |                          |      | 3                |        |      | 3     |  |  |
| ECL401         | Microcontrollers Lab                              |        | 2                        |      |                  | 1      |      | 1     |  |  |
| ECL402         | Linear Integrated Circuits<br>Lab                 |        | 2                        |      |                  | 1      |      | 1     |  |  |
| ECL403         | Principles of<br>Communication<br>Engineering Lab |        | 2                        |      |                  | 1      |      | 1     |  |  |
| ECL404         | Skill Lab: Python<br>Programming                  |        | 4                        |      |                  | 2      |      | 2     |  |  |
| ECM401         | Mini Project 1B                                   |        | 4 <sup>\$</sup>          |      |                  | 2      |      | 2     |  |  |
|                | Total   | 15     | 14                       | 2    | 15               | 7      | 2    | 24    |  |  |

\* Should be conducted batch wise.

\$ Indicates work load of a learner (Not Faculty) for Mini Project 1B. Faculty Load: 1 hour per week per four groups.

|                |   |        |             |        | Examina       | ation Schem          | e    |        |       |
|----------------|---|--------|-------------|--------|---------------|----------------------|------|--------|-------|
| ~              |   |        |             | Theory |               |                      |      |        |       |
| Course<br>Code | Course Name                                       | Interr | nal Assessi | nent   | End           | Exam.                | Term | Pract. | Total |
|                |   | Test 1 | Test 2      | Avg.   | Sem.<br>Exam. | Duration<br>(in Hrs) | Work | & oral | Totai |
| ECC401         | Engineering Mathematics-<br>IV                    | 20     | 20          | 20     | 80            | 3                    | 25   |        | 125   |
| ECC402         | Microcontrollers                                  | 20     | 20          | 20     | 80            | 3                    |      |        | 100   |
| ECC403         | Linear Integrated Circuits                        | 20     | 20          | 20     | 80            | 3                    |      |        | 100   |
| ECC404         | Signals & Systems                                 | 20     | 20          | 20     | 80            | 3                    | 25   |        | 125   |
| ECC405         | Principles of<br>Communication<br>Engineering     | 20     | 20          | 20     | 80            | 3                    |      |        | 100   |
| ECL401         | Microcontrollers Lab                              |        |             |        |               |                      | 25   |        | 25    |
| ECL402         | Linear Integrated Circuits<br>Lab                 |        |             |        |               |                      | 25   | 25     | 50    |
| ECL403         | Principles of<br>Communication<br>Engineering Lab |        |             |        |               |                      | 25   | 25     | 50    |
| ECL404         | Skill Lab: Python<br>Programming                  |        |             |        |               |                      | 25   | 25     | 50    |
| ECM401         | Mini Project 1B                                   |        |             |        |               |                      | 25   | 25     | 50    |
|                | Total   |        |             | 100    | 400           |                      | 175  | 100    | 775   |

# Syllabus Structure Rev 2019 Chemical Engineering

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### Program Structure for B.E. Chemical Engineering (Revised 2020-2021)

| Course | Course Name                                   |        | eaching Sche<br>ntact Hours) | me       |        | igned     |          |       |
|--------|---|--------|------------------------------|----------|--------|-----------|----------|-------|
| code   |   | Theory | Practical                    | Tutorial | Theory | Practical | Tutorial | Total |
| CHC301 | Engineering Mathematics-III                   | 3      | -                            | 1        | 3      | -         | 1        | 4     |
| CHC302 | Industrial and Engineering<br>Chemistry I     | 3      | -                            | -        | 3      | -         | -        | 3     |
| CHC303 | Fluid Flow Operations                         | 3      | -                            | -        | 3      | -         | -        | 3     |
| CHC304 | Chemical Engineering<br>Thermodynamics I      | 3      | -                            | -        | 3      | -         | -        | 3     |
| CHC305 | Process Calculations                          | 3      | -                            | -        | 3      | -         | -        | 3     |
| CHL301 | Industrial and Engineering<br>Chemistry I Lab | -      | 3                            | -        | -      | 1.5       | -        | 1.5   |
| CHL302 | Fluid Flow Operation Lab                      | -      | 3                            | -        | -      | 1.5       | -        | 1.5   |
| CHL303 | Basic Chemical Engineering Lab                | -      | 3                            | -        | -      | 1.5       | -        | 1.5   |
| CHL304 | Skilled Based Lab: Chemical<br>Technology Lab | -      | 2*2                          | -        | -      | 2         | -        | 2     |
| CHM301 | Mini Project 1A                               | -      | 3#                           | -        | -      | 1.5       | -        | 1.5   |
|        | Total   | 15     | 16                           | 1        | 15     | 8         | 1        | 24    |

#### Semester III

|        |   |        |             |        | Exa         | mination Sch         | eme          |       |      |       |
|--------|---|--------|-------------|--------|-------------|----------------------|--------------|-------|------|-------|
| Course | Course Name                                   |        |             | Theory | y           |                      |              |       | Oral |       |
| code   |   | Interi | nal Assessn | nent   | End         | Exam                 | Term<br>Work | Pract |      | Total |
|        |   | Test 1 | Test 2      | Avg    | Sem<br>Exam | Duration<br>(in hrs) | work         | /Oral |      |       |
| CHC301 | Engineering Mathematics-III                   | 20     | 20          | 20     | 80          | 3                    | 25           | -     | -    | 125   |
| CHC302 | Industrial and Engineering<br>Chemistry I     | 20     | 20          | 20     | 80          | 3                    | -            | -     | -    | 100   |
| CHC303 | Fluid Flow Operations                         | 20     | 20          | 20     | 80          | 3                    | -            | -     | -    | 100   |
| CHC304 | Chemical Engineering<br>Thermodynamics I      | 20     | 20          | 20     | 80          | 3                    | -            | -     | -    | 100   |
| CHC305 | Process Calculations                          | 20     | 20          | 20     | 80          | 3                    | -            | -     | -    | 100   |
| CHL301 | Industrial and Engineering<br>Chemistry I Lab | -      | -           | -      | -           | 3                    | 25           | 25    | -    | 50    |
| CHL302 | Fluid Flow Operation Lab                      | -      | -           | -      | -           | 3                    | 25           | 25    | -    | 50    |
| CHL303 | Basic Chemical Engineering Lab                | -      | -           | -      | -           | -                    | 25           | -     | 25   | 50    |
| CHL304 | Skilled Based Lab: Chemical<br>Technology Lab | -      | -           | -      | -           | -                    | 25           | -     | 25   | 50    |
| CHM301 | Mini Project 1A                               | -      | -           | -      | -           | -                    | 25           | -     | 25   | 50    |
|        | Total   | -      | -           | 100    | 400         | -                    | 150          | 50    | 75   | 775   |

\*Indicates Theory class to be conducted for full class;

indicates work load of Learner (Not Faculty), for Mini Project;

For mini project faculty load: 1 hour per week per four groups

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### Program Structure for B.E. Chemical Engineering (Revised 2020-2021)

### Semester IV

|                | Course Name   | Т      | eaching Sche<br>(Contact H |          |        | Credits Ass | signed   |       |
|----------------|---|--------|----------------------------|----------|--------|-------------|----------|-------|
| Course<br>code |   | Theory | Practical                  | Tutorial | Theory | Practical   | Tutorial | Total |
| CHC401         | Engineering Mathematics-IV  | 3      | -                          | 1        | 3      | -           | 1        | 4     |
| CHC402         | Industrial and Engineering Chemistry II                               | 3      | -                          |          | 3      | -           | -        | 3     |
| СНС403         | Numerical Method in Chemical<br>Engineering                           | 3      | -                          | -        | 3      | -           | -        | 3     |
| CHC404         | Solid Fluid Mechanical Operations                                     | 3      | -                          | -        | 3      | -           | -        | 3     |
| CHC405         | Chemical Engineering Thermodynamics II                                | 3      | -                          | -        | 3      | -           | -        | 3     |
| CHL401         | Industrial and Engineering Chemistry II<br>Lab                        | -      | 3                          | -        | -      | 1.5         | -        | 1.5   |
| CHL402         | Numerical Method in Chemical<br>Engineering Lab                       | -      | 3                          | -        | -      | 1.5         | -        | 1.5   |
| CHL403         | Solid Fluid Mechanical Operation Lab                                  | -      | 3                          | -        | -      | 1.5         | -        | 1.5   |
| CHL404         | Skilled based lab: Design Calculation of<br>Auxiliary Plant Equipment | -      | 3                          | -        | -      | 1.5         | -        | 1.5   |
| CHM401         | Mini Project 1B   | -      | 2#                         |          | -      | 1           |          | 1     |
|                | Total   | 15     | 14                         | 1        | 15     | 7           | 1        | 23    |

|        |   |        |                     |      | Exa         | mination Sch         | ieme         |                |      |       |
|--------|---|--------|---------------------|------|-------------|----------------------|--------------|----------------|------|-------|
| Course | Course Name   |        |                     | Theo | ry          |                      | T            | Duri           |      |       |
| code   |   | Interr | Internal Assessment |      | End         | Exam                 | Term<br>Work | Pract<br>/Oral | Oral | Total |
|        |   | Test 1 | Test 2              | Avg  | Sem<br>Exam | Duration<br>(in hrs) | WOIK         | /Oral          |      |       |
| CHC401 | Engineering Mathematics-IV  | 20     | 20                  | 20   | 80          | 3                    | 25           | -              | -    | 125   |
| CHC402 | Industrial and Engineering Chemistry II                               | 20     | 20                  | 20   | 80          | 3                    | -            | -              | -    | 100   |
| CHC403 | Numerical Method in Chemical<br>Engineering                           | 20     | 20                  | 20   | 80          | 3                    | -            | -              | -    | 100   |
| CHC404 | Solid Fluid Mechanical Operations                                     | 20     | 20                  | 20   | 80          | 3                    | -            | -              | -    | 100   |
| CHC405 | Chemical Engineering Thermodynamics II                                | 20     | 20                  | 20   | 80          | 3                    | -            | -              | -    | 100   |
| CHL401 | Industrial and Engineering Chemistry II<br>Lab                        | -      | -                   | -    | -           | 3                    | 25           | 25             | -    | 50    |
| CHL402 | Numerical Method in Chemical<br>Engineering Lab                       | -      | -                   | -    | -           | -                    | 25           | -              | 25   | 50    |
| CHL403 | Solid Fluid Mechanical Operation Lab                                  | -      | -                   | -    | -           | 3                    | 25           | 25             | -    | 50    |
| CHL404 | Skilled based lab: Design Calculation of<br>Auxiliary Plant Equipment | -      | -                   | -    | -           | -                    | 25           | -              | 25   | 50    |
| CHM401 | Mini Project 1B   | -      | -                   | -    | -           | -                    | 25           | -              | 25   | 50    |
|        | Total   | -      | -                   | 100  | 400         | -                    | 150          | 50             | 75   | 775   |

# indicates work load of Learner (Not Faculty), for Mini Project;

For mini project faculty load : 1 hour per week per four groups

V



### Program Structure for B.E. Chemical Engineering (Revised 2021-2022)

| Course code | Course Name   | Т      | Teaching Scheme<br>(Contact Hours) |          |        | Credits Assigned |          |       |  |
|-------------|---|--------|------------------------------------|----------|--------|------------------|----------|-------|--|
|             |   | Theory | Practical                          | Tutorial | Theory | Practical        | Tutorial | Total |  |
| CHC501      | Mass transfer Operations-I                                  | 3      | -                                  | -        | 3      | -                | -        | 3     |  |
| CHC502      | Heat transfer Operations                                    | 3      | -                                  | -        | 3      | -                | -        | 3     |  |
| CHC503      | Chemical Reaction Engineering-I                             | 3      | -                                  | -        | 3      | -                | -        | 3     |  |
| CHC504      | Transport Phenomena   | 3      | -                                  | -        | 3      | -                | -        | 3     |  |
| CHDO501X    | Department Optional Course 1                                | 3      | -                                  | -        | 3      | -                | -        | 3     |  |
| CHL501      | Mass transfer Operations-I Lab                              | -      | 3                                  | -        | -      | 1.5              | -        | 1.5   |  |
| CHL502      | Heat transfer Operations Lab                                | -      | 3                                  | -        | -      | 1.5              | -        | 1.5   |  |
| CHL503      | Chemical Reaction Engineering-I<br>Lab                      | -      | 3                                  | -        | -      | 1.5              | -        | 1.5   |  |
| CHL504      | Skilled Based Lab: Business<br>Communication and Ethics Lab | -      | 2*2                                | -        | -      | 2                | -        | 2     |  |
| CHM501      | Mini Project-2A   | -      | 3#                                 | -        | -      | 1.5              | -        | 1.5   |  |
|             | Total   | 15     | 14                                 | -        | 15     | 8                | -        | 23    |  |

### Semester V

| Course code |   |        |           |       | Exa         | mination Sch         | eme  |       |      |       |
|-------------|---|--------|-----------|-------|-------------|----------------------|------|-------|------|-------|
|             | Course Name   |        |           | Theor | ry          |                      |      |       |      |       |
|             | Course runne  | Intern | al Assess | ment  | End         | Exam                 | Term | Pract | Oral | Total |
|             |   | Test 1 | Test 2    | Avg   | Sem<br>Exam | Duration<br>(in hrs) | Work | /Oral |      |       |
| CHC501      | Mass transfer Operations-I                                  | 20     | 20        | 20    | 80          | 3                    | -    | -     | -    | 100   |
| CHC502      | Heat transfer Operations                                    | 20     | 20        | 20    | 80          | 3                    | -    | -     | -    | 100   |
| CHC503      | Chemical Reaction Engineering-I                             | 20     | 20        | 20    | 80          | 3                    | -    | -     | -    | 100   |
| CHC504      | Transport Phenomena   | 20     | 20        | 20    | 80          | 3                    | -    | -     | -    | 100   |
| CHDO501X    | Department Optional Course 1                                | 20     | 20        | 20    | 80          | 3                    | -    | -     | -    | 100   |
| CHL501      | Mass transfer Operations-I Lab                              | -      | -         | -     | -           | 3                    | 25   | 25    | -    | 50    |
| CHL502      | Heat transfer Operations Lab                                | -      | -         | -     | -           | 3                    | 25   | 25    | -    | 50    |
| CHL503      | Chemical Reaction Engineering-I<br>Lab                      | -      | -         | -     | -           | 3                    | 25   | 25    | -    | 50    |
| CHL504      | Skilled Based Lab: Business<br>Communication and Ethics Lab | -      | -         | -     | -           | -                    | 25   | -     | 25   | 50    |
| CHM501      | Mini Project-2A   | -      | -         | -     | -           | -                    | 25   | -     | 25   | 50    |
|             | Total   |        |           | 100   | 400         | -                    | 125  | 75    | 50   | 750   |

#### Department Optional Course 1 (Semester V)

| Engineering Stream (Elective Code) | Technology Stream (Elective Code)     | Management Stream                   |
|------------------------------------|---------------------------------------|-------------------------------------|
| Food Engineering(CHDO5011)         | Advanced Material Sciences (CHDO5012) | Total Quality Management (CHDO5013) |

\*Indicates Theory class to be conducted for full class; For mini project fact # indicates work load of Learner (Not Faculty), for Mini Project;

For mini project faculty load: 1 hour per week per four groups

Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.

## University of Mumbai Program Structure for B.E. Chemical Engineering (Revised 2021-2022) Semester VI

| Course code | Course Name   | Т      | Teaching Scheme<br>(Contact Hours) |          |        | Credits Assigned |          |       |  |
|-------------|---|--------|------------------------------------|----------|--------|------------------|----------|-------|--|
|             |   | Theory | Practical                          | Tutorial | Theory | Practical        | Tutorial | Total |  |
| CHC601      | Mass Transfer Operation II                          | 3      | -                                  | -        | 3      | -                | -        | 3     |  |
| CHC602      | Chemical Reaction Engineering II                    | 3      | -                                  | -        | 3      | -                | -        | 3     |  |
| CHC603      | Pollution Control Technology                        | 3      | -                                  | -        | 3      | -                | -        | 3     |  |
| CHC604      | Process Engineering and Economics                   | 3      | -                                  | 1        | 3      | -                | 1        | 4     |  |
| CHDO602X    | Departmental Optional Course 2                      | 3      | -                                  | -        | 3      | -                | -        | 3     |  |
| CHL601      | Mass Transfer Operation II Lab                      | -      | 3                                  | -        | -      | 1.5              | -        | 1.5   |  |
| CHL602      | Chemical Reaction Engineering II<br>Lab             | -      | 3                                  | -        | -      | 1.5              | -        | 1.5   |  |
| CHL603      | Pollution Control TechnologyLab                     | -      | 3                                  | -        | -      | 1.5              | -        | 1.5   |  |
| CHL604      | Skilled Based Lab: Piping Design<br>Engineering Lab | -      | 3                                  | -        | -      | 1.5              | -        | 1.5   |  |
| CHM601      | Mini Project – 2B                                   | -      | 2#                                 | -        | -      | 1                | -        | 1     |  |
|             | Total   | 15     | 14                                 | 1        | 15     | 7                | 1        | 23    |  |

|             |   |        |            |      | Exa         | amination Sch        | eme            |                |      |       |
|-------------|---|--------|------------|------|-------------|----------------------|----------------|----------------|------|-------|
|             | Course Name   |        |            | Theo | ory         |                      | Term           | Duri           |      |       |
| Course code |   | Interr | nal Assess | ment | End         | Exam                 | - Term<br>Work | Pract<br>/Oral | Oral | Total |
|             |   | Test 1 | Test 2     | Avg  | Sem<br>Exam | Duration<br>(in hrs) |                | , 01           |      |       |
| CHC601      | Mass Transfer Operation II                          | 20     | 20         | 20   | 80          | 3                    | -              | -              | -    | 100   |
| CHC602      | Chemical Reaction Engineering II                    | 20     | 20         | 20   | 80          | 3                    | -              | -              | -    | 100   |
| CHC603      | Pollution Control Technology                        | 20     | 20         | 20   | 80          | 3                    | -              | -              | -    | 100   |
| CHC604      | Process Engineering and Economics                   | 20     | 20         | 20   | 80          | 3                    | 25             | -              | -    | 125   |
| CHDO602X    | Departmental Optional Course 2                      | 20     | 20         | 20   | 80          | 3                    | -              | -              | -    | 100   |
| CHL601      | Mass Transfer Operation II Lab                      | -      | -          | -    | -           | 3                    | 25             | 25             | -    | 50    |
| CHL602      | Chemical Reaction Engineering II<br>Lab             | -      | -          | -    | -           | 3                    | 25             | 25             | -    | 50    |
| CHL603      | Pollution Control TechnologyLab                     | -      | -          | -    | -           | 3                    | 25             | 25             | -    | 50    |
| CHL604      | Skilled Based Lab: Piping Design<br>Engineering Lab | -      | -          | -    | -           | -                    | 25             | -              | 25   | 50    |
| CHM601      | Mini Project – 2B                                   | -      | -          | -    | -           | -                    | 25             | -              | 25   | 50    |
|             | Total   |        |            | 100  | 400         | -                    | 150            | 75             | 50   | 775   |

Department Optional Course 2 (Semester VI)

| Engineering Stream (Elective Code) | Technology Stream (Elective Code) | Management Stream (Elective Code)                 |
|------------------------------------|-----------------------------------|---|
| Piping Engineering (CHDO6021)      | Polymer Technology (CHDO6022)     | Industrial Organization and Management (CHDO6023) |

# indicates work load of Learner (Not Faculty), for Mini Project; For mini project faculty load : 1 hour per we

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### Program Structure for B.E. Chemical Engineering (Revised 2022-2023)

### Semester VII

| Course code | Course Name   |        | hing Scho<br>Contact I |              | Credits Assigned |               |              |       |  |
|-------------|---|--------|------------------------|--------------|------------------|---------------|--------------|-------|--|
| Course coue |   | Theory | Pract<br>ical          | Tutor<br>ial | Theory           | Pract<br>ical | Tutor<br>ial | Total |  |
| CHC701      | Instrumentation Process Dynamics and Control        | 3      | -                      | -            | 3                | -             | -            | 3     |  |
| CHC702      | Chemical Engineering Equipment Design               | 3      | -                      | -            | 3                | -             | -            | 3     |  |
| CHDO703X    | Department Optional Course 3                        | 3      | -                      | -            | 3                | -             | -            | 3     |  |
| CHDO704X    | Department Optional Course 4                        | 3      | -                      | -            | 3                | -             | -            | 3     |  |
| IOC701X     | Institute Optional Course 1                         | 3      | -                      | -            | 3                | -             | -            | 3     |  |
| CHL701      | Instrumentation Process Dynamics and Control<br>Lab | -      | 3                      | -            | -                | 1,5           | -            | 1.5   |  |
| CHL702      | Chemical Engineering Equipment Design Lab           | -      | 3                      | -            | -                | 1.5           | -            | 1.5   |  |
| CHL703      | Hazard and Risk Analysis Lab                        | -      | 2                      | -            | -                | 1             | -            | 1     |  |
| CHP701      | Major Project I                                     | -      | 6#                     | -            | -                | 3             | -            | 3     |  |
|             | Total   | 15     | 8                      | -            | 15               | 7             | -            | 22    |  |

|             |   | Examination Scheme |          |        |      |          |      |       |       |       |  |
|-------------|---|--------------------|----------|--------|------|----------|------|-------|-------|-------|--|
|             | Course Name   |                    |          | The    | ory  |          |      |       |       |       |  |
| Course code |   | Intern             | al Asses | ssment | End  | Exam     | Term | Pract | Oral  | Total |  |
|             |   | Test               | Test     | Avg    | Sem  | Duration | Work | /Oral | 01.01 | Total |  |
|             |   | 1                  | 2        | Avg    | Exam | (in hrs) |      |       |       |       |  |
| CHC701      | Instrumentation Process Dynamics and<br>Control     | 20                 | 20       | 20     | 80   | 3        | -    | -     | -     | 100   |  |
| CHC702      | Chemical Engineering Equipment Design               | 20                 | 20       | 20     | 80   | 3        | -    | -     | -     | 100   |  |
| CHDO703X    | Department Optional Course 3                        | 20                 | 20       | 20     | 80   | 3        | -    | -     | -     | 100   |  |
| CHDO704X    | Department Optional Course 4                        | 20                 | 20       | 20     | 80   | 3        | -    | -     | -     | 100   |  |
| IOC701X     | Institute Optional Course 1                         | 20                 | 20       | 20     | 80   | 3        | -    | -     | -     | 100   |  |
| CHL701      | Instrumentation Process Dynamics and<br>Control Lab | -                  | -        | -      | -    | 3        | 25   | 25    | -     | 50    |  |
| CHL702      | Chemical Engineering Equipment Design<br>Lab        | -                  | -        | -      | -    | -        | 25   | -     | 25    | 50    |  |
| CHL703      | Hazard and Risk Analysis Lab                        | -                  | -        | -      | -    | -        | 25   | -     | 25    | 50    |  |
| CHP701      | Major Project I                                     | -                  | -        | -      | -    | 3        | 25   | -     | 25    | 50    |  |
|             | Total   | -                  | -        | 100    | 400  | -        | 100  | 25    | 75    | 700   |  |

#### Department Optional Course 3 (Semester VII)

| Engineering Stream (Elective Code) | Technology Stream (Elective Code)     | Management Stream (Elective)            |
|------------------------------------|---------------------------------------|---|
| Corrosion Engineering (CHDO7031)   | Fundamental of Colloids and Interface | Project Management for Chemical Process |
|                                    | Science and Technology (CHDO7032)     | Industries (CHDO7033)                   |

### Department Optional Course 4 (Semester VII)

| Engineering Stream (Elective Code) | Technology Stream (Elective Code)        | Management Stream (Elective)         |
|------------------------------------|--|--------------------------------------|
| Chemical Plant Safety and Hazards  | Petroleum Refining Technology (CHDO7042) | <b>Operation Research (CHDO7043)</b> |
| (CHDO7041)                         |  |                                      |

# indicates work load of Learner (Not Faculty), for Major Project; faculty load: semester VII-1/2 hour per w

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### Program Structure for B.E. Chemical Engineering (Revised 2022-2023)

| Course code | Course Name   | Т      | eaching Sche<br>(Contact H |          | Credits Assigned |           |          |       |  |
|-------------|---|--------|----------------------------|----------|------------------|-----------|----------|-------|--|
|             |   | Theory | Practical                  | Tutorial | Theory           | Practical | Tutorial | Total |  |
| CHC801      | Modelling Simulation and                            | 3      | _                          | _        | 3                | _         | -        | 3     |  |
|             | Optimization  | 5      | -                          | -        | 5                | -         | -        | 3     |  |
| CHDO805X    | Department Optional Course 5                        | 3      | -                          | -        | 3                | -         | -        | 3     |  |
| CHDO806X    | Department Optional Course 6                        | 3      | -                          | -        | 3                | -         | -        | 3     |  |
| IO802X      | Institute Optional Course 2                         | 3      | -                          | -        | 3                | -         | -        | 3     |  |
| CHL801      | Modelling Simulation and<br>Optimization Lab        | -      | 3                          | -        | -                | 1.5       | -        | 1.5   |  |
| CHL802      | Software application in<br>Chemical Engineering Lab | -      | 3                          | -        | -                | 1.5       | -        | 1.5   |  |
| CHP801      | Major Project II                                    | -      | 12#                        | -        | -                | 6         | -        | 6     |  |
|             | Total   | 12     | 18                         | -        | 12               | 9         | -        | 21    |  |

#### Semester VIII

|             |                              |        |           |      | Examination Scheme |          |      |       |      |       |  |
|-------------|------------------------------|--------|-----------|------|--------------------|----------|------|-------|------|-------|--|
|             | Course Name                  |        |           | Theo | ry                 |          |      |       |      |       |  |
| Course code |                              | Intern | al Assess | ment | End                | Exam     | Term | Pract | Oral | Total |  |
|             |                              | Test 1 | Test 2    | Avg  | Sem                | Duration | Work | /Oral |      |       |  |
|             |                              |        |           | 8    | Exam               | (in hrs) |      |       |      |       |  |
| CHC801      | Modelling Simulation and     | 20     | 20        | 20   | 80                 | 3        | -    | -     | -    | 100   |  |
|             | Optimization                 |        |           |      | 00                 | C C      |      |       |      | 100   |  |
| CHDO805X    | Department Optional Course 5 | 20     | 20        | 20   | 80                 | 3        | -    | -     | -    | 100   |  |
| CHDO806X    | Department Optional Course 6 | 20     | 20        | 20   | 80                 | 3        | -    | -     | -    | 100   |  |
| IO802X      | Institute Optional Course 2  | 20     | 20        | 20   | 80                 | 3        | -    | -     | -    | 100   |  |
| CHL801      | Modelling Simulation and     |        | _         | -    | _                  | 3        | 25   | 25    | _    | 50    |  |
| CIILOUI     | Optimization Lab             | _      | -         | -    | _                  | 5        | 25   | 25    | _    | 50    |  |
| CHL802      | Software application in      | _      | _         | -    | _                  | _        | 25   | _     | 25   | 50    |  |
|             | Chemical Engineering Lab     |        |           | _    | _                  | -        | 45   |       | 20   | 20    |  |
| CHP801      | Major Project II             | -      | -         | -    | -                  | -        | 50   | -     | 100  | 150   |  |
|             | Total                        |        |           | 80   | 320                | -        | 175  | 25    | 50   | 650   |  |

**Department Optional Course 4 (Semester VIII)** 

| Engineering Stream (Course Code) | Technology Stream (Course Code)           | Management Stream (Course Code) |
|----------------------------------|---|---------------------------------|
| Energy System Design (CHDO8041)  | Advanced Separation Technology (CHDO8042) | Financial Management (CHDO8043) |

### Department Optional Course 5 (Semester VIII)

| Engineering Stream (Course Code)      |    | Technology Stream (Course Code)     | Management Stream (Course Code) |
|---------------------------------------|----|-------------------------------------|---------------------------------|
| Fuel Cell Electrochemical Engineering | 1. | Biotechnology Technology (CHDO8052) | Chemical Waste Management       |
| (CHDO8051)                            | 2. | Nanotechnology (CHDO8053)           | (CHDO8054)                      |

# indicates work load of Learner (Not Faculty), for Major Project; Faculty load: semester VIII – 1 hour per v

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# Syllabus Structure Rev 2019 Biomedical Engineering





### Program Structure for Second Year Engineering Semester III & IV UNIVERSITY OF MUMBAI

(With Effect from 2020-2021)

## **Semester III**

| Course         | Course Name  |                 | eaching<br>Contac |                 |             | Credits Assigned  |             |                |       |  |  |
|----------------|--|-----------------|-------------------|-----------------|-------------|-------------------|-------------|----------------|-------|--|--|
| Code           |  | Theor           | y Pr              | act.            | Tut.        | Theory            | Pract.      | Tut.           | Total |  |  |
| BMC301         | Engineering<br>Mathematics - III                     | 3               | -                 |                 | 1           | 3                 |             | 1              | 4     |  |  |
| BMC302         | Human Anatomy and<br>Physiology for Engineers        | 3               |                   |                 |             | 3                 |             |                | 3     |  |  |
| BMC303         | Medical Sensors                                      | 3               | -                 |                 |             | 3                 |             |                | 3     |  |  |
| BMC304         | Electronic Circuits<br>Analysis and Design           | 4               | -                 |                 |             | 4                 |             |                | 4     |  |  |
| BMC305         | Digital Electronics                                  | 3               |                   |                 |             | 3                 |             |                | 3     |  |  |
| BML301         | Human Anatomy and<br>Physiology for Engineers<br>Lab |                 | ,                 | 2               |             |                   | 1           |                | 1     |  |  |
| BML302         | Medical Sensors Lab                                  |                 | ,                 | 2               |             |                   | 1           |                | 1     |  |  |
| BML303         | Electronic Circuits<br>Analysis and Design Lab       |                 |                   | 2               |             |                   | 1           |                | 1     |  |  |
| BML304         | Electronics Lab (SBL)                                |                 | 4                 | 4               |             |                   | 2           |                | 2     |  |  |
| BMM301         | Mini Project – 1 A                                   |                 | 2                 | 1 <sup>\$</sup> |             |                   | 2           |                | 2     |  |  |
|                | Total  | 16              | 1                 | 4               | 1           | 16                | 07          | 1              | 24    |  |  |
|                |  |                 |                   |                 | Exa         | mination So       | cheme       |                |       |  |  |
|                | Course Name  |                 |                   | The             | ory         |                   |             |                |       |  |  |
| Course<br>Code |  | Inter<br>Assess |                   |                 | End<br>Sem. | Exam.<br>Duration |             | Pract/<br>oral | Total |  |  |
|                |  | Test<br>1       | Test<br>2         | Avg.            |             |                   | <b>WOLK</b> | orai           |       |  |  |
| BMC301         | Engineering<br>Mathematics - III                     | 20              | 20                | 20              | 80          | 3                 | 25          |                | 125   |  |  |
| BMC302         | Human Anatomy and<br>Physiology for Engineers        | 20              | 20                | 20              | 80          | 3                 |             |                | 100   |  |  |
| BMC303         | Medical Sensors                                      | 20              | 20                | 20              | 80          | 3                 |             |                | 100   |  |  |
| BMC304         | Electronic Circuits<br>Analysis and Design           | 20              | 20                | 20              | 80          | 3                 |             |                | 100   |  |  |
| BMC305         | Digital Electronics                                  | 20              | 20                | 20              | 80          | 3                 |             |                | 100   |  |  |
| BML301         | Human Anatomy and<br>Physiology for Engineers<br>Lab |                 |                   |                 |             |                   | 25          |                | 25    |  |  |
| BML302         | Medical Sensors Lab                                  |                 |                   |                 |             |                   | 25          | 25             | 50    |  |  |
| BML303         | Electronic Circuits<br>Analysis and Design Lab       |                 |                   |                 |             |                   | 25          | 25             | 50    |  |  |
| BML304         | Electronics Lab (SBL)                                |                 |                   |                 |             |                   | 25          | 25             | 50    |  |  |
| BMM301         | Mini Project – 1 A                                   |                 |                   |                 |             |                   | 25          |                | 25    |  |  |
|                |  |                 |                   |                 |             |                   |             |                |       |  |  |

\$ indicates work load of Learner (Not Faculty), for Mini Project - 1 A.

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Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.

University of Mumbai, Biomedical Engineering, Rev 202<sup>∂3</sup>21

Faculty Load :1 hour per week per 4 mini project groups.

**Program Structure for Second Year Engineering** 

UNIVERSITY OF MUMBAI

(With Effect from 2020-2021) Semester IV

|                |                                       | k                          | Semest             | <u>ter i v</u> |                    |                  |      |              |                |       |  |
|----------------|---------------------------------------|----------------------------|--------------------|----------------|--------------------|------------------|------|--------------|----------------|-------|--|
| Course         | Course Name                           |                            | eaching<br>Contact |                |                    | Credits Assigned |      |              |                |       |  |
| Code           | Course Mame                           | Theor<br>y                 | Prace              | t. 1           | ut.                | Theory           | Pra  | act.         | Tut.           | Total |  |
| BMC401         | Engineering<br>Mathematics - IV       | 3                          |                    |                | 1                  | 3                |      |              | 1              | 4     |  |
| BMC402         | Integrated Circuit Design             | 3                          |                    |                |                    | 3                | -    |              |                | 3     |  |
| BMC403         | Principles of Control<br>Systems      | 3                          |                    |                |                    | 3                | -    |              |                | 3     |  |
| BMC404         | Medical Imaging – I                   | 3                          |                    |                |                    | 3                | -    | -            |                | 3     |  |
| BMC405         | Biomaterials and<br>Artificial Organs | 3                          |                    |                |                    | 3                | -    |              |                | 3     |  |
| BML401         | Integrated Circuit Design<br>Lab      |                            | 2                  |                |                    |                  | 1    | 1            |                | 1     |  |
| BML402         | Principles of Control<br>Systems Lab  |                            | 2                  |                |                    |                  | 1    | 1            |                | 1     |  |
| BML403         | Medical Imaging – I Lab               |                            | 2                  |                |                    |                  | ]    | 1            |                | 1     |  |
| BML404         | Computing Lab (SBL)                   |                            | 4                  |                |                    |                  | 4    | 2            |                | 2     |  |
| BMM401         | Mini Project – 1 B                    |                            | 4\$                |                |                    |                  | 2    | 2            |                | 2     |  |
|                | Total                                 | 15                         | 14                 |                | 1                  | 15 7 1           |      |              |                | 23    |  |
| Course<br>Code | Course Name                           | The<br>Internal Assessment |                    | Theo<br>sment  | ery<br>End<br>Sem. |                  |      | Ferm<br>Vork | Pract/<br>oral | Total |  |
|                |                                       | Test<br>1                  | Test<br>2          | Avg.           | Exam               | . (in Hr         | (rs) |              |                |       |  |
| BMC401         | Engineering<br>Mathematics - IV       | 20                         | 20                 | 20             | 80                 | 3                |      | 25           |                | 125   |  |
| BMC402         | Integrated Circuit Design             | 20                         | 20                 | 20             | 80                 | 3                |      |              |                | 100   |  |
| BMC403         | Principles of Control<br>Systems      | 20                         | 20                 | 20             | 80                 | 3                |      |              |                | 100   |  |
| BMC404         | Medical Imaging – I                   | 20                         | 20                 | 20             | 80                 | 3                |      |              |                | 100   |  |
| BMC405         | Biomaterials and<br>Artificial Organs | 20                         | 20                 | 20             | 80                 | 3                |      |              |                | 100   |  |
| BML401         | Integrated Circuit Design<br>Lab      |                            |                    |                |                    |                  |      | 25           | 25             | 50    |  |
| BML402         | Principles of Control<br>Systems Lab  |                            |                    |                |                    |                  |      | 25           |                | 25    |  |
| BML403         | Medical Imaging – I Lab               |                            |                    |                |                    |                  |      | 25           | 25             | 50    |  |
| BML404         | Computing Lab (SBL)                   |                            |                    |                |                    |                  |      | 25           | 25             | 50    |  |
| BMM401         | Mini Project – 1 B                    |                            |                    |                |                    |                  |      | 25           | 25             | 50    |  |
|                | Total                                 |                            |                    | 100            | 400                |                  |      | 150          | 100            | 750   |  |

\$ indicates work load of Learner (Not Faculty), for Mini Project - 1 B.

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THADOMAL SHAHANI ENGINEERING COLLEGE

# Syllabus Structure Rev 2016



BANDRA MUMBALSO UNIOCITHI + 35

# Syllabus Structure Rev 2016 Computer Engineering





| Course | Course  | Teaching<br>(Contac |       |     | Credits Assigned |              |     |       |  |  |
|--------|---|---------------------|-------|-----|------------------|--------------|-----|-------|--|--|
| Code   | Name  | Theory              | Pract | Tut | Theory           | TW/<br>Pract | Tut | Total |  |  |
| CSC301 | Applied Mathematics -III                              | 4+1@                | -     | -   | 5                | -            | -   | 5     |  |  |
| CSC302 | Digital Logic Design and Analysis                     | 4                   | -     | -   | 4                | -            | -   | 4     |  |  |
| CSC303 | Discrete Mathematics                                  | 3+1@                | -     | -   | 4                | -            | -   | 4     |  |  |
| CSC304 | Electronic Circuits and<br>Communication Fundamentals | 4                   | -     | -   | 4                | -            | -   | 4     |  |  |
| CSC305 | Data Structures                                       | 4                   | -     | -   | 4                | -            | -   | 4     |  |  |
| CSL301 | Digital System Lab                                    | -                   | 2     | -   | -                | 1            | -   | 1     |  |  |
| CSL302 | Basic Electronics Lab                                 | -                   | 2     | -   | -                | 1            | -   | 1     |  |  |
| CSL303 | Data structure Lab                                    | -                   | 2     | -   |                  | 1            | -   | 1     |  |  |
| CSL304 | OOPM(Java) Lab  | -                   | 2+2*  | -   | -                | 2            | -   | 2     |  |  |
|        | Total   | 21                  | 10    | -   | 21               | 5            | -   | 26    |  |  |

## Program Structure B.E. Computer Engineering, (Rev. 2016) w.e.f. AY 2017-18 S. E. Computer Engineering (Semester-III)

@ 1 hour to be taken tutorial as class wise.

\*2 hours shown as practical's to be taken class wise and other 2 hours to be taken as batch wise

|        |  |        |         |          | Exa          | mination Sc           | heme |      |           |       |
|--------|--|--------|---------|----------|--------------|-----------------------|------|------|-----------|-------|
| Course | Course   |        |         | Theo     | ory          | 1                     |      |      |           |       |
| Code   | Name   | Inte   | rnal As | sessment | End          | Exam                  | тw   | Oral | Oral<br>& |       |
|        |  | Test 1 | Test 2  | Avg.     | Sem.<br>Exam | Duration<br>( in Hrs) | 1 ** | Ulai | Pract     | Total |
| CSC301 | Applied Mathematics -III                                 | 20     | 20      | 20       | 80           | 3                     | -    | -    | -         | 100   |
| CSC302 | Digital Logic Design and<br>Analysis                     | 20     | 20      | 20       | 80           | 3                     | -    | -    | -         | 100   |
| CSC303 | Discrete Structures                                      | 20     | 20      | 20       | 80           | 3                     | -    | -    | -         | 100   |
| CSC304 | Electronic Circuits and<br>Communication<br>Fundamentals | 20     | 20      | 20       | 80           | 3                     | -    | -    | -         | 100   |
| CSC305 | Data Structures  | 20     | 20      | 20       | 80           | 3                     |      | -    | -         | 100   |
| CSL301 | Digital System Lab                                       | -      | -       | -        | -            | -                     | 25   |      | 25        | 50    |
| CSL302 | Basic Electronics Lab                                    | -      | -       | -        | -            | -                     | 25   | 25   |           | 50    |
| CSL303 | Data structure Lab                                       | -      | -       | -        | -            | -                     | 25   | -    | 25        | 50    |
| CSL304 | OOPM(Java) Lab   | -      | -       | -        | -            | -                     | 50   |      | 50        | 100   |
|        | Total  | 100    | 100     | 100      | 400          | -                     | 125  | 25   | 100       | 750   |

University of Mumbai, B. E. (Computer Engineering), Rev 2016

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Dr. G. T. Thampi

| Course | Course                                 |        | g Scheme<br>ct Hours) |     | Credits Assigned |              |     |       |  |  |
|--------|--|--------|-----------------------|-----|------------------|--------------|-----|-------|--|--|
| Code   | Name                                   | Theory | Pract                 | Tut | Theory           | TW/<br>Pract | Tut | Total |  |  |
| CSC401 | Applied<br>Mathematics- IV             | 4+1@   | -                     | -   | 5                | -            | -   | 5     |  |  |
| CSC402 | Analysis of Algorithms                 | 4      | -                     | -   | 4                | -            | -   | 4     |  |  |
| CSC403 | Computer Organization and Architecture | 4      | -                     | -   | 4                | -            | -   | 4     |  |  |
| CSC404 | Computer Graphics                      | 4      | -                     | -   | 4                | -            | -   | 4     |  |  |
| CSC405 | Operating System                       | 4      | -                     | -   | 4                | -            | -   | 4     |  |  |
| CSL401 | Analysis of Algorithms Lab             | -      | 2                     | -   | -                | 1            | -   | 1     |  |  |
| CSL402 | Computer Graphics Lab                  | -      | 2                     | -   | -                | 1            | -   | 1     |  |  |
| CSL403 | Processor Architecture Lab             | -      | 2                     | -   |                  | 1            | -   | 1     |  |  |
| CSL404 | Operating System Lab                   | -      | 2                     | -   | -                | 1            | -   | 1     |  |  |
| CSL405 | Open Source Tech Lab                   | -      | 2+2*                  | -   | -                | 2            | -   | 2     |  |  |
|        | Total                                  | 21     | 12                    | -   | 21               | 6            | -   | 27    |  |  |

# Program Structure B.E. Computer Engineering, (Rev. 2016) w.e.f. AY 2017-18 S. E. Computer Engineering (Semester-IV)

@ 1 hour to be taken tutorial as class wise .

\*2 hours shown as Practical's to be taken class wise and other 2 hours to be taken as batch wise

|        |   |        |          |           | Exan         | ination Sch           | eme |      |           |       |
|--------|---|--------|----------|-----------|--------------|-----------------------|-----|------|-----------|-------|
| Course | Course                                    |        |          | Theor     | y            |                       |     |      |           |       |
| Code   | Name                                      | Int    | ernal As | ssessment | End          | Exam                  | TW  | Oral | Oral<br>& | Total |
|        |   | Test 1 | Test 2   | Avg.      | Sem.<br>Exam | Duration<br>( in Hrs) |     |      | Pract     |       |
| CSC401 | Applied Mathematics- IV                   | 20     | 20       | 20        | 80           | 3                     | -   | -    | -         | 100   |
| CSC402 | Analysis of Algorithms                    | 20     | 20       | 20        | 80           | 3                     | -   | -    | -         | 100   |
| CSC403 | Computer Organization and<br>Architecture | 20     | 20       | 20        | 80           | 3                     | -   | -    | -         | 100   |
| CSC404 | Computer Graphics                         | 20     | 20       | 20        | 80           | 3                     | -   | -    | -         | 100   |
| CSC405 | Operating System                          | 20     | 20       | 20        | 80           | 3                     |     | -    | -         | 100   |
| CSL401 | Analysis of Algorithms<br>Lab             | -      | -        | -         | -            | -                     | 25  |      | 25        | 50    |
| CSL402 | Computer Graphics Lab                     | -      | -        | -         | -            | -                     | 25  |      | 25        | 50    |
| CSL403 | Processor Architecture Lab                | -      | -        | -         | -            | -                     | 25  | 25   | -         | 50    |
| CSL404 | Operating System Lab                      | -      | -        | -         | -            | -                     | 25  | -    | 25        | 50    |
| CSL405 | Open Source Tech Lab                      | -      | -        | -         | -            | -                     | 25  |      | 25        | 50    |
|        | Total                                     | 100    | 100      | 100       | 400          | -                     | 125 | 25   | 100       | 750   |

University of Mumbai, B. E. (Computer Engineering), Rev 2016



| Course        | Course                                 | Teaching<br>(Contac | Scheme<br>t Hours) |     | Credits Assigned |              |     |       |  |  |
|---------------|--|---------------------|--------------------|-----|------------------|--------------|-----|-------|--|--|
| Code          | Name                                   | Theory              | Pract              | Tut | Theory           | TW/<br>Pract | Tut | Total |  |  |
| CSC501        | Microprocessor                         | 4                   | -                  | -   | 4                | -            | -   | 4     |  |  |
| CSC502        | Database Management<br>System          | 4                   | -                  | -   | 4                | -            | -   | 4     |  |  |
| CSC503        | Computer Network                       | 4                   | -                  | -   | 4                | -            | -   | 4     |  |  |
| CSC504        | Theory of Computer<br>Science          | 3+1@                | -                  | -   | 4                | -            | -   | 4     |  |  |
| CSDLO<br>501X | Department Level Optional<br>Course -I | 4                   | -                  | -   | 4                | -            | -   | 4     |  |  |
| CSL501        | Microprocessor Lab                     | -                   | 2                  | -   | -                | 1            |     | 1     |  |  |
| CSL502        | Computer Network Lab                   | -                   | 2                  | -   | -                | 1            | -   | 1     |  |  |
| CSL503        | Database & Info. System<br>Lab         | _                   | 2                  | -   | -                | 1            | -   | 1     |  |  |
| CSL504        | Web Design Lab                         | -                   | 2+2*               | -   | -                | 2            | -   | 2     |  |  |
| CSL505        | Business Comm. & Ethics                | -                   | 2+2*               | -   | -                | 2            | -   | 2     |  |  |
|               | Total                                  | 20                  | 14                 | -   | 20               | 7            | -   | 27    |  |  |

## Program Structure B.E. Computer Engineering, (Rev. 2016) w.e.f. AY 2018-19 T. E. Computer Engineering (Semester-V)

@ 1 hour to be taken tutorial as class wise.

\*2 hours shown as Practical's to be taken class wise and other 2 hours to be taken as batch wise

|               |  |        |          | E        | xamina       | tion Scher            | ne  |       |       |
|---------------|--|--------|----------|----------|--------------|-----------------------|-----|-------|-------|
| Course        | Course                                 |        |          | Theory   |              | T                     |     | Oral  |       |
| Code          | Name                                   | Inte   | ernal As | sessment | End          | Exam                  | TW  | &     | Total |
|               |  | Test 1 | Test 2   | Avg.     | Sem.<br>Exam | Duration<br>( in Hrs) |     | Pract |       |
| CSC501        | Microprocessor                         | 20     | 20       | 20       | 80           | 3                     | -   | -     | 100   |
| CSC502        | Database Management<br>System          | 20     | 20       | 20       | 80           | 3                     | -   | -     | 100   |
| CSC503        | Computer Network                       | 20     | 20       | 20       | 80           | 3                     | -   | -     | 100   |
| CSC504        | Theory of Computer<br>Science          | 20     | 20       | 20       | 80           | 3                     | -   | -     | 100   |
| CSDLO<br>501X | Department Level Optional<br>Course -I | 20     | 20       | 20       | 80           | 3                     |     | -     | 100   |
| CSL501        | Microprocessor Lab                     | -      | -        | -        | -            | -                     | 25  | 25    | 50    |
| CSL502        | Computer Network Lab                   | -      | -        | -        | -            | -                     | 25  | 25    | 50    |
| CSL503        | Database & Info. System<br>Lab         | -      | -        | -        | -            | -                     | 25  | 25    | 50    |
| CSL504        | Web Design Lab                         | -      | _        | -        | _            | -                     | 25  | 25    | 50    |
| CSL505        | Business Comm. & Ethics                | -      | -        | -        | -            | -                     | 50  | -     | 50    |
|               | Total                                  | 100    | 100      | 100      | 400          | -                     | 150 | 100   | 750   |

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| Course        | Course  | Teaching<br>(Contact |       |     | Credits Assigned |              |     |       |  |  |
|---------------|---|----------------------|-------|-----|------------------|--------------|-----|-------|--|--|
| Code          | Name  | Theory               | Pract | Tut | Theory           | TW/<br>Pract | Tut | Total |  |  |
| CSC601        | Software Engineering                          | 4                    | -     | -   | 4                | -            | -   | 4     |  |  |
| CSC602        | System Programming &<br>Complier Construction | 4                    | -     | -   | 4                | -            | -   | 4     |  |  |
| CSC603        | Data Warehousing &<br>Mining                  | 4                    | -     | -   | 4                | -            | -   | 4     |  |  |
| CSC604        | Cryptography & System<br>Security             | 4                    | -     | -   | 4                | -            | -   | 4     |  |  |
| CSDLO<br>601X | Department Level Optional<br>Course -II       | 4                    | -     | -   | 4                | -            | -   | 4     |  |  |
| CSL601        | Software Engineering Lab                      | -                    | 2     | -   | -                | 1            | -   | 1     |  |  |
| CSL602        | System software Lab                           | -                    | 2     | -   | -                | 1            | -   | 1     |  |  |
| CSL603        | Data Warehousing &<br>Mining Lab              | -                    | 2     | -   | -                | 1            | -   | 1     |  |  |
| CSL604        | System Security Lab                           | -                    | 2     | -   | -                | 1            | -   | 1     |  |  |
| CSP605        | Mini-Project                                  | -                    | 4     | -   | -                | 2            | -   | 2     |  |  |
|               | Total   | 20                   | 12    | -   | 20               | 6            | -   | 26    |  |  |

# Program Structure B.E. Computer Engineering, (Rev. 2016) w.e.f. AY 2018-19 T. E. Computer Engineering (Semester-VI)

|               |   | Examination Scheme |          |          |              |                       |     |      |       |       |  |  |
|---------------|---|--------------------|----------|----------|--------------|-----------------------|-----|------|-------|-------|--|--|
| Course        | Course  |                    |          | Theory   | y            | 1                     |     |      | Oral  |       |  |  |
| Code          | Name  | Inte               | ernal As | sessment | End          | Exam                  | TW  | Oral | &     | Total |  |  |
|               |   | Test 1             | Test 2   | Avg.     | Sem.<br>Exam | Duration<br>( in Hrs) |     |      | Pract |       |  |  |
| CSC601        | Software Engineering                          | 20                 | 20       | 20       | 80           | 3                     | -   | -    | -     | 100   |  |  |
| CSC602        | System Programming &<br>Complier Construction | 20                 | 20       | 20       | 80           | 3                     | -   | -    | -     | 100   |  |  |
| CSC603        | Data Warehousing &<br>Mining                  | 20                 | 20       | 20       | 80           | 3                     | -   | -    | -     | 100   |  |  |
| CSC604        | Cryptography & System<br>Security             | 20                 | 20       | 20       | 80           | 3                     | -   | -    | -     | 100   |  |  |
| CSDLO<br>601X | Department Level Optional<br>Course -II       | 20                 | 20       | 20       | 80           | 3                     | -   | -    | -     | 100   |  |  |
| CSL601        | Software Engineering<br>Lab                   | -                  | -        | -        | -            | -                     | 25  | 25   |       | 50    |  |  |
| CSL602        | System Software Lab                           | -                  | -        | -        | -            | -                     | 25  |      | 25    | 50    |  |  |
| CSL603        | Data Warehousing &<br>Mining Lab              | -                  | -        | -        | -            | -                     | 25  |      | 25    | 50    |  |  |
| CSL604        | System Security Lab                           | -                  | -        | -        | -            | -                     | 25  |      | 25    | 50    |  |  |
| CSP605        | Mini-Project                                  | -                  | -        | -        | -            | -                     | 25  |      | 25    | 50    |  |  |
|               | Total   | 100                | 100      | 100      | 400          | -                     | 150 | 25   | 100   | 750   |  |  |

University of Mumbai, B. E. (Computer Engineering), Rev 2016

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| Course        | Course  | Teaching<br>(Contac | Scheme<br>t Hours) |     | Credits Assigned |              |     |       |  |  |
|---------------|---|---------------------|--------------------|-----|------------------|--------------|-----|-------|--|--|
| Code          | Name  | Theory              | Pract              | Tut | Theory           | TW/<br>Pract | Tut | Total |  |  |
| CSC701        | Digital Signal & Image<br>Processing            | 4                   | -                  | -   | 4                | -            | -   | 4     |  |  |
| CSC702        | Mobile Communication &<br>Computing             | 4                   | -                  | -   | 4                | -            | -   | 4     |  |  |
| CSC703        | Artificial Intelligence & Soft<br>Computing     | 4                   | -                  | -   | 4                | -            | -   | 4     |  |  |
| CSDLO<br>701X | Department Level Optional<br>Course -III        | 4                   | -                  | -   | 4                | -            | -   | 4     |  |  |
| ILO701X       | Institute Level Optional<br>Course-I            | 3                   | -                  | -   | 3                | -            | -   | 3     |  |  |
| CSL701        | Digital Signal & Image<br>Processing Lab        | -                   | 2                  | -   | -                | 1            | -   | 1     |  |  |
| CSL702        | Mobile App. Development.<br>Tech. Lab           | -                   | 2                  | -   | -                | 1            | -   | 1     |  |  |
| CSL703        | Artificial Intelligence & Soft<br>Computing Lab | -                   | 2                  | -   |                  | 1            | -   | 1     |  |  |
| CSL704        | Computational Lab-I                             | -                   | 2                  |     |                  | 1            | -   | 1     |  |  |
| CSP705        | Major Project-I                                 | -                   | 6                  |     |                  | 3            | -   | 3     |  |  |
|               | Total   | 19                  | 14                 | -   | 19               | 7            | -   | 26    |  |  |

Program Structure B.E. Computer Engineering, (Rev. 2016) w.e.f. AY 2019-20 B. E. Computer Engineering (Semester-VII )

|               |   |        |           |         | Exar         | nination Sche         | eme |      |           |       |
|---------------|---|--------|-----------|---------|--------------|-----------------------|-----|------|-----------|-------|
| Course        | Course  |        |           | The     | ory          |                       |     |      |           |       |
| Code          | Name  | Inter  | rnal Asse | essment | End          | Exam                  | тw  | Oral | Oral<br>& | Total |
|               |   | Test 1 | Test 2    | Avg.    | Sem.<br>Exam | Duration<br>( in Hrs) |     |      | Pract     |       |
| CSC701        | Digital Signal & Image<br>Processing            | 20     | 20        | 20      | 80           | 3                     | -   |      | -         | 100   |
| CSC702        | Mobile Communication &<br>Computing             | 20     | 20        | 20      | 80           | 3                     | -   |      | -         | 100   |
| CSC703        | Artificial Intelligence & Soft<br>Computing     | 20     | 20        | 20      | 80           | 3                     | -   |      | -         | 100   |
| CSDLO<br>701X | Department Level Optional<br>Course -III        | 20     | 20        | 20      | 80           | 3                     | -   |      | -         | 100   |
| ILO701X       | Institute Level Optional<br>Course-I            | 20     | 20        | 20      | 80           | 3                     |     |      | -         | 100   |
| CSL701        | Digital Signal & Image<br>Processing Lab        | -      | -         | -       | -            | -                     | 25  |      |           | 25    |
| CSL702        | Mobile App. Development.<br>Tech. Lab           | -      | -         | -       | -            | -                     | 25  |      | 25        | 50    |
| CSL703        | Artificial Intelligence & Soft<br>Computing Lab |        | -         | -       | -            |                       | 25  | 25   |           | 50    |
| CSL704        | Computational Lab-I                             |        |           |         |              |                       | 25  |      | 25        | 50    |
| CSP705        | Major Project-I                                 | -      | -         | -       | -            | -                     | 50  | -    | 25        | 75    |
|               | Total   | 100    | 100       | 100     | 400          |                       | 150 | 25   | 75        | 750   |

University of Mumbai, B. E. (Computer Engineering), Rev 2016

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| Course        | Course                                  | Teaching<br>(Contac | ; Scheme<br>t Hours) |     | Credits Assigned |              |     |       |  |  |
|---------------|---|---------------------|----------------------|-----|------------------|--------------|-----|-------|--|--|
| Code          | Name                                    | Theory              | Pract                | Tut | Theory           | TW/<br>Pract | Tut | Total |  |  |
| CSC801        | Human Machine<br>Interaction            | 4                   | -                    | -   | 4                | -            | -   | 4     |  |  |
| CSC802        | Distributed Computing                   | 4                   | -                    | -   | 4                | -            | -   | 4     |  |  |
| CSDLO<br>801X | Department Level Optional<br>Course -IV | 4                   | -                    | -   | 4                | -            | -   | 4     |  |  |
| ILO801X       | Institute Level Optional<br>Course-II   | 3                   | -                    | -   | 3                | -            | -   | 3     |  |  |
| CSL801        | Human Machine<br>Interaction Lab        | -                   | 2                    | -   | -                | 1            |     | 1     |  |  |
| CSL802        | Distributed Computing<br>Lab            |                     | 2                    |     |                  | 1            |     | 1     |  |  |
| CSL803        | Cloud Computing Lab                     | -                   | 4                    | -   | -                | 2            |     | 2     |  |  |
| CSL804        | Computational Lab-II                    | -                   | 2                    | -   |                  | 1            |     | 1     |  |  |
| CSP805        | Major Project-II                        | -                   | 12                   |     |                  | 6            | -   | 6     |  |  |
|               | Total                                   | 15                  | 22                   | -   | 15               | 11           | -   | 26    |  |  |

# Program Structure B.E. Computer Engineering, (Rev. 2016) w.e.f. AY 2019-20 B. E. Computer Engineering (Semester-VIII)

|               |   |        |          |          | Exami        | nation Sche       | eme |      |       |       |
|---------------|---|--------|----------|----------|--------------|-------------------|-----|------|-------|-------|
| Course        | Course                                  |        |          | Theory   | y            |                   |     |      | Oral  |       |
| Code          | Name                                    | Inte   | ernal As | sessment | End          | Exam              | TW  | Oral | &     | Total |
|               |   | Test 1 | Test 2   | Avg.     | Sem.<br>Exam | Duratio<br>n ( in |     |      | Pract |       |
| CSC801        | Human Machine<br>Interaction            | 20     | 20       | 20       | 80           | 3                 | -   | -    | -     | 100   |
| CSC802        | Distributed Computing                   | 20     | 20       | 20       | 80           | 3                 | -   | -    | -     | 100   |
| CSDLO<br>801X | Department Level Optional<br>Course -IV | 20     | 20       | 20       | 80           | 3                 | -   | -    | -     | 100   |
| ILO801X       | Institute Level Optional<br>Course-II   | 20     | 20       | 20       | 80           | 3                 | -   | -    | -     | 100   |
| CSC801        | Human Machine<br>Interaction Lab        |        |          |          |              |                   | 25  | 25   | -     | 50    |
| CSL802        | Distributed Computing<br>Lab            | -      | -        | -        | -            | -                 | 25  | 25   |       | 50    |
| CSL803        | Cloud Computing Lab                     | -      | -        | -        | -            | -                 | 50  |      | 25    | 75    |
| CSL804        | Computational Lab-II                    | -      | -        | -        | -            | -                 | 50  |      | 25    | 75    |
| CSP805        | Major Project-II                        |        |          |          |              |                   | 50  |      | 50    | 100   |
|               | Total                                   | 100    | 100      | 100      | 400          |                   | 150 |      | 100   | 750   |

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| Sem. | Department Level Optional Course<br>(DLOC)  | Institute Level Optional Course<br>(ILOC)  |
|------|---|--|
| v    | CSDLO5011: Multimedia System<br>CSDLO5012: Advance Operating System<br>CSDLO5013: Advance Algorithm   |  |
| VI   | CSDLO6021: Machine Learning<br>CSDLO6022: Advance Database System<br>CSDLO6023: Enterprise Resource Planning<br>CSDLO6024: Advance Computer Network |  |
| VII  | CSDLO7031: Advance System Security &<br>Digital Forensics<br>CSDLO7032: Big Data & Analytics<br>CSDLO7033: Robotics                                 | ILO7011. Product Lifecycle Management<br>ILO7012. Reliability Engineering<br>ILO7013. Management Information<br>System<br>ILO7014. Design of Experiments<br>ILO7015. Operation Research<br>ILO7016. Cyber Security and Laws<br>ILO7017. Disaster Management &<br>Mitigation Measures<br>ILO7018. Energy Audit and Management<br>ILO7019. Development Engineering |
| VIII | DLO8011: High Performance Computing<br>DLO8012: Natural Language Processing<br>DLO8013: Adhoc Wireless Network                                      | ILO8021. Project Management<br>ILO8022. Finance Management<br>ILO8023. Entrepreneurship Development<br>and Management<br>ILO8024. Human Resource Management<br>ILO8025. Professional Ethics and CSR<br>ILO8026. Research Methodology<br>ILO8027. IPR and Patenting<br>ILO8028. Digital Business Management<br>ILO8029. Environmental Management                  |

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Dr. G. T. Thampi

# Syllabus Structure Rev 2016 Information Technology



### **University of Mumbai**

# Program Structure B.E. Information Technology, (Rev. 2016)

| Course | Course                      | Teaching<br>(Contac |       |     | Credits Assigned |              |     |       |  |  |
|--------|-----------------------------|---------------------|-------|-----|------------------|--------------|-----|-------|--|--|
| Code   | Name                        | Theory              | Pract | Tut | Theory           | TW/<br>Pract | Tut | Total |  |  |
| ITC301 | Applied Mathematics III     | 4+1@                | -     | -   | 5                | -            | -   | 5     |  |  |
| ITC302 | Logic Design                | 4                   | -     | -   | 4                | -            | -   | 4     |  |  |
| ITC303 | Data Structures & Analysis  | 4                   | -     | -   | 4                | -            | -   | 4     |  |  |
| ITC304 | Database Management System  | 4                   | -     | -   | 4                | -            | -   | 4     |  |  |
| ITC305 | Principle of Communications | 3+1\$               | -     | -   | 4                | -            | -   | 4     |  |  |
| ITL301 | Digital Design Lab          | -                   | 2     | -   | -                | 1            | -   | 1     |  |  |
| ITL302 | Data Structures Lab         | -                   | 2     | -   | -                | 1            | -   | 1     |  |  |
| IT303  | SQL Lab                     | -                   | 2     | -   |                  | 1            | -   | 1     |  |  |
| ITL304 | Java Programming Lab        | -                   | 2+2*  | -   | -                | 2            | -   | 2     |  |  |
|        | Total                       | 21                  | 10    | -   | 21               | 5            | -   | 26    |  |  |

# S. E. Information Technology (Semester-III)

|        |                                |        |         |          | Exa          | mination Sc          | heme |      |           |       |
|--------|--------------------------------|--------|---------|----------|--------------|----------------------|------|------|-----------|-------|
| Course | Course                         |        |         | Theo     | ory          |                      |      |      | 01        |       |
| Code   | Name                           | Inte   | rnal As | sessment | End          | Exam                 | TW   | Oral | Oral<br>& |       |
|        |                                | Test 1 | Test 2  | Avg.     | Sem.<br>Exam | Duration<br>(in Hrs) | 1 ** | 0141 | Pract     | Total |
| ITC301 | Applied Mathematics III        | 20     | 20      | 20       | 80           | 3                    | -    | -    | -         | 100   |
| ITC302 | Logic Design                   | 20     | 20      | 20       | 80           | 3                    | -    | -    | -         | 100   |
| ITC303 | Data Structures &<br>Analysis  | 20     | 20      | 20       | 80           | 3                    | -    | -    | -         | 100   |
| ITC304 | Database Management<br>System  | 20     | 20      | 20       | 80           | 3                    | -    | -    | -         | 100   |
| ITC305 | Principle of<br>Communications | 20     | 20      | 20       | 80           | 3                    |      | -    | -         | 100   |
| ITL301 | Digital Design Lab             | -      | -       | -        | -            | -                    | 25   |      | 25        | 50    |
| ITL302 | Data Structures Lab            | -      | -       | -        | -            | -                    | 25   |      | 25        | 50    |
| IT303  | SQL Lab                        | -      | -       | -        | -            | -                    | 25   | -    | 25        | 50    |
| ITL304 | Java Programming Lab           | -      | -       | -        | -            | -                    | 50   |      | 50        | 100   |
|        | Total                          | 100    | 100     | 100      | 400          | -                    | 125  |      | 125       | 750   |

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@ 4 hours shown as theory to be taken class wise and 1 hour to be taken tutorial as class wise

\$ 3 hours shown as theory to be taken class wise and 1 hour to be taken tutorial as batch wise

\* 2 hours shown as practical's to be taken class wise lecture and another 2 hours to be taken as batch wise practices in the lab.

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# Program Structure B.E. Information Technology, (Rev. 2016)

| Course | Course                                    |        | g Scheme<br>ct Hours) |     | Credits Assigned |              |     |       |  |  |
|--------|---|--------|-----------------------|-----|------------------|--------------|-----|-------|--|--|
| Code   | Name                                      | Theory | Pract                 | Tut | Theory           | TW/<br>Pract | Tut | Total |  |  |
| ITC401 | Applied Mathematics-IV                    | 4+1@   | -                     | -   | 5                | -            | -   | 5     |  |  |
| ITC402 | Computer Networks                         | 4      | -                     | -   | 4                | -            | -   | 4     |  |  |
| ITC403 | Operating Systems                         | 4      | -                     | -   | 4                | -            | -   | 4     |  |  |
| ITC404 | Computer Organization<br>and Architecture | 4      | -                     | -   | 4                | -            | -   | 4     |  |  |
| ITC405 | Automata Theory                           | 3+1\$  | -                     | -   | 4                | -            | -   | 4     |  |  |
| ITL401 | Networking Lab                            | -      | 2                     | -   | -                | 1            | -   | 1     |  |  |
| ITL402 | Unix Lab                                  | -      | 2                     | -   |                  | 1            | -   | 1     |  |  |
| ITL403 | Microprocessor<br>Programming Lab         | -      | 2                     | -   | -                | 1            | -   | 1     |  |  |
| ITL404 | Python Lab                                | -      | 2+2*                  | -   | -                | 2            | -   | 2     |  |  |
|        | Total                                     | 21     | 10                    | -   | 21               | 5            | -   | 26    |  |  |

# S. E. Information Technology (Semester-IV)

|        |   |        |          |           | Ex           | amination S           | Scheme |      |        |       |
|--------|---|--------|----------|-----------|--------------|-----------------------|--------|------|--------|-------|
| ourse  | Course                                    |        |          | Theor     | ·у           |                       |        |      |        |       |
| Code   | Name                                      | Inte   | ernal As | ssessment | End          | Exam                  | TW     | Oral | Oral & | Total |
|        |   | Test 1 | Test 2   | Avg.      | Sem.<br>Exam | Duration<br>( in Hrs) |        |      | Pract  |       |
| ITC401 | Applied Mathematics-IV                    | 20     | 20       | 20        | 80           | 3                     | -      | -    | -      | 100   |
| ITC402 | Computer Networks                         | 20     | 20       | 20        | 80           | 3                     | -      | -    | -      | 100   |
| ITC403 | Operating Systems                         | 20     | 20       | 20        | 80           | 3                     | -      | -    | -      | 100   |
| ITC404 | Computer Organization<br>and Architecture | 20     | 20       | 20        | 80           | 3                     | -      | -    | -      | 100   |
| ITC405 | Automata Theory                           | 20     | 20       | 20        | 80           | 3                     |        | -    | -      | 100   |
| ITL401 | Networking Lab                            | -      | -        | -         | -            | -                     | 25     | 25   |        | 50    |
| ITL402 | Unix Lab                                  | -      | -        | -         | -            | -                     | 25     |      | 25     | 50    |
| ITL403 | Microprocessor<br>Programming Lab         | -      | -        | -         | -            | -                     | 25     | 25   |        | 50    |
| ITL404 | Python Lab                                | -      | -        | -         | -            | -                     | 50     |      | 50     | 100   |
|        | Total                                     | 100    | 100      | 100       | 400          | -                     | 125    | 50   | 75     | 750   |

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@ 4 hours shown as theory to be taken class wise and 1 hour to be taken tutorial as class wise

\$ 3 hours shown as theory to be taken class wise and 1 hour to be taken tutorial as batch wise

\*2 hours shown as practical's to be taken class wise lecture and other 2 hours to be taken as batch wise practicals in Lab.

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# University of Mumbai

# Program Structure B.E. Information Technology, (Rev. 2016)

| Course  | Course                                      |        | g Scheme<br>ct Hours) |     | Credits Assigned |              |     |       |  |  |
|---------|---|--------|-----------------------|-----|------------------|--------------|-----|-------|--|--|
| Code    | Name  | Theory | Pract                 | Tut | Theory           | TW/<br>Pract | Tut | Total |  |  |
| ITC501  | Microcontroller and<br>Embedded Programming | 4      | -                     | -   | 4                | -            | -   | 4     |  |  |
| ITC502  | Internet Programming                        | 4      | -                     | -   | 4                | -            | -   | 4     |  |  |
| ITC503  | Advanced Data Management<br>Technology      | 4      | -                     | -   | 4                | -            | -   | 4     |  |  |
| ITC504  | Cryptography & Network<br>Security          | 4      | -                     | -   | 4                | -            | -   | 4     |  |  |
| ITDLO-I | Department Level<br>Optional Course-I       | 4      | -                     | -   | 4                | -            | -   | 4     |  |  |
| ITL501  | Internet Programming Lab                    | -      | 2                     | -   | -                | 1            |     | 1     |  |  |
| ITL502  | Security Lab                                | -      | 2                     | -   | -                | 1            | -   | 1     |  |  |
| ITL503  | OLAP Lab                                    | -      | 2                     | -   | -                | 1            | -   | 1     |  |  |
| ITL504  | IOT (Mini Project) Lab                      | -      | 2                     | -   | -                | 1            | -   | 1     |  |  |
| ITL505  | Business Communication<br>and Ethics        | -      | 2+2*                  | -   | -                | 2            | -   | 2     |  |  |
|         | Total                                       | 20     | 14                    | -   | 20               | 7            | -   | 26    |  |  |

## T. E. Information Technology (Semester-V)

| Course  | Commo                                       |        |          |          |              | Examina              | tion Scl | heme |        |            |
|---------|---|--------|----------|----------|--------------|----------------------|----------|------|--------|------------|
| Course  | Course                                      |        |          | Theory   | y            |                      |          |      |        |            |
| Code    | Name  | Inte   | ernal As | sessment | End          | Exam                 | TW       |      | Oral & | Total      |
|         |   | Test 1 | Test 2   | Avg.     | Sem.<br>Exam | Duration<br>(in Hrs) |          | Oral | Pract  |            |
| ITC501  | Microcontroller and<br>Embedded Programming | 20     | 20       | 20       | 80           | 3                    | -        |      | -      | 100        |
| ITC502  | Internet Programming                        | 20     | 20       | 20       | 80           | 3                    | -        |      | -      | 100        |
| ITC503  | Advanced Data Management<br>Technology      | 20     | 20       | 20       | 80           | 3                    | -        |      | -      | 100        |
| ITC504  | Cryptography & Network<br>Security          | 20     | 20       | 20       | 80           | 3                    | -        |      | -      | 100        |
| ITDLO-I | Department Level<br>Optional Course-I       | 20     | 20       | 20       | 80           | 3                    |          |      | -      | 100        |
| ITL501  | Internet Programming Lab                    | -      | -        | -        | -            | -                    | 25       |      | 25     | 50         |
| ITL502  | Security Lab                                | -      | -        | -        | -            | _                    | 25       | 25   |        | 50         |
| ITL503  | OLAP Lab                                    | -      | -        | _        | -            | -                    | 25       | 25   |        | <b>7</b> 0 |

University of Mumbai, B. E. (Information Technology), Rev 2016

Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.

| ITL504 | IOT (Mini Project) Lab               | -   | -   | _   | -   | - | 25  | 25 |    | 50  |
|--------|--------------------------------------|-----|-----|-----|-----|---|-----|----|----|-----|
| ITL505 | Business Communication<br>and Ethics | -   | -   | -   | -   | - | 50  |    |    | 50  |
|        | Total                                | 100 | 100 | 100 | 400 | - | 150 | 75 | 25 | 750 |

# # Department Level Optional Course (DLO)

Every student is required to take one Department Elective Course for Semester V. Different sets of courses will run in both the semesters. Students can take these courses from the list of department electives, which are closely allied to their disciplines.

(DLO-I subjects will have no Labs only Theory)

| Subject Code | Department Level Optional Course                  |
|--------------|---|
|              | (DLO)   |
|              | Semester V  |
| ITDLO5011    | Advanced Data Structures & Analysis of Algorithms |
| ITDLO5012    | Image Processing                                  |
| ITDLO5013    | E-Commerce & E-Business                           |
| ITDLO5014    | IT Enabled Services                               |
| ITDLO5015    | Computer Graphics & Virtual Reality               |

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# Program Structure B.E. Information Technology, (Rev. 2016)

| Course   | Course  | Teaching<br>(Contact |       |     |        | Credi        | ts Assig | gned  |
|----------|---|----------------------|-------|-----|--------|--------------|----------|-------|
| Code     | Name  | Theory               | Pract | Tut | Theory | TW/<br>Pract | Tut      | Total |
| ITC601   | Software Engineering with<br>Project Management | 4                    | -     | -   | 4      | -            | -        | 4     |
| ITC602   | Data Mining and Business<br>Intelligence        | 4                    | -     | -   | 4      | -            | -        | 4     |
| ITC603   | Cloud Computing &<br>Services                   | 4                    | -     | -   | 4      | -            | -        | 4     |
| ITC604   | Wireless Networks                               | 4                    | -     | -   | 4      | -            | -        | 4     |
| ITDLO-II | Department Level<br>Optional Course -II         | 4                    | -     | -   | 4      | -            | -        | 4     |
| ITL601   | Software Design Lab                             | -                    | 2     | -   | -      | 1            | -        | 1     |
| ITL602   | Business Intelligence Lab                       | -                    | 2     | -   | -      | 1            | -        | 1     |
| ITL603   | Cloud Service Design Lab                        | -                    | 2     | -   | -      | 1            | -        | 1     |
| ITL604   | Sensor Network Lab                              | -                    | 2     | -   | -      | 1            | -        | 1     |
| ITM605   | Mini-project                                    | -                    | 4     | -   | -      | 2            | -        | 2     |
|          | Total   | 20                   | 12    | -   | 20     | 6            | -        | 26    |

# T. E. Information Technology (Semester-VI)

University of Mumbai, B. E. (Information Technology), Rev 2016

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|                |   |        |          |                   | E            | xamination S         | cheme |      |        |       |
|----------------|---|--------|----------|-------------------|--------------|----------------------|-------|------|--------|-------|
| Course<br>Code | Course<br>Name                                  | Inte   | ernal As | Theor<br>sessment | ry<br>End    | Exam                 |       | Oral | Oral & |       |
| Couc           | 1 vanie   | Test 1 | Test 2   | Avg.              | Sem.<br>Exam | Duration<br>(in Hrs) | TW    | 01a  | Pract  | Total |
| ITC601         | Software Engineering with<br>Project Management | 20     | 20       | 20                | 80           | 3                    | -     | -    | -      | 100   |
| ITC602         | Data Mining and Business<br>Intelligence        | 20     | 20       | 20                | 80           | 3                    | -     | -    | -      | 100   |
| ITC603         | Cloud Computing &<br>Services                   | 20     | 20       | 20                | 80           | 3                    | -     | -    | -      | 100   |
| ITC604         | Wireless Networks                               | 20     | 20       | 20                | 80           | 3                    | -     | -    | -      | 100   |
| ITDLO-II       | Department Level<br>Optional Course -II         | 20     | 20       | 20                | 80           | 3                    | -     | -    | -      | 100   |
| ITL601         | Software Design Lab                             | -      | -        | -                 | -            | -                    | 25    | 25   |        | 50    |
| ITL602         | Business Intelligence Lab                       | -      | -        | -                 | -            | -                    | 25    | 25   |        | 50    |
| ITL603         | Cloud Service Design Lab                        | -      | -        | -                 | -            | -                    | 25    | 25   |        | 50    |
| ITL604         | Sensor Network Lab                              | -      | -        | -                 | -            | -                    | 25    | 25   |        | 50    |
| ITM605         | Mini-Project                                    | -      | -        | -                 | -            | -                    | 25    | 25   |        | 50    |
|                | Total   | 100    | 100      | 100               | 400          | -                    | 125   | 125  |        | 750   |

# # Department Level Optional Course (DLO)

Every student is required to take one Department Elective Course for Semester VI. Different sets of courses will run in both the semesters. Students can take these courses from the list of department electives, which are closely allied to their disciplines.

(DLO-I subjects will have no Labs only Theory)

| Subject Code | Department Level Optional Course |
|--------------|----------------------------------|
|              | (DLO)                            |
|              | Semester VI                      |
| ITDLO6021    | Advance Internet Programming     |
| ITDLO6022    | Software Architecture            |
| ITDLO6023    | Digital Forensics                |
| ITDLO6024    | Multimedia Systems               |
| ITDLO6025    | Green IT                         |

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### **University of Mumbai**

## Program Structure B.E. Information Technology, (Rev. 2016)

# B. E. Information Technology (Semester-VII)

| Course   | Course                                   |        | g Scheme<br>et Hours) |     |        | Credi        | ts Assig | gned  |
|----------|--|--------|-----------------------|-----|--------|--------------|----------|-------|
| Code     | Name                                     | Theory | Pract                 | Tut | Theory | TW/<br>Pract | Tut      | Total |
| ITC701   | Enterprise Network Design                | 4      | -                     | -   | 4      | -            | -        | 4     |
| ITC702   | Infrastructure Security                  | 4      | -                     | -   | 4      | -            | -        | 4     |
| ITC703   | Artificial Intelligence                  | 4      | -                     | -   | 4      | -            | -        | 4     |
| ITDLO-II | Department Level<br>Optional Course -III | 4      | -                     | -   | 4      | -            | -        | 4     |
| ILO-I    | Institute Level Optional<br>Course-I     | 3      | -                     | -   | 3      | -            | -        | 3     |
| ITL701   | Network Design Lab                       | -      | 2                     | -   | -      | 1            |          | 1     |
| ITL702   | Advanced Security Lab                    | -      | 2                     | -   | -      | 1            |          | 1     |
| ITL703   | Intelligence System Lab                  | -      | 2                     | -   |        | 1            |          | 1     |
| ITL704   | Android Apps Development<br>Lab          | -      | 2                     |     |        | 1            |          | 1     |
| ITM705   | Project-I                                | -      | 6/8                   |     |        | 3            | -        | 3     |
|          | Total                                    | 19     | 14                    | -   | 19     | 7            | -        | 26    |

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|          |  |        |         |         | E           | xamination S     | Scheme | e    |       |       |
|----------|--|--------|---------|---------|-------------|------------------|--------|------|-------|-------|
| Course   | Course                                   |        |         | The     | ory         | 1                |        |      | Oral  |       |
| Code     | Name                                     | Inter  | nal Ass | essment | End<br>Sem. | Exam<br>Duration | тw     | Oral | &     | Total |
|          |  | Test 1 | Test 2  | Avg.    | Exam        | ( in Hrs)        |        |      | Pract |       |
| ITC701   | Enterprise Network Design                | 20     | 20      | 20      | 80          | 3                | -      |      | -     | 100   |
| ITC702   | Infrastructure Security                  | 20     | 20      | 20      | 80          | 3                | -      |      | -     | 100   |
| ITC703   | Artificial Intelligence                  | 20     | 20      | 20      | 80          | 3                | -      |      | -     | 100   |
| ITDLO-II | Department Level<br>Optional Course -III | 20     | 20      | 20      | 80          | 3                | -      |      | -     | 100   |
| ILO-I    | Institute Level Optional<br>Course-I     | 20     | 20      | 20      | 80          | 3                |        |      | -     | 100   |
| ITL701   | Network Design Lab                       | -      | -       | -       | -           | -                | 25     | 25   |       | 50    |
| ITL702   | Advanced Security Lab                    | -      | -       | -       | -           | -                | 25     | 25   |       | 50    |
| ITL703   | Intelligence System Lab                  |        | -       | -       | -           |                  | 25     | 25   |       | 50    |
| ITL704   | Android Apps Development<br>Lab          |        |         |         |             |                  | 25     | 25   |       | 25    |
| ITM705   | Project-I                                | -      | -       | -       | -           | -                | 50     | 25   |       | 75    |
| <b>_</b> | Total                                    | 100    | 100     | 100     | 400         |                  | 150    | 125  |       | 750   |

# # Department Level Optional Course (DLO)

Every student is required to take one Department Elective Course for Semester VII. Different sets of courses will run in both the semesters. Students can take these courses from the list of department electives, which are closely allied to their disciplines.

(DLO-I subjects will have no Labs only Theory)

## # Institute Level Optional Course (ILO)

Every student is required to take one Institute Elective Course for Semester VII, which is

not closely allied to their disciplines. Different sets of courses will run in the both the semesters.

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| Subject Code | Department Level Optional<br>Course<br>(DLO) | Subject Code | Institute Level Optional Course<br>(ILO)          |
|--------------|--|--------------|---|
|              | Ser  | nester VII   |   |
| ITDLO7031    | Storage Area Networks                        | ILO7011      | Product Lifecycle Management                      |
| ITDLO7032    | Mobile Application<br>Development            | ILO7012      | Reliability Engineering                           |
| ITDLO7033    | High Performance<br>Computing                | ILO7013      | Management Information System                     |
| ITDLO7034    | Software Testing and Quality<br>Assurance    | ILO7014      | Design of Experiments                             |
| ITDLO7035    | Soft Computing                               | ILO7015      | Operation Research                                |
|              |  | ILO7016      | Cyber Security and Laws                           |
|              |  | ILO7017      | Disaster Management and<br>Mitigation<br>Measures |
|              |  | ILO7018      | Energy Audit and Management                       |
|              |  | ILO7019      | Development Engineering                           |

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### **University of Mumbai**

## Program Structure B.E. Information Technology, (Rev. 2016)

## B. E. Information Technology (Semester-VIII)

| Course   | Course                                 |        | g Scheme<br>ct Hours) |     |        | Credi        | ts Assig | gned  |
|----------|--|--------|-----------------------|-----|--------|--------------|----------|-------|
| Code     | Name                                   | Theory | Pract                 | Tut | Theory | TW/<br>Pract | Tut      | Total |
| ITC801   | Big Data Analytics                     | 4      | -                     | -   | 4      | -            | -        | 4     |
| ITC802   | Internet of Everything                 | 4      | -                     | -   | 4      | -            | -        | 4     |
| ITDLO-IV | Department Level<br>Optional Course-IV | 4      | -                     | -   | 4      | -            | -        | 4     |
| ILO-II   | Institute Level Optional<br>Course-II  | 3      | -                     | -   | 3      | -            | -        | 3     |
| ITL801   | Big Data Lab                           | -      | 2                     | -   | -      | 1            |          | 1     |
| ITL802   | Internet of Everything Lab             |        | 2                     |     |        | 1            |          | 1     |
| ITL803   | DevOps Lab                             | -      | 2                     | -   | -      | 1            |          | 1     |
| ITL804   | R Programming Lab                      | -      | 2                     | -   |        | 1            |          | 1     |
| ITM805   | Project-II                             | -      | 16                    |     |        | 8            | -        | 8     |
|          | Total                                  | 15     | 24                    | -   | 15     | 12           | -        | 27    |

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|          |  |        |          |          | Ex          | amination       | Scheme |      |       |       |
|----------|--|--------|----------|----------|-------------|-----------------|--------|------|-------|-------|
| Course   | Course                                 |        |          | Theory   | y           |                 |        |      | Oral  |       |
| Code     | Name                                   | Inte   | ernal As | sessment | End<br>Sem. | Exam<br>Duratio | TW     | Oral | &     | Total |
|          |  | Test 1 | Test 2   | Avg.     | Exam        | n ( in          |        |      | Pract |       |
| ITC801   | Big Data Analytics                     | 20     | 20       | 20       | 80          | 3               | -      | -    | -     | 100   |
| ITC802   | Internet of Everything                 | 20     | 20       | 20       | 80          | 3               | -      | -    | -     | 100   |
| ITDLO-IV | Department Level<br>Optional Course-IV | 20     | 20       | 20       | 80          | 3               | -      | -    | -     | 100   |
| ILO-II   | Institute Level Optional<br>Course-II  | 20     | 20       | 20       | 80          | 3               | -      | -    | -     | 100   |
| ITL801   | Big Data Lab                           |        |          |          |             |                 | 25     | 25   | -     | 50    |
| ITL802   | Internet of Everything Lab             | -      | -        | -        | -           | -               | 25     | 25   |       | 50    |
| ITL803   | DevOps Lab                             | -      | -        | -        | -           | -               | 25     |      | 25    | 50    |
| ITL804   | R Programming Lab                      | -      | -        | -        | -           | -               | 25     |      | 25    | 50    |
| ITM805   | Project-II                             |        |          |          |             |                 | 100    | 50   |       | 150   |
|          | Total                                  | 80     | 80       | 80       | 320         |                 | 200    | 100  | 50    | 750   |

# # Department Level Optional Course (DLO)

Every student is required to take one Department Elective Course for Semester VIII. Different sets of courses will run in both the semesters. Students can take these courses from the list of department electives, which are closely allied to their disciplines.

(DLO-I subjects will have no Labs only Theory)

## # Institute Level Optional Course (ILO)

Every student is required to take one Institute Elective Course for Semester VIII, which is

not closely allied to their disciplines. Different sets of courses will run in the both the semesters.

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| Subject Code | Department Level Optional<br>Course<br>(DLO) | Subject Code | Institute Level Optional Course<br>(ILO)          |  |  |  |  |  |
|--------------|--|--------------|---|--|--|--|--|--|
|              | Ser  | emester VIII |   |  |  |  |  |  |
| ITDLO8041    | User Interaction Design                      | ILO8021      | Project Management                                |  |  |  |  |  |
| ITDLO8042    | Information Retrieval Systems                | ILO8022      | Finance Management                                |  |  |  |  |  |
| ITDLO8043    | Knowledge Management                         | ILO8023      | Entrepreneurship Development<br>and<br>Management |  |  |  |  |  |
| ITDLO8044    | Robotics                                     | ILO8024      | Human Resource Management                         |  |  |  |  |  |
| ITDLO8045    | Enterprise Resource Planning                 | ILO8025      | Professional Ethics and CSR                       |  |  |  |  |  |
|              |  | ILO8026      | Research Methodology                              |  |  |  |  |  |
|              |  | ILO8027      | IPR and Patenting                                 |  |  |  |  |  |
|              |  | ILO8028      | Digital Business Management                       |  |  |  |  |  |
|              |  | ILO8029      | Environmental Management                          |  |  |  |  |  |

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# Syllabus Structure Rev 2016 Electronics and Telecommunication





#### Program Structure for B.E. Electronics & Telecommunication Engineering (Rev. 2016) University of Mumbai (With Effect from 2017-2018)

| Course | Course Name                                     | Teaching Scheme (Contact<br>Hours) |       |     | Credits Assigned |           |       |  |
|--------|---|------------------------------------|-------|-----|------------------|-----------|-------|--|
| Code   |   | Theory                             | Pracs | Tut | Theory           | TW/ Pracs | Total |  |
| ECC301 | Applied Mathematics- III                        | 4                                  | -     | 2@  | 4                | 1         | 5     |  |
| ECC302 | Electronic Devices and Circuits I               | 4                                  | -     | -   | 4                | -         | 4     |  |
| ECC303 | Digital System Design                           | 4                                  | -     | -   | 4                | -         | 4     |  |
| ECC304 | Circuit Theory and Networks                     | 4                                  | -     | 2@  | 4                | 1         | 5     |  |
| ECC305 | Electronic Instrumentation and Control          | 4                                  | -     | 2@  | 4                | 1         | 5     |  |
| ECL301 | Electronic Devices and Circuits I<br>Laboratory | -                                  | 2     | -   | -                | 1         | 1     |  |
| ECL302 | Digital System Design<br>Laboratory             | -                                  | 2     | -   | -                | 1         | 1     |  |
| ECL303 | OOP using JAVA Laboratory                       | -                                  | 2     | -   | -                | 1         | 1     |  |
|        | Total   | 20                                 | 6     | 6   | 20               | 6         | 26    |  |

Semester III

@ 2 hour to be taken as tutorial classwise

|                |   |       | Examination Scheme       |        |                 |          |     |               |       |  |  |
|----------------|---|-------|--------------------------|--------|-----------------|----------|-----|---------------|-------|--|--|
|                |   |       |                          | Theory | T               |          |     |               |       |  |  |
| Course<br>Code | Course Name                                     | Inter | nal Assessi              | nent   | End Sem<br>Exam | Duration | TW  | Oral/<br>Prac | Total |  |  |
|                |   | Test1 | Test 1Test 2AvgExam(Hrs) |        | (Hrs)           |          |     |               |       |  |  |
| ECC301         | Applied Mathematics-III                         | 20    | 20                       | 20     | 80              | 03       | 25  |               | 125   |  |  |
| ECC302         | Electronic Devices and<br>Circuits I            | 20    | 20                       | 20     | 80              | 03       |     |               | 100   |  |  |
| ECC303         | Digital System Design                           | 20    | 20                       | 20     | 80              | 03       |     |               | 100   |  |  |
| ECC304         | Circuit Theory and<br>Networks                  | 20    | 20                       | 20     | 80              | 03       | 25  |               | 125   |  |  |
| ECC305         | Electronic Instrumentation and Control          | 20    | 20                       | 20     | 80              | 03       | 25  |               | 125   |  |  |
| ECL301         | Electronic Devices and<br>Circuits I Laboratory |       |                          |        |                 |          | 25  | 25            | 50    |  |  |
| ECL302         | Digital System Design<br>Laboratory             |       |                          |        |                 |          | 25  | 25            | 50    |  |  |
| ECL303         | OOP using JAVA<br>Laboratory                    |       |                          |        |                 |          | 25  | 25            | 50    |  |  |
|                | Total   |       |                          | 100    | 400             |          | 150 | 75            | 725   |  |  |

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#### Semester IV

| Course<br>Code | Course Name   |        | ning Sche<br>tact Hou |     | Credits Assigned |                  |       |  |
|----------------|---|--------|-----------------------|-----|------------------|------------------|-------|--|
| Coue           |   | Theory | Pracs                 | Tut | Theory           | <b>TW/ Pracs</b> | Total |  |
| ECC401         | Applied Mathematics- IV                               | 4      | -                     | 2@  | 4                | 1                | 5     |  |
| ECC402         | Electronic Devices and Circuits II                    | 4      | -                     | -   | 4                | -                | 4     |  |
| ECC403         | Linear Integrated Circuits                            | 4      | -                     | -   | 4                | -                | 4     |  |
| ECC404         | Signals & Systems                                     | 4      | -                     | 2@  | 4                | 1                | 5     |  |
| ECC405         | Principles of Communication<br>Engineering            | 4      | -                     | -   | 4                | -                | 4     |  |
| ECL401         | Electronic Devices and Circuits II<br>Laboratory      | -      | 2                     | -   | -                | 1                | 1     |  |
| ECL402         | Linear Integrated Circuits<br>Laboratory              | -      | 2                     | -   | -                | 1                | 1     |  |
| ECL403         | Principles of Communication<br>Engineering Laboratory | -      | 2                     | -   | -                | 1                | 1     |  |
|                | Total   |        | 6                     | 4   | 20               | 5                | 25    |  |

@ 2 hour to be taken as tutorial classwise

|                |   |        |           |       | Examina         | tion Schem       | e   |                |       |
|----------------|---|--------|-----------|-------|-----------------|------------------|-----|----------------|-------|
|                | Course Name   | Theory |           |       |                 |                  |     |                |       |
| Course<br>Code | Course Name   | Inter  | nal Asses | sment | End Sem<br>Exam | Exam<br>Duration | TW  | Oral &<br>Prac | Total |
|                |   | Test1  | Test 2    | Avg   | L'Adin          | (Hrs)            |     |                |       |
| ECC401         | Applied Mathematics- IV                               | 20     | 20        | 20    | 80              | 03               | 25  |                | 125   |
| ECC402         | Electronic Devices and Circuits                       | 20     | 20        | 20    | 80              | 03               |     |                | 100   |
| ECC403         | Linear Integrated Circuits                            | 20     | 20        | 20    | 80              | 03               |     |                | 100   |
| ECC404         | Signals & Systems                                     | 20     | 20        | 20    | 80              | 03               | 25  |                | 125   |
|                | Principles of Communication<br>Engineering            | 20     | 20        | 20    | 80              | 03               |     |                | 100   |
| ECL401         | Electronic Devices and Circuits<br>II Laboratory      |        |           |       |                 |                  | 25  | 25             | 50    |
| ECL402         | Linear Integrated Circuits<br>Laboratory              |        |           |       |                 |                  | 25  | 25             | 50    |
|                | Principles of Communication<br>Engineering Laboratory |        |           |       |                 |                  | 25  | 25             | 50    |
|                | Total   |        |           | 100   | 400             |                  | 125 | 75             | 700   |

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|                |   | Semester V | V                |          |                  |           |       |  |
|----------------|---|------------|------------------|----------|------------------|-----------|-------|--|
| Course         | Course Name                                     | Teaching   | Scheme<br>Hours) | (Contact | Credits Assigned |           |       |  |
| Code           |   | Theory     | Pracs            | Tut      | Theory           | TW/ Pracs | Total |  |
| ECC501         | Microprocessor &<br>Peripherals Interfacing     | 4          | -                | -        | 4                | -         | 4     |  |
| ECC502         | Digital Communication                           | 4          | -                | -        | 4                | -         | 4     |  |
| ECC503         | Electromagnetic Engineering                     | 4          | -                | 1@       | 4                | 1         | 5     |  |
| ECC504         | Discrete Time Signal<br>Processing              | 4          | -                | -        | 4                | -         | 4     |  |
| ECCDLO<br>501X | Department Level Optional<br>Course I           | 4          | -                | -        | 4                | -         | 4     |  |
| ECL501         | Microprocessor &<br>Peripherals Interfacing Lab | -          | 2                | -        | -                | 1         | 1     |  |
| ECL502         | Digital Communication Lab                       | -          | 2                | -        | -                | 1         | 1     |  |
| ECL503         | Business Communication &<br>Ethics Lab          | -          | 2+2*             | -        | -                | 2         | 2     |  |
| ECL504         | Open Source Technology for<br>Communication Lab | -          | 2                | -        | -                | 1         | 1     |  |
| ECLDLO<br>501X | Department Level Optional<br>Lab I              | -          | -                | 2#       | -                | 1         | 1     |  |
|                | Total   | 20         | 10               | 3        | 20               | 7         | 27    |  |

@ 1 hour to be taken as tutorial classwise #2 hours to be taken as either lab or tutorial based on subject requirement
 \*2 hours to be taken as tutorial batchwise

|                |   |                     |        | E      | xaminati        | on Scheme        |     |               |       |
|----------------|---|---------------------|--------|--------|-----------------|------------------|-----|---------------|-------|
|                |   |                     |        | Theory |                 |                  |     |               |       |
| Course<br>Code | Course Name                                     | Internal Assessment |        |        | End Sem<br>Exam | Exam<br>Duration | TW  | Oral/<br>Prac | Total |
|                |   | Test1               | Test 2 | Avg    | Exam            | (Hrs)            |     |               |       |
| ECC501         | Microprocessor &<br>Peripherals Interfacing     | 20                  | 20     | 20     | 80              | 03               |     |               | 100   |
| ECC502         | Digital Communication                           | 20                  | 20     | 20     | 80              | 03               |     |               | 100   |
| ECC503         | Electromagnetic<br>Engineering                  | 20                  | 20     | 20     | 80              | 03               | 25  |               | 125   |
| ECC504         | Discrete Time Signal<br>Processing              | 20                  | 20     | 20     | 80              | 03               |     |               | 100   |
| ECCDLO<br>501X | Department Level Optional<br>Course I           | 20                  | 20     | 20     | 80              | 03               |     |               | 100   |
| ECL501         | Microprocessor &<br>Peripherals Interfacing Lab |                     |        |        |                 |                  | 25  | 25            | 50    |
| ECL502         | Digital Communication Lab                       |                     |        |        |                 |                  | 25  | 25            | 50    |
| ECL503         | Business Communication & Ethics Lab             |                     |        |        |                 |                  | 50  |               | 50    |
| ECL504         | Open Source Technology<br>for Communication Lab |                     |        |        |                 |                  | 25  | 25            | 50    |
| ECLDLO<br>501X | Department Level Optional<br>Lab I              |                     |        |        |                 |                  | 25  |               | 25    |
|                | Total   |                     |        | 100    | 400             |                  | 175 | 75            | 750   |

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| Course Code | Department Level Optional Course I |
|-------------|------------------------------------|
| ECCDLO 5011 | Microelectronics                   |
| ECCDLO 5012 | TV & Video Engineering             |
| ECCDLO 5013 | Finite Automata Theory             |
| ECCDLO 5014 | Data Compression and Encryption    |

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Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.

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| Semester | VI |
|----------|----|
|----------|----|

| Course         |  | hing Scho<br>ntact Hou |     | Credits Assigned |           |       |    |
|----------------|--|------------------------|-----|------------------|-----------|-------|----|
| Code           |  |                        | Tut | Theory           | TW/ Pracs | Total |    |
| ECC601         | Microcontrollers &<br>Applications         | 4                      | -   |                  | 4         |       | 4  |
| ECC602         | Computer Communication<br>Networks         | 4                      | -   | -                | 4         | -     | 4  |
| ECC603         | Antenna & Radio Wave<br>Propagation        | 4                      | -   | -                | 4         | -     | 4  |
| ECC604         | Image Processing and Machine Vision        | 4                      | -   |                  | 4         |       | 4  |
| ECCDLO<br>602X | Department Level Optional<br>Course II     | 4                      | -   | -                | 4         | -     | 4  |
| ECL601         | Microcontroller &<br>Applications Lab      | -                      | 2   | -                | -         | 1     | 1  |
| ECL602         | Computer Communication<br>Network Lab      | -                      | 2   | -                | -         | 1     | 1  |
| ECL603         | Antenna & Radio Wave<br>Propagation Lab    | -                      | 2   | -                | -         | 1     | 1  |
| ECL604         | Image Processing and Machine<br>Vision Lab | -                      | 2   | -                | -         | 1     | 1  |
| ECLDLO<br>602X | Department Level Optional<br>Lab II        | -                      | 2   | -                | -         | 1     | 1  |
|                | Total                                      | 20                     | 10  | -                | 20        | 5     | 25 |

|        |  |         |           |       | Examin      | ation Scher       | ne  |        |       |
|--------|--|---------|-----------|-------|-------------|-------------------|-----|--------|-------|
| Course |  | Theory  |           |       |             |                   |     |        |       |
| Code   | Course Name                                | Interna | al Assess | sment | End         | Exam              | TW  | Oral & | Total |
| coue   |  | Test1   | Test 2    | Avg   | Sem<br>Exam | Duration<br>(Hrs) | 1   | Prac   | Total |
| ECC601 | Microcontroller& Applications              | 20      | 20        | 20    | 80          | 03                |     |        | 100   |
|        | Computer Communication<br>Network          | 20      | 20        | 20    | 80          | 03                |     |        | 100   |
| ECC603 | Antenna & Radio Wave<br>Propagation        | 20      | 20        | 20    | 80          | 03                |     |        | 100   |
|        | Image Processing and Machine<br>Vision Lab | 20      | 20        | 20    | 80          | 03                |     |        | 100   |
|        | Department Level Optional<br>Course II     | 20      | 20        | 20    | 80          | 03                |     |        | 100   |
| ELLOUI | Microcontroller & Applications<br>Lab      |         |           |       |             |                   | 25  | 25     | 50    |
|        | Computer Communication<br>Network Lab      |         |           |       |             |                   | 25  | 25     | 50    |
| EC1603 | Antenna & Radio Wave<br>Propagation Lab    |         |           |       |             |                   | 25  | 25     | 50    |
|        | Image Processing and Machine<br>Vision Lab |         |           |       |             |                   | 25  | 25     | 50    |
|        | Department Level Optional Lab<br>II        |         |           |       |             |                   | 25  |        | 25    |
|        | Total                                      |         |           | 100   | 400         |                   | 125 | 100    | 725   |

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| Course Code | Department Level Optional Course II |
|-------------|-------------------------------------|
| ECCDLO 6021 | Digital VLSI Design                 |
| ECCDLO 6022 | Radar Engineering                   |
| ECCDLO 6023 | Database Management System          |
| ECCDLO 6024 | Audio Processing                    |

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|                |   | Semester V                         | VII   |     |                  |           |       |
|----------------|---|------------------------------------|-------|-----|------------------|-----------|-------|
| Course<br>Code | Course Name                             | Teaching Scheme (Contact<br>Hours) |       |     | Credits Assigned |           |       |
| Code           |   | Theory                             | Pracs | Tut | Theory           | TW/ Pracs | Total |
| ECC701         | Microwave Engineering                   | 4                                  | -     | -   | 4                | -         | 4     |
| ECC702         | Mobile Communication<br>System          | 4                                  | -     | -   | 4                | -         | 4     |
| ECC703         | Optical Communication                   | 4                                  | -     |     | 4                | -         | 4     |
| ECCDLO<br>703X | Department Level Optional<br>Course III | 4                                  | -     | -   | 4                | -         | 4     |
| ILO701X        | Institute Level Optional<br>Course I    | 3                                  | -     | -   | 3                | -         | 3     |
| ECL701         | Microwave Engineering Lab               | -                                  | 2     | -   | -                | 1         | 1     |
| ECL702         | Mobile Communication<br>System Lab      | -                                  | 2     | -   | -                | 1         | 1     |
| ECL703         | Optical Communication Lab               | -                                  | 2     | -   | -                | 1         | 1     |
| ECLDLO<br>703X | Department Level Optional<br>Lab III    | -                                  | 2     | -   | -                | 1         | 1     |
| ECL704         | Project-I                               | -                                  | 6     | -   | -                | 3         | 3     |
|                | Total                                   | 19                                 | 14    | -   | 19               | 7         | 26    |

|         |   | Examination Scheme |           |       |             |                   |      |        |       |
|---------|---|--------------------|-----------|-------|-------------|-------------------|------|--------|-------|
| Course  |   |                    |           | The   | ory         |                   |      |        |       |
| Code    | Course Name                             | Interna            | al Assess | sment | End         | Exam              | TW   | Oral & | Total |
| Couc    |   | Test1              | Test 2    | Avg   | Sem<br>Exam | Duration<br>(Hrs) | 1 ** | Prac   | Total |
| ECC701  | Microwave Engineering                   | 20                 | 20        | 20    | 80          | 03                |      |        | 100   |
| ECC702  | Mobile Communication System             | 20                 | 20        | 20    | 80          | 03                |      |        | 100   |
| ECC703  | Optical Communication                   | 20                 | 20        | 20    | 80          | 03                |      |        | 100   |
|         | Department Level Optional<br>Course III | 20                 | 20        | 20    | 80          | 03                |      |        | 100   |
| ILO701X | Institute Level Optional Course I       | 20                 | 20        | 20    | 80          | 03                |      |        | 100   |
| ECL701  | Microwave Engineering Lab               |                    |           |       |             |                   | 25   | 25     | 50    |
| EUL/UZ  | Mobile Communication System<br>Lab      |                    |           |       |             |                   | 25   | 25     | 50    |
| ECL703  | Optical Communication Lab               |                    |           |       |             |                   | 25   | 25     | 50    |
|         | Department Level Optional Lab<br>III    |                    |           |       |             |                   | 25   | 25     | 50    |
| ECL704  | Project-I                               |                    |           |       |             |                   | 50   | 50     | 100   |
|         | Total                                   |                    |           | 100   | 400         |                   | 150  | 150    | 800   |

10 11

| Course Code | Department Level Optional Course III | Course Code | Institute Level Optional Course I <sup>#</sup> |
|-------------|--------------------------------------|-------------|--|
| ECCDLO7031  | Neural Networks and Fuzzy Logic      | ILO7011     | Product Lifecycle Management                   |
| ECCDLO7032  | Big Data Analytics                   | ILO7012     | Reliability Engineering                        |
| ECCDLO7033  | Internet Communication Engineering   | ILO7013     | Management Information System                  |
| ECCDLO7034  | CMOS Mixed Signal VLSI               | ILO7014     | Design of Experiments                          |
| ECCDLO7034  | Embedded System                      | ILO7015     | Operation Research                             |
|             |                                      | ILO7016     | Cyber Security and Laws                        |
|             |                                      | ILO7017     | Disaster Management and Mitigation<br>Measures |
|             |                                      | ILO7018     | Energy Audit and Management                    |
|             |                                      | ILO7019     | Development Engineering                        |

**#** Common with all branches

University of Mumbai, B. E. (Electronics & Telecommunication Engineering), Rev 2016 11

1



| Semester | VIII |
|----------|------|
|----------|------|

| Course<br>Code | Course Name               |        | hing Sch<br>ntact Hou |     | Credits Assigned |           |       |
|----------------|---------------------------|--------|-----------------------|-----|------------------|-----------|-------|
| Coue           |                           | Theory | Pracs                 | Tut | Theory           | TW/ Pracs | Total |
| ECC801         | RF Design                 | 4      | -                     |     | 4                |           | 4     |
| ECC802         | Wireless Networks         | 4      | -                     | -   | 4                | -         | 4     |
| ECCDLO         | Department Level Optional | 4      |                       |     | 4                |           | 4     |
| 804X           | Course IV                 | 4      | -                     | -   | 4                | -         | 4     |
| ILO802X        | Institute Level Optional  | 3      | _                     |     | 3                |           | 3     |
| ILU602A        | Course II                 | 5      | -                     | -   | 5                | -         | 3     |
| ECL801         | RF Design Lab             | -      | 2                     | -   | -                | 1         | 1     |
| ECL802         | Wireless Networks Lab     | -      | 2                     | -   | -                | 1         | 1     |
| ECLDLO         | Department Level Optional |        | 2                     |     |                  | 1         | 1     |
| 804X           | Lab IV                    | -      | 2                     | -   | -                | 1         | 1     |
| ECL803         | Project-II                | -      | 12                    | -   | -                | 6         | 6     |
|                | Total                     | 15     | 18                    | -   | 15               | 9         | 24    |

|          |                                 | Examination Scheme |           |       |      |          |      |        |        |
|----------|---------------------------------|--------------------|-----------|-------|------|----------|------|--------|--------|
| Course   |                                 |                    |           | The   | ory  |          |      |        |        |
| Code     | Course Name                     | Interna            | al Assess | sment | End  | Exam     | TW   | Oral & | Total  |
| Coue     |                                 |                    |           |       | Sem  | Duration | 1,11 | Prac   | I otai |
|          |                                 | Test1              | Test 2    | Avg   | Exam | (Hrs)    |      |        |        |
| ECC801   | RF Design                       | 20                 | 20        | 20    | 80   | 03       |      |        | 100    |
| ECC802   | Wireless Networks               | 20                 | 20        | 20    | 80   | 03       |      |        | 100    |
| ECCDLO   | Department Level Optional       | 20                 | 20        | 20    | 80   | 03       |      |        | 100    |
| 804X     | Course IV                       | 20                 | 20        | 20    | 80   | 03       |      |        | 100    |
| ILO802X  | Institute Level Optional Course | 20                 | 20        | 20    | 80   | 03       |      |        | 100    |
| HE0002II | II                              | 20                 | 20        | 20    | 00   | 03       |      |        | 100    |
| ECL801   | RF Design Lab                   |                    |           |       |      |          | 25   | 25     | 50     |
| ECL802   | Wireless Networks Lab           |                    |           |       |      |          | 25   | 25     | 50     |
| ECLDLO   | Department Level Optional Lab   |                    |           |       |      |          | 25   | 25     | 50     |
| 804X     | IV                              |                    |           |       |      |          | 23   | 23     | 30     |
| ECL803   | Project-II                      |                    |           |       |      |          | 100  | 50     | 150    |
|          | Total                           |                    |           | 80    | 320  |          | 175  | 125    | 700    |

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| Course Code | Department Level Elective Course IV     | Course Code | Institute Level Elective Course II <sup>#</sup> |
|-------------|---|-------------|---|
| ECCDLO8041  | Optical Networks                        | ILO8021     | Project Management                              |
| ECCDLO8042  | Advanced Digital Signal Processing      | ILO8022     | Finance Management                              |
| ECCDLO8043  | Satellite Communication                 | ILO8023     | Entrepreneurship Development and<br>Management  |
| ECCDLO8044  | Network management in Telecommunication | ILO8024     | Human Resource Management                       |
|             |   | ILO8025     | Professional Ethics and CSR                     |
|             |   | ILO8026     | Research Methodology                            |
|             |   | ILO8027     | IPR and Patenting                               |
|             |   | ILO8028     | Digital Business Management                     |
|             |   | ILO8029     | Environmental Management                        |

**#** Common with all branches

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# Syllabus Structure Rev 2016 Chemical Engineering





#### University of Mumbai Program Structure for B.E. Chemical Engineering (Revised 2016) S.E. Semester III (w.e.f 2017-2018)

| Course<br>code | Course Name                                | T<br>(Contact | Ceaching Sche<br>Hours) | eme      | 0      |           |          |       |
|----------------|--|---------------|-------------------------|----------|--------|-----------|----------|-------|
|                |  | Theory        | Practical               | Tutorial | Theory | Practical | Tutorial | Total |
| CHC301         | Applied Mathematics-III                    | 3             | -                       | 1        | 3      | -         | 1        | 4     |
| CHC302         | Engineering Chemistry I                    | 4             | -                       | -        | 4      | -         | -        | 4     |
| CHC303         | Fluid Flow Operations (FFO)                | 4             | -                       | -        | 4      | -         | -        | 4     |
| CHC304         | Chemical Engineering<br>Thermodynamics I   | 3             | -                       | 1        | 3      | -         | 1        | 4     |
| CHC305         | Process Calculations                       | 3             | -                       | 1        | 3      | -         | 1        | 4     |
| CHC306         | Chemical Technology                        | 4             | -                       | -        | 4      | -         | -        | 4     |
| CHL301         | Engineering Chemistry-I Lab                | -             | 3                       | -        | -      | 1.5       | -        | 1.5   |
| CHL302         | Chemical Engineering Lab I (FFO)           | -             | 3                       | -        | -      | 1.5       | -        | 1.5   |
| CHL303         | Chemical Engineering Lab II<br>(Synthesis) | -             | 2                       | -        | -      | 1         | -        | 1     |
|                | Total                                      | 21            | 8                       | 3        | 21     | 4         | 3        | 28    |

| Course<br>code |  | Examination Scheme  |        |     |             |                      |      |                     |      |       |  |
|----------------|--|---------------------|--------|-----|-------------|----------------------|------|---------------------|------|-------|--|
|                | Course Name                                |                     |        | ry  | Term        | Pract                |      | <b>T</b> ( <b>1</b> |      |       |  |
| coue           |  | Internal Assessment |        |     | End         | Exam                 | Work | /Oral               | Oral | Total |  |
|                |  | Test 1              | Test 2 | Avg | Sem<br>Exam | Duration<br>(in hrs) |      |                     |      |       |  |
| CHC301         | Applied Mathematics-III                    | 20                  | 20     | 20  | 80          | 3                    | 25   | -                   | -    | 125   |  |
| CHC302         | Engineering Chemistry I                    | 20                  | 20     | 20  | 80          | 3                    | -    | -                   | -    | 100   |  |
| CHC303         | Fluid Flow (FF)                            | 20                  | 20     | 20  | 80          | 3                    | -    | -                   | -    | 100   |  |
| СНС304         | Chemical Engineering<br>Thermodynamics I   | 20                  | 20     | 20  | 80          | 3                    | 25   | -                   | -    | 125   |  |
| CHC305         | Process Calculations                       | 20                  | 20     | 20  | 80          | 3                    | 25   | -                   | -    | 125   |  |
| CHC306         | Chemical Technology                        | 20                  | 20     | 20  | 80          | 3                    | -    | -                   | -    | 100   |  |
| CHL301         | Engineering Chemistry-I Lab                | -                   | -      | -   | -           | 3                    | -    | 25                  | -    | 25    |  |
| CHL302         | Chemical Engineering Lab I (FFO)           | -                   | -      | -   | -           | 3                    | 25   | 25                  | -    | 50    |  |
| CHL303         | Chemical Engineering Lab II<br>(Synthesis) | -                   | -      | -   | -           | -                    | 25   | -                   | 25   | 50    |  |
|                | Total                                      |                     |        | 120 | 480         | -                    | 125  | 50                  | 25   | 800   |  |

B. E. (Chemical Engineering)





## University of Mumbai Program Structure for B.E. Chemical Engineering (Revised 2016) S.E. Semester IV (w.e.f 2017-2018)

| Course<br>code | Course Name                                 |        | eaching Sche<br>Contact Hou |          | 0      |           |          |       |
|----------------|---|--------|-----------------------------|----------|--------|-----------|----------|-------|
|                |   | Theory | Practical                   | Tutorial | Theory | Practical | Tutorial | Total |
| CHC401         | Applied Mathematics-IV                      | 3      | -                           | 1        | 3      | -         | 1        | 4     |
| CHC402         | Engineering Chemistry II                    | 4      | -                           |          | 4      | -         | -        | 4     |
| CHC403         | Chemical Engineering<br>Thermodynamics II   | 3      | -                           | 1        | 3      | -         | 1        | 4     |
| CHC404         | Solid Fluid Mechanical Operations<br>(SFMO) | 4      | -                           | -        | 4      | -         | -        | 4     |
| CHC405         | Mechanical Equipment Design<br>(MED)        | 4      | -                           | -        | 4      | -         | -        | 4     |
| CHC406         | Chemical Engineering Economics              | 3      | -                           | 1        | 3      | -         | 1        | 4     |
| CHL401         | Engineering Chemistry-II Lab                | -      | 3                           | -        | -      | 1.5       | -        | 1.5   |
| CHL402         | Chemical Engineering Lab III<br>(SFMO)      | -      | 3                           | -        | -      | 1.5       | -        | 1.5   |
| CHL403         | MED Lab                                     | -      | 2                           | -        | -      | 1         | -        | 1     |
|                | Total                                       | 21     | 8                           | 2        | 21     | 4         | 3        | 28    |

| Course |   | Examination Scheme |        |     |             |                      |      |       |      |       |  |
|--------|---|--------------------|--------|-----|-------------|----------------------|------|-------|------|-------|--|
| code   | Course Name                               |                    |        | ory | Term        | Pract                | Oral | Total |      |       |  |
|        |   |                    |        |     |             | Exam                 | Work | /Oral | Urai | Total |  |
|        |   | Test 1             | Test 2 | Avg | Sem<br>Exam | Duration<br>(in hrs) |      |       |      |       |  |
| CHC401 | Applied Mathematics-IV                    | 20                 | 20     | 20  | 80          | 3                    | 25   | -     | -    | 125   |  |
| CHC402 | Engineering Chemistry II                  | 20                 | 20     | 20  | 80          | 3                    | -    | -     | -    | 100   |  |
| CHC403 | Chemical Engineering<br>Thermodynamics II | 20                 | 20     | 20  | 80          | 3                    | 25   | -     | -    | 125   |  |
| CHC404 | Solid Fluid Mechanical Operations (SFMO)  | 20                 | 20     | 20  | 80          | 3                    | -    | -     | -    | 100   |  |
| CHC405 | Mechanical Equipment Design (MED)         | 20                 | 20     | 20  | 80          | 3                    | -    | -     | -    | 100   |  |
| CHC406 | Chemical Engineering Economics            | 20                 | 20     | 20  | 80          | 3                    | 25   | -     | -    | 125   |  |
| CHL401 | Engineering Chemistry-II Lab              | -                  | -      | -   | -           | 3                    | -    | 25    | -    | 25    |  |
| CHL402 | Chemical Engineering Lab III<br>(SFMO)    | -                  | -      | -   | -           | 3                    | 25   | 25    | -    | 50    |  |
| CHL403 | MED Lab                                   | -                  | -      | -   | -           | -                    | 25   | -     | 25   | 50    |  |
|        | Total                                     |                    |        | 120 | 480         | -                    | 125  | 50    | 25   | 800   |  |





#### University of Mumbai Program Structure for B.E. Chemical Engineering (Revised 2016) T.E. Semester V (w.e.f 2018-2019)

| Course code | Course Name                                       |        | eaching Sche<br>Contact Hou |          | (      | ned       |          |       |
|-------------|---|--------|-----------------------------|----------|--------|-----------|----------|-------|
|             |   | Theory | Practical                   | Tutorial | Theory | Practical | Tutorial | Total |
| CHC501      | Computer programming and<br>Numerical Methods     | 4      | -                           | -        | 4      | -         | -        | 4     |
| CHC502      | Mass transfer Operations-I<br>(MTO- I)            | 4      | -                           | -        | 4      | -         | -        | 4     |
| CHC503      | Heat transfer Operations (HTO)                    | 4      | -                           | -        | 4      | -         | -        | 4     |
| CHC504      | Chemical Reaction Engineering-I<br>(CRE I)        | 4      | -                           | -        | 4      | -         | -        | 4     |
| CHC505      | Business Communication &<br>Ethics                | 2      | -                           | 2        | -      | -         | 2        | 2     |
| CHDE501X    | Department Elective I                             | 4      | -                           | -        | 4      | -         | -        | 4     |
| CHL501      | Computer programming and<br>Numerical Methods lab | -      | 2                           | -        | -      | 1         | -        | 1     |
| CHL502      | Chemical Engineering Lab IV<br>(MTO-I)            | -      | 3                           | -        | -      | 1.5       | -        | 1.5   |
| CHL503      | Chemical Engineering Lab V<br>(HTO)               | -      | 3                           | -        | -      | 1.5       | -        | 1.5   |
| CHL504      | Chemical Engineering Lab VI<br>(CRE-I)            | -      | 2                           | -        | -      | 1         | -        | 1     |
|             | Total   | 20     | 14                          | -        | 20     | 5         | 2        | 27    |

| Course code |   |        |           |      | Exa         | mination Scho        | eme  |                |      |       |
|-------------|---|--------|-----------|------|-------------|----------------------|------|----------------|------|-------|
|             | Course Name                                       |        |           | Theo |             |                      |      |                |      |       |
|             |   | Interr | al Assess | ment | End         | Exam                 | Term | Pract<br>/Oral | Oral | Total |
|             |   | Test 1 | Test 2    | Avg  | Sem<br>Exam | Duration<br>(in hrs) | Work | /Oral          |      |       |
| CHC501      | Computer programming and<br>Numerical Methods     | 20     | 20        | 20   | 80          | 3                    | -    | -              | -    | 100   |
| CHC502      | Mass transfer Operations-I<br>(MTO- I)            | 20     | 20        | 20   | 80          | 3                    |      | -              | -    | 100   |
| CHC503      | Heat transfer Operations (HTO)                    | 20     | 20        | 20   | 80          | 3                    |      | -              | -    | 100   |
| CHC504      | Chemical Reaction Engineering-I<br>(CRE I)        | 20     | 20        | 20   | 80          | 3                    |      | -              | -    | 100   |
| CHC505      | Business Communication &<br>Ethics                | -      | -         | -    | -           | -                    | 50   | -              | -    | 50    |
| CHDE501X    | Department Elective I                             | 20     | 20        | 20   | 80          | 3                    |      | -              | -    | 100   |
| CHL501      | Computer programming and<br>Numerical Methods Lab | -      | -         | -    | -           | 2                    | 25   | 25             | -    | 50    |
| CHL502      | Chemical Engineering Lab IV<br>(MTO-I)            | -      | -         | -    | -           | 3                    | 25   | 25             | -    | 50    |
| CHL503      | Chemical Engineering Lab V<br>(HTO)               | -      | -         | -    | -           | 3                    | 25   | 25             | -    | 50    |
| CHL504      | Chemical Engineering Lab VI<br>(CRE-I)            | -      | -         | -    | -           | 2                    | 25   | 25             | -    | 50    |
|             | Total   |        |           | 100  | 400         | -                    | 150  | 100            | -    | 750   |

|  | Department Elective I (Sem V)            |   |
|--|--|---|
| Engineering Stream (Elective Code)                                       | Advanced Sciences Stream (Elective code) | Technology Stream (Elective Code)           |
| 1. Piping Engineering (CHDE5011)           2. Instrumentation (CHDE5014) | 1. Colloids and Interfaces (CHDE5012)    | 1. Advanced Material Sciences<br>(CHDE5013) |

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#### University of Mumbai Program Structure for B.E. Chemical Engineering (Revised 2016) T.E. Semester VI (w.e.f 2018-2019)

| Course code | Course Name                                    |        | eaching Sche<br>Contact Hou |          | 0      | Credits Assign | ied      |       |
|-------------|--|--------|-----------------------------|----------|--------|----------------|----------|-------|
|             |  | Theory | Practical                   | Tutorial | Theory | Practical      | Tutorial | Total |
| CHC601      | Environmental Engineering<br>(EE)              | 4      | -                           | -        | 4      | -              | -        | 4     |
| CHC602      | Mass transfer Operations –II<br>(MTO-II)       | 4      | -                           | -        | 4      | -              | -        | 4     |
| CHC603      | Transport Phenomenon                           | 3      | -                           | 1        | 3      | -              | 1        | 4     |
| CHC604      | Chemical Reaction Engineering<br>-II (CRE- II) | 4      | -                           | -        | 4      | -              | -        | 4     |
| CHC605      | Plant Engineering & Industrial<br>Safety       | 3      | -                           | 1        | 3      | -              | 1        | 4     |
| CHDE602X    | Department Elective II                         | 4      | -                           | -        | 4      | -              | -        | 4     |
| CHL601      | Chemical Engineering Lab VII<br>(EE)           | -      | 3                           | -        | -      | 1.5            | -        | 1.5   |
| CHL602      | Chemical Engineering Lab VIII<br>(MTO-II)      | -      | 3                           | -        | -      | 1.5            | -        | 1.5   |
| CHL603      | Chemical Engineering LabIX<br>CRE-II)          | -      | 2                           | -        | -      | 1              | -        | 1     |
|             | Total  | 22     | 8                           | 2        | 22     | 4              | 2        | 28    |

|             |  |        |                  |      | Exa         | nination Sche        | eme  |       |      |       |
|-------------|--|--------|------------------|------|-------------|----------------------|------|-------|------|-------|
| Course code | Course Name                                    |        |                  | Theo | ory         |                      | Term | Pract |      |       |
|             |  | Interr | Internal Assessn |      | End         | Exam                 | Work | /Oral | Oral | Total |
|             |  | Test 1 | Test 2           | Avg  | Sem<br>Exam | Duration<br>(in hrs) |      |       |      |       |
| CHC601      | Environmental Engineering<br>(EE)              | 20     | 20               | 20   | 80          | 3                    | -    | -     | -    | 100   |
| CHC602      | Mass transfer Operations –II<br>(MTO-II)       | 20     | 20               | 20   | 80          | 3                    | -    | -     | -    | 100   |
| CHC603      | Transport Phenomenon                           | 20     | 20               | 20   | 80          | 3                    | 25   | -     | -    | 125   |
| CHC604      | Chemical Reaction Engineering<br>-II (CRE- II) | 20     | 20               | 20   | 80          | 3                    | -    | -     | -    | 100   |
| CHC605      | Plant Engineering & Industrial<br>Safety       | 20     | 20               | 20   | 80          | 3                    | 25   | -     | -    | 125   |
| CHDE602X    | Department Elective II                         | 20     | 20               | 20   | 80          | 3                    | -    | -     | -    | 100   |
| CHL601      | Chemical Engineering Lab VII<br>(EE)           | -      | -                | -    | -           | 3                    | 25   | 25    |      | 50    |
| CHL602      | Chemical Engineering Lab VIII<br>(MTO-II)      | -      | -                | -    | -           | 3                    | 25   | 25    | -    | 50    |
| CHL603      | Chemical Engineering Lab IX<br>CRE-II)         | -      | -                | -    | -           | 2                    | 25   | 25    | -    | 50    |
|             | Total  |        |                  | 120  | 480         | -                    | 125  | 75    |      | 800   |

|    | Department Elective II (Sem VI) |             |          |                                   |                                   |  |  |  |  |  |  |
|----|---------------------------------|-------------|----------|-----------------------------------|-----------------------------------|--|--|--|--|--|--|
|    | Engineering Stre                | am (Electiv | ve Code) | Management Stream (Elective Code) | Technology Stream (Elective Code) |  |  |  |  |  |  |
| 1. | Computational<br>(CHDE6021)     | Fluid       | Dynamics | 1. Operation Research (CHDE6022)  | 1. Biotechnology (CHDE6023)       |  |  |  |  |  |  |

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#### University of Mumbai Program Structure for B.E. Chemical Engineering (Revised 2016) B.E. Semester VII (w.e.f 2019-2020)

| Common and a | Course Name                           |        | eaching Sche<br>Contact Hour |          | 0      |           |          |       |
|--------------|---------------------------------------|--------|------------------------------|----------|--------|-----------|----------|-------|
| Course code  |                                       | Theory | Practical                    | Tutorial | Theory | Practical | Tutorial | Total |
| CHC701       | Process Equipment Design.<br>(PED)    | 4      | -                            | -        | 4      | -         | -        | 4     |
| CHC702       | Process Engineering                   | 3      | -                            | 1        | 3      | -         | 1        | 4     |
| СНС703       | Process Dynamics and Control<br>(PDC) | 4      | -                            | -        | 4      | -         | -        | 4     |
| CHDE703X     | Department Elective III               | 4      | -                            | -        | 4      | -         | -        | 4     |
| ILO701X      | Institute Elective I                  | 3      | -                            | -        | 3      | -         | -        | 3     |
| CHP701       | Project A                             | -      | -                            | 8        | -      | -         | 3        | 3     |
| CHS701       | Seminar                               | -      | -                            | 3        | -      | -         | 3        | 3     |
| CHL701       | PED Lab                               | -      | 3                            | -        | -      | 1.5       | -        | 1.5   |
| CHL702       | Chemical Engineering Lab X<br>(PDC)   | -      | 3                            | -        | -      | 1.5       | -        | 1.5   |
|              | Total                                 | 18     | 6                            | 12       | 18     | 3         | 7        | 28    |

|             |                                       |           |                   |     | ]           | Examination          | Scheme |                |      |       |
|-------------|---------------------------------------|-----------|-------------------|-----|-------------|----------------------|--------|----------------|------|-------|
|             | Course Name                           |           |                   | The | eory        |                      |        |                |      |       |
| Course code | Course Name                           | -         | interna<br>sessme | -   | End         | End Exam             |        | Pract<br>/Oral | Oral | Total |
|             |                                       | Test<br>1 | Te<br>st<br>2     | Avg | Sem<br>Exam | Duration<br>(in hrs) |        |                |      |       |
| CHC701      | Process Equipment Design.<br>(PED)    | 20        | 20                | 20  | 80          | 3                    | -      | -              | -    | 100   |
| CHC702      | Process Engineering                   | 20        | 20                | 20  | 80          | 3                    | 25     | -              | -    | 125   |
| СНС703      | Process Dynamics and Control<br>(PDC) | 20        | 20                | 20  | 80          | 3                    | -      | -              | -    | 100   |
| CHDE703X    | Department Elective III               | 20        | 20                | 20  | 80          | 3                    | -      | -              | -    | 100   |
| ILO701X     | Institute Elective I                  | 20        | 20                | 20  | 80          | 3                    | -      | -              | -    | 100   |
| CHP701      | Project A                             | -         |                   | -   | -           | -                    | 100    |                | 25   | 125   |
| CHS701      | Seminar                               | -         |                   | -   | -           | -                    | 50     | -              | -    | 50    |
| CHL701      | PED Lab                               | -         | -                 | -   | -           | -                    | 25     | -              | 25   | 50    |
| CHL702      | Chemical Engineering Lab X<br>(PDC)   | -         | -                 | -   | -           | 3                    | 25     | 25             | -    | 50    |
|             | Total                                 |           |                   | 100 | 400         | -                    | 225    | 25             | 50   | 800   |

|   | Department Elective III (Sem V)                          | <b>I</b> I)  |
|---|--|--|
| Engineering Stream (Elective Code)            | Management Stream (Elective Code)                        | Technology Stream (Elective Code)  |
| 1. Corrosion Engineering<br>(CHDE7031)        | 2. Industrial organization and<br>Management. (CHDE7032) | 1.Petroleum Refining Technology(CHDE7033)<br>3. Food Technology (CHDE7034) |
|   | Institute Level Optional Subject I (Se                   | em VII)  |
| 1. Product Lifecycle Management(ILO70         | 11) 4. Design of Experiments(ILO7014)                    | 7. Disaster Management and Mitigation<br>Measures(ILO7017)                 |
| 2. Reliability Engineering (ILO7012)          | 5. Operation Research (ILO7015)                          | 8. Energy Audit and Management (ILO7018)                                   |
| 3. Management Information System<br>(ILO7013) | 6. Cyber Security and Laws<br>(ILO7016)                  | 9. Development Engineering (ILO7019)                                       |

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#### University of Mumbai Program Structure for B.E. Chemical Engineering (Revised 2016) B.E. Semester VIII (w.e.f 2019-2020)

| Course code | Course Name  |        | eaching Sche<br>Contact Hou |          | 0      |           |          |       |
|-------------|--|--------|-----------------------------|----------|--------|-----------|----------|-------|
| Course code |  | Theory | Practical                   | Tutorial | Theory | Practical | Tutorial | Total |
| CHC801      | Modeling, Simulation &<br>Optimization (MSO)         | 4      | -                           | -        | 4      | -         | -        | 4     |
| CHC802      | Project Engineering &<br>Entrepreneurship Management | 3      | -                           | 1        | 3      | -         | 1        | 4     |
| CHC803      | Energy System Design                                 | 3      | -                           | 1        | 3      | -         | 1        | 4     |
| CHDE804X    | Department Elective IV                               | 4      | -                           | -        | 4      | -         | -        | 4     |
| ILO802X     | Institute Elective II                                | 3      | -                           | -        | 3      | -         | -        | 3     |
| CHP801      | Project B  | -      | -                           | 8        | -      | -         | 6        | 6     |
| CHL801      | Chemical Engineering Lab XI<br>(MSO)                 | -      | 2                           | -        | -      | 1         | -        | 1     |
|             | Total  | 17     | 2                           | 10       | 17     | 1         | 8        | 26    |

|             |  |        |           |      | Exa         | mination Sch         | eme  | -     |      | -     |
|-------------|--|--------|-----------|------|-------------|----------------------|------|-------|------|-------|
| Course code | se code Course Name                                  |        |           | Theo |             |                      | Term | Pract | Oral | Total |
|             |  | Interr | al Assess | ment | End         | Exam                 | Work | /Oral | Ulai | Total |
|             |  | Test 1 | Test 2    | Avg  | Sem<br>Exam | Duration<br>(in hrs) |      |       |      |       |
| CHC801      | Modeling, Simulation &<br>Optimization (MSO)         | 20     | 20        | 20   | 80          | 3                    | -    | -     | -    | 100   |
| CHC802      | Project Engineering &<br>Entrepreneurship Management | 20     | 20        | 20   | 80          | 3                    | 25   | -     | -    | 125   |
| CHC803      | Energy System Design                                 | 20     | 20        | 20   | 80          | 3                    | 25   | -     | -    | 125   |
| CHDE804X    | Department Elective IV                               | 20     | 20        | 20   | 80          | 3                    |      | -     | -    | 100   |
| ILO802X     | Institute Elective II                                | 20     | 20        | 20   | 80          | 3                    |      | -     | -    | 100   |
| CHP801      | Project B  | -      | -         | -    | -           | -                    | 100  | -     | 50   | 150   |
| CHL801      | Chemical Engineering Lab XI<br>(MSO)                 | -      | -         | -    | -           | 2                    | 25   | 25    | -    | 50    |
|             | Total  |        |           | 100  | 400         | -                    | 175  | 25    | 50   | 750   |

| Department Elective IV (Sem VIII)         |   |  |  |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|--|--|
| Engineering Stream (Course Code)          | Management Stream (Course Code)           | Technology Stream (Course Code)  |  |  |  |  |  |  |  |
| 1. Advanced Process Control<br>(CHDE8041) | 1. Total Quality Management<br>(CHDE8042) | 1.         Advanced         Separation         Technology           (CHDE8043)         2.         Polymer Technology(CHDE8044)         1000000000000000000000000000000000000 |  |  |  |  |  |  |  |

| Institute Level Optional Subject II (Sem VIII)              |   |  |  |  |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|--|--|--|
| 1. Project Management (ILO8021)                             | 4. Human Resource Management<br>(ILO8024) | 7. IPR and Patenting (ILO8027)           |  |  |  |  |  |  |  |  |
| 2. Finance Management (ILO8022)                             | 5. Professional Ethics and CSR (ILO8025)  | 8. Digital Business Management (ILO8028) |  |  |  |  |  |  |  |  |
| 3. Entrepreneurship Development and<br>Management (ILO8023) | 6. Research<br>Methodology(ILO8026)       | 9. Environmental Management (ILO8029)    |  |  |  |  |  |  |  |  |

University of Mumbai

B. E. (Chemical Engineering)

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Rev 2016

Dr. G. T. Thampi



# Syllabus Structure Rev 2016 Biomedical Engineering





#### Program Structure for TE Biomedical Engineering University of Mumbai (With effect from academic year 2018 - 19)

#### Scheme for Semester V

| Course Code | Course Name  | Teaching Sc<br>(Contact Ho |           |          | Credits Assigned |           |          |       |  |  |
|-------------|--|----------------------------|-----------|----------|------------------|-----------|----------|-------|--|--|
|             |  | Theory                     | Practical | Tutorial | Theory           | Practical | Tutorial | Total |  |  |
| BMC501      | Diagnostic & Therapeutic<br>Instruments            | 04                         |           |          | 04               |           |          | 04    |  |  |
| BMC502      | Analog and Digital Circuit Design                  | 04                         |           |          | 04               |           |          | 04    |  |  |
| BMC503      | Principles of Communication<br>Engineering         | 04                         |           |          | 04               |           |          | 04    |  |  |
| BMC504      | Biomedical Digital Signal<br>Processing            | 04                         |           |          | 04               |           |          | 04    |  |  |
| BMDLO501X   | Department Level Optional<br>Course – I            | 04                         |           |          | 04               |           |          | 04    |  |  |
| BML501      | Business Communication and Ethics                  |                            | 02*+02    |          |                  | 02        |          | 02    |  |  |
| BML502      | Diagnostic and Therapeutic<br>Instruments          |                            | 02        |          |                  | 01        |          | 01    |  |  |
| BML503      | Integrated and Communication<br>Circuit Design     |                            | 02        |          |                  | 01        |          | 01    |  |  |
| BML504      | Biomedical Digital Signal<br>Processing            |                            | 02        |          |                  | 01        |          | 01    |  |  |
| BMDLL501X   | Department Level Optional<br>Course Laboratory – I |                            | 02        |          |                  | 01        |          | 01    |  |  |
| Total       |  | 20                         | 12        |          | 20               | 06        |          | 26    |  |  |

\*2 hrs theory shall be taught to the entire class.

#### **Examination Scheme for Semester V**

|               |   | Examina      | tion Schen   | ne           |              |              |              |              |              |              |              |              |              |             |
|---------------|---|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------------|
|               |   | Theory       |              |              |              |              |              |              |              |              |              |              |              |             |
| Course        | Course Name   | External     | External I   |              | Internal     |              | Term work    |              | Practical    |              |              | Pract./Oral  |              | Total Marks |
| Code          | Course Maine  | (UA)         |              | (CA)         |              |              |              |              |              |              |              |              |              |             |
|               |   | Max<br>Marks | Min<br>Marks |             |
| BMC501        | Diagnostic &<br>Therapeutic<br>Instruments            | 80           | 32           | 20           | 8            |              |              |              |              |              |              |              |              | 100         |
| BMC502        | Analog and Digital<br>Circuit Design                  | 80           | 32           | 20           | 8            |              |              |              |              |              |              |              |              | 100         |
| BMC503        | Principles of<br>Communication<br>Engineering         | 80           | 32           | 20           | 8            |              |              |              |              |              |              |              |              | 100         |
| BMC504        | Biomedical Digital<br>Signal Processing               | 80           | 32           | 20           | 8            |              |              |              |              |              |              |              |              | 100         |
| BMDLO<br>501X | Department Level<br>Optional Course – I               | 80           | 32           | 20           | 8            |              |              |              |              |              |              |              |              | 100         |
| BML501        | Business<br>Communication<br>and Ethics               |              |              |              |              | 50           | 20           |              |              |              |              |              |              | 50          |
| BML502        | Diagnostic and<br>Therapeutic<br>Instruments          |              |              |              |              | 25           | 10           |              |              | 25           | 10           |              |              | 50          |
| BML503        | Integrated and<br>Communication<br>Circuit Design     |              |              |              |              | 25           | 10           | 25           | 10           |              |              |              |              | 50          |
| BML504        | Biomedical Digital<br>Signal Processing               |              |              |              |              | 25           | 10           |              |              |              |              | 25           | 10           | 50          |
| BMDLL<br>501X | Department Level<br>Optional Course<br>Laboratory – I |              |              |              |              | 25           | 10           |              |              | 25           | 10           |              |              | 50          |
| Total         |   | 400          | 160          | 100          | 40           | 150          | 60           | 25           | 10           | 50           | 20           | 25           | 10           | 750         |

#### Program Structure for B.E. Biomedical Engineering University of Mumbai (With effect from academic year 2019 - 20)

#### Scheme for Semester VII

| Course Code | Course Name  |        | Teaching Scher<br>(Contact Hour |          |        | Credits   | Assigned |       |
|-------------|--|--------|---------------------------------|----------|--------|-----------|----------|-------|
|             |  | Theory | Practical                       | Tutorial | Theory | Practical | Tutorial | Total |
| BMC701      | Life Saving and Surgical<br>Equipment                | 04     |                                 |          | 04     |           |          | 04    |
| BMC702      | Basics of VLSI                                       | 04     |                                 |          | 04     |           |          | 04    |
| BMC703      | Medical Imaging-II                                   | 04     |                                 |          | 04     |           |          | 04    |
| BMDLO703X   | Department Level Optional<br>Course – III            | 04     |                                 |          | 04     |           |          | 04    |
| ILO101X     | Institute Level Optional Course – I                  | 03     |                                 |          | 03     |           |          | 03    |
| BML701      | Life Saving and Surgical<br>Equipment                |        | 02                              |          |        | 01        |          | 01    |
| BML702      | Basics of VLSI                                       |        | 02                              |          |        | 01        |          | 01    |
| BML703      | Medical Imaging-II                                   |        | 02                              |          |        | 01        |          | 01    |
| BMDLL703X   | Department Level Optional<br>Course Laboratory – III |        | 02                              |          |        | 01        |          | 01    |
| BML704      | Project Stage I                                      |        | 06                              |          |        | 03        |          | 03    |
|             | Total  | 19     | 14                              |          | 19     | 07        |          | 26    |

University of Mumbai, Biomedical Engineering, Rev 2016-17

#### Examination Scheme for Semester VII

|                |   |               |              |                         |              | ]            | Examinati    | on Schem     | e            |              |              |              |              |                |
|----------------|---|---------------|--------------|-------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|
| Course<br>Code | Course Name   | External (UA) |              | ory<br>Internal<br>(CA) |              | Term         | work         | Practical    |              | Oral         |              | Pract./Oral  |              | Total<br>Marks |
|                |   | Max<br>Marks  | Min<br>Marks | Max<br>Marks            | Min<br>Marks | Max<br>Marks | Min<br>Marks | Max<br>Marks | Min<br>Marks | Max<br>Marks | Min<br>Marks | Max<br>Marks | Min<br>Marks |                |
| BMC701         | Life Saving and<br>Surgical Equipment                   | 80            | 32           | 20                      | 8            |              |              |              |              |              |              |              |              | 100            |
| BMC702         | Basics of VLSI  | 80            | 32           | 20                      | 8            |              |              |              |              |              |              |              |              | 100            |
| BMC703         | Medical Imaging-II                                      | 80            | 32           | 20                      | 8            |              |              |              |              |              |              |              |              | 100            |
| BMDLO<br>703X  | Department Level<br>Optional Course - III               | 80            | 32           | 20                      | 8            |              |              |              |              |              |              |              |              | 100            |
| ILE101X        | Institute Level<br>Optional Course – I                  | 80            | 32           | 20                      | 8            |              |              |              |              |              |              |              |              | 100            |
| BML701         | Life Saving and<br>Surgical Equipment                   |               |              |                         |              | 25           | 10           |              |              | 25           | 10           |              |              | 50             |
| BML702         | Basics of VLSI  |               |              |                         |              | 25           | 10           |              |              | 25           | 10           |              |              | 25             |
| BML703         | Medical Imaging-II                                      |               |              |                         |              | 25           | 10           |              |              | 25           | 10           |              |              | 50             |
| BMDLL<br>703X  | Department Level<br>Optional Course<br>Laboratory – III |               |              |                         |              | 25           | 10           |              |              | 25           | 10           |              |              | 25             |
| BML704         | Project Stage I   |               |              |                         |              | 25           | 10           |              |              | 25           | 10           |              |              | 50             |
|                | Total   | 400           | 160          | 100                     | 40           | 125          | 50           |              |              | 125          | 50           |              |              | 700            |

#### Scheme for Semester VIII

|                    |   |        | Teaching Scher | ne       | Credits Assigned |           |          |       |  |  |  |
|--------------------|---|--------|----------------|----------|------------------|-----------|----------|-------|--|--|--|
| <b>Course Code</b> | Course Name   |        | (Contact Hour  | s)       |                  |           |          |       |  |  |  |
|                    |   | Theory | Practical      | Tutorial | Theory           | Practical | Tutorial | Total |  |  |  |
| BMC801             | Biomedical Microsystems                             | 04     |                |          | 04               |           |          | 04    |  |  |  |
| BMC802             | Hospital Management                                 | 04     |                |          | 04               |           |          | 04    |  |  |  |
| BMDLO804X          | Department Level Optional<br>Course – IV            | 04     |                |          | 04               |           |          | 04    |  |  |  |
| ILO202X            | Institute Level Optional Course – II                | 03     |                |          | 03               |           |          | 03    |  |  |  |
| BML801             | Biomedical Microsystems                             |        | 02             |          |                  | 01        |          | 01    |  |  |  |
| BML802             | Hospital Management                                 |        | 02             |          |                  | 01        |          | 01    |  |  |  |
| BMDLL804X          | Department Level Optional<br>Course Laboratory – IV |        | 02             |          |                  | 01        |          | 01    |  |  |  |
| BML803             | Project Stage II                                    |        | 12             |          |                  | 06        |          | 06    |  |  |  |
|                    | Total   | 15     | 18             |          | 15               | 09        |          | 24    |  |  |  |

University of Mumbai, Biomedical Engineering, Rev 2016-17

#### **Examination Scheme for Semester VIII**

|               |  |              |                    |              |                    | ]            | Examinati    | on Schem     | e            |              |              |              |              | Total |
|---------------|--|--------------|--------------------|--------------|--------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------|
| Course        | Course Name  | e Name (UA)  |                    | Inte         | ernal              | Term         | work         | Pra          | ctical       | 0            | ral          | Pract./Oral  |              | Marks |
| Code          |  | Max<br>Marks | A)<br>Min<br>Marks | Max<br>Marks | A)<br>Min<br>Marks | Max<br>Marks | Min<br>Marks | Max<br>Marks | Min<br>Marks | Max<br>Marks | Min<br>Marks | Max<br>Marks | Min<br>Marks |       |
| BMC801        | Biomedical<br>Microsystems                             | 80           | 32                 | 20           | 8                  |              |              |              |              |              |              |              |              | 100   |
| BMC802        | Hospital<br>Management                                 | 80           | 32                 | 20           | 8                  |              |              |              |              |              |              |              |              | 100   |
| BMDLO<br>801X | Department Level<br>Optional Course - IV               | 80           | 32                 | 20           | 8                  |              |              |              |              |              |              |              |              | 100   |
| ILO202X       | Institute Level<br>Optional Course –II                 | 80           | 32                 | 20           | 8                  |              |              |              |              |              |              |              |              | 100   |
| BML801        | Biomedical<br>Microsystems                             |              |                    |              |                    | 25           | 10           |              |              | 25           | 10           |              |              | 50    |
| BML802        | Hospital<br>Management                                 |              |                    |              |                    | 25           | 10           |              |              | 25           | 10           |              |              | 50    |
| BMDLL<br>801X | Department Level<br>Optional Course<br>Laboratory – IV |              |                    |              |                    | 25           | 10           |              |              | 25           | 10           |              |              | 25    |
| BML803        | Project Stage II                                       |              |                    |              |                    | 50           | 20           |              |              |              |              | 50           | 20           | 100   |
|               | Total  | 320          | 128                | 80           | 32                 | 125          | 50           |              |              | 75           | 30           | 50           | 20           | 625   |

| Course Code      | Department level Optional Course – III       |
|------------------|--|
| <b>BMDL07031</b> | Networking and Information in Medical System |
| <b>BMDL07032</b> | Advanced Image Processing                    |
| <b>BMDL07033</b> | Embedded Systems                             |

| <b>Course Code</b> | <b>Department level Optional Course – IV</b> |
|--------------------|--|
| <b>BMDL08041</b>   | Health Care Informatics                      |
| <b>BMDL08042</b>   | Robotics in Medicine                         |
| <b>BMDL08043</b>   | Nuclear Medicine                             |

| Course Code | Institute level Optional Course – I         |
|-------------|---|
| ILO1011     | Product Lifecycle Management                |
| ILO1012     | Reliability Engineering                     |
| ILO1013     | Management Information System               |
| ILO1014     | Design of Experiments                       |
| ILO1015     | Operation Research                          |
| ILO1016     | Cyber Security and Laws                     |
| ILO1017     | Disaster Management and Mitigation Measures |
| ILO1018     | Energy Audit and Management                 |

| Course Code | Institute level Optional Course - II                          |
|-------------|---|
| ILO2021     | Project Management  |
| ILO2022     | Finance Management  |
| ILO2023     | Entrepreneurship Development and Management                   |
| ILO2024     | Human Resource Management                                     |
| ILO2025     | Professional Ethics and Corporate Social Responsibility (CSR) |
| ILO2026     | Research Methodology  |
| ILO2027     | IPR and Patenting   |
| ILO2028     | Digital Business Management                                   |
| ILO2029     | Environmental Management                                      |





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University of Mumbai, Biomedical Engineering, Rev 2016-17

# Syllabus Structure Rev 2016 Biotechnology





#### University of Mumbai Program Structure for B.E. Biotechnology (Revised 2016) S.E. Semester III (w.e.f 2017-2018)

| Course        | Course Name                | 1      | Feaching Scheme<br>(Contact Hours |          | Credits Assigned |           |          |       |  |  |
|---------------|----------------------------|--------|-----------------------------------|----------|------------------|-----------|----------|-------|--|--|
| code          |                            | Theory | Practical                         | Tutorial | Theory           | Practical | Tutorial | Total |  |  |
| BTC301        | Applied<br>Mathematics-III | 3      | -                                 | 1        | 3                | -         | 1        | 4     |  |  |
| BTC302        | Microbiology               | 4      | -                                 | -        | 4                | -         | -        | 4     |  |  |
| <b>BTC303</b> | Cell Biology               | 3      | -                                 | 1        | 3                | -         | 1        | 4     |  |  |
| <b>BTC304</b> | Biochemistry               | 4      | -                                 | -        | 4                | -         | -        | 4     |  |  |
| <b>BTC305</b> | Unit Operations-I          | 3      | -                                 | -        | 3                | -         | -        | 3     |  |  |
| <b>BTC306</b> | Process Calculations       | 3      | -                                 | 1        | 3                | -         | 1        | 4     |  |  |
| <b>BTL301</b> | Microbiology Lab           | -      | 3                                 | -        | -                | 1.5       | -        | 1.5   |  |  |
| <b>BTL302</b> | Biochemistry Lab           | -      | 3                                 | -        | -                | 1.5       | -        | 1.5   |  |  |
| BTL303        | Unit Operations-I<br>Lab   | -      | 2                                 | -        | -                | 1         | -        | 1     |  |  |
|               | Total                      | 20     | 8                                 | 3        | 20               | 4         | 3        | 27    |  |  |

|                |                             |        |                   |       | Exami              | ination Sch                  | eme          |                |      |       |
|----------------|-----------------------------|--------|-------------------|-------|--------------------|------------------------------|--------------|----------------|------|-------|
| ~              |                             |        |                   | Theor | y                  |                              | Term<br>Work | Pract/<br>Oral | Oral | Total |
| Course<br>code | Course Name                 |        | Intern<br>Assessm |       | End<br>Sem<br>Exam | Exam<br>Duration<br>(in hrs) |              |                |      |       |
|                |                             | Test 1 | Test 2            | Avg   |                    |                              |              |                |      |       |
| BTC301         | Applied Mathematics-III     | 20     | 20                | 20    | 80                 | 3                            | 25           | -              | -    | 125   |
| BTC302         | Microbiology                | 20     | 20                | 20    | 80                 | 3                            | -            |                | -    | 100   |
| BTC303         | Cell Biology                | 20     | 20                | 20    | 80                 | 3                            | 25           | -              | -    | 125   |
| BTC304         | Biochemistry                | 20     | 20                | 20    | 80                 | 3                            | -            |                | -    | 100   |
| BTC305         | Unit Operations-I           | 20     | 20                | 20    | 80                 | 3                            |              | -              | -    | 100   |
| BTC306         | <b>Process Calculations</b> | 20     | 20                | 20    | 80                 | 3                            | 25           | -              | -    | 125   |
| BTL301         | Microbiology Lab            |        |                   |       |                    |                              |              | 25             |      | 25    |
| BTL302         | Biochemistry Lab            |        |                   |       |                    |                              |              | 25             |      | 25    |
| BTL303         | Unit Operations-I Lab       |        |                   |       |                    |                              |              |                | 25   | 25    |
|                | Total                       |        |                   | 120   | 480                | -                            | 75           | 50             | 25   | 750   |

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Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.

#### University of Mumbai Program Structure for B.E. Biotechnology (Revised 2016) S.E. Semester IV (w.e.f 2017-2018)

| Course        | Course Name                                |        | aching Sch<br>Contact Hou |          | Credits Assigned |           |          |       |  |  |  |
|---------------|--|--------|---------------------------|----------|------------------|-----------|----------|-------|--|--|--|
| code          |  | Theory | Practical                 | Tutorial | Theory           | Practical | Tutorial | Total |  |  |  |
| BTC401        | Applied Mathematics-IV                     | 3      | -                         | 1        | 3                | -         | 1        | 4     |  |  |  |
| <b>BTC402</b> | Molecular Genetics                         | 3      | -                         | 1        | 3                | -         | 1        | 4     |  |  |  |
| BTC403        | Fermentation<br>Technology                 | 4      |                           | -        | 4                |           | -        | 4     |  |  |  |
| BTC404        | Analytical Methods in<br>Biotechnology     | 4      | -                         | -        | 4                | -         | -        | 4     |  |  |  |
| BTC405        | Immunology and<br>Immunotechnology         | 3      | -                         | 1        | 3                | -         | 1        | 4     |  |  |  |
| <b>BTC406</b> | Unit Operations -II                        | 3      |                           | -        | 3                |           | -        | 3     |  |  |  |
| BTL401        | Fermentation<br>Technology Lab             | -      | 3                         | -        |                  | 1.5       | -        | 1.5   |  |  |  |
| BTL402        | Analytical Methods in<br>Biotechnology Lab | -      | 3                         | -        |                  | 1.5       | -        | 1.5   |  |  |  |
| <b>BTL403</b> | Unit Operations –II Lab                    | -      | 2                         | -        |                  | 1         | -        | 1     |  |  |  |
|               | Total                                      | 20     | 8                         | 3        | 20               | 4         | 3        | 27    |  |  |  |

|                |  |        |                        |       | Exami              | ination Schei                | ne   |       |    |     |
|----------------|--|--------|------------------------|-------|--------------------|------------------------------|------|-------|----|-----|
|                |  |        |                        | Theor | Term<br>Work       | Pract/<br>Oral               | Oral | Total |    |     |
| Course<br>code | Course Name                                |        | Internal<br>Assessment |       | End<br>Sem<br>Exam | Exam<br>Duration<br>(in hrs) |      |       |    |     |
|                |  | Test 1 | Test 2                 | Avg   |                    |                              |      |       |    |     |
| BTC401         | Applied Mathematics-IV                     | 20     | 20                     | 20    | 80                 | 3                            | 25   | -     | -  | 125 |
| <b>BTC402</b>  | Molecular Genetics                         | 20     | 20                     | 20    | 80                 | 3                            | 25   | -     | -  | 125 |
| <b>BTC403</b>  | Fermentation Technology                    | 20     | 20                     | 20    | 80                 | 3                            | -    |       | -  | 100 |
| BTC404         | Analytical Methods in<br>Biotechnology     | 20     | 20                     | 20    | 80                 | 3                            | -    | -     | -  | 100 |
| BTC405         | Immunology and<br>Immunotechnology         | 20     | 20                     | 20    | 80                 | 3                            | 25   | -     | -  | 125 |
| <b>BTC406</b>  | Unit Operations -II                        | 20     | 20                     | 20    | 80                 | 3                            | -    | -     | -  | 100 |
| <b>BTL401</b>  | Fermentation Technology<br>Lab             |        | -                      | -     | -                  | 3                            | -    | 25    |    | 25  |
| <b>BTL402</b>  | Analytical Methods in<br>Biotechnology Lab | -      | -                      | -     | -                  | 3                            | -    | 25    | -  | 25  |
| <b>BTL403</b>  | Unit Operations –II Lab                    | -      | -                      | -     | -                  | -                            | -    | -     | 25 | 25  |
|                | Total                                      |        |                        | 120   | 480                | -                            | 75   | 50    | 25 | 750 |

B. E. (Biotechnology)

Rev 201∠

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Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.

#### University of Mumbai Program Structure for B.E. Biotechnology (Revised 2016) T.E. Semester V (w.e.f 2018-2019)

| Course  | Course Name                                   |        | aching Sch<br>Contact Ho |          | Cro    |           |          |       |
|---------|---|--------|--------------------------|----------|--------|-----------|----------|-------|
| code    |   | Theory | Practical                | Tutorial | Theory | Practical | Tutorial | Total |
| BTC501  | Bioinformatics                                | 4      | -                        | -        | 4      | -         | -        | 4     |
| BTC502  | Genetic Engineering                           | 4      | -                        | -        | 4      | -         | -        | 4     |
| BTC503  | Thermodynamics and<br>Biochemical Engineering | 3      | -                        | 1        | 3      |           | 1        | 4     |
| BTC504  | Bioreactor Analysis and<br>Technology         | 3      | -                        | 1        | 3      | -         | 1        | 4     |
| BTC505  | Business Communication<br>and Ethics          | 2      | -                        | 2        | -      | -         | 2        | 2     |
| BTE501X | Elective I                                    | 3      | -                        | 1        | 3      | -         | 1        | 4     |
| BTL501  | <b>Bioinformatics Lab</b>                     | -      | 2                        | -        | -      | 1         | -        | 1     |
| BTL502  | <b>Genetic Engineering Lab</b>                |        | 3                        |          |        | 1.5       |          | 1.5   |
| BTL503  | Lab I   |        | 3                        |          |        | 1.5       |          | 1.5   |
|         | Total   | 17     | 12                       | 3        | 17     | 6         | 3        | 26    |

|                |   |        |                   |      | Exami              | nation Sche                  | eme          |                |      |       |
|----------------|---|--------|-------------------|------|--------------------|------------------------------|--------------|----------------|------|-------|
|                |   |        |                   | Theo | ory                |                              | Term<br>Work | Pract/<br>Oral | Oral | Total |
| Course<br>code | Course Name                                   | A      | Intern<br>Assessn |      | End<br>Sem<br>Exam | Exam<br>Duration<br>(in hrs) |              |                |      |       |
|                |   | Test 1 | Test 2            | Avg  |                    |                              |              |                |      |       |
| BTC501         | Bioinformatics                                | 20     | 20                | 20   | 80                 | 3                            | -            |                | -    | 100   |
| BTC502         | Genetic Engineering                           | 20     | 20                | 20   | 80                 | 3                            |              |                | -    | 100   |
| BTC503         | Thermodynamics and<br>Biochemical Engineering | 20     | 20                | 20   | 80                 | 3                            | 25           | -              | -    | 125   |
| BTC504         | Bioreactor Analysis and<br>Technology         | 20     | 20                | 20   | 80                 | 3                            | 25           | -              | -    | 125   |
| BTC505         | Business Communication<br>and Ethics          | -      | -                 | -    | -                  | -                            | 50           | -              |      | 50    |
| BTE501X        | Department Elective I                         | 20     | 20                | 20   | 80                 | 3                            | 25           | -              | -    | 125   |
| BTL501         | Bioinformatics Lab                            |        |                   |      |                    | 2                            |              | 25             |      | 25    |
| BTL502         | Genetic Engineering Lab                       |        |                   |      |                    | 3                            |              | 25             |      | 25    |
| BTL503         | Lab I   | -      | -                 | -    | -                  | 3                            |              | 25             | -    | 25    |
|                | Total   |        |                   | 100  | 400                | -                            | 125          | 75             | -    | 700   |

| Department Elective I (Sem V)                                  |  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|--|
| Engineering Stream<br>1. Biosensors and Diagnosis<br>(BTE5011) | Advanced Science Stream<br>1.Biophysics (BTE5012)<br>2.Biostatistics (BTE5013) | Technology Stream1. Pharmaceutical Technology<br>(BTE5014) |  |  |  |  |  |  |  |

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Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.

#### University of Mumbai Program Structure for B.E. Biotechnology (Revised 2016) T.E. Semester VI (w.e.f 2018-2019)

| Course  | Course Name                          |        | Teaching Sche<br>Contact Hou |          | Cı     | edits Assig | ned      |       |
|---------|--------------------------------------|--------|------------------------------|----------|--------|-------------|----------|-------|
| code    |                                      | Theory | Practical                    | Tutorial | Theory | Practical   | Tutorial | Total |
| BTC601  | Food Technology                      | 3      | -                            | 1        | 3      | -           | 1        | 4     |
| BTC602  | Cell & Tissue<br>Culture             | 4      | -                            | -        | 4      | -           | -        | 4     |
| BTC603  | Enzyme<br>Engineering                | 4      | -                            |          | 4      | -           | -        | 4     |
| BTC604  | IPR, Bioethics<br>and Bio safety     | 3      | -                            | 1        | 3      | -           | 1        | 4     |
| BTC605  | Process Control &<br>Instrumentation | 3      | -                            | 1        | 3      | -           | 1        | 4     |
| BTE602X | Elective-II                          | 3      | -                            | 1        | 3      | -           | 1        | 4     |
| BTL601  | Lab-II                               | -      | 3                            | -        | -      | 1.5         | -        | 1.5   |
| BTL602  | Lab-III                              | -      | 3                            | -        | -      | 1.5         | -        | 1.5   |
|         | Total                                | 20     | 6                            | 4        | 20     | 3           | 4        | 27    |

|                |                           |        |                 |     | Exa                | mination S                   | cheme |                |      |       |
|----------------|---------------------------|--------|-----------------|-----|--------------------|------------------------------|-------|----------------|------|-------|
|                |                           |        | Theory          |     |                    |                              |       | Pract/<br>Oral | Oral | Total |
| Course<br>code | Course Name               |        | Inter<br>Assess |     | End<br>Sem<br>Exam | Exam<br>Duration<br>(in hrs) |       |                |      |       |
|                |                           | Test 1 | Test 2          | Avg |                    |                              |       |                |      |       |
| BTC601         | Food Technology           | 20     | 20              | 20  | 80                 | 3                            | 25    | -              | -    | 125   |
|                | Cell & Tissue             |        |                 |     |                    |                              |       |                |      |       |
| BTC602         | Culture                   | 20     | 20              | 20  | 80                 | 3                            | -     | -              | -    | 100   |
| BTC603         | <b>Enzyme Engineering</b> | 20     | 20              | 20  | 80                 | 3                            | -     | -              | -    | 100   |
|                | IPR, Bioethics and        |        |                 |     |                    |                              |       |                |      |       |
| BTC604         | Bio safety                | 20     | 20              | 20  | 80                 | 3                            | 25    | -              | -    | 125   |
|                | Process Control &         |        |                 |     |                    |                              |       |                |      |       |
| BTC605         | Instrumentation           | 20     | 20              | 20  | 80                 | 3                            | 25    | -              | -    | 125   |
| BTE602X        | Elective-II               | 20     | 20              | 20  | 80                 | 3                            | 25    | -              | -    | 125   |
| BTL601         | Lab-II                    | -      | -               | -   | -                  | 3                            | -     | 25             |      | 25    |
| BTL602         | Lab-III                   | -      | -               | -   | -                  | 3                            | -     | 25             | -    | 25    |
|                | Total                     |        |                 | 120 | 480                | -                            | 100   | 50             |      | 750   |

| Department Elective II (Sem VI)        |                     |                      |             |            |            |  |  |  |  |
|--|---------------------|----------------------|-------------|------------|------------|--|--|--|--|
| Engineering Stream                     |                     | Advanced Sci         | ence Stream | Technology | Stream     |  |  |  |  |
| <b>1.</b> Computational Fluid Dynamics | 1.                  | Protein              | Engineering | 1. Green   | technology |  |  |  |  |
| (BTE6021)                              | (BTE6022) (BTE6024) |                      |             |            |            |  |  |  |  |
|  | 2.                  | <b>Cancer Biolog</b> | y(BTE6023)  |            |            |  |  |  |  |

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Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.

#### University of Mumbai Program Structure for B.E. Biotechnology (Revised 2016) B.E. Semester VII (w.e.f 2019-2020)

| Course  | Course Name                |        | eaching Scho<br>Contact Ho |          | Credits Assigned |           |          |       |
|---------|----------------------------|--------|----------------------------|----------|------------------|-----------|----------|-------|
| code    |                            | Theory | Practical                  | Tutorial | Theory           | Practical | Tutorial | Total |
| BTC701  | Bioseperation & Downstream | 4      | -                          | 1        | 4                | -         | 1        | 5     |
|         | Processing Technology-I    |        |                            |          |                  |           |          |       |
| BTC702  | Bioprocess Modelling and   |        |                            |          |                  |           |          |       |
|         | Simulation                 | 4      | -                          | 1        | 4                | -         | 1        | 5     |
| BTC703  | Agriculture Biotechnology  | 3      | -                          | 1        | 3                | -         | 1        | 4     |
| BTE703X | Department Elective III    | 3      | -                          | 1        | 3                | -         | 1        | 4     |
| ILO701X | Institute Level optional   |        |                            |          |                  |           |          |       |
|         | Subject I                  | 3      | -                          | -        | 3                | -         | -        | 3     |
| BTP701  | Project A                  | -      | -                          | 6        | -                | -         | 3        | 3     |
| BTL701  | Lab - IV                   | -      | 3                          | -        | -                | 1.5       | -        | 1.5   |
| BTL702  | Lab - V                    | -      | 3                          | -        | -                | 1.5       | -        | 1.5   |
|         | Total                      | 17     | 6                          | 10       | 17               | 3         | 7        | 27    |

|                |   |        |        |            | Exan | nination Sc        | heme                         |      |       |     |  |
|----------------|---|--------|--------|------------|------|--------------------|------------------------------|------|-------|-----|--|
|                |   |        |        | The        | ory  | Term<br>Work       | Pract/<br>Oral               | Oral | Total |     |  |
| Course<br>code | Course Name   |        |        | Accoccmont |      | End<br>Sem<br>Exam | Exam<br>Duration<br>(in hrs) |      |       |     |  |
|                |   | Test 1 | Test 2 | Avg        |      |                    |                              |      |       |     |  |
|                | Bioseperation & Downstream<br>Processing Technology-I | 20     | 20     | 20         | 80   | 3                  | 25                           | -    | -     | 125 |  |
|                | Bioprocess Modelling and                              |        |        |            |      |                    |                              |      |       |     |  |
|                | Simulation  | 20     | 20     | 20         | 80   | 3                  | 25                           | -    | -     | 125 |  |
| BTC703         | Agriculture Biotechnology                             | 20     | 20     | 20         | 80   | 3                  | 25                           | -    | -     | 125 |  |
| BTE703X        | Department Elective III                               | 20     | 20     | 20         | 80   | 3                  | 25                           | -    | -     | 125 |  |
| ILO701X        | Institute Level optional Subject I                    | 20     | 20     | 20         | 80   | 3                  | -                            | -    | -     | 100 |  |
| BTP701         | Project A   | -      | -      | -          | -    | -                  | 100                          |      | 50    | 150 |  |
| BTL701         | Lab - IV  | -      | -      | -          | -    | -                  | -                            | 25   | -     | 25  |  |
| BTL702         | Lab - V   | -      | -      | -          | -    | -                  | -                            | 25   | -     | 25  |  |
|                | Total   |        |        | 100        | 400  | -                  | 200                          | 50   | 50    | 800 |  |

| Department Elective III (Sem VII) |  |                   |  |  |  |  |  |  |  |
|-----------------------------------|--|-------------------|--|--|--|--|--|--|--|
| Engineering Stream                | Advanced Science Stream                | Technology Stream |  |  |  |  |  |  |  |
| 1. Stem Cell & Tissue Engineering | 1. Operation research in Biotechnology | 1. Nanotechnology |  |  |  |  |  |  |  |
| (BTE7031)                         | (BTE7032)                              | (BTE7034)         |  |  |  |  |  |  |  |
|                                   | 2. Project Management (BTE7033)        |                   |  |  |  |  |  |  |  |

| Ins                             | titute Level Optional Subject I (Sem VI | I)                            |
|---------------------------------|---|-------------------------------|
| 1. Product Lifecycle Management | 4. Design of Experiments (ILO7014)      |                               |
| (ILO7011)                       |   | Mitigation Measures (ILO7017) |
| 2. Reliability Engineering      | 5. Operation Research (ILO7015)         | 8. Energy Audit and           |
| (ILO7012)                       |   | Management (ILO7018)          |
| 3. Management Information       | 6. Cyber Security and Laws              | 9. Development Engineering    |
| System (ILO7013)                | (ILO7016)                               | (ILO7019)                     |

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#### University of Mumbai Program Structure for B.E. Biotechnology (Revised 2016) B.E. Semester VIII (w.e.f 2019-2020)

| Course  | Course Name                         |        | eaching Sch<br>ontact Ho |          | Cr     |           |          |       |
|---------|-------------------------------------|--------|--------------------------|----------|--------|-----------|----------|-------|
| code    |                                     | Theory | Practical                | Tutorial | Theory | Practical | Tutorial | Total |
| BTC801  | Environmental Biotechnology         | 4      | -                        | -        | 4      | -         | -        | 4     |
|         | Bioseperation & Downstream          |        |                          |          |        |           |          |       |
|         | Processing technology-II            | 4      | -                        | -        | 4      | -         | -        | 4     |
|         | Bioprocess Plant & Equipment        |        |                          |          |        |           |          |       |
| BTC803  | design                              | 3      | -                        | 1        | 3      | -         | 1        | 4     |
| BTE804X | Department Elective IV              | 3      | -                        | 1        | 3      | -         | 1        | 4     |
| ILO802X | Institute Level optional Subject II | 3      | -                        | -        | 3      | -         | -        | 3     |
| BTP801  | Project B                           | -      | -                        | 8        | -      | •         | 6        | 6     |
| BTL801  | Lab - VI                            | -      | 3                        | -        | -      | 1.5       | -        | 1.5   |
| BTL802  | Lab - VII                           | -      | 3                        | -        | -      | 1.5       | -        | 1.5   |
|         | Total                               | 17     | 6                        | 10       | 17     | 3         | 8        | 28    |

|                |  |        |        |                        | Exan | nination Sc                  | heme         |    |      |       |
|----------------|--|--------|--------|------------------------|------|------------------------------|--------------|----|------|-------|
| G              |  |        |        | The                    | ory  |                              | Term<br>Work |    | Oral | Total |
| Course<br>code | Course Name  |        |        | Internal<br>Assessment |      | Exam<br>Duration<br>(in hrs) |              |    |      |       |
|                |  | Test 1 | Test 2 | Avg                    |      |                              |              |    |      |       |
| BTC801         | Environmental Biotechnology                            | 20     | 20     | 20                     | 80   | 3                            | -            | -  | -    | 100   |
| BTC802         | Bioseperation & Downstream<br>Processing technology-II | 20     | 20     | 20                     | 80   | 3                            | -            | -  | -    | 100   |
| BTC803         | Bioprocess Plant & Equipment design                    | 20     | 20     | 20                     | 80   | 3                            | 25           | -  | -    | 125   |
| BTE804X        | Department Elective IV                                 | 20     | 20     | 20                     | 80   | 3                            | 25           | -  |      | 125   |
| ILO802X        | Institute Level optional Subject II                    | 20     | 20     | 20                     | 80   | 3                            | -            | -  | -    | 100   |
| BTP801         | Project B  | -      | -      | -                      | -    | -                            | 100          | -  | 50   | 150   |
| BTL801         | Lab - VI   | -      | -      | -                      | -    | 3                            | -            | 25 | -    | 25    |
| BTL802         | Lab - VII  | -      | -      | -                      | -    | 3                            | -            | 25 | -    | 25    |
|                | Total  |        |        | 100                    | 400  | -                            | 150          | 50 | 50   | 750   |

| Department Elective IV (Sem VIII)     |    |   |               |             |                |  |  |  |  |
|---------------------------------------|----|---|---------------|-------------|----------------|--|--|--|--|
| Engineering Stream                    |    | Advanced Science Stream Technology Stream |               |             |                |  |  |  |  |
| 1. Non-conventional Sources of Energy | 1. | Total                                     | Quality       | 1. Advanced | Bioinformatics |  |  |  |  |
| (BTE8041)                             |    | (BTE80                                    | 42)           | (BTE8044)   |                |  |  |  |  |
|                                       | 2. | Entrep                                    | reneurship (E | BTE8043)    |                |  |  |  |  |

| Institute L                         | Institute Level Optional Subject II (Sem VIII) |                      |  |  |  |  |  |  |  |  |  |
|-------------------------------------|--|----------------------|--|--|--|--|--|--|--|--|--|
| 1. Project Management (ILO8021)     | 4. Human Resource                              | 7. IPR and Patenting |  |  |  |  |  |  |  |  |  |
|                                     | Management (ILO8024) (ILO8027)                 |                      |  |  |  |  |  |  |  |  |  |
| 2. Finance Management (ILO8022)     | 5. Professional Ethics and CSR                 | 8. Digital Business  |  |  |  |  |  |  |  |  |  |
| _                                   | (ILO8025)                                      | Management (ILO8028) |  |  |  |  |  |  |  |  |  |
| 3. Entrepreneurship Development and | 6. Research Methodology                        | 9. Environmental     |  |  |  |  |  |  |  |  |  |
| Management (ILO8023)                | (ILO8026)                                      | Management (ILO8029) |  |  |  |  |  |  |  |  |  |

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#### University of Mumbai Program Structure for B.E. Biotechnology (Revised 2016) S.E. Semester III (w.e.f 2017-2018)

| Course | Course Name                 |        | eaching Sche<br>Contact Hou |          |        |           |          |       |
|--------|-----------------------------|--------|-----------------------------|----------|--------|-----------|----------|-------|
| code   |                             | Theory | Practical                   | Tutorial | Theory | Practical | Tutorial | Total |
| BTC301 | Applied Mathematics-<br>III | 3      | -                           | 1        | 3      | -         | 1        | 4     |
| BTC302 | Microbiology I              | 4      | -                           | -        | 4      | -         | -        | 4     |
| BTC303 | Cell Biology                | 3      | -                           | 1        | 3      | -         | 1        | 4     |
| BTC304 | Biochemistry                | 4      | -                           | -        | 4      | -         | -        | 4     |
| BTC305 | Unit Operations-I           | 3      | -                           | -        | 3      | -         | -        | 3     |
| BTC306 | Process Calculations        | 3      | -                           | 1        | 3      | -         | 1        | 4     |
| BTL301 | Microbiology Lab            | -      | 3                           | -        | -      | 1.5       | -        | 1.5   |
| BTL302 | Biochemistry Lab            | -      | 3                           | -        | -      | 1.5       | -        | 1.5   |
| BTL303 | Unit Operations-I Lab       | -      | 2                           | -        | -      | 1         | -        | 1     |
|        | Total                       | 20     | 8                           | 3        | 20     | 4         | 3        | 27    |

|        |                         |        |            |      | Exa         | mination Sch         | eme    |      |      |       |  |
|--------|-------------------------|--------|------------|------|-------------|----------------------|--------|------|------|-------|--|
| Course | Course Name             |        |            | Theo | ry          | Term                 | Pract/ |      |      |       |  |
| code   |                         | Intern | al Assessi | nent | End         | Exam                 | Work   | Oral | Oral | Total |  |
|        |                         | Test 1 | Test 2     | Avg  | Sem<br>Exam | Duration<br>(in hrs) |        |      |      |       |  |
| BTC301 | Applied Mathematics-III | 20     | 20         | 20   | 80          | 3                    | 25     | -    | -    | 125   |  |
| BTC302 | Microbiology I          | 20     | 20         | 20   | 80          | 3                    | -      | -    | -    | 100   |  |
| BTC303 | Cell Biology            | 20     | 20         | 20   | 80          | 3                    | 25     | -    | -    | 125   |  |
| BTC304 | Biochemistry            | 20     | 20         | 20   | 80          | 3                    | -      | -    | -    | 100   |  |
| BTC305 | Unit Operations-I       | 20     | 20         | 20   | 80          | 3                    |        | -    | -    | 100   |  |
| BTC306 | Process Calculations    | 20     | 20         | 20   | 80          | 3                    | 25     | -    | -    | 125   |  |
| BTL301 | Microbiology Lab        | -      | -          | -    | -           | 3                    |        | 25   | -    | 25    |  |
| BTL302 | Biochemistry Lab        | -      | -          | -    | -           | 3                    |        | 25   | -    | 25    |  |
| BTL303 | Unit Operations-I Lab   | -      | -          | -    | -           | -                    |        | -    | 25   | 25    |  |
|        | Total                   |        |            | 120  | 480         | -                    | 75     | 50   | 25   | 750   |  |

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Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.

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# Syllabus Structure Rev 2012 Computer Engineering





#### Fourth Year (Computer) (Semester VII)

#### ( REV 2012)

| Course Code | Course<br>Name                         | Teaching<br>(Contac | Scheme<br>t Hours) |     | Credits Assigned |              |     |       |
|-------------|--|---------------------|--------------------|-----|------------------|--------------|-----|-------|
|             |  | Theory              | Pract              | Tut | Theory           | TW/<br>Pract | Tut | Total |
| CPC701      | Digital Signal Processing              | 4                   | 2                  | -   | 4                | 1            | (   | 5     |
| CPC702      | Cryptography and System Security       | 4                   | 2                  | -   | 4                | 1            |     | 5     |
| CPC703      | Artificial Intelligence                | 4                   | 2                  | -   | 4                | 1            | -   | 5     |
| CPE7042X    | Elective-II                            | 4                   | 2                  | -   | 4                |              | -   | 5     |
| CPP701      | Project I                              | -                   | 6#                 | -   | <u> </u>         | 3            | -   | 3     |
| CPL701      | Network Threats and Attacks Laboratory | -                   | 4                  |     | 5-               | 2            | -   | 2     |
|             | Total                                  | 16                  | 18                 |     | 16               | 9            | -   | 25    |

| Course Code | Course Name                               |                  |                     |             | Examinatio      | on Scheme                     |     |      |      |
|-------------|---|------------------|---------------------|-------------|-----------------|-------------------------------|-----|------|------|
|             |   |                  |                     |             | ssesment        |                               |     |      |      |
|             |   | Intern<br>Test 1 | al Assesı<br>Test 2 | nent<br>Avg | End Sem<br>Exam | Exam<br>Duration<br>( in Hrs) | TW  | oral | Tota |
| CPC701      | Digital Signal Processing                 | 20               | 20                  | 20          | 80              | 03                            | 25  | -    | 125  |
| CPC702      | Cryptography and System Security          | 20               | 20                  | 20          | 80              | 03                            | 25  | 25   | 150  |
| CPC703      | Artificial Intelligence                   | 20               | 20                  | 20          | 80              | 03                            | 25  | 25   | 150  |
| CPE7042X    | Elective-II                               | 20               | 20                  | 20          | 80              | 03                            | 25  | 25   | 150  |
| CPP701      | Project I                                 | -                | -                   | -           | -               | -                             | 50  | 50   | 100  |
| CPL701      | Network Threats and Attacks<br>Laboratory | -                | -                   | -           | -               | -                             | 25  | 50   | 75   |
|             | Total                                     | -                | -                   | 80          | 320             | -                             | 175 | 175  | 750  |

#### Second Year (Computer) (Semester VIII)

#### (REV 2012)

| Course Code | Course Name                      |        | ing Schen<br>act Hour |          | Credits Assigned |       |     |       |  |
|-------------|----------------------------------|--------|-----------------------|----------|------------------|-------|-----|-------|--|
|             |                                  | Theory | Pract                 | S)<br>Tu | Theory           | TW/   | Tut | Total |  |
|             |                                  |        |                       | t        | ,                | Pract |     |       |  |
| CPC801      | Data Warehouse and Mining        | 4      | 2                     | -        | 4                | 1     | .(  | 5     |  |
| CPC802      | Human Machine Interaction        | 4      | 2                     | -        | 4                | 1     | 5   | 5     |  |
| CPC803      | Parallel and distributed Systems | 4      | 2                     | -        | 4                | 1     |     | 5     |  |
| CPE803X     | Elective-III                     | 4      | 2                     | -        | 4                |       | -   | 5     |  |
| CPP802      | Project II                       | -      | 12<br>#               | -        | -                | 6     | -   | 6     |  |
| CPL801      | Cloud Computing Laboratory       | -      | 2                     | K        | )-               | 1     | -   | 1     |  |
|             | Total                            | 16     | 22                    | )-       | 16               | 11    | -   | 27    |  |

|         |                                  |        | Int       | ernal A | ssesment |                       |     |      |     |
|---------|----------------------------------|--------|-----------|---------|----------|-----------------------|-----|------|-----|
|         |                                  | Intern | al Assesi |         | End Sem  | Exam                  | TW  |      | Tot |
|         | . (                              | Test 1 | Test 2    | Avg     | Exam     | Duration<br>( in Hrs) |     | oral |     |
| CPC801  | Data Warehouse and Mining        | 20     | 20        | 20      | 80       | 03                    | 25  | 25   | 150 |
| CPC802  | Human Machine Interaction        | 20     | 20        | 20      | 80       | 03                    | 25  | 25   | 150 |
| CPC803  | Parallel and distributed Systems | 20     | 20        | 20      | 80       | 03                    | 25  | 25   | 150 |
| CPE803X | Elective-III                     | 20     | 20        | 20      | 80       | 03                    | 25  | 25   | 150 |
| CPP802  | Project II                       | -      | -         | -       | -        | -                     | 50  | 50   | 100 |
| CPL801  | Cloud Computing Laboratory       | -      | -         | -       | -        | -                     | 25  | -    | 25  |
|         | Total                            |        |           | 80      | 320      |                       | 175 | 150  | 725 |



#### Elective II Sem 7

| System Group      | CPE7021 | Advance Algorithms               |
|-------------------|---------|----------------------------------|
|                   | CPE7022 | Computer Simulation and Modeling |
| Electronics Group | CPE7023 | Image Processing                 |
| Software Group    | CPE7024 | Software Architecture            |
|                   | CPE7025 | Soft Computing                   |
| DB Group          | CPE7026 | ERP and Supply Chain Management  |

#### Elective III - Sem 8

| Electronics Group | CPE8031 | Machine Learning        |
|-------------------|---------|-------------------------|
| Digital Group     | CPE8032 | Embedded Systems        |
| Network Group     | CPE8033 | Adhoc wireless networks |
|                   | CPE8034 | Digital Forensic        |
| DB Group          | CPE8035 | Big data Analytics      |

Dr. G. T. Thampi



#### Second Year (Computer) (Semester III)

#### (REV 2012)

| Course Code | Course Name   | Teaching Scheme<br>(Contact Hours) |       | C   |        |              |     |       |
|-------------|---|------------------------------------|-------|-----|--------|--------------|-----|-------|
|             |   | Theory                             | Pract | Tut | Theory | TW/<br>Pract | Tut | Total |
| CSC301      | Applied Mathematics III*                              | 4                                  | -     | 1#  | 4      |              | 1   | 5     |
| CSC 302     | Object Oriented Programming Methodolgy*               | 4                                  | 2     | -   | 4      | 1            | -   | 5     |
| CSC303      | Data Structures                                       | 4                                  | 2     | -   | 4      |              | -   | 5     |
| CSC304      | Digital Logic Design and Analysis                     | 3                                  | 2     | 0   | 3      | 1            | -   | 4     |
| CSC305      | Discrete Structures                                   | 4                                  |       | X   | 4      | -            | -   | 4     |
| CSC306      | Electronic Circuits and Communication<br>Fundamentals | 4                                  | 2     | R   | 4      | 1            | -   | 5     |
|             | Total   | 23                                 | 8     | 1   | 23     | 4            | 1   | 28    |

| Course Code | Course Name Examination Scheme                        |        |           |         |          |                       |     |           |     |  |
|-------------|---|--------|-----------|---------|----------|-----------------------|-----|-----------|-----|--|
|             | • (   |        | Int       | ernal A | ssesment |                       |     |           |     |  |
|             |   | Intern | al Assesr | nent    | End Sem  | Exam                  | TW  | Pract     | Tot |  |
|             |   | Test 1 | Test 2    | Avg     | Exam     | Duration<br>( in Hrs) |     | /<br>oral |     |  |
| CSC301      | Applied Mathematics III*                              | 20     | 20        | 20      | 80       | 03                    | 25! | -         | 125 |  |
| CSC302      | Object Oriented Programming<br>Methodolgy*            | 20     | 20        | 20      | 80       | 03                    | 25  | 25        | 150 |  |
| CSC303      | Data Structures                                       | 20     | 20        | 20      | 80       | 03                    | 25  | 25        | 150 |  |
| CSC304      | Digital Logic Design and Analysis                     | 20     | 20        | 20      | 80       | 03                    | 25  | -         | 125 |  |
| CSC305      | Discrete Structures                                   | 20     | 20        | 20      | 80       | 03                    | -   | -         | 100 |  |
| CSC306      | Electronic Circuits and<br>Communication Fundamentals | 20     | 20        | 20      | 80       | 03                    | 25  | 25        | 150 |  |
|             | Total   | -      | -         | 120     | 480      | -                     | 125 | 75        | 750 |  |

University of Mumbai Computer Engineering (Second Year - Sem II & IV) Revised (

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#### Second Year (Computer) (Semester IV)

| Course Code | Course Name                             | Teaching Scheme<br>(Contact Hours) |       |     | Credits Assigned |              |     |       |  |
|-------------|---|------------------------------------|-------|-----|------------------|--------------|-----|-------|--|
|             |   | Theory                             | Pract | Tut | Theory           | TW/<br>Pract | Tut | Total |  |
| CSC401      | Applied Mathematics IV*                 | 4                                  | -     | 1   | 4                | -            | 1#  | 5     |  |
| CSC402      | Analysis of Algorithms                  | 4                                  | 2     | -   | 4                | 1            | 1   | 5     |  |
| CSC403      | Computer Organization and Architecture* | 4                                  | 2     | -   | 4                | 1            |     | 5     |  |
| CSC404      | Data Base Management systems            | 4                                  | 2     | -   | 4                | 1            | -   | 5     |  |
| CSC405      | Theoretical Computer Science            | 4                                  | -     |     | 4                | -            | -   | 4     |  |
| CSC406      | Computer Graphics                       | 3                                  | 2     |     | 3                | 1            | -   | 4     |  |
|             | Total                                   | 23                                 | 8     | 1   | 23               | 4            | 1   | 28    |  |

#### (REV 2012)

| <b>Course Code</b> | Course Name                                |        |           |      |             | on Scheme            |     |           |     |
|--------------------|--|--------|-----------|------|-------------|----------------------|-----|-----------|-----|
|                    |  |        |           |      | ssesment    | 1                    |     | 1         |     |
|                    |  | Intern | al Assesı | nent | End         | Exam                 | TW  | Prac      | Tot |
|                    |  | Test 1 | Test 2    | Avg  | Sem<br>Exam | Duration<br>(in Hrs) |     | /<br>oral |     |
| CSC401             | Applied Mathematics IV*                    | 20     | 20        | 20   | 80          | 03                   | 25! | -         | 125 |
| CSC402             | Analysis of Algorithms                     | 20     | 20        | 20   | 80          | 03                   | 25  | 25        | 150 |
| CSC403             | Computer Organization and<br>Architecture* | 20     | 20        | 20   | 80          | 03                   | 25  | 25        | 150 |
| CSC404             | Data Base Management systems               | 20     | 20        | 20   | 80          | 03                   | 25  | 25        | 150 |
| CSC405             | Theoretical Computer Science               | 20     | 20        | 20   | 80          | 03                   | -   | -         | 100 |
| CSC406             | Computer Graphics                          | 20     | 20        | 20   | 80          | 03                   | 25  | 25        | 150 |
|                    | Total                                      | -      | -         | 120  | 480         | -                    | 125 | 100       | 825 |

\* Common Subjects with IT # Tutorial to be taken class wise <u>**Tutorials will be evaluated as Term work</u></u></u>** 

University of Mumbai Computer Engineering (Second Year – Sem II & IV) Revised (

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#### Third Year (Computer)

(Semester V)

#### (REV 2012)

|             | (REV 2012)   |        |                     |     |                  |              |     |       |  |  |
|-------------|--|--------|---------------------|-----|------------------|--------------|-----|-------|--|--|
| Course Code | Course Name  |        | ing Scho<br>act Hou |     | Credits Assigned |              |     |       |  |  |
|             |  | Theory | Pract               | Tut | Theory           | TW/<br>Pract | Tut | Total |  |  |
| CPC501      | Microprocessor                                     | 4      | 2                   | -   | 4                | 1            |     | 5     |  |  |
| CPC502      | Operating Systems                                  | 4      | 2                   | -   | 4                | 1            | -   | 5     |  |  |
| CPC503      | Structured and Object Oriented Analysis and Design | 4      | 2                   | -   | 4                |              | -   | 5     |  |  |
| CPC504      | Computer Networks                                  | 4      | 2                   | 7   | 4                | 1            | -   | 5     |  |  |
| CPL501      | Web Technologies Laboratory                        | -      | 4                   |     | -                | 2            | -   | 2     |  |  |
| CPL502      | Business Communication and Ethics*                 | -      | 2                   | 2   | -                | 2            |     | 2     |  |  |
|             | Total  | 18     | 12                  | 2   | 16               | 8            | -   | 24    |  |  |

\* 2 hours shown as Practicals to be taken class wise and 2 hours for tutorials to be taken as batch wise

| Course Code | Course Name   |            |          | Ε       | xamination | Scheme                | ıe  |              |      |  |  |  |  |
|-------------|---|------------|----------|---------|------------|-----------------------|-----|--------------|------|--|--|--|--|
|             | •   |            | Interna  | l Asses | ment       |                       |     |              |      |  |  |  |  |
|             |   | Internal A | ssesment | ţ       | End Sem    | Exam                  | TW  | Oral         | Tota |  |  |  |  |
|             |   | Test 1     | Test 2   | Avg     | Exam       | Duration<br>( in Hrs) |     | /<br>Pract   |      |  |  |  |  |
| CPC501      | Microprocessor  | 20         | 20       | 20      | 80         | 03                    | 25  | 25<br>prac   | 125  |  |  |  |  |
| CPC502      | Operating Systems                                     | 20         | 20       | 20      | 80         | 03                    | 25  | 25<br>(prac  | 150  |  |  |  |  |
| CPC503      | Structured and Object Oriented<br>Analysis and Design | 20         | 20       | 20      | 80         | 03                    | 25  | 25<br>(oral) | 150  |  |  |  |  |
| CPC504      | Computer Networks                                     | 20         | 20       | 20      | 80         | 03                    | 25  | 25<br>prac   | 150  |  |  |  |  |
| CPL501      | Web Technologies Laboratory                           | -          | -        | -       | -          | -                     | 25  | 50<br>(oral) | 75   |  |  |  |  |
| CPL502      | Business Communication and<br>Ethics                  | -          | -        | -       | -          | -                     | 50  | -            | 50   |  |  |  |  |
|             | Total   | -          | -        | 80      | 320        |                       | 175 | 150          | 725  |  |  |  |  |

(V)

#### Third Year (Computer) (Semester VI)

| (REV | 2012) |
|------|-------|
|------|-------|

| Course Code | Course Name                                     |        | ing Sche<br>act Hou |   | C      | redits As    | signed |       |
|-------------|---|--------|---------------------|---|--------|--------------|--------|-------|
|             |   | Theory | Pract               |   | Theory | TW/<br>Pract | Tut    | Total |
| CPC601      | System Programming and Compiler<br>Construction | 4      | 2                   | - | 4      | 1            | C      | 5     |
| CPC602      | Software Engineering                            | 4      | 2                   | - | 4      | 1            |        | 5     |
| CPC603      | Distributed Databases                           | 4      | 2                   | - | 4      | 1            | -      | 5     |
| CPC604      | Mobile Communication and Computing              | 4      | 2                   | - | 4      |              | -      | 5     |
| CPE6011     | Elective-I                                      | 3      | -                   |   | -      | 2            | -      | 2     |
| CPL601      | Network Programming Laboratory                  | -      | 4                   | K | 2-     | 2            | -      | 2     |
|             | Total   | 19     | 12                  | K | 16     | 8            | -      | 24    |
|             |   | 0      | J                   | - | 1      |              |        |       |

| Course Code | Course Name                                     | Examination Scheme |           |      |         |                      |     |               |     |
|-------------|---|--------------------|-----------|------|---------|----------------------|-----|---------------|-----|
|             |   |                    | Int       |      |         |                      |     |               |     |
|             |   | Intern             | al Assesi | nent | End Sem | Exam                 | TW  | oral          | То  |
|             |   | Test 1             | Test 2    | Avg  | Exam    | Duration<br>(in Hrs) |     | /<br>pract    |     |
| CPC601      | System Programming and Compiler<br>Construction | 20                 | 20        | 20   | 80      | 03                   | 25  | 25<br>(pract) | 150 |
| CPC602      | Software Engineering                            | 20                 | 20        | 20   | 80      | 03                   | 25  | 25<br>(oral)  | 150 |
| CPC603      | Distributed Databases                           | 20                 | 20        | 20   | 80      | 03                   | 25  | 25<br>(oral)  | 150 |
| CPC604      | Mobile Communication and<br>Computing           | 20                 | 20        | 20   | 80      | 03                   | 25  | 25<br>(pract) | 150 |
| CPE601X     | Elective-I                                      | -                  | -         | -    | -       | -                    | 50  | -             | 50  |
| CPL601      | Network Programming Laboratory                  | -                  | -         | -    | -       | -                    | 25  | 50<br>(oral   | 75  |
|             | Total   | -                  | -         | 80   | 320     | -                    | 175 | 150           | 725 |

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| Elective I Sem 6 |                           |  |  |  |  |  |  |  |
|------------------|---------------------------|--|--|--|--|--|--|--|
| CPE6011          | <b>Operation Research</b> |  |  |  |  |  |  |  |
| CPE6012          | Project Management        |  |  |  |  |  |  |  |
| CPE6013          | Foreigh Language – German |  |  |  |  |  |  |  |
| CPE6014          | Foreigh Language – French |  |  |  |  |  |  |  |

#### **Elective II Sem 7**

| Elective II Sem 7        |         |                                  |
|--------------------------|---------|----------------------------------|
|                          |         | S <sup>+</sup>                   |
| System Group             | CPE7021 | Advance Algorithms               |
|                          | CPE7022 | Computer Simulation and Modeling |
| <b>Electronics Group</b> | CPE7023 | Image Processing                 |
| Software Group           | CPE7024 | Software Architecture            |
|                          | CPE7025 | Soft Computing                   |
| DB Group                 | CPE7026 | ERP and Supply Chain Management  |

#### Elective III - Sem 8

| Electronics Group | CPE8031        | Machine Learning        |
|-------------------|----------------|-------------------------|
| Digital Group     | CPE8032        | Embedded Systems        |
| Network Group     | <b>CPE8033</b> | Adhoc wireless networks |
|                   | CPE8034        | Digital Forensic        |
| DB Group          | CPE8035        | Big data Analytics      |





# Syllabus Structure Rev 2012 Information Technology





## **B.E. Engineering (Semester VII) Revised course for Information Technology**

#### Academic Year 2015 -16 (REV- 2012)

| Course Code | Course Name                    | Teaching Scheme<br>(hrs/week) |        |      | Credits Assigned |         |      |       |  |  |
|-------------|--------------------------------|-------------------------------|--------|------|------------------|---------|------|-------|--|--|
|             |                                | Theory                        | Pract. | Tut. | Theory           | TW/Prac | Tut. | Total |  |  |
| ITC701      | Software Project               | 4                             |        |      | 4                |         | )    | 4     |  |  |
|             | Management                     |                               |        |      |                  | C       |      |       |  |  |
| ITC702      | Cloud Computing                | 3                             |        |      | 3                | 5       |      | 3     |  |  |
| ITC703      | Intelligent System             | 4                             |        |      | 4                |         |      | 4     |  |  |
| ITC704      | Wireless Technology            | 4                             |        |      | 4                |         |      | 4     |  |  |
| ITC705      | Elective - I                   | 4                             |        | Y    | 4                |         |      | 4     |  |  |
| ITL701      | Software Project<br>Management |                               | 2      | 5    |                  | 1       |      | 1     |  |  |
| ITL702      | Cloud Computing                |                               | 2      |      |                  | 1       |      | 1     |  |  |
| ITL703      | Intelligent System             |                               | 2      |      |                  | 1       |      | 1     |  |  |
| ITL704      | Wireless Technology            |                               | 2      |      |                  | 1       |      | 1     |  |  |
| ITT705      | Elective - I                   |                               | 2      |      |                  | 1       |      | 1     |  |  |
| ITP706      | Project-I                      |                               | *      |      |                  | 3       |      | 3     |  |  |
|             | Total                          | 19                            | 10     |      | 19               | 08      |      | 27    |  |  |

\*Work load of the teacher in semester VII is equivalent to 6 hrs/week.

|         | Elective –I (Semester VII) |  |  |  |  |  |  |
|---------|----------------------------|--|--|--|--|--|--|
| ITC7051 | Image Processing           |  |  |  |  |  |  |
| ITC7052 | Software Architecture      |  |  |  |  |  |  |
| ITC7053 | E-Commerce & E-Business    |  |  |  |  |  |  |
| ITC7054 | Multimedia Systems         |  |  |  |  |  |  |
| ITC7055 | Usability Engineering      |  |  |  |  |  |  |
| ITC7056 | Ubiquitous Computing       |  |  |  |  |  |  |

University of Mumbai, Information Technology (semester VII and semester VIII) (Rev-2012)



#### **Examination Scheme**

|                |                                |                     |           | Theory | Term        |                      |        |       |     |
|----------------|--------------------------------|---------------------|-----------|--------|-------------|----------------------|--------|-------|-----|
| Course<br>Code | Course Name                    | Internal Assessment |           | End    |             | Exam                 | Pract/ | Total |     |
|                |                                | TEST<br>1           | TEST<br>2 | AVG.   | sem<br>exam | duration<br>(in Hrs) | work   | Oral  |     |
| ITC701         | Software Project<br>Management | 20                  | 20        | 20     | 80          | 3                    | 25     | 25    | 150 |
| ITC702         | Cloud<br>Computing             | 20                  | 20        | 20     | 80          | 3                    | 25     | 25    | 150 |
| ITC703         | Intelligent<br>System          | 20                  | 20        | 20     | 80          | 3                    | 25     | 25    | 150 |
| ITC704         | Wireless<br>Technology         | 20                  | 20        | 20     | 80          | 3                    | 25     | 25    | 150 |
| ITC705         | Elective - I                   | 20                  | 20        | 20     | 80          | 3                    | 25     | 25    | 150 |
| ITP706         | Project-I                      |                     |           |        |             |                      | 25     | 25    | 050 |
|                | Total                          | 100                 | 100       | 100    | 400         | 15                   | 150    | 150   | 800 |

University of Mumbai, Information Technology (semester VII and semester V

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#### B.E. Engineering (Semester VIII) Revised course for Information Technology from Academic Year 2015 -16, (REV- 2012)

| Course | Course Name         | Tea    | aching Sc | heme | Credits Assigned |          |      |       |  |
|--------|---------------------|--------|-----------|------|------------------|----------|------|-------|--|
| Code   |                     | Theory | Pract.    | Tut. | Theory           | TW/Pract | Tut. | Total |  |
| ITC801 | Storage Network     | 4      |           |      | 4                |          |      | 4     |  |
|        | Management and      |        |           |      |                  |          |      |       |  |
|        | Retrieval           |        |           |      |                  |          |      |       |  |
| ITC802 | Big Data Analytics  | 4      |           |      | 4                | S        |      | 4     |  |
| ITC803 | Computer Simulation | 4      |           |      | 4                |          |      | 4     |  |
|        | and Modeling        |        |           |      | 0                |          |      |       |  |
| ITC804 | Elective -II        | 4      |           | S    | 4                |          |      | 4     |  |
| ITL801 | Storage Network     |        | 2         |      |                  | 1        |      | 1     |  |
|        | Management and      |        |           |      |                  |          |      |       |  |
|        | Retrieval           |        | ) (       |      | *                |          |      |       |  |
| ITL802 | Big Data Analytics  |        | 2         |      |                  | 1        |      | 1     |  |
| ITL803 | Computer Simulation |        | 2         |      |                  | 1        |      | 1     |  |
|        | and Modeling        |        |           |      |                  |          |      |       |  |
| ITL804 | Elective -II        | 2      | 2         |      |                  | 1        |      | 1     |  |
| ITP805 | Project - II        |        | **        |      |                  | 6        |      | 6     |  |
|        | Total               | 16     | 08        |      | 16               | 10       |      | 26    |  |

\*\*Workload of the teacher in semester VIII is equivalent to 12 hrs/week.

| Elective –I I ( Semester VIII) |                                      |  |  |  |  |  |
|--------------------------------|--------------------------------------|--|--|--|--|--|
| ITC8041                        | Enterprise Resource Planning         |  |  |  |  |  |
| ITC8042                        | Wireless Sensor Networks             |  |  |  |  |  |
| ITC8043                        | Geographical Information Systems     |  |  |  |  |  |
| ITC8044                        | Robotics                             |  |  |  |  |  |
| ITC8045                        | Soft Computing                       |  |  |  |  |  |
| ITC8046                        | Software Testing & Quality Assurance |  |  |  |  |  |

University of Mumbai, Information Technology (semester VII and semester V



#### **Examination Scheme**

| Course<br>Code |  |                     |           | Theo     |             |                      | 5    |        |       |
|----------------|--|---------------------|-----------|----------|-------------|----------------------|------|--------|-------|
|                | Course Name                                    | Internal Assessment |           |          | End         | Exam                 | Term | Pract/ | Total |
|                |  | TEST<br>1           | TEST<br>2 | AVG<br>· | sem<br>exam | duration<br>(in Hrs) | work | Oral   |       |
| ITC801         | Storage Network<br>Management<br>and Retrieval | 20                  | 20        | 20       | 80          | 3                    | 25   | 25     | 150   |
| ITC802         | Big Data<br>Analytics                          | 20                  | 20        | 20       | 80          | 3                    | 25   | 25     | 150   |
| ITC803         | Computer<br>Simulation and<br>Modeling         | 20                  | 20        | 20       | 80          | 3                    | 25   | 25     | 150   |
| ITC804         | Elective -II                                   | 20                  | 20        | 20       | 80          | 3                    | 25   | 25     | 150   |
| ITP805         | Project - II                                   |                     |           |          |             |                      | 50   | 50     | 100   |
|                | Total  | 80                  | 80        | 80       | 320         | 12                   | 150  | 150    | 700   |

University of Mumbai, Information Technology (semester VII and semester V





#### **Preamble:**

The engineering education in India in general is expanding in manifolds. Now, the challenge is to ensure its quality to the stakeholders along with the expansion. To meet this challenge, the issue of quality needs to be addressed, debated and taken forward in a systematic manner. Accreditation is the principal means of quality assurance in higher education and reflects the fact that in achieving recognition, the institution or program of study is committed and open to external review to meet certain minimum specified standards. The major emphasis of this accreditation process is to measure the outcomes of the program that is being accredited. Program outcomes are essentially a range of skills and knowledge that a student will have at the time of graduation from the program. In line with this Faculty of Technology of University of Mumbai has taken a lead in incorporating philosophy of outcome based education in the process of curriculum development.

I, as Chairman, Board of Studies in Information Technology of University of Mumbai, happy to state here that, Program Educational Objectives were finalized in a meeting where more than 30 members from different Institutes were attended, who were either Heads or their representatives of Information Technology Department. The Program Educational Objectives finalized for undergraduate program in Information Technology are listed below;

- 1. To prepare Learner's with a sound foundation in the basics of engineering fundamentals.
- 2. To prepare Learner's to use effectively modern programming tools to solve real life problems.
- 3. To prepare Learner's for successful career in Indian and Multinational Organisations and to excel in Postgraduate studies
- 4. To encourage and motivate Learner's for entrepreneurship.
- 5. To inculcate professional and ethical attitude, good leadership qualities and commitment to social responsibilities in Learners.
- 6. To encourage Learner to use best practices and implement technologies to enhance information security and enable compliance, ensuring confidentiality, information integrity, and availability.

In addition to Program Educational Objectives, for each course of undergraduate program, objectives and expected outcomes from learner's point of view are also included in the curriculum to support the philosophy of outcome based education. I believe strongly that small step taken in right direction will definitely help in providing quality education to the stake holders.

#### **Dr. J. W. Bakal** Chairman, Board of Studies in Information Technology University of Mumbai, Mumbai

University of Mumbai, Information Technology (semester V and VI) (Rev-2012



### Third Year Engineering (Semester V) Revised course for Information Technology

#### Academic Year 2014-15 (REV- 2012)

| Sub      |   |        | ng Scheme<br>rs/week) |      | С      |                  |      |       |
|----------|---|--------|-----------------------|------|--------|------------------|------|-------|
| Code     | Subject Name                            | Theory | Practical             | Tut. | Theory | TW/<br>Practical | Tut. | Total |
| TEITC501 | Computer Graphics and Virtual Reality   | 4      |                       |      | 4      | J'               |      | 4     |
| TEITC502 | Operating Systems                       | 4      |                       |      | 4      |                  |      | 4     |
| TEITC503 | Microcontroller and Embedded Systems    | 4      |                       |      | 4      |                  |      | 4     |
| TEITC504 | Advanced Database<br>Management Systems | 4      |                       |      | 4      |                  |      | 4     |
| TEITC505 | Open Source Technologies                | 3      | 5                     |      | 3      |                  |      | 3     |
| TEITC506 | Business Communication and<br>Ethics*   | <      | 2**+2                 |      |        | 2                |      | 2     |
| TEITL501 | Computer Graphics and Virtual Reality   | 5      | 2                     |      |        | 1                |      | 1     |
| TEITL502 |   |        | 2                     |      |        | 1                |      | 1     |
| TEITL503 | Microcontroller and Embedded Systems    |        | 2                     |      |        | 1                |      | 1     |
| TEITL504 | Advanced Database<br>Management Systems |        | 2                     |      |        | 1                |      | 1     |
| TEITL505 | Open Source Technologies                |        | 2                     |      |        | 1                |      | 1     |
|          | Total                                   | 19     | 12                    |      | 19     | 07               |      | 26    |

\*Common for all programs.

**\*\*Theory class to be conducted for entire class.** 

Note: During third year of engineering learners can be exposed to industrial environment by arranging an industrial visit.

#### **Examination Scheme**

University of Mumbai, Information Technology (semester V and VI) (Rev-2012





|          |  |           |            | Theor | y           |                      |      | rk     Oral       5     25       5     25       5     25       5     25       5     25       5     25       5     25       5     25       5     25 |       |
|----------|--|-----------|------------|-------|-------------|----------------------|------|--|-------|
| Course   | Course Name                              | Interr    | nal Assess | sment | End         | Exam                 | Term |  | Total |
| Code     |  | TEST<br>1 | TEST<br>2  | AVG.  | sem<br>exam | duration<br>(in Hrs) | work | Oral   |       |
| TEITC501 | Computer Graphics<br>and Virtual Reality | 20        | 20         | 20    | 80          | 3                    | 25   | 25   | 150   |
| TEITC502 | Operating Systems                        | 20        | 20         | 20    | 80          | 3                    | 25   | 25   | 150   |
| TEITC503 | Microcontroller and<br>Embedded Systems  | 20        | 20         | 20    | 80          | 3                    | 25   | 25   | 150   |
| TEITC504 | Advanced Database<br>Management Systems  | 20        | 20         | 20    | 80          | 3                    | 25   | 25   | 150   |
| TEITC505 | Open Source<br>Technologies              | 20        | 20         | 20    | 80          | 3                    | 25   | 25   | 150   |
| TEITC506 | Business<br>Communication and<br>Ethics* |           | )          |       |             |                      | 25   | 25   | 050   |
|          | Total                                    | 100       | 100        | 100   | 400         | 15                   | 150  | 150  | 800   |
|          |  |           |            |       |             |                      |      |  |       |

University of Mumbai, Information Technology (semester V and VI) (Rev-2012





Dr. G. T. Thampi

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# Third Year Engineering (Semester VI) Revised course for Information Technology Academic Year 2014 -15 (REV- 2012)

| Subject<br>Code | Subject Name                             |        | aching Scho<br>hrs/week) | eme  |        | Credits Ass | igned |       |
|-----------------|--|--------|--------------------------|------|--------|-------------|-------|-------|
| Coue            |  | Theory | Practical                | Tut. | Theory | TW/Pract.   | Tut.  | Total |
| TEITC601        | Software Engineering                     | 4      |                          |      | 4      |             |       | 4     |
| TEITC602        | Distributed Systems                      | 4      |                          |      | 4      | 50          |       | 4     |
| TEITC603        | System and Web<br>Security               | 4      |                          |      | 4      | 5           |       | 4     |
| TEITC604        | Data Mining and<br>Business Intelligence | 4      |                          |      | 4      |             |       | 4     |
| TEITC605        | Advance<br>Internet<br>Technology        | 4      | 0                        | 0    | 4      |             |       | 4     |
| TEITL601        | Software Engineering                     |        | 2                        |      |        | 1           |       | 1     |
| TEITL602        | Distributed Systems                      |        | 2                        |      |        | 1           |       | 1     |
| TEITL603        | System and Web<br>Security               | C      | 2                        |      |        | 1           |       | 1     |
| TEITL604        | Data Mining and<br>Business Intelligence |        | 2                        |      |        | 1           |       | 1     |
| TEITL605        | Advance Internet<br>Technology           |        | 2                        |      |        | 1           |       | 1     |
|                 | Total                                    | 20     | 10                       |      | 20     | 05          |       | 25    |

University of Mumbai, Information Technology (semester V and VI) (Rev-20)





# **Examination Scheme**

|          |  |           |             | Theory |             |                      |      |           | 3     |
|----------|--|-----------|-------------|--------|-------------|----------------------|------|-----------|-------|
| Course   | Course Name                            | Inter     | nal Assessi | ment   | End         | Exam                 | Term | Practical | Total |
| Code     |  | TEST<br>1 | TEST<br>2   | AVG.   | Sem<br>exam | duration<br>(in Hrs) | work | /Oral     |       |
| TEITC601 | Software Engineering                   | 20        | 20          | 20     | 80          | 3                    | 25   | 25        | 150   |
| TEITC602 | Distributed Systems                    | 20        | 20          | 20     | 80          | 3                    | 25   | 25        | 150   |
| TEITC603 | System & Web<br>Security               | 20        | 20          | 20     | 80          | 3                    | 25   | 25        | 150   |
| TEITC604 | Data Mining &<br>Business Intelligence | 20        | 20          | 20     | 80          | 3                    | 25   | 25        | 150   |
| TEITC605 | Advance Internet<br>Technology         | 20        | 20          | 20     | 80          | 3                    | 25   | 25        | 150   |
|          | Total                                  | 100       | 100         | 100    | 400         | 15                   | 125  | 125       | 750   |

University of Mumbai, Information Technology (semester V and VI) (Rev-20)





| Course   | Course Name  | Teach             | ing Schem | ie  |        | Credits As | signe | d     |
|----------|--|-------------------|-----------|-----|--------|------------|-------|-------|
| Code     |  | Theory            | Pract.    | Tut | Theory | TW/Pract   | Tut   | Total |
| SEITC301 | Applied Mathematics – III *                        | 4                 |           | 1   | 4      |            | 1     | 5     |
| SEITC302 | Data Structure and Algorithm Analysis              | 4                 |           |     | 4      |            |       | 5     |
|          | Object Oriented Programming<br>Methodology*        | 4                 |           |     | 4      |            |       | 5     |
|          | Analog and Digital Circuits                        | 4                 |           |     | 4      |            |       | 5     |
| SEITC305 | Database Management Systems                        | 3                 |           |     | 3      | <b>C</b> • |       | 4     |
|          | Principles of Analog and Digital<br>Communication. | 3                 |           |     | 3      |            |       | 4     |
|          | Data Structure and Algorithm<br>Analysis           |                   | 2         |     | 25     | 1          |       |       |
|          | Object Oriented Programming<br>Methodology*        |                   | 2         |     |        | 1          |       |       |
| SEITL304 | Analog and Digital Circuits                        |                   | 2         | X   |        | 1          |       |       |
| SEITL305 | Database Management Systems                        |                   | 2         |     |        | 1          |       |       |
|          | Principles of Analog and Digital<br>Communication  | $\mathbf{\nabla}$ | 2         |     |        | 1          |       |       |
|          | TOTAL  | 22                | 10        | 1   | 22     | 5          | 1     | 28    |

## S. E. (Information Technology) Sem.-III

#### **Examination Scheme**

| Course   | Course Name                                    | Theory   |           |      |             |                      | Term | Pract | Total |
|----------|--|----------|-----------|------|-------------|----------------------|------|-------|-------|
| Code     |  | Internal | Assessmer | nt   | End         | Exam                 | work | /Oral |       |
|          | 6  | TEST1    | TEST 2    | AVG. | sem<br>exam | duration<br>(in Hrs) |      |       |       |
| SEITC301 | Applied Mathematics-III*                       | 20       | 20        | 20   | 80          | 3                    | 25   |       | 125   |
| SEITC302 | Data Structure & Algorithm<br>Analysis         | 20       | 20        | 20   | 80          | 3                    | 25   | 25    | 150   |
| SEITC303 | Object Oriented<br>Programming<br>Methodology* | 20       | 20        | 20   | 80          | 3                    | 25   | 25    | 150   |
| SEITC304 | Analog & Digital Circuits                      | 20       | 20        | 20   | 80          | 3                    | 25   | 25    | 150   |
| SEITC305 | Database Management<br>Systems                 | 20       | 20        | 20   | 80          | 3                    | 25   | 25    | 150   |
| SEITC306 | Principles of Analog & Digital Communication.  | 20       | 20        | 20   | 80          | 3                    | 25   | 25    | 150   |
|          | Total  | 120      | 120       | 120  | 480         |                      | 150  | 125   | 875   |

\* Common with Computer Engineering.

Tutorials will be evaluated as term work.



| Course   | Course Name                   | Tea | ching Sc | heme |     | Credi  | ts Assi | gned  |
|----------|-------------------------------|-----|----------|------|-----|--------|---------|-------|
| Code     |                               | Th  | Pract    | Tut  | Th. | Pract/ | Tut     | Total |
| SEITC401 | Applied Mathematics-IV*       | 4   |          | 1    | 4   |        | 1       | 5     |
| SEITC402 | Computer Networks             | 4   |          |      | 4   |        |         | 5     |
| SEITC403 | Computer Organization and     | 4   |          |      | 4   |        |         | 4     |
|          | Architecture*                 |     |          |      |     |        |         |       |
| SEITC404 | Automata Theory               | 3   |          | 1    | 3   |        | 1       | 4     |
| SEITC405 | Web Programming               | 4   |          |      | 4   |        |         | 5     |
| SEITC406 | Information Theory and Coding | 4   |          | 1    | 4   |        | 1       | 5     |
| SEITL402 | Computer Networks             |     | 2        |      |     | 1      |         |       |
| SEITL405 | Web Programming               |     | 2        |      |     |        |         |       |
|          | Total                         | 23  | 4        | 3    | 23  | 2      | 3       | 28    |

## S. E. (Information Technology) Sem.-IV

# **Examination Scheme**

| Course   | Course Name                                   | Theory  |           |      | U           | • •                  | Term | Pract/ | Total |
|----------|---|---------|-----------|------|-------------|----------------------|------|--------|-------|
| Code     |   | Interna | l Assessn | nent | END         | EXAM                 | work | Oral   |       |
|          |   | TEST1   | TEST 2    | AVG. | SEM<br>EXAM | DURATION<br>(in Hrs) |      |        |       |
| SEITC401 | Applied<br>Mathematics-IV*                    | 20      | 20        | 20   | 80          | 3                    | 25   |        | 125   |
| SEITC402 | Computer<br>Networks                          | 20      | 20        | 20   | 80          | 3                    | 25   | 25     | 150   |
| SEITC403 | Computer<br>Organization and<br>Architecture* | 20      | 20        | 20   | 80          | 3                    | 25   | 25     | 150   |
| SEITC404 | Automata Theory                               | 20      | 20        | 20   | 80          | 3                    | 25   |        | 125   |
| SEITC405 | Web Programming                               | 20      | 20        | 20   | 80          | 3                    | 25   | 25     | 150   |
| SEITC406 | Information Theory<br>and Coding              | 20      | 20        | 20   | 80          | 3                    | 25   |        | 125   |
|          | Total   | 120     | 120       | 120  | 480         |                      | 150  | 75     | 825   |

\* Common with Computer Engineering.

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Tutorials will be evaluated as term work.

University of Mumbai, Information Technology (Second Year – Sem. III &IV) Revised





# Syllabus Structure Rev 2012 Chemical Engineering





| Subject | Subject Name                        | Teac   | ching Sch | neme |        | Credit A | ssigned |       |
|---------|-------------------------------------|--------|-----------|------|--------|----------|---------|-------|
| Code    | Subject Name                        | Theory | Pract.    | Tut. | Theory | Pract.   | Tut.    | Total |
| CHC701  | Process Equipment Design<br>(PED)   | 03     | _         | 01   | 3.0    | _        | 1.0     | 4.0   |
| CHC702  | Process Engineering                 | 03     | _         | 01   | 3.0    | —        | 1.0     | 4.0   |
| CHC703  | Process Dynamics & Control<br>(PDC) | 03     | _         | 01   | 3.0    | -        | 1.0     | 4.0   |
| CHE704  | Elective - II                       | 04     | _         | _    | 4.0    | - (      | -       | 4.0   |
| CHP705  | Project - A                         | _      | —         | 08   | _      | _        | 3.0     | 3.0   |
| CHS706  | Seminar                             | _      | _         | 03   | -      |          | 3.0     | 3.0   |
| CHL707  | Chemical Engg Lab (PED)             | _      | 03        | _    |        | 1.5      | _       | 1.5   |
| CHL708  | Chemical Engg Lab (PDC)             | _      | 03        | _    |        | 1.5      | _       | 1.5   |
|         | Total                               | 13     | 06        | 14   | 13.0   | 3.0      | 9.0     | 25.0  |

## Scheme for BE: Semester-VII

#### Examination Scheme

|         |   |        |         | Exa     | minatio | n Scher      | ne     |      |       |
|---------|---|--------|---------|---------|---------|--------------|--------|------|-------|
| Subject | Subject Name                                  |        | Theor   | y marks |         | Tomo         |        |      |       |
| Code    | Subject Ivalle                                | Intern | al Asse | essment | End     | Term<br>Work | Pract. | Oral | Total |
|         |   | Test   | Test    | Avg.of  | Sem.    | WOIN         |        |      |       |
|         |   | 1      | 2       | (A)     | Exam    |              |        |      |       |
|         |   | (A)    | (B)     | & (B)   |         |              |        |      |       |
| CHC701  | Process Equipment Design<br>(PED)             | 20     | 20      | 20      | 80      | 25           | _      | _    | 125   |
| CHC702  | Process Engineering                           | 20     | 20      | 20      | 80      | 25           | —      | _    | 125   |
| CHC703  | Process Dynamics & Control<br>(PDC)           | 20     | 20      | 20      | 80      | 25           | _      | _    | 125   |
| CHE704  | $\operatorname{Elective} - \operatorname{II}$ | 20     | 20      | 20      | 80      | _            | _      | _    | 100   |
| CHP705  | Project – A                                   | -      | _       | _       | —       | 100          | —      | 50   | 150   |
| CHS706  | Seminar                                       | _      | _       | _       | _       | 50           | _      | _    | 50    |
| CHL707  | Chemical Engg Lab (PED)                       | _      | _       | —       | _       | _            | _      | 25   | 25    |
| CHL708  | Chemical Engg Lab (PDC)                       | _      | _       | —       | —       | —            | 25     | 25   | 50    |
|         |   |        | Total   | 80      | 320     | 225          | 25     | 100  | 750   |

# Elective Streams(CHE704)

| Sem. | Management<br>Stream           | Technology Stream  | Process System Engineering<br>Stream |
|------|--------------------------------|--|--------------------------------------|
| VII  | High Performance<br>Leadership | <ul><li>Polymer Technology</li><li>Petroleum Refining<br/>Technology</li></ul> | • Advanced Process Simulation        |

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University of Mumbai

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 ${\rm Chemical} \mathop{\rm Engineering}_{115}$ 

| Subject | Subject Name                | Teac   | hing Sch | neme   | (      | Credit A | ssigned |       |
|---------|-----------------------------|--------|----------|--------|--------|----------|---------|-------|
| Code    | Subject Name                | Theory | Pract.   | Tut.   | Theory | Pract.   | Tut.    | Total |
| CHC801  | Modelling, Simulation &     | 03     | —        | 01     | 3.0    | —        | 1.0     | 4.0   |
|         | Optimization (MSO)          |        |          |        |        |          |         |       |
| CHC802  | Project Engineering &       | 03     | —        | 01     | 3.0    | —        | 1.0     | 4.0   |
|         | Entrepreneurship Management |        |          |        |        |          |         |       |
| CHC803  | Environmental Engineering   | 04     | _        | —      | 4.0    | _        | ( - )   | 4.0   |
|         | (EE)                        |        |          |        |        |          |         |       |
| CHC804  | Energy System Design        | 03     | —        | 01     | 3.0    |          | 1.0     | 4.0   |
| CHE805  | Elective – III              | 04     | —        | —      | 4.0    | _        | -       | 4.0   |
| CHP806  | Project – B                 | -      | _        | 08     |        | -        | 6.0     | 6.0   |
| CHL807  | Chemical Engineering Lab    | _      | 02       | -      |        | 1.0      | _       | 1.0   |
|         | (EE)                        |        |          |        |        |          |         |       |
| CHL808  | Chemical Engg Lab (MSO)     | -      | 02       | $\Box$ | -      | 1.0      | _       | 1.0   |
|         | Total                       | 17     | 04       | 11     | 17.0   | 2.0      | 9.0     | 28.0  |

## Scheme for BE: Semester-VIII

#### **Examination Scheme**

|         |                             |        |         | Exar    | ninatio | n Schen | ne     |      |       |
|---------|-----------------------------|--------|---------|---------|---------|---------|--------|------|-------|
| Subject | Subject Name                |        | Theor   | y marks |         | Term    |        |      |       |
| Code    | Subject Maine               | Intern | al Asse | essment | End     | Work    | Pract. | Oral | Total |
|         |                             | Test   | Test    | Avg.of  | Sem.    | Worn    |        |      |       |
|         |                             | 1      | 2       | (A)     | Exam    |         |        |      |       |
|         | •                           | (A)    | (B)     | & (B)   |         |         |        |      |       |
| CHC801  | Modelling, Simulation &     | 20     | 20      | 20      | 80      | 25      | _      | —    | 125   |
|         | Optimization (MSO)          |        |         |         |         |         |        |      |       |
| CHC802  | Project Engineering &       | 20     | 20      | 20      | 80      | 25      | -      | -    | 125   |
|         | Entrepreneurship Management |        |         |         |         |         |        |      |       |
| CHC803  | Environmental Engineering   | 20     | 20      | 20      | 80      | _       | _      | -    | 100   |
|         | (EE)                        |        |         |         |         |         |        |      |       |
| CHC804  | Energy System Design        | 20     | 20      | 20      | 80      | 25      | —      | —    | 125   |
| CHE805  | Elective – III              | 20     | 20      | 20      | 80      | _       | —      | —    | 100   |
| CHP806  | Project – B                 | _      | _       | _       | —       | 100     | _      | 50   | 150   |
| CHL807  | Chemical Engineering Lab    | _      | _       | _       | _       | _       | 25     | 25   | 50    |
|         | (EE)                        |        |         |         |         |         |        |      |       |
| CHL808  | Chemical Engg Lab (MSO)     | _      | _       | _       | —       | _       | 25     | —    | 25    |
|         |                             |        | Total   | 100     | 400     | 175     | 50     | 75   | 800   |

# Elective Streams(CHE805)

| Sem. | Management    | Technology Stream                | Process System Engineering |
|------|---------------|----------------------------------|----------------------------|
|      | Stream        |                                  | Stream                     |
| VIII | Total Quality | • Advanced Separation Technology | • Advanced Process Control |
|      | Management    | • Biotechnology                  | • Advanced Transport       |
|      |               | • Nanotechnology                 | Р                          |
|      | •             |                                  | IN INGINEER                |

University of Mumbai

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 $\begin{array}{c} {\rm Chemical} \, \mathop{\rm Engineering}_{116} \end{array}$ 

Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.

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#### <u>University of Mumbai</u> <u>Scheme for SE: Semester-III</u>

#### **Teaching Scheme**

| CHC301Applied<br>Mathematics-IIIO3-O13.0CHC302Engineering<br>Chemistry-I044.0CHC303Fluid Flow (FF)03-013.0CHC304Computer<br>Programming &<br>Numerical Methods03-013.0CHC305Process Calculations03-013.0CHC306Chemical<br>Engineering<br>Economics03-013.0CHL307Chem. Engg. Lab<br>(FF)-03CHL308Engineering<br>Economics-03CHL308Engineering<br>(FF)-03 | Pract         Tut         Total           -         1.0         4.0           -         -         4.0           -         1.0         4.0           -         1.0         4.0           -         1.0         4.0           -         1.0         4.0           -         1.0         4.0           -         1.0         4.0 |
|---|---|
| Mathematics-IIIMathematics-IIICHC302Engineering<br>Chemistry-I044.0CHC303Fluid Flow (FF)03-013.0CHC304Computer<br>Programming &<br>Numerical Methods03-013.0CHC305Process Calculations03-013.0CHC306Chemical<br>Engineering<br>Economics03-013.0CHL307Chem. Engg. Lab<br>(FF)-03  | -         -         4.0           -         1.0         4.0           -         1.0         4.0           -         1.0         4.0   |
| Chemistry-I03-013.0CHC303Fluid Flow (FF)03-013.0CHC304Computer<br>Programming &<br>Numerical Methods03-013.0CHC305Process Calculations03-013.0CHC306Chemical<br>Engineering<br>Economics03-013.0CHL307Chem. Engg. Lab<br>(FF)-03  | - <u>1.0</u> <u>4.0</u><br>- <u>1.0</u> <u>4.0</u><br>- <u>1.0</u> <u>4.0</u>   |
| CHC304Computer<br>Programming &<br>Numerical Methods03-013.0CHC305Process Calculations03-013.0CHC306Chemical<br>Engineering<br>Economics03-013.0CHL307Chem. Engg. Lab<br>(FF)-03  | - 1.0 4.0<br>- 1.0 4.0  |
| Programming &<br>Numerical Methods03-013.0CHC305Process Calculations03-013.0CHC306Chemical<br>Engineering<br>Economics03-013.0CHL307Chem. Engg. Lab<br>   | - 1.0 4.0   |
| CHC306Chemical<br>Engineering<br>Economics03-013.0CHL307Chem. Engg. Lab<br>(FF)-03  |   |
| Engineering<br>Economics     -     03     -       CHL307     Chem. Engg. Lab<br>(FF)     -     03     -   | - 1.0 4.0   |
| ( <b>FF</b> )   |   |
| CHL308 Engineering - 03   | 1.5 - 1.5   |
| Chemistry Lab I   | 1.5 - 1.5   |
| CHL309 Computer - 02<br>Programming &<br>Numerical Methods<br>Lab   | 1.0 - 1.0   |
| Total 19 08 05 19   | 4.0 5.0 28  |

#### **Examination Scheme**

| Subject Code | Subject Name  | Examinat   | ion Scheme   |                                 |                     |              |        |      |       |
|--------------|---|------------|--------------|---------------------------------|---------------------|--------------|--------|------|-------|
|              |   | Theory M   | Theory Marks |                                 |                     | Term<br>Work | Pract. | Oral | Total |
|              |   | Internal A | Assessment   |                                 | End<br>Sem.<br>Exam |              |        |      |       |
|              | C   | Test 1     | Test 2       | Average of Test 1<br>and Test 2 |                     |              |        |      |       |
| CHC301       | Applied<br>Mathematics-III                            | 20         | 20           | 20                              | 80                  | 25           | -      | -    | 125   |
| CHC302       | Engineering<br>Chemistry-I                            | 20         | 20           | 20                              | 80                  | -            | -      | -    | 100   |
| CHC303       | Fluid Flow (FF)                                       | 20         | 20           | 20                              | 80                  | 25           | -      | -    | 125   |
| СНС304       | Computer<br>Programming &<br>Numerical Methods        | 20         | 20           | 20                              | 80                  | 25           | -      | -    | 125   |
| CHC305       | Process Calculations                                  | 20         | 20           | 20                              | 80                  | 25           | -      |      | 125   |
| CHC306       | Chemical<br>Engineering<br>Economics                  | 20         | 20           | 20                              | 80                  | 25           | -      | -    | 125   |
| CHL307       | Chem. Engg. Lab<br>(FF)                               | -          | -            | -                               | -                   | -            | 25     | -    | 25    |
| CHL308       | Engineering<br>Chemistry Lab I                        | -          | -            | -                               | -                   | -            | 25     | -    | 25    |
| CHL309       | Computer<br>Programming &<br>Numerical Methods<br>Lab | -          | -            | -                               | -                   | -            | 25     | -    | 25    |
| Total        |   |            |              | 120                             | 480                 | 125          | 75     | -    | 800   |

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**Chemical Engineering** 

Rev 2012-2013

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#### **Scheme for SE: Semester-IV**

#### **Teaching Scheme**

| Subject Code | Subject Name                                   | Teaching | Scheme |          | Credit Ass | igned |     |       |
|--------------|--|----------|--------|----------|------------|-------|-----|-------|
|              |  | Theory   | Pract. | Tutorial | Theory     | Pract | Tut | Total |
| CHC401       | Applied<br>Mathematics-IV                      | 03       | -      | 1.0      | 3.0        | -     | 1.0 | 4.0   |
| CHC402       | Engineering<br>Chemistry-II                    | 04       | -      | -        | 4.0        | -     |     | 4.0   |
| CHC403       | Chemical Engg.<br>Thermodynamics - I           | 03       | -      | 1.0      | 3.0        | -     | 1.0 | 4.0   |
| CHC404       | Material Science<br>&Engineering               | 03       | -      | 1.0      | 3.0        | -     | 1.0 | 4.0   |
| CHC405       | Mechanical<br>Equipment Design<br>(MED)        | 03       | -      | 1.0      | 3.0        |       | 1.0 | 4.0   |
| CHC406       | Solid Fluid<br>Mechanical<br>Operations (SFMO) | 03       | -      | 1.0      | 3.0        |       | 1.0 | 4.0   |
| CHL407       | Engineering<br>Chemistry Lab II                | -        | 03     | -        | -          | 1.5   | -   | 1.5   |
| CHL408       | Chemical Engg Lab<br>(SFMO)                    | -        | 03     | -        | -          | 1.5   | -   | 1.5   |
| CHL409       | MED Lab  | -        | 02     | -        | -          | 1.0   |     | 1.0   |
| Total        | •  | 19       | 08     | 05       | 19         | 4.0   | 5.0 | 28    |

## Examination Scheme

| Subject Code | Subject Name                                   | Examination Scheme       |        |                                    |     |              |        |      |      |  |
|--------------|--|--------------------------|--------|------------------------------------|-----|--------------|--------|------|------|--|
|              |  | Theory M                 | larks  |                                    |     | Term<br>Work | Pract. | Oral | Tota |  |
|              |  | Internal Assessment Exam |        |                                    |     |              |        |      |      |  |
|              | C  | Test 1                   | Test 2 | Average of<br>Test 1 and<br>Test 2 |     |              |        |      |      |  |
| CHC401       | Applied<br>Mathematics-IV                      | 20                       | 20     | 20                                 | 80  | 25           | -      | -    | 125  |  |
| CHC402       | Engineering<br>Chemistry-II                    | 20                       | 20     | 20                                 | 80  | -            | -      | -    | 100  |  |
| CHC403       | Chemical Engg.<br>Thermodynamics – I           | 20                       | 20     | 20                                 | 80  | 25           | -      | -    | 125  |  |
| CHC404       | Material Science<br>Engineering                | 20                       | 20     | 20                                 | 80  | 25           | -      | -    | 125  |  |
| CHC405       | Mechanical<br>Equipment Design<br>(MED)        | 20                       | 20     | 20                                 | 80  | 25           | -      | -    | 125  |  |
| CHC406       | Solid Fluid<br>Mechanical<br>Operations (SFMO) | 20                       | 20     | 20                                 | 80  | 25           |        | -    | 125  |  |
| CHL407       | Engineering<br>Chemistry Lab II                | -                        | -      | -                                  | -   | -            | 25     | -    | 25   |  |
| CHL408       | Chemical Engg Lab<br>(SFMO)                    | -                        | -      | -                                  | -   | -            | 25     | -    | 25   |  |
| CHL409       | M ED Lab                                       | -                        | -      | -                                  | -   | -            | -      | 25   | 25   |  |
| Total        |  |                          |        | 120                                | 480 | 125          | 50     | 25   | 800  |  |

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## Scheme for TE: Semester-V

| Course | Course Name                                  | Tea    | ching Sch     | eme   |        | Credit A | Assigned |       |
|--------|--|--------|---------------|-------|--------|----------|----------|-------|
| Code   | Course Manie                                 | Theory | Pract.        | Tut.  | Theory | Pract.   | Tut.     | Total |
| CHC501 | Chemical Engineering<br>Thermodynamics - II  | 03     | _             | 01    | 3.0    | _        | 1.0      | 4.0   |
| CHC502 | Mass Transfer Operations - I<br>(MTO-I)      | 03     | _             | 01    | 3.0    | -        | 1.0      | 4.0   |
| CHC503 | Heat Transfer Operations – I<br>(HTO-I)      | 03     | _             | 01    | 3.0    | - (      | 1.0      | 4.0   |
| CHC504 | Chemical Reaction Engineering<br>- I (CRE-I) | 03     | _             | 01    | 3.0    | - •      | 1.0      | 4.0   |
| CHC505 | Chemical Technology                          | 03     | —             | —     | 3.0    |          | _        | 3.0   |
| CHC506 | Business Communication & Ethics              | _      | $02^{*} + 02$ | -0    |        | _        | _        | 2.0   |
| CHL507 | Chemical Engg Lab (MTO-I)                    | -      | 03            |       | 2-     | 1.5      | -        | 1.5   |
| CHL508 | Chemical Engg Lab (CRE-I)                    | _      | 03 💊          | ( - ) | -      | 1.5      | _        | 1.5   |
| CHL509 | Chemical Engg Lab (HTO-I)                    | -      | 03            |       | -      | 1.5      | -        | 1.5   |
| CHL510 | Chemical Engg Lab (Synthesis)                | _      | 03            |       | _      | 1.5      | _        | 1.5   |
| C      | Total  | 15     | 16            | 04    | 15.0   | 6.0      | 6.0      | 27.0  |

\*Theory for entire class.

## Examination Scheme

|        | • •  |           |           | Ex                   | aminatio     | on Schen | ne     |      |            |
|--------|--|-----------|-----------|----------------------|--------------|----------|--------|------|------------|
| Course | Course Name                                  |           | Theor     | y marks              |              | Term     |        |      |            |
| Code   | Course Walle                                 |           |           |                      | End          | Work     | Pract. | Oral | Total      |
|        | S  | Test<br>1 | Test<br>2 | Avg.<br>of<br>Test 1 | Sem.<br>Exam |          |        |      |            |
|        |  |           |           | and<br>Test 2        |              |          |        |      |            |
| CHC501 | Chemical Engineering<br>Thermodynamics - II  | 20        | 20        | 20                   | 80           | 25       | —      | —    | 125        |
| CHC502 | Mass Transfer Operations - I<br>(MTO-I)      | 20        | 20        | 20                   | 80           | 25       | _      | _    | 125        |
| CHC503 | Heat Transfer Operations – I<br>(HTO-I)      | 20        | 20        | 20                   | 80           | 25       | —      | _    | 125        |
| CHC504 | Chemical Reaction Engineering<br>- I (CRE-I) | 20        | 20        | 20                   | 80           | 25       | —      | _    | 125        |
| CHC505 | Chemical Technology                          | 20        | 20        | 20                   | 80           | —        | —      | _    | 100        |
| CHC506 | Business Communication & Ethics              | -         | -         | _                    | -            | 50       | —      | —    | 50         |
| CHL507 | Chemical Engg Lab (MTO-I)                    | _         | —         | _                    | —            | —        | 25     | —    | 25         |
| CHL508 | Chemical Engg Lab (CRE-I)                    | -         | _         | _                    | _            | _        | 25     | _    | 25         |
| CHL509 | Chemical Engg Lab (HTO-I)                    | —         | —         | —                    | —            | —        | 25     | —    | 25         |
| CHL510 | Chemical Engg Lab (Synthesis)                | -         | _         | _                    | _            | _        | _      | 25   | 25         |
|        |  |           | Total     | 100                  | 400          |          | N.     |      | AL ENGINEE |

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| Subject | Subject Name                                   | Tea    | ching Sch | eme  | Credit Assigned |        |      |       |  |
|---------|--|--------|-----------|------|-----------------|--------|------|-------|--|
| Code    | Subject Name                                   | Theory | Pract.    | Tut. | Theory          | Pract. | Tut. | Total |  |
| CHC601  | Instrumentation                                | 03     | _         | 01   | 3.0             | _      | 1.0  | 4.0   |  |
| CHC602  | Mass Transfer Operations – II<br>(MTO-II)      | 03     | _         | 01   | 3.0             | _      | 1.0  | 4.0   |  |
| CHC603  | Heat Transfer Operations – II<br>(HTO-II)      | 03     | _         | 01   | 3.0             | - (    | 1.0  | 4.0   |  |
| CHC604  | Chemical Reaction Engineering<br>– II (CRE-II) | 03     | _         | 01   | 3.0             | -      | 1.0  | 4.0   |  |
| CHC605  | Plant Engineering                              | 04     | _         | —    | 4.0             |        | -    | 4.0   |  |
| CHE606  | Elective – I                                   | 04     | _         | —    | 4.0             |        | -    | 4.0   |  |
| CHL607  | Chemical Engg Lab (MTO-II)                     | —      | 03        | -    |                 | 1.5    | —    | 1.5   |  |
| CHL608  | Chemical Engg Lab (CRE-II)                     | -      | 03        |      | -               | 1.5    | -    | 1.5   |  |
| CHL609  | Chemical Engg Lab (HTO-II)                     | -      | 02        |      | _               | 1.0    | -    | 1.0   |  |
|         | Total  | 20     | 08        | 04   | 20.0            | 4.0    | 4.0  | 28.0  |  |

## Scheme for TE: Semester-VI

#### Examination Scheme

|         |  |       |          | Ex            | aminatic | on Schen     | ne     |      |       |
|---------|--|-------|----------|---------------|----------|--------------|--------|------|-------|
| Subject | Subject Name                                   |       | Theory   | y marks       |          | Tamma        |        |      |       |
| Code    | Subject Ivalle                                 | Inter | nal Asse | ssment        | End      | Term<br>Work | Pract. | Oral | Total |
|         |  | Test  | Test     | Avg.          | Sem.     | WOIN         |        |      |       |
|         |  | 1     | 2        | of            | Exam     |              |        |      |       |
|         | X  |       |          | Test 1<br>and |          |              |        |      |       |
|         |  |       |          | Test 2        |          |              |        |      |       |
| CHC601  | Instrumentation                                | 20    | 20       | 20            | 80       | 25           | _      | _    | 125   |
| CHC602  | Mass Transfer Operations – II<br>(MTO-II)      | 20    | 20       | 20            | 80       | 25           | _      | —    | 125   |
| CHC603  | Heat Transfer Operations – II<br>(HTO-II)      | 20    | 20       | 20            | 80       | 25           | —      | _    | 125   |
| CHC604  | Chemical Reaction Engineering<br>– II (CRE-II) | 20    | 20       | 20            | 80       | 25           | _      | _    | 125   |
| CHC605  | Plant Engineering                              | 20    | 20       | 20            | 80       | —            | —      | _    | 100   |
| CHE606  | Elective – I                                   | 20    | 20       | 20            | 80       | —            | —      | _    | 100   |
| CHL607  | Chemical Engg Lab (MTO-II)                     | _     | —        | _             | —        | _            | 25     | 25   | 50    |
| CHL608  | Chemical Engg Lab (CRE-II)                     | _     | _        | _             | _        | _            | 25     | _    | 25    |
| CHL609  | Chemical Engg Lab (HTO-II)                     | _     | _        | _             | _        | —            | 25     | _    | 25    |
|         |  |       | Total    | 120           | 480      | 100          | 75     | 25   | 800   |

#### Elective Streams(CHE606)

| Sem. | Management Stream   | Technology Stream | Process System Engineering Stream |
|------|---------------------|-------------------|-----------------------------------|
| VI   | Operations Research | Advanced Material | Computational Fluid Dynamics      |

University of Mumbai

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Syllabus Structure Rev 2012 Electronics & Telecommunication Engineering





#### Semester VII

| Course  | Course Name       | Teach  | ing Scheme | e (Hrs.) |        | Credits A | ssigned  |       |
|---------|-------------------|--------|------------|----------|--------|-----------|----------|-------|
| Code    |                   | Theory | Practical  | Tutorial | Theory | Practical | Tutorial | Total |
| ETC701  | Image and Video   | 04     |            |          | 04     |           |          | 04    |
|         | Processing        |        |            |          |        |           |          |       |
| ETC702  | Mobile            | 04     |            |          | 04     |           |          | 04    |
|         | Communication     |        |            |          |        |           |          |       |
| ETC703  | Optical           | 04     |            | -        | 04     |           |          | 04    |
|         | Communication and |        |            |          |        |           |          |       |
|         | Networks          |        |            |          |        |           | •        |       |
| ETC704  | Microwave and     | 04     |            |          | 04     | S )       |          | 04    |
|         | Radar Engineering |        |            |          |        |           |          |       |
| ETE70X  | Elective          | 04     |            |          | 04     | -         |          | 04    |
|         |                   |        |            |          |        |           |          |       |
| ETL701  | Image and Video   |        | 02         |          | -      | 01        |          | 01    |
|         | Processing        |        |            |          |        |           |          |       |
|         | Laboratory        |        |            |          |        |           |          |       |
| ETL702  | Advanced          |        | 02         | 7-C      | · ·    | 01        |          | 01    |
|         | communication     |        |            |          |        |           |          |       |
|         | Engineering.      |        |            |          |        |           |          |       |
|         | Laboratory I      |        |            |          |        |           |          |       |
| ETL703  | Advanced          |        | 02         |          |        | 01        |          | 01    |
|         | communication     |        |            |          |        |           |          |       |
|         | Engineering.      |        |            |          |        |           |          |       |
|         | Laboratory II     |        |            |          |        |           |          |       |
| ETEL70X |                   |        | 02         |          |        | 01        |          | 01    |
| ETP701  | Project (Stage I) |        | *          |          |        | 03        |          | 03    |
| Total   |                   | 20     | 08         |          | 20     | 07        |          | 27    |

| Course Code (ETE70X) | Sem. VII Elective               |
|----------------------|---------------------------------|
| ETE 701              | Data Compression and Encryption |
| ETE 702              | Statistical Signal Processing   |
| ETE 703              | Neural Network and Fuzzy Logic  |
| ETE 704              | Analog and Mixed Signal VLSI    |

• Work load of learner in Semester VII is equivalent to 6 hours /week

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## Semester VII

| Course  | Course Name             |      |       | Exam     | ination | Scheme |           |       |
|---------|-------------------------|------|-------|----------|---------|--------|-----------|-------|
| Code    |                         |      | Theor | ry Marks |         | Term   | Practical | Total |
|         |                         | Inte |       | essment  | End     | Work   | and Oral  |       |
|         |                         | Test | Test  | Ave. of  | Sem.    |        |           |       |
|         |                         | 1    | 2     | Test 1 & | Exam    |        | C         |       |
|         |                         |      |       | Test 2   |         |        |           |       |
| ETC701  | Image and Video         | 20   | 20    | 20       | 80      |        |           | 100   |
| 550702  | Processing              | 20   | 20    | 20       | 0.0     |        |           | 100   |
| ETC702  | Mobile<br>Communication | 20   | 20    | 20       | 80      | -      |           | 100   |
| ETC703  | Optical                 | 20   | 20    | 20       | 80      | 7.     |           | 100   |
|         | Communication and       |      |       |          |         |        |           |       |
|         | Networks                |      |       |          |         |        |           |       |
| ETC704  | Microwave and Radar     | 20   | 20    | 20       | 80      |        |           | 100   |
|         | Engineering             |      |       |          |         |        |           |       |
| ETE70X  | Elective                | 20   | 20    | 20       | 80      |        |           | 100   |
| ETL701  | Image and Video         |      |       |          |         | 25     | 25        | 50    |
|         | Processing Laboratory   |      |       |          |         |        |           |       |
| ETL702  | Advanced                |      |       |          |         | 25     | 25        | 50    |
|         | communication           |      |       |          |         |        |           |       |
|         | Engineering.            |      |       |          |         |        |           |       |
|         | Laboratory I            |      |       |          |         |        |           |       |
| ETL703  | Advanced                |      |       |          |         | 25     | 25        | 50    |
|         | Communication           |      |       |          |         |        |           |       |
|         | Engineering.            |      |       |          |         |        |           |       |
|         | Laboratory II           |      |       |          |         | 25     | 25        | 50    |
| ETEL70X | Elective                |      |       |          |         | 25     | 25        | 50    |
| ETP701  | Project (Stage I)       | 100  | 100   | 100      | 400     | 25     | 25        | 50    |
| Total   |                         | 100  | 100   | 100      | 400     | 125    | 125       | 750   |

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#### **Semester VIII**

| Course  | Course Name  | Teach  | ing Scheme | e (Hrs.) |        | <b>Credits</b> A | ssigned  |       |
|---------|--|--------|------------|----------|--------|------------------|----------|-------|
| Code    |  | Theory | Practical  | Tutorial | Theory | Practical        | Tutorial | Total |
| ETC801  | Wireless Networks  | 04     |            |          | 04     |                  |          | 04    |
| ETC802  | Satellite<br>communication and<br>Networks               | 04     |            |          | 04     | 1                | 1        | 04    |
| ETC803  | Internet and Voice<br>Communication                      | 04     |            |          | 04     |                  | -        | 04    |
| ETE80X  | Elective   | 04     |            |          | 04     |                  |          | 04    |
| ETL801  | Wireless Networks<br>Laboratory                          |        | 02         |          |        | 01               |          | 01    |
| ETL802  | Satellite<br>communication and<br>Networks<br>Laboratory |        | 02         |          | -      | 01               |          | 01    |
| ETL803  | Internet and Voice<br>Communication<br>Laboratory        |        | 02         |          | Ő      | 01               |          | 01    |
| ETEL80X | Elective Laboratory                                      |        | 02         |          |        | 01               |          | 01    |
| ETP801  | Project (Stage II)                                       |        | **         |          | J Y    | 06               |          | 06    |
| Total   |  | 16     | 08 🧲       |          | 16     | 10               |          | 26    |

| Course Code (ETE 80X) | Sem. VIII Elective            |
|-----------------------|-------------------------------|
| ETE 801               | Speech Processing             |
| ETE 802               | Telecom Network Management    |
| ETE 803               | Microwave Integrated Circuits |
| ETE 804               | Ultra Wideband Communication  |

\*\* Work load of learner in Semester VIII is equivalent to 12 hours /week.



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| Semester ` | VIII |
|------------|------|
|------------|------|

| Internet and Voice<br>Communication<br>ETL801Internet and Voice<br>Communication and<br>NetworksInternet and Voice<br>Communication<br>Test 1Internet and Voice<br>Communication<br>Test 2Internet and Voice<br>Communication<br>Test 2Internet and Voice<br>Communication<br>Test 2Internet and Voice<br>Communication<br>Test 2Internet and Voice<br>Test 2 <t< th=""><th></th><th>Oral</th><th></th><th></th><th>Sem.</th><th>•</th><th>Theor</th><th></th><th></th><th>Course</th></t<>   |       | Oral            |          |                 | Sem.          | •       | Theor    |        |                     | Course  |
|---|-------|-----------------|----------|-----------------|---------------|---------|----------|--------|---------------------|---------|
| Test 1Test 1Test 1Sent 1<br>2Sent 1<br>  |       | Ċ               | and Oral | Work            | Sem.          | ssment  | 1 11001  |        |                     | Code    |
| ZTest 1<br>& Test 2Exam<br>& Test 2ETC801Wireless Networks20202080ETC802Satellite<br>communication and<br>Networks20202080ETC803Internet and Voice<br>Communication20202080ETC803Internet and Voice<br>Communication20202080ETE80XElective20202080ETL801Wireless Networks<br>Laboratory2525ETL802Satellite<br>communication and<br>Networks Laboratory2525ETL803Internet and Voice<br>Communication<br>Laboratory2525ETL803Elective Laboratory2525ETEL80XElective Laboratory2525ETEL80XElective Laboratory2525  |       | C               |          |                 |               | Somerie | nal asse | Inter  |                     |         |
| ETC801Wireless Networks2020202080ETC802Satellite<br>communication and<br>Networks20202080ETC803Internet and Voice<br>Communication2020202080ETC803Internet and Voice<br>Communication20202080ETE80XElective20202080ETL801Wireless Networks<br>Laboratory2525ETL802Satellite<br>communication and<br>Networks Laboratory2525ETL803Internet and Voice<br>Communication<br>Laboratory2525ETL803Elective Laboratory2525ETEL80XElective Laboratory2525ETEL80XElective Laboratory2525   |       | C               |          |                 | Exam          | Ave. of | Test     | Test 1 |                     |         |
| ETC801         Wireless Networks         20         20         20         80  |       | Ç               |          |                 | Linuiti       | Test 1  | 2        |        |                     |         |
| ETC801       Wireless Networks       20       20       20       20       80  25        25        25        25        25        25        25        25        25        25        25        25        2  |       | -               |          |                 |               | & Test  |          |        |                     |         |
| ETC802Satellite<br>communication and<br>Networks2020202080ETC803Internet and Voice<br>Communication20202080ETE80XElective20202080ETL801Wireless Networks<br>Laboratory2525ETL802Satellite<br>communication and<br>Networks Laboratory2525ETL803Internet and Voice<br>Communication<br>Laboratory2525ETL803Elective Laboratory2525ETEL80XElective Laboratory2525ETEL80XElective Laboratory2525ETEL80XElective Laboratory2525   |       | -               |          |                 |               |         |          |        |                     |         |
| communication and<br>Networks20202080ETC803Internet and Voice<br>Communication20202080ETE80XElective2020208025ETL801Wireless Networks<br>Laboratory2525ETL802Satellite<br>communication and<br>Networks Laboratory2525ETL803Internet and Voice<br>Communication<br>Laboratory2525ETL803Elective Laboratory2525ETEL80XElective Laboratory2525ETEL80XElective Laboratory2525ETEL80XElective Laboratory2525  | 100   |                 |          |                 | 80            | 20      | 20       | 20     | Wireless Networks   | ETC801  |
| NetworksInternet and Voice<br>Communication2020202080IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII  |       |                 |          |                 | 80            | 20      | 20       | 20     | Satellite           | ETC802  |
| ETC803Internet and Voice<br>Communication2020202080ETE80XElective20202080ETL801Wireless Networks<br>Laboratory2525ETL802Satellite<br>communication and<br>Networks Laboratory2525ETL803Internet and Voice<br>Communication<br>Laboratory2525ETEL80XElective Laboratory2525ETEL80XElective Laboratory2525  |       |                 |          |                 |               |         |          |        | communication and   |         |
| CommunicationImage: communicationImage: communicationETE80XElective20202080Image: communicationETL801Wireless NetworksImage: communicationImage: communicationImage: communicationImage: communicationETL802SatelliteImage: communicationImage: communicationImage: communicationImage: communicationImage: communicationImage: communicationETL803Internet and VoiceImage: communicationImage: communicationImage: communicationImage: communicationImage: communicationETEL80XElective LaboratoryImage: communicat  |       |                 | C        |                 |               |         |          |        | Networks            |         |
| ETE80XElective20202080ETL801Wireless Networks<br>Laboratory2525ETL802Satellite<br>communication and<br>Networks Laboratory2525ETL803Internet and Voice<br>Laboratory2525ETEL803Elective Laboratory2525ETEL80XElective Laboratory2525  | 100   |                 |          |                 | 80            | 20      | 20       | 20     | Internet and Voice  | ETC803  |
| ETL801Wireless Networks<br>Laboratory2525ETL802Satellite<br>communication and<br>Networks Laboratory2525ETL803Internet and Voice<br>Laboratory2525ETL803Internet and Voice<br>Laboratory2525ETL803Elective Laboratory2525ETEL80XElective Laboratory2525   |       |                 |          |                 |               |         |          |        | Communication       |         |
| LaboratoryImage: constraint of the second secon | 100   |                 |          | -               | 80            | 20      | 20       | 20     | Elective            | ETE80X  |
| ETL802Satellite<br>communication and<br>Networks Laboratory2525ETL803Internet and Voice<br>Communication<br>Laboratory2525ETEL80XElective Laboratory2525ETEL80XElective Laboratory2525  | 5 50  | 25              |          | 25              |               |         |          |        | Wireless Networks   | ETL801  |
| communication and<br>Networks LaboratoryImage: second  |       |                 |          |                 |               |         |          |        | Laboratory          |         |
| Networks Laboratory2525ETL803Internet and Voice<br>Communication<br>Laboratory2525ETEL80XElective Laboratory2525  | 5 50  | 25              |          | 25              |               |         |          |        | Satellite           | ETL802  |
| ETL803Internet and Voice<br>Communication<br>Laboratory2525ETEL80XElective Laboratory2525   |       |                 |          |                 |               |         |          |        | communication and   |         |
| Communication<br>LaboratoryImage: Communication<br>LaboratoryImage: Communication<br>LaboratoryETEL80XElective Laboratory2525   |       |                 |          |                 | $\mathcal{O}$ |         |          |        | Networks Laboratory |         |
| Laboratory2525ETEL80XElective Laboratory2525  | 5 50  | 25              |          | 25              |               | _       | <        |        | Internet and Voice  | ETL803  |
| ETEL80X Elective Laboratory 25 25   |       |                 |          |                 |               | V       |          |        | Communication       |         |
|   |       |                 |          |                 |               |         |          |        | Laboratory          |         |
|   | 5 50  | 25              |          | 25              |               |         | -        |        | Elective Laboratory | ETEL80X |
| E1P801   Project (Stage II)   | ) 100 | <mark>50</mark> |          | <mark>50</mark> |               | -       |          |        | Project (Stage II)  | ETP801  |
| Total         80         80         80         320         150         150  | 0 700 | 150             |          | 150             | 320           | 80      | 80       | 80     |                     | Total   |
|   | ·     |                 |          |                 |               |         |          |        | C                   |         |



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#### Programme structure B.E.(Electronics & Telecommunication) S.E. (Electronics & Telecommunication) Sem III

| Sub     | Subject Name   | Teach  | ing Schem | e (Hrs.) |        | Credits As | ssigned  |       |
|---------|--|--------|-----------|----------|--------|------------|----------|-------|
| Code    |  | Theory | Practical | Tutorial | Theory | Practical  | Tutorial | Total |
| ETS301  | *Applied Mathematics III                                   | 04     |           | 01       | 04     |            | 01       | 05    |
| ETC302  | Analog Electronics I                                       | 04     |           |          | 04     |            |          | 04    |
| ETC303  | Digital Electronics  | 04     |           | -        | 04     |            |          | 04    |
| ETC304  | Circuits and Transmission<br>Lines                         | 04     |           |          | 04     |            | ÷        | 04    |
| ETC305  | Electronic Instruments and<br>Measurements                 | 04     |           |          | 04     |            |          | 04    |
| ETS306  | *Object Oriented<br>Programming Methodology                |        |           |          |        |            |          |       |
| ETL301  | Analog Electronics I<br>Laboratory                         |        | 02        |          |        | 01         |          | 01    |
| ETL302  | Digital Electronics<br>Laboratory                          |        | 02        |          | -      | 01         |          | 01    |
| ETL303  | Circuits and<br>Measurements Laboratory                    |        | 02        |          |        | 01         |          | 01    |
| ETSL304 | * Object Oriented<br>Programming Methodology<br>Laboratory |        | 04 **     | 6        | R      | 01         |          | 01    |
| Total   |  | 20     | 10        | 01       | 20     | 04         | 01       | 25    |

\*\* Out of four hours, 2 hours theory shall be taught to entire class followed by 2 hrs. Practical in batches.

|                 | Subject Name                    |             |                  | E.        | aminatio | n Sahar | 20        |      |         |
|-----------------|---------------------------------|-------------|------------------|-----------|----------|---------|-----------|------|---------|
| Subject<br>Code | Subject Name                    |             | The              |           | ammatic  |         | 1         | Oral | Total   |
| Code            |                                 | Inter       |                  | ory Marks | E a al   | Term    | Practical | Oral | Total   |
|                 |                                 |             |                  | essment   | End      | Work    | and Oral  |      |         |
|                 |                                 | Test        | Test             | Avg. of   | Sem.     |         |           |      |         |
|                 |                                 | 1           | 2                | Test 1 &  | Exam     |         |           |      |         |
|                 |                                 |             |                  | Test 2    |          |         |           |      |         |
| ETS301          | * Applied Mathematics III       | 20          | 20               | 20        | 80       | 25      |           |      | 125     |
| ETC302          | Analog Electronics I            | 20          | 20               | 20        | 80       |         |           |      | 100     |
| ETC303          | Digital Electronics             | 20          | 20               | 20        | 80       |         |           |      | 100     |
| ETC304          | Circuits and Transmission       | 20          | 20               | 20        | 80       |         |           |      | 100     |
|                 | Lines                           |             |                  |           |          |         |           |      |         |
| ETC305          | Electronic Instruments and      | 20          | 20               | 20        | 80       |         |           |      | 100     |
|                 | Measurements                    |             |                  |           |          |         |           |      |         |
| ETS306          | Object Oriented                 |             |                  |           |          |         |           |      |         |
|                 | Programming Methodology         |             |                  |           |          |         |           |      |         |
| ETL301          | Analog Electronics I            |             |                  |           |          | 25      | 25        |      | 50      |
|                 | Laboratory                      |             |                  |           |          |         |           |      |         |
| ETL302          | Digital Electronics             |             |                  |           |          | 25      | 25        |      | 50      |
|                 | Laboratory                      |             |                  |           |          |         |           |      |         |
| ETL303          | Circuits and                    |             |                  |           |          | 25      |           |      | 25      |
|                 | Measurements Laboratory         |             |                  |           |          |         |           |      |         |
| ETSL304         | Object Oriented                 |             |                  |           |          | 25      | 50        |      | 75      |
|                 | Programming Methodology         |             |                  |           |          |         |           |      |         |
|                 | Laboratory                      |             |                  |           |          |         |           |      |         |
| Total           |                                 |             |                  | 100       | 400      | 125     | 100       |      | 725     |
|                 | licate common subject for Ele   | ctronic     | s. Electr        |           |          |         |           |      |         |
|                 | medical and Electrical Engine   |             | e, <u>L</u> .cou |           |          |         | L 11.     |      | ENGINER |
|                 | inicalear and Electrical Engine | <u>sing</u> |                  |           |          |         |           | 1    | 31 14   |

University of Mumbai SE (Electronics & Telecommunication) R-2012

Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.

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### Programme Structure B.E. (Electronics & Telecommunication) S.E. (Electronics & Telecommunication) Sem IV

| Sub     | Subject Name                                     | Teach  | ing Schem | e(Hrs.)  |        | Credits As | ssigned  |       |
|---------|--|--------|-----------|----------|--------|------------|----------|-------|
| Code    | -  | Theory | Practical | Tutorial | Theory | Practical  | Tutorial | Total |
| ETS401  | * Applied Mathematics<br>IV                      | 04     |           | 01       | 04     |            | 01       | 05    |
| ETC402  | Analog Electronics II                            | 04     |           |          | 04     |            |          | 04    |
| ETC403  | Microprocessors and<br>Peripherals               | 04     |           |          | 04     |            |          | 04    |
| ETC404  | Wave Theory and<br>Propagation                   | 04     |           |          | 04     |            |          | 04    |
| ETC 405 | Signals and Systems                              | 03     |           | 01       | 03     | -          | 01       | 04    |
| ETC406  | Control Systems                                  | 04     |           |          | 04     |            |          | 04    |
| ETL401  | Analog Electronics II<br>Laboratory              |        | 02        |          |        | 01         | <b>+</b> | 01    |
| ETL402  | Microprocessors and<br>Peripherals<br>Laboratory |        | 02        |          | -0     | 01         |          | 01    |
| ETL403  | Software Simulation Laboratory                   |        | 02        |          | 0      | 01         |          | 01    |
| Total   |  | 23     | 06        | 02       | 23     | 03         | 02       | 28    |

|            |   |      |         | 5                             | $\mathbf{\mathcal{D}}$ |       |          |  |       |
|------------|---|------|---------|-------------------------------|------------------------|-------|----------|--|-------|
| Subject    | Subject Name                                  |      |         | Exan                          | nination               | Schem | е        |  |       |
| Code       |   |      | Th      | Theory Marks Term Practical C |                        |       |          |  | Total |
|            |   | Int  | ernal a | ssessment                     | End                    | Work  | and Oral |  |       |
|            |   | Test | Test    | Avg. Of Test                  | Sem.                   |       |          |  |       |
|            |   | 1    | 2       | 1 and Test 2                  | Exam                   |       |          |  |       |
| ETS401     | *Applied Mathematics<br>IV                    | 20   | 20      | 20                            | 80                     | 25    |          |  | 125   |
| ETC402     | Analog Electronics II                         | 20   | 20      | 20                            | 80                     |       |          |  | 100   |
| ETC403     | Microprocessors and<br>Peripherals            | 20   | 20      | 20                            | 80                     |       |          |  | 100   |
| ETC404     | Wave Theory and Propagation                   | 20   | 20      | 20                            | 80                     |       |          |  | 100   |
| ETC<br>405 | Signals and Systems                           | 20   | 20      | 20                            | 80                     | 25    |          |  | 125   |
| ETC406     | Control Systems                               | 20   | 20      | 20                            | 80                     |       |          |  | 100   |
| ETL401     | Analog Electronics II<br>Laboratory           |      | -       |                               |                        | 25    | 25       |  | 50    |
| ETL402     | Microprocessors and<br>Peripherals Laboratory |      |         |                               |                        | 25    | 25       |  | 50    |
| ETL403     | Software Simulation Laboratory                |      |         |                               |                        | 25    | 25       |  | 50    |
| Total      |   |      | -       | 120                           | 480                    | 125   | 75       |  | 800   |

\* Indicate common subject for Electronics, Electronics & Telecommunication, Instrumentation, Biomedical and Electrical Engineering



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#### SEMESTER V

| Course | Course Name                                     | Teach  | ing Scheme | e (Hrs.) |          | Credits A | ssigned  |       |
|--------|---|--------|------------|----------|----------|-----------|----------|-------|
| Code   |   | Theory | Practical  | Tutorial | Theory   | Practical | Tutorial | Total |
| ETC501 | Microcontrollers and Applications               | 04     |            |          | 04       |           |          | 04    |
| ETC502 | Analog Communication                            | 04     |            |          | 04       |           |          | 04    |
| ETC503 | Random Signal<br>Analysis                       | 04     |            | 01       | 04       |           | 01       | 05    |
| ETC504 | RF Modeling and Antennas                        | 04     |            |          | 04       |           |          | 04    |
| ETC505 | Integrated Circuits                             | 04     |            |          | 04       |           |          | 04    |
| ETS506 | Business<br>Communication and<br>Ethics         |        | 04 *       |          |          | 02        | 2        | 02    |
| ETL501 | Microcontrollers and<br>Applications Laboratory |        | 02         |          |          | 01        |          | 01    |
| ETL502 | Communication<br>Engineering Laboratory<br>I    |        | 02         |          | <b>O</b> | 01        |          | 01    |
| ETL503 | Communication<br>Engineering Laboratory<br>II   |        | 02         | 52       |          | 01        |          | 01    |
| ETL504 | Mini Project I                                  |        | 02         |          |          | 01        |          | 01    |
| Total  |   | 20     | 12         | 01       | 20       | 06        | 01       | 27    |

\* Out of 4 hours, 2 hours class wise theory and 2 hours batch wise practical

| Course        | Course Name                   | Examination Scheme |          |          |      |      |           |      |       |  |
|---------------|-------------------------------|--------------------|----------|----------|------|------|-----------|------|-------|--|
| Code          |                               |                    | Theo     | ry Marks |      | Term | Practical | Oral | Total |  |
|               |                               | Inter              | rnal ass | essment  | End  | Work | and Oral  |      |       |  |
|               |                               | Test               | Test     | Ave. of  | Sem. |      |           |      |       |  |
|               |                               | 1                  | 2        | Test 1 & | Exam |      |           |      |       |  |
|               |                               |                    |          | Test 2   |      |      |           |      |       |  |
| ETC501        | Microcontrollers and          | 20                 | 20       | 20       | 80   |      |           |      | 100   |  |
|               | Applications                  |                    |          |          |      |      |           |      |       |  |
| ETC502        | Analog Communication          | 20                 | 20       | 20       | 80   |      |           |      | 100   |  |
| ETC503        | Random Signal Analysis        | 20                 | 20       | 20       | 80   | 25   |           |      | 125   |  |
| ETC504        | RF Modeling and Antennas      | 20                 | 20       | 20       | 80   |      |           |      | 100   |  |
| ETC505        | Integrated Circuits           | 20                 | 20       | 20       | 80   |      |           |      | 100   |  |
| ETS506        | <b>Business Communication</b> |                    |          |          |      | 50   |           |      | 50    |  |
|               | and Ethics                    |                    |          |          |      |      |           |      |       |  |
| <b>ETL501</b> | Microcontrollers and          |                    |          |          |      | 25   | 25        |      | 50    |  |
|               | Applications Laboratory       |                    |          |          |      |      |           |      |       |  |
| ETL502        | Communication                 |                    |          |          |      | 25   | 25        |      | 50    |  |
|               | Engineering Laboratory I      |                    |          |          |      |      |           |      |       |  |
| ETL503        | Communication                 |                    |          |          |      | 25   | 25        |      | 50    |  |
|               | Engineering Laboratory II     |                    |          |          |      |      |           |      |       |  |
| ETL504        | Mini Project I                |                    |          |          |      | 25   | 25        |      | 50    |  |
| Total         |                               | 100                | 100      | 100      | 400  | 175  | 100       |      | 775   |  |



#### SEMESTER VI

| Course | Course Name                | Teach  | ing Scheme | e (Hrs.) |        | Credits As | ssigned  |       |
|--------|----------------------------|--------|------------|----------|--------|------------|--|-------|
| Code   |                            | Theory | Practical  | Tutorial | Theory | Practical  | Tutorial   | Total |
| ETC601 | Digital Communication      | 04     |            |          | 04     |            |  | 04    |
| ETC602 | Discrete Time Signal       | 04     |            |          | 04     |            |  | 04    |
|        | Processing                 |        |            |          |        |            |  |       |
| ETC603 | Computer Communication     | 04     |            |          | 04     |            |  | 04    |
|        | and Telecom Networks       |        |            |          |        |            |  |       |
| ETC604 | Television Engineering     | 04     |            |          | 04     |            |  | 04    |
| ETC605 | Operating Systems          | 04     |            |          | 04     |            |  | 04    |
| ETC606 | VLSI Design                | 04     |            |          | 04     |            |  | 04    |
| ETL601 | Discrete Time Signal       |        | 02         |          |        | 01         | <b></b>  | 01    |
|        | Processing Laboratory      |        |            |          |        |            | , The second sec |       |
| ETL602 | Communication              |        | 02         |          |        | 01         |  | 01    |
|        | Engineering Laboratory III |        |            |          |        |            |  |       |
| ETL603 | Communication              |        | 02         |          |        | 01         |  | 01    |
|        | Engineering Laboratory IV  |        |            |          |        |            |  |       |
| ETL604 | Mini Project II            |        | 02         | 🖌        |        | 01         |  | 01    |
| Total  |                            | 24     | 08         |          | 24     | 04         |  | 28    |
|        |                            |        |            |          |        |            |  |       |

| Course | Course Name            |      |          |           | Examinati | on Schem | е         |      |       |
|--------|------------------------|------|----------|-----------|-----------|----------|-----------|------|-------|
| Code   |                        |      | The      | ory Marks |           | Term     | Practical | Oral | Total |
|        |                        | Inte | rnal ass | essment   | End       | Work     | And       |      |       |
|        |                        | Test | Test     | Ave. of   | Sem.      |          | Oral      |      |       |
|        |                        | 1    | 2        | Test 1 &  | Exam      |          |           |      |       |
|        |                        |      |          | Test 2    |           |          |           |      |       |
| ETC601 | Digital Communication  | 20   | 20       | 20        | 80        |          |           |      | 100   |
| ETC602 | Discrete Time Signal   | 20   | 20       | 20        | 80        |          |           |      | 100   |
|        | Processing             |      |          |           |           |          |           |      |       |
| ETC603 | Computer               | 20   | 20       | 20        | 80        |          |           |      | 100   |
|        | Communication and      |      |          |           |           |          |           |      |       |
|        | Telecom Networks       |      |          |           |           |          |           |      |       |
| ETC604 | Television Engineering | 20   | 20       | 20        | 80        |          |           |      | 100   |
| ETC605 | Operating Systems      | 20   | 20       | 20        | 80        |          |           |      | 100   |
| ETC606 | VLSI Design            | 20   | 20       | 20        | 80        |          |           |      | 100   |
| ETL601 | Discrete Time Signal   |      |          |           |           | 25       | 25        |      | 50    |
|        | Processing Laboratory  |      |          |           |           |          |           |      |       |
| ETL602 | Communication          |      |          |           |           | 25       | 25        |      | 50    |
|        | Engineering Laboratory |      |          |           |           |          |           |      |       |
|        | ш                      |      |          |           |           |          |           |      |       |
| ETL603 | Communication          |      |          |           |           | 25       | 25        |      | 50    |
|        | Engineering Laboratory |      |          |           |           |          |           |      |       |
|        | IV                     |      |          |           |           |          |           |      |       |
| ETL604 | Mini Project II        |      |          |           |           | 25       | 25        |      | 50    |
| Total  |                        | 120  | 120      | 120       | 480       | 100      | 100       |      | 800   |

1h Dr. G. T. Thampi



**TE Electronics and Telecommunication Engineering** 129



# Syllabus Structure Rev 2012 Biomedical Engineering





| Course | Course Name                                      | Teac   | ching Sch | neme | Credits Assigned |        |     |       |  |  |
|--------|--|--------|-----------|------|------------------|--------|-----|-------|--|--|
| Code   | Course Mame                                      | Theory | Pract.    | Tut  | Theory           | Pract. | Tut | Total |  |  |
| BMC701 | Biomedical Instrumentation-III                   | 4      | 2         | -    | 4                | 1      |     | 5     |  |  |
| BMC702 | Medical Imaging – II                             | 4      | 2         | -    | 4                | 1      |     | 5     |  |  |
| BMC703 | Biomechanics Prosthesis and<br>Orthosis          | 4      | 2         | -    | 4                | 1      |     | 5     |  |  |
| BMC704 | Very Large Scale Integrated<br>Circuits          | 4      | 2         | -    | 4                | 1 🔶    | -   | 5     |  |  |
| BMC705 | Networking and Information<br>System in Medicine | 4      | 2         | -    | 4                | 1      | -   | 5     |  |  |
| BMP706 | Project Stage – I                                | -      | *         | - (  | 7.               | 3      | -   | 3     |  |  |
|        | TOTAL  | 20     | 16        |      | 20               | 8      | -   | 28    |  |  |

## Syllabus Scheme for B.E. Semester VII Biomedical Engineering

\* Learner is allotted 6hrs per week for the project work.

|        |  |         |                 | Exa   | aminatio   | on schem     | e      |      |       |
|--------|--|---------|-----------------|-------|------------|--------------|--------|------|-------|
| Course | Course Nome                                      |         | Theory <b>N</b> | Marks |            |              |        |      |       |
| Code   | Course Name                                      | Interna | al Assess       | ment  | End<br>Sem | Term<br>work | Pract. | Oral | Total |
|        |  | Test 1  | Test 2          | Avg.  | exam       | WOIR         |        |      |       |
| BMC701 | Biomedical Instrumentation-III                   | 20      | 20              | 20    | 80         | 25           | -      | 25   | 150   |
| BMC702 | Medical Imaging – II                             | 20      | 20              | 20    | 80         | 25           | -      | 25   | 150   |
| BMC703 | Biomechanics Prosthesis and Orthosis             | 20      | 20              | 20    | 80         | 25           | -      | -    | 125   |
| BMC704 | Very Large Scale Integrated<br>Circuits          | 20      | 20              | 20    | 80         | 25           | -      | -    | 125   |
| BMC705 | Networking and Information<br>System in Medicine | 20      | 20              | 20    | 80         | 25           | -      | 25   | 150   |
| BMP706 | Project Stage – I                                | -       | -               | -     | -          | 25           | -      | 25   | 50    |
|        | TOTAL  |         |                 | 100   | 400        | 150          | -      | 100  | 750   |
|        |  |         |                 |       |            |              |        |      |       |
|        |  |         |                 |       |            |              |        |      |       |

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## Syllabus Scheme for B.E. Semester VIII Biomedical Engineering

| Course | Course Name             | Tea    | ching Sch | eme | 0      |        |     |       |
|--------|-------------------------|--------|-----------|-----|--------|--------|-----|-------|
| Code   | Course manie            | Theory | Pract.    | Tut | Theory | Pract. | Tut | Total |
| BMC801 | Nuclear Medicine        | 4      | -         | 1   | 4      | -      | 1   | 5     |
| BMC802 | Biomedical Microsystems | 4      | 2         | -   | 4      | 1      | ŕ   | 5     |
| BMC803 | Hospital Management     | 4      | -         | 1   | 4      | -      | 1   | 5     |
| BME804 | Elective                | 4      | 2         | -   | 4      | 1      | -   | 5     |
| BMP805 | Project Stage – II      | -      | **        | -   |        | 6      | -   | 6     |
|        | TOTAL                   | 16     | 16        | 2   | 16     | 8      | 2   | 26    |

\*\* Learner is allotted 12hrs per week for the project work.

Electives:

- BME8011. Lasers and Fiber Optics
- BME8012. Robotics in Medicine
- BME8013. Health care Informatics
- BME8014. Rehabilitation Engineering

|        | •. (                    |        |                 | Exa   | aminati     | on schem     | ie     |                          |       |
|--------|-------------------------|--------|-----------------|-------|-------------|--------------|--------|--------------------------|-------|
| Course | Course Name             |        | Theory <b>N</b> | Marks |             |              |        |                          |       |
| Code   | Course Name             | Intern | al Assess       | ment  | End         | Term<br>work | Pract. | Oral 25 25 25 25 100 200 | Total |
|        | S                       | Test 1 | Test 2          | Avg.  | Sem<br>exam | WOIK         |        |                          |       |
| BMC801 | Nuclear Medicine        | 20     | 20              | 20    | 80          | 25           | -      | 25                       | 150   |
| BMC802 | Biomedical Microsystems | 20     | 20              | 20    | 80          | 25           | -      | 25                       | 150   |
| BMC803 | Hospital Management     | 20     | 20              | 20    | 80          | 25           | -      | 25                       | 150   |
| BME804 | Elective                | 20     | 20              | 20    | 80          | 25           | -      | 25                       | 150   |
| BMP805 | Project Stage – II      | -      | -               | -     | -           | 50           | -      | 100                      | 150   |
|        | TOTAL                   |        |                 | 80    | 320         | 150          |        | 200                      | 750   |

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| Course | Course Name                                      | Tea    | ching Sch | neme | Credits Assigned |        |     |       |  |  |
|--------|--|--------|-----------|------|------------------|--------|-----|-------|--|--|
| Code   | Course Mame                                      | Theory | Pract.    | Tut  | Theory           | Pract. | Tut | Total |  |  |
| BMC701 | Biomedical Instrumentation-III                   | 4      | 2         | -    | 4                | 1      |     | 5     |  |  |
| BMC702 | Medical Imaging – II                             | 4      | 2         | -    | 4                | 1      |     | 5     |  |  |
| BMC703 | Biomechanics Prosthesis and<br>Orthosis          | 4      | 2         | -    | 4                | 1      |     | 5     |  |  |
| BMC704 | Very Large Scale Integrated<br>Circuits          | 4      | 2         | -    | 4                | 1 🔶    | -   | 5     |  |  |
| BMC705 | Networking and Information<br>System in Medicine | 4      | 2         | -    | 4                | 1      | -   | 5     |  |  |
| BMP706 | Project Stage – I                                | -      | *         | - (  | 7.               | 3      | -   | 3     |  |  |
|        | TOTAL  | 20     | 16        |      | 20               | 8      | -   | 28    |  |  |

## Syllabus Scheme for B.E. Semester VII Biomedical Engineering

\* Learner is allotted 6hrs per week for the project work.

| ſ |        |  |         |                 | Exa   | aminatio    | on schem     | ie     |      |       |
|---|--------|--|---------|-----------------|-------|-------------|--------------|--------|------|-------|
|   | Course | Course Name                                      |         | Theory <b>N</b> | Marks |             |              |        |      |       |
|   | Code   | Course Name                                      | Interna | al Assess       | ment  | End         | Term<br>work | Pract. | Oral | Total |
|   |        |  | Test 1  | Test 2          | Avg.  | Sem<br>exam | WOIK         |        |      |       |
|   | BMC701 | Biomedical Instrumentation-III                   | 20      | 20              | 20    | 80          | 25           | -      | 25   | 150   |
|   | BMC702 | Medical Imaging – II                             | 20      | 20              | 20    | 80          | 25           | -      | 25   | 150   |
|   | BMC703 | Biomechanics Prosthesis and Orthosis             | 20      | 20              | 20    | 80          | 25           | -      | -    | 125   |
| - | BMC704 | Very Large Scale Integrated<br>Circuits          | 20      | 20              | 20    | 80          | 25           | -      | -    | 125   |
|   | BMC705 | Networking and Information<br>System in Medicine | 20      | 20              | 20    | 80          | 25           | -      | 25   | 150   |
|   | BMP706 | Project Stage – I                                | -       | -               | -     | -           | 25           | -      | 25   | 50    |
|   |        | TOTAL  |         |                 | 100   | 400         | 150          | -      | 100  | 750   |
|   |        |  |         |                 |       |             |              |        |      |       |
|   |        |  |         |                 |       |             |              |        |      |       |

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| S-h C d  | Colt is sto  | Те     | eaching Schen | ne  | Credits Assigned |        |     |       |  |  |
|----------|--|--------|---------------|-----|------------------|--------|-----|-------|--|--|
| Sub Code | Subjects   | Theory | Pract.        | Tut | Theory           | Pract. | Tut | Total |  |  |
| SEBM301  | Applied Mathematics-III\$                          | 4      | -             | 1   | 4                | -      | 1   | 5     |  |  |
| SEBM302  | Electronic Circuits and<br>Design – I              | 4      | 2             | -   | 4                | 1      |     | 5     |  |  |
| SEBM303  | Electrical Network<br>Analysis and Synthesis       | 4      | -             | 1   | 4                | -      | 1   | 5     |  |  |
| SEBM304  | Human Anatomy and<br>Physiology                    | 4      | 2             | -   | 4                | 1 •    | -   | 5     |  |  |
| SEBM305  | Biomaterials                                       | 4      | -             | 1   | 4                | _      | 1   | 5     |  |  |
| SEBM306  | Object Oriented<br>Programming &<br>Methodology \$ | -      | 4#            | -   | S                | 2      | -   | 2     |  |  |
|          | TOTAL  | 20     | 8             | 3   | 20               | 4      | 3   | 27    |  |  |

#### Syllabus Scheme for S.E. Semester III Biomedical Engineering

# Out of 4 hours, 2 hours theory shall be taught to the entire class followed by 2 hrs. practical in batches.

|            |   |        |           | Exa     | amination     | scheme       |            |         |        |
|------------|---|--------|-----------|---------|---------------|--------------|------------|---------|--------|
|            |   |        | Theor     | y Marks |               |              |            |         |        |
| Sub Code   | Subject Name  | Inte   | rnal Asse | ssment  | End           | Term<br>work | Pract.     | Oral    | Total  |
|            | •   | Test 1 | Test 2    | Avg.    | - Sem<br>exam |              |            |         |        |
| SEBM301    | Applied Mathematics-III \$                              | 20     | 20        | 20      | 80            | 25           | -          | -       | 125    |
| SEBM302    | Electronic Circuits and<br>Design – I                   | 20     | 20        | 20      | 80            | 25           | 25         | -       | 150    |
| SEBM303    | Electrical Network<br>Analysis and Synthesis            | 20     | 20        | 20      | 80            | 25           | -          | -       | 125    |
| SEBM304    | Human Anatomy and<br>Physiology                         | 20     | 20        | 20      | 80            | 25           | -          | 25      | 150    |
| SEBM305    | Biomaterials  | 20     | 20        | 20      | 80            | 25           | -          | 25      | 150    |
| SEBM306    | Object Oriented<br>Programming &<br>Methodology \$      | -      | -         | -       | -             | 50           | 50*        | -       | 100    |
| $\bigcirc$ | TOTAL   |        |           | 100     | 400           | 175          | 75         | 50      | 800    |
| *Both Pra  | actical and Oral examination                            |        |           |         | •             |              |            | 1       | 1      |
|            | common for Electronics and ng, Electrical Engineering a |        |           | •       | ÷             | tronics E    | ngineering | g, Biom | edical |

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|          | Subjects  | Tea    | ching Sche | eme | Credits Assigned |          |     |       |  |  |
|----------|---|--------|------------|-----|------------------|----------|-----|-------|--|--|
| Sub Code | Subjects  | Theory | Pract.     | Tut | Theory           | Pract.   | Tut | Total |  |  |
| SEBM401  | Applied Mathematics-IV \$                           | 4      | -          | 1   | 4                | -        | 1   | 5     |  |  |
| SEBM402  | Electronic Circuits and<br>Design – II              | 4      | 2          | -   | 4                | 1        |     | 5     |  |  |
| SEBM403  | Transducers and Sensors<br>for Medical Applications | 4      | 2          | -   | 4                | 1        |     | 5     |  |  |
| SEBM404  | Logic Circuits                                      | 4      | 2          | -   | 4                | 1 ♦      | -   | 5     |  |  |
| SEBM405  | Signals and Systems                                 | 4      | -          | 1   | 4                | <u> </u> | 1   | 5     |  |  |
| SEBM406  | Electronic Instruments and<br>Control System        | 4      | 2          | -   | 4                | 1        | -   | 5     |  |  |
|          | TOTAL   | 24     | 8          | 2   | 24               | 4        | 2   | 30    |  |  |
|          | ·   |        |            |     |                  |          |     | •     |  |  |

## Syllabus Scheme for S.E. Semester IV Biomedical Engineering

|          |   |        |          | Exa                   | minatio     | n scheme     | 9      |      |       |
|----------|---|--------|----------|-----------------------|-------------|--------------|--------|------|-------|
| S-h C-h  | Sechie et Nerre                                     | •      | Theory   | v M <mark>arks</mark> |             |              |        |      |       |
| Sub Code | Subject Name  | Inter  | mal Asse | ssment                | End         | Term<br>work | Pract. | Oral | Total |
|          |   | Test 1 | Test 2   | Avg.                  | Sem<br>exam | WUIK         |        |      |       |
| SEBM401  | Applied Mathematics-IV \$                           | 20     | 20       | 20                    | 80          | 25           | -      | -    | 125   |
| SEBM402  | Electronic Circuits and Design – II                 | 20     | 20       | 20                    | 80          | 25           | 25     | -    | 150   |
| SEBM403  | Transducers and Sensors<br>for Medical Applications | 20     | 20       | 20                    | 80          | 25           | -      | 25   | 150   |
| SEBM404  | Logic Circuits                                      | 20     | 20       | 20                    | 80          | 25           | 25     | -    | 150   |
| SEBM405  | Signals and Systems                                 | 20     | 20       | 20                    | 80          | 25           | -      | 25   | 150   |
| SEBM406  | Electronic Instruments and<br>Control System        | 20     | 20       | 20                    | 80          | 25           | -      | 25   | 150   |
|          | TOTAL   |        |          | 120                   | 480         | 150          | 50     | 75   | 875   |

\$ Subject common for Electronics and Telecommunication Engineering, Electronics Engineering, Biomedical Engineering, Electrical Engineering and Instrumentation Engineering.

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| Course | Correct Norma                                 | Теа    | ching Sche | eme | Credits Assigned |        |     |       |  |
|--------|---|--------|------------|-----|------------------|--------|-----|-------|--|
| Code   | Course Name                                   | Theory | Pract.     | Tut | Theory           | Pract. | Tut | Total |  |
| BMC501 | Biomedical<br>Instrumentation-I               | 4      | 2          | -   | 4                | 1      |     | 5     |  |
| BMC502 | Microprocessors                               | 4      | 2          | -   | 4                | 1      |     | 5     |  |
| BMC503 | Analog and Digital Circuits<br>Design         | 4      | 2          | -   | 4                | 1      | )   | 5     |  |
| BMC504 | Biomedical Digital Signal<br>Processing       | 4      | 2          | -   | 4                | 1 *    | -   | 5     |  |
| BMC505 | Principles of<br>Communication<br>Engineering | 4      | 2          | -   | 4                | 1      | -   | 5     |  |
| BML506 | Business Communication<br>and Ethics          | -      | 2*+2       |     | 0                | 2      | -   | 2     |  |
|        | TOTAL   | 20     | 14         |     | 20               | 7      | -   | 27    |  |

## Syllabus Scheme for T.E. Semester V Biomedical Engineering

|   |        |   |        |          | Exa     | minatio     | n scheme     | ne     |      |       |  |
|---|--------|---|--------|----------|---------|-------------|--------------|--------|------|-------|--|
|   | Course | Course Nome                                   |        | Theory   | v Marks |             |              |        |      |       |  |
|   | Code   | Course Name                                   | Inter  | nal Asse | ssment  | End         | Term<br>work | Pract. | Oral | Total |  |
|   |        |   | Test 1 | Test 2   | Avg.    | Sem<br>exam | WOIK         |        |      |       |  |
|   | BMC501 | Biomedical<br>Instrumentation-I               | 20     | 20       | 20      | 80          | 25           | -      | 25   | 150   |  |
|   | BMC502 | Microprocessors                               | 20     | 20       | 20      | 80          | 25           | -      | -    | 125   |  |
|   | BMC503 | Analog and Digital Circuits Design            | 20     | 20       | 20      | 80          | 25           | 25     | -    | 150   |  |
|   | BMC504 | Biomedical Digital Signal<br>Processing       | 20     | 20       | 20      | 80          | 25           | -      | 25   | 150   |  |
|   | BMC505 | Principles of<br>Communication<br>Engineering | 20     | 20       | 20      | 80          | 25           | -      | -    | 125   |  |
|   | BML506 | Business Communication<br>and Ethics          | -      | -        | -       | -           | 50           | -      | -    | 50    |  |
|   |        | TOTAL   |        |          | 100     | 400         | 175          | 25     | 50   | 750   |  |
| 4 |        |   |        |          |         |             |              |        |      |       |  |

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| Course | Course Name                              | Teac   | ching Sch | ieme | C      | redits As | signed |       |
|--------|--|--------|-----------|------|--------|-----------|--------|-------|
| Code   | Course Name                              | Theory | Pract.    | Tut  | Theory | Pract.    | Tut    | Total |
| BMC601 | Biomedical Instrumentation –II           | 4      | 2         | -    | 4      | 1         |        | 5     |
| BMC602 | Biostatistics                            | 4      | -         | 1    | 4      | -         | - 1    | 5     |
| BMC603 | Biological Modeling and Simulation       | 3      | 2         | _    | 3      | 1         |        | 4     |
| BMC604 | Microcontrollers and<br>Embedded Systems | 4      | 2         | -    | 4      | 1 ♦       | -      | 5     |
| BMC605 | Medical Imaging –I                       | 3      | 2         | -    | 3      | 1         | -      | 4     |
| BMC606 | Digital Image Processing                 | 4      | 2         | -    | 4      | 1         | -      | 5     |
|        | TOTAL                                    | 22     | 10        | 1    | 22     | 5         | 1      | 28    |

## Syllabus Scheme for T.E. Semester VI Biomedical Engineering

|        |  |                     |        | Ex   | aminati     | on schen     | heme   |      |       |  |
|--------|--|---------------------|--------|------|-------------|--------------|--------|------|-------|--|
| Course | C N                                      | Theory Marks        |        |      |             |              |        |      |       |  |
| Code   | Course Name                              | Internal Assessment |        |      | End         | Term<br>work | Pract. | Oral | Total |  |
|        |  | Test 1              | Test 2 | Avg. | Sem<br>exam | WUIK         |        |      |       |  |
| BMC601 | Biomedical Instrumentation –II           | 20                  | 20     | 20   | 80          | 25           | 25     | -    | 150   |  |
| BMC602 | Biostatistics                            | 20                  | 20     | 20   | 80          | 25           | -      | -    | 125   |  |
| BMC603 | Biological Modeling and Simulation       | 20                  | 20     | 20   | 80          | 25           | -      | -    | 125   |  |
| BMC604 | Microcontrollers and<br>Embedded Systems | 20                  | 20     | 20   | 80          | 25           | -      | 25   | 150   |  |
| BMC605 | Medical Imaging –I                       | 20                  | 20     | 20   | 80          | 25           | -      | 25   | 150   |  |
| BMC606 | Digital Image Processing                 | 20                  | 20     | 20   | 80          | 25           | 25     | -    | 150   |  |
|        | TOTAL                                    |                     |        |      |             | 150          | 50     | 50   | 850   |  |

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| Course | Course Norma                                  | Tea    | ching Scho | eme | Cı     | redits Ass | signed |       |
|--------|---|--------|------------|-----|--------|------------|--------|-------|
| Code   | Course Name                                   | Theory | Pract.     | Tut | Theory | Pract.     | Tut    | Total |
| BMC501 | Biomedical<br>Instrumentation-I               | 4      | 2          | -   | 4      | 1          |        | 5     |
| BMC502 | Microprocessors                               | 4      | 2          | -   | 4      | 1          |        | 5     |
| BMC503 | Analog and Digital Circuits<br>Design         | 4      | 2          | -   | 4      | 1          | )      | 5     |
| BMC504 | Biomedical Digital Signal<br>Processing       | 4      | 2          | -   | 4      | 1 *        | -      | 5     |
| BMC505 | Principles of<br>Communication<br>Engineering | 4      | 2          | -   | 4      | 1          | -      | 5     |
| BML506 | Business Communication<br>and Ethics          | -      | 2*+2       |     | 0      | 2          | -      | 2     |
|        | TOTAL   | 20     | 14         |     | 20     | 7          | -      | 27    |

## Syllabus Scheme for T.E. Semester V Biomedical Engineering

|   |        |   |        |          | Exa     | minatio     | n scheme     | ne     |      |       |  |
|---|--------|---|--------|----------|---------|-------------|--------------|--------|------|-------|--|
|   | Course | Course Nome                                   |        | Theory   | v Marks |             |              |        |      |       |  |
|   | Code   | Course Name                                   | Inter  | nal Asse | ssment  | End         | Term<br>work | Pract. | Oral | Total |  |
|   |        |   | Test 1 | Test 2   | Avg.    | Sem<br>exam | WOIK         |        |      |       |  |
|   | BMC501 | Biomedical<br>Instrumentation-I               | 20     | 20       | 20      | 80          | 25           | -      | 25   | 150   |  |
|   | BMC502 | Microprocessors                               | 20     | 20       | 20      | 80          | 25           | -      | -    | 125   |  |
|   | BMC503 | Analog and Digital Circuits Design            | 20     | 20       | 20      | 80          | 25           | 25     | -    | 150   |  |
|   | BMC504 | Biomedical Digital Signal<br>Processing       | 20     | 20       | 20      | 80          | 25           | -      | 25   | 150   |  |
|   | BMC505 | Principles of<br>Communication<br>Engineering | 20     | 20       | 20      | 80          | 25           | -      | -    | 125   |  |
|   | BML506 | Business Communication<br>and Ethics          | -      | -        | -       | -           | 50           | -      | -    | 50    |  |
|   |        | TOTAL   |        |          | 100     | 400         | 175          | 25     | 50   | 750   |  |
| 4 |        |   |        |          |         |             |              |        |      |       |  |

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# Syllabus Structure Rev 2012 Biotechnology





| Subject            | Subject Name  | Teac   | hing Sch | neme |        | Credit AssignedTheoryPract.Tut. $04$ - $01$ $04$ - $01$ $-$ - $03$ $04$ - $01$ $ 03$ $ 02$ $ 02$ $ 02$ $ 02$ $ 02$ $ 02$ $ 02$ $ 02$ $ 02$ $ 02$ $ 02$ |      |       |  |  |
|--------------------|---|--------|----------|------|--------|--|------|-------|--|--|
| Code               | Subject Maine   | Theory | Pract.   | Tut. | Theory | Pract.   | Tut. | Total |  |  |
| BTC701             | Bioseparation & Downstream<br>Processing Technology-I | 04     | _        | 01   | 04     | _  | 01   | 05    |  |  |
| BTC702             | Bioprocess Modeling &<br>Simulation                   | 04     | _        | 01   | 04     | _  | 01   | 05    |  |  |
| BTC703             | Seminar   | —      | _        | 03   | _      | -  | 03   | 03    |  |  |
| BTE704             | Elective-II   | 04     | _        | 01   | 04     |  | 01   | 05    |  |  |
| BTP705             | Project-A   | —      | _        | 06   | —      | _  | 03   | 03    |  |  |
| BTL706             | LAB VI  | _      | 04       | _    | -      | 02   | _    | 02    |  |  |
| BTL707             | LAB VII   | _      | 04       | —    |        | 02   | _    | 02    |  |  |
|                    | Total   | 12     | 08       | 12   | 12     | 04   | 09   | 25    |  |  |
| Examination Scheme |   |        |          |      |        |  |      |       |  |  |

## Scheme for BE: Semester-VII

Examination Scheme

|         |                            |  | 0  | Exa          | minatio      | n Scher      | ne     |      |       |
|---------|----------------------------|--|--|--------------|--------------|--------------|--------|------|-------|
| Subject | Subject Name               |  | Theory                                   | y marks      |              | Toma         |        |      |       |
| Code    | Subject Name               | Internal Assessment                      |  |              | End          | Term<br>Work | Pract. | Oral | Total |
|         |                            | Test                                     | Test                                     | Avg.of       | Sem.<br>Exam | Work         |        |      |       |
|         |                            | $\begin{pmatrix} 1 \\ (A) \end{pmatrix}$ | $\begin{pmatrix} 2 \\ (B) \end{pmatrix}$ | (A)<br>& (B) | Exam         |              |        |      |       |
| BTC701  | Bioseparation & Downstream | 20                                       | 20                                       | 20           | 80           | 25           |        |      | 125   |
| DICIOI  | Processing Technology-I    | ~ 20                                     | 20                                       | 20           | 00           | 20           |        |      | 120   |
| BTC702  | Bioprocess Modeling &      | 20                                       | 20                                       | 20           | 80           | 25           | _      | _    | 125   |
|         | Simulation                 |  |  |              |              |              |        |      |       |
| BTC703  | Seminar                    | _  | _  | —            | -            | 50           | _      | -    | 50    |
| BTE704  | Elective – II              | 20                                       | 20                                       | 20           | 80           | 25           | —      | 25   | 150   |
| BTP705  | Project-A                  | _  | _  | _            | _            | 50           | _      | 50   | 100   |
| BTL706  | LAB VI                     | _  | _  | —            | _            | _            | 25     | _    | 25    |
| BTL707  | LAB VII                    | _  | —  | —            | _            | _            | 25     | _    | 25    |
|         |                            | -  | Total                                    | 60           | 240          | 175          | 50     | 75   | 600   |

# Elective Streams(BTE704)

| Sem.VII | Elective II | • Food Biotechnology        |
|---------|-------------|-----------------------------|
|         |             | • Pharmaceutical Technology |
|         |             | • Nanotechnology            |



University of Mumbai

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 $\begin{array}{c} {\rm Biotechnology} \ {\rm Engineering} \\ {}^{\rm I40} \end{array}$ 

| Subject | Subject Name                | Teac   | hing Sch | ieme | (      | Credit A | ssigned |       |
|---------|-----------------------------|--------|----------|------|--------|----------|---------|-------|
| Code    | Subject Mame                | Theory | Pract.   | Tut. | Theory | Pract.   | Tut.    | Total |
| BTC801  | Environmental Biotechnology | 04     | _        | _    | 04     | _        | _       | 04    |
| BTC802  | Bioseparation & Downstream  | 04     | —        | _    | 04     | —        | -       | 04    |
|         | Processing Technology-II    |        |          |      |        |          |         |       |
| BTC803  | Bioprocess Plant &          | 03     | _        | 01   | 03     | _        | 01      | 04    |
|         | Equipment Design            |        |          |      |        |          |         |       |
| BTE804  | Elective-III                | 03     | _        | 01   | 03     | 1        | 01      | 04    |
| BTP805  | Project-B                   | —      | —        | 08   | —      |          | 06      | 06    |
| BTL806  | LAB VIII                    | —      | 03       | _    | -      | 1.5      | _       | 1.5   |
| BTL807  | LAB IX                      | —      | 03       | —    |        | 1.5      | _       | 1.5   |
|         | Total                       | 14     | 06       | 10   | 14     | 03       | 08      | 25    |
|         | Examinati                   |        |          | 0    |        |          |         |       |

## Scheme for BE: Semester-VIII

# Examination Scheme

|         |                             |        |        | Exar    | ninatio | Sem.       Work $      100$ $80$ $    100$ $80$ $   100$ $80$ $25$ $  128$ $80$ $25$ $  128$ |        |      |       |
|---------|-----------------------------|--------|--------|---------|---------|--|--------|------|-------|
| Subject | Subject Name                |        | Theory | y marks |         | Torm   |        |      |       |
| Code    | Subject Maine               | Intern |        |         | End     |  | Pract. | Oral | Total |
|         |                             | Test   | Test   | Avg.of  | Sem.    |  |        |      |       |
|         |                             | 1      | 2      | (A)     | Exam    |  |        |      |       |
|         |                             | (A)    | (B)    | & (B)   |         |  |        |      |       |
| BTC801  | Environmental Biotechnology | 20     | 20     | 20      | 80      | _  | —      | —    | 100   |
| BTC802  | Bioseparation & Downstream  | 20     | 20     | 20      | 80      | —  | —      | —    | 100   |
|         | Processing Technology-II    |        |        |         |         |  |        |      |       |
| BTC803  | Bioprocess Plant &          | 20     | 20     | 20      | 80      | 25   | —      | —    | 125   |
|         | Equipment Design            |        |        |         |         |  |        |      |       |
| BTE804  | Elective-III                | 20     | 20     | 20      | 80      | 25   | —      | —    | 125   |
| BTP805  | Project-B                   | —      | —      | _       | _       | 50   | —      | 100  | 150   |
| BTL806  | LAB VIII                    | _      | _      | _       | _       | _  | 25     | —    | 25    |
| BTL807  | LAB IX                      | _      | _      | _       | _       | —  | 25     | —    | 25    |
|         |                             |        | Total  | 80      | 320     | 100  | 50     | 100  | 650   |

# Elective Streams(BTE804)

| Sem.VIII | Elective III | • Non Conventional Sources of Energy |
|----------|--------------|--------------------------------------|
|          |              | • Biosensor & Diagnostics            |
|          |              | • Protein Engineering                |
|          |              | • Agriculture Biotechnology          |

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 $\begin{array}{c} {\rm Biotechnology} \mathop{\rm Engineering} \\ {}^{\rm 141} \end{array}$ 

# **UNIVERSITY OF MUMBAI** SCHEME OF INSTRUCTION AND EXAMINATION **S.E: SEMESTER-III**

| Subject<br>Code | Subject Name                |        | Teaching<br>Contact |        |               |                      | Credi        | ts Assig | ned  | $\bigcirc$ |
|-----------------|-----------------------------|--------|---------------------|--------|---------------|----------------------|--------------|----------|--|------------|
| Coue            |                             | The    | ory                 | Pract. | Tut.          | Theory               | Prac         | t.       | Tut.         1               1            1            2         act.       Oral <t< th=""><th>Total</th></t<> | Total      |
| BTC301          | Applied Mathematics-<br>III | 3      | ;                   |        | 1             | 3                    |              |          | 1  | 4          |
| BTC302          | Microbiology                | 4      |                     |        |               | 4                    |              |          | _  | 4          |
| BTC303          | Cell Biology                | 3      | ;                   |        |               | 3                    | E.           |          | ,  | 3          |
| BTC304          | Biochemistry                | 4      | -                   |        |               | 4                    |              |          |  | 4          |
| BTC305          | Unit Operations-I           | 4      | -                   |        |               | 4                    | 1            |          |  | 4          |
| BTC306          | <b>Process Calculations</b> | 3      |                     |        | 1             | 3                    | ł            |          | 1  | 4          |
| BTL307          | Microbiology Lab            |        | -                   | 4      |               |                      | 2            |          |  | 2          |
| BTL308          | Biochemistry Lab            |        | -                   | 3      |               |                      | 1.5          |          |  | 1.5        |
| BTL309          | Unit Operations-I Lab       |        | -                   | 3      |               |                      | 1.5          |          |  | 1.5        |
|                 | Total                       | 2      | 1                   | 10     | 2             | 21                   | 5            |          | 2  | 28         |
|                 |                             |        |                     |        | Exam          | ination Scl          | neme         | r        |  |            |
|                 |                             |        |                     | Theor  |               | T                    |              |          |  |            |
| Subject         |                             | τ.     |                     |        | <b>End</b>    |                      |              |          |  |            |
| Code            | Subject Name                | Intern | al Asses            | sment  | Sem.<br>Exam. | Exam.                | Term<br>Work | Pract.   | Oral   | Total      |
|                 |                             | Test1  | Test 2              | Avg.   |               | Duration<br>(in Hrs) | WOLK         |          |  |            |
| BTC301          | Applied Mathematics-<br>III | 20     | 20                  | 20     | 80            | 03                   | 25           |          |  | 125        |
| BTC302          | Microbiology                | 20     | 20                  | 20     | 80            | 03                   |              |          |  | 100        |
| BTC303          | Cell Biology                | 20     | 20                  | 20     | 80            | 03                   | 25           |          |  | 125        |
| BTC304          | Biochemistry                | 20     | 20                  | 20     | 80            | 03                   |              |          |  | 100        |
| BTC305          | Unit Operations-I           | 20     | 20                  | 20     | 80            | 03                   | 25           |          |  | 125        |
| BTC306          | Process Calculations        | 20     | 20                  | 20     | 80            | 03                   | 25           |          |  | 125        |
| BTL307          | Microbiology Lab            |        |                     |        |               |                      |              | 25       |  | 25         |
| BTL308          | <b>Biochemistry</b> Lab     |        |                     |        |               |                      |              | 25       |  | 25         |
| BTL309          | Unit Operations-I Lab       |        |                     |        |               |                      |              |          |  |            |
|                 | Total                       |        |                     | 120    | 480           |                      | 100          | 50       |  | 750        |

**Student Contact Hrs Per week: 33** 

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# **UNIVERSITY OF MUMBAI** SCHEME OF INSTRUCTION AND EXAMINATION **S.E: SEMESTER-IV**

| Subject<br>Code | Subject Name                               | Teaching Scheme<br>(Contact Students) |        |          |               | Credits Assigned     |        |            |      |       |  |
|-----------------|--|---------------------------------------|--------|----------|---------------|----------------------|--------|------------|------|-------|--|
|                 |  | Theory                                |        | Pract.   | Tut.          | Theory               | Pract. | Tut.       |      | Total |  |
| BTC401          | Applied Mathematics-IV                     | 3                                     |        |          | 1             | 3                    |        | 1          |      | 4     |  |
| BTC402          | Molecular Genetics                         | 3                                     |        |          | 1             | 3                    |        | 1          |      | 4     |  |
| BTC403          | Fermentation<br>Technology                 | 4                                     |        |          |               | 4                    |        |            |      | 4     |  |
| BTC404          | Analytical Methods in<br>Biotechnology     | 4                                     |        |          |               | 4                    |        | ÷          |      | 4     |  |
| BTC405          | Immunology and<br>Immunotechnology         | 4                                     |        |          |               | 4 -                  |        | <b>D</b> - |      | 4     |  |
| BTC406          | Unit Operations-II                         | 4                                     |        |          |               | 4                    |        |            |      | 4     |  |
| BTL407          | Fermentation<br>Technology Lab             |                                       |        | 4        |               |                      | 2      |            |      | 2     |  |
| BTL408          | Analytical Methods in<br>Biotechnology Lab |                                       |        | 3        |               | -                    | 1.5    | 1.5        |      | 1.5   |  |
| BTL409          | Unit Operations-II Lab                     |                                       |        | 3        |               |                      | 1.5    |            |      | 1.5   |  |
|                 | Total                                      | 22                                    |        | 10 2     |               | 22                   | 5      | 2          |      | 29    |  |
| Subject<br>Code |  |                                       | R      |          | Exan          | nination Sc          |        |            |      |       |  |
|                 |  |                                       | Т      | heory Ma |               |                      |        |            |      |       |  |
|                 | Subject Name                               | Internal Asso                         |        | ssment   | End           | Exam.                | Term   | Pract.     | Oral | Total |  |
| Code            |  | Test1                                 | Test 2 |          | Sem.<br>Exam. | Duration<br>(in Hrs) | Work   | rracı.     | Oral | Total |  |
| BTC401          | Applied Mathematics-IV                     | 20                                    | 20     | 20       | 80            | 03                   | 25     |            |      | 125   |  |
| BTC402          | Molecular Genetics                         | 20                                    | 20     | 20       | 80            | 03                   | 25     |            |      | 125   |  |
| BTC403          | Fermentation<br>Technology                 | 20                                    | 20     | 20       | 80            | 03                   |        |            |      | 100   |  |
| BTC404          | Analytical Methods in<br>Biotechnology     | 20                                    | 20     | 20       | 80            | 03                   |        |            |      | 100   |  |
| BTC405          | Immunology and<br>Immunotechnology         | 20                                    | 20     | 20       | 80            | 03                   | 25     |            |      | 125   |  |
| BTC406          | Unit Operations-II                         | 20                                    | 20     | 20       | 80            | 03                   | 25     |            |      | 125   |  |
| BTL407          | Fermentation<br>Technology Lab             |                                       |        |          |               |                      |        | 25         |      | 25    |  |
| BTL408          | Analytical Methods in<br>Biotechnology Lab |                                       |        |          |               |                      |        | 25         |      | 25    |  |
|                 |  |                                       |        |          |               |                      |        |            |      |       |  |
| BTL409          | Unit Operations-II Lab                     |                                       |        |          | · ·           |                      |        |            | 1    | 1     |  |

Student Contact Hrs Per week: 34

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## Scheme for TE: Semester-V

| Course | Course Name                                 | Tea    | ching Sch     | eme  | Credit Assigned |        |      |       |  |  |
|--------|---|--------|---------------|------|-----------------|--------|------|-------|--|--|
| Code   | Course Mame                                 | Theory | Pract.        | Tut. | Theory          | Pract. | Tut. | Total |  |  |
| BTC501 | Bioinformatics-1                            | 04     | _             | _    | 4.0             | _      | - 4  | 4.0   |  |  |
| BTC502 | Genetic Engineering                         | 04     | _             | —    | 4.0             | _      |      | 4.0   |  |  |
| BTC503 | Biophysics                                  | 03     | _             | 01   | 3.0             | _      | 1.0  | 4.0   |  |  |
| BTC504 | Thermodynamics &<br>Biochemical Engineering | 03     | _             | 01   | 3.0             | - (    | 1.0  | 4.0   |  |  |
| BTC505 | Bioreactor Analysis & technology            | 03     | _             | 01   | 3.0             | -      | 1.0  | 4.0   |  |  |
| BTC506 | Business Communication & Ethics             | _      | $02^{*} + 02$ | _    |                 | 2.0    | _    | 2.0   |  |  |
| BTL507 | Lab – I                                     | _      | 03            | -    |                 | 1.5    | _    | 1.5   |  |  |
| BTL508 | Lab – II                                    | _      | 03            |      | -               | 1.5    | —    | 1.5   |  |  |
| C      | Total                                       | 17     | 10            | 03   | 17.0            | 5.0    | 3.0  | 25.0  |  |  |

\*Theory for entire class.

|        |                                | Examination Scheme      |        |         |      |                |        |      |       |  |
|--------|--------------------------------|-------------------------|--------|---------|------|----------------|--------|------|-------|--|
| Course | Course Name                    |                         | Theory | y marks |      | m              |        |      |       |  |
| Code   | Course Maine                   | Internal Assessment End |        |         |      | - Term<br>Work | Pract. | Oral | Total |  |
|        |                                | Test                    | Test   | Avg.    | Sem. | WOIN           |        |      |       |  |
|        | • • •                          | 1                       | 2      | of      | Exam |                |        |      |       |  |
|        |                                |                         |        | Test 1  |      |                |        |      |       |  |
|        |                                |                         |        | and     |      |                |        |      |       |  |
|        |                                |                         |        | Test 2  |      |                |        |      |       |  |
| BTC501 | Bioinformatics-1               | 20                      | 20     | 20      | 80   | _              | _      | _    | 100   |  |
| BTC502 | Genetic Engineering            | 20                      | 20     | 20      | 80   | _              | —      | —    | 100   |  |
| BTC503 | Biophysics                     | 20                      | 20     | 20      | 80   | 25             | -      | —    | 125   |  |
| BTC504 | Thermodynamics &               | 20                      | 20     | 20      | 80   | 25             | —      | —    | 125   |  |
|        | <b>Biochemical Engineering</b> |                         |        |         |      |                |        |      |       |  |
| BTC505 | Bioreactor Analysis &          | 20                      | 20     | 20      | 80   | 25             | —      | —    | 125   |  |
|        | technology                     |                         |        |         |      |                |        |      |       |  |
| BTC506 | Business Communication &       | —                       | —      | _       | —    | 50             | —      | _    | 50    |  |
|        | Ethics                         |                         |        |         |      |                |        |      |       |  |
| BTL507 | Lab - I                        | —                       | _      | _       | _    | —              | 25     | _    | 25    |  |
| BTL508 | Lab – II                       | _                       | _      | _       | _    | _              | 25     | 25   | 50    |  |
|        |                                |                         | Total  | 100     | 400  | 125            | 50     | 25   | 700   |  |

#### Examination Scheme



Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.

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### University of Mumbai

### Scheme for TE: Semester-VI

| Subject | Subject Name                            | Tea    | ching Sch | eme  |          | Credit A | Assigned |       |
|---------|---|--------|-----------|------|----------|----------|----------|-------|
| Code    | Subject Name                            | Theory | Pract.    | Tut. | Theory   | Pract.   | Tut.     | Total |
| CHC601  | Bioinformatics-II                       | 03     | —         | _    | 3.0      | _        | - (      | 3.0   |
| CHC602  | Cell & Tissue Culture                   | 04     | _         | _    | 4.0      | _        |          | 4.0   |
| CHC603  | Enzyme Engineering                      | 03     | _         | _    | 3.0      | _        | —        | 3.0   |
| CHC604  | IPR,Bioethics & Biosafety               | 03     | —         | 01   | 3.0      | -        | 1.0      | 4.0   |
| CHC605  | Process Control &                       | 03     | _         | 01   | 3.0      |          | 1.0      | 4.0   |
|         | Instrumentation                         |        |           |      |          |          |          |       |
| CHE606  | Elective - I                            | 03     | —         | 01   | 3.0      | - •      | 1.0      | 4.0   |
| CHL607  | $\operatorname{Lab}-\operatorname{III}$ | _      | 03        | _    |          | 1.5      | —        | 1.5   |
| CHL608  | Lab – IV                                | -      | 03        | -    |          | 1.5      | -        | 1.5   |
| CHL609  | Lab - V                                 | _      | 02        | -    | <b>-</b> | 1.0      | —        | 1.0   |
|         | Total                                   | 19     | 08        | 03   | 19.0     | 4.0      | 3.0      | 26.0  |
| -       |   |        |           |      |          |          |          |       |

#### **Examination Scheme**

|         |   | Examination Scheme      |          |               |              |      | ne     |      |       |
|---------|---|-------------------------|----------|---------------|--------------|------|--------|------|-------|
| Subject | Subject Name                            | biect Name Theory marks |          |               |              | Term |        |      |       |
| Code    | Subject Walle                           | Inter                   | nal Asse | ssment        | End          | Work | Pract. | Oral | Total |
|         |   | Test                    | Test     | Avg.          | Sem.<br>Exam |      |        |      |       |
|         |   | 1                       | 2        | of<br>Tract 1 | Exam         |      |        |      |       |
|         | • | -                       |          | Test 1<br>and |              |      |        |      |       |
|         |   |                         |          | Test 2        |              |      |        |      |       |
| CHC601  | Bioinformatics-II                       | 20                      | 20       | 20            | 80           | _    | _      | _    | 100   |
| CHC602  | Cell & Tissue Culture                   | 20                      | 20       | 20            | 80           | _    | _      | _    | 100   |
| CHC603  | Enzyme Engineering                      | 20                      | 20       | 20            | 80           | —    | _      | —    | 100   |
| CHC604  | IPR,Bioethics & Biosafety               | 20                      | 20       | 20            | 80           | 25   | _      | _    | 125   |
| CHC605  | Process Control &                       | 20                      | 20       | 20            | 80           | 25   | —      | _    | 125   |
|         | Instrumentation                         |                         |          |               |              |      |        |      |       |
| CHE606  | Elective – I                            | 20                      | 20       | 20            | 80           | 25   | —      | —    | 125   |
| CHL607  | Lab - III                               | —                       | —        | _             | —            | —    | 25     | _    | 25    |
| CHL609  | Lab - IV                                | —                       | —        | _             | —            | —    | 25     | _    | 25    |
| CHL610  | Lab - V                                 | —                       | -        | —             | —            | —    | 25     | —    | 25    |
|         |   |                         | Total    | 120           | 480          | 75   | 75     | —    | 750   |

#### Elective Streams(CHE606)

- a Research Methodology and Scientific writing
- b Stem Cell Biology
- c Good Laboratory Practices (GLP) & Process Safety



University of Mumbai

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Chemical Engineering 145

Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai -400 050.



# Syllabus Structure Rev 2012 First Year Engineering





Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.

### First Year Engineering (Semester I & II), Revised course from Academic Year 2012 -13, (REV- 2012),

| Sub Code | Subject Name              | Teaching Scheme |        |      | Credits Assigned |          |      |       |
|----------|---------------------------|-----------------|--------|------|------------------|----------|------|-------|
|          |                           | Theory          | Pract. | Tut. | Theory           | TW/Pract | Tut. | Total |
| FEC101   | Applied Mathematics-I     | 04              | -      | 01   | 04               |          | 01   | 05    |
| FEC102   | Applied Physics-I         | 03              | 01     | -    | 03               | 0.5      | -    | 3.5   |
| FEC103   | Applied Chemistry -I      | 03              | 01     | -    | 03               | 0.5      | -    | 3.5   |
| FEC104   | Engineering Mechanics     | 05              | 02     | -    | 05               | 01       | -    | 06    |
| FEC105   | Basic Electrical &        | 04              | 02     | -    | 04               | 01       | -    | 05    |
|          | Electronics Engineering   |                 |        |      |                  |          |      |       |
| FEC106   | Environmental studies     | 02              | -      | -    | 02               | -        | -    | 02    |
| FEL101   | Basic Workshop Practice-I | -               | 04     | -    | -                | 02       | -    | 02    |
|          |                           | 21              | 10     | 01   | 21               | 05       | 01   | 27    |

### (Common for all branches of Engineering)

### Scheme for FE - Semester - I

| Sub.   | Subject Name                                     |                     |        | Examinat                           | ion Scheme |       |   |    |     |
|--------|--|---------------------|--------|------------------------------------|------------|-------|---|----|-----|
| Code   |  |                     | Term   | Pract.                             | Oral       | Total |   |    |     |
|        |  | Internal Assessment |        |                                    | End sem.   | Work  |   |    |     |
|        |  | Test 1              | Test 2 | Average<br>of Test 1<br>and Test 2 | exam       |       |   |    |     |
| FEC101 | Applied<br>Mathematics-I                         | 20                  | 20     | 20                                 | 80         | 25    | - | -  | 125 |
| FEC102 | Applied Physics-I                                | 15                  | 15     | 15                                 | 60         | 25    | - | -  | 100 |
| FEC103 | Applied<br>Chemistry -I                          | 15                  | 15     | 15                                 | 60         | 25    | - | -  | 100 |
| FEC104 | Engineering<br>Mechanics                         | 20                  | 20     | 20                                 | 80         | 25    | - | 25 | 150 |
| FEC105 | Basic Electrical &<br>Electronics<br>Engineering | 20                  | 20     | 20                                 | 80         | 25    | - | 25 | 150 |
| FEC106 | Environmental studies                            | 15                  | 15     | 15                                 | 60         | -     | - | -  | 75  |
| FEL101 | Basic Workshop<br>Practice-I                     | -                   | -      | -                                  | -          | 50    | - | -  | 50  |
|        |  |                     |        | 105                                | 420        | 175   |   | 50 | 750 |

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Dr. G. T. Thampi

## <u>First Year Engineering (Semester I & II), Revised course from</u> <u>Academic Year 2012 -13, (REV- 2012), (Common for all branches)</u>

| Subject | Subject Name                | Теа    | aching Sch | eme  | Credits Assigned |          |      |       |
|---------|-----------------------------|--------|------------|------|------------------|----------|------|-------|
| Code    |                             | Theory | Pract.     | Tut. | Theory           | TW/Pract | Tut. | Total |
| FEC201  | Applied                     | 04     | -          | 01   | 04               |          | 01   | 05    |
|         | Mathematics-II              |        |            |      |                  |          |      |       |
| FEC202  | Applied Physics-II          | 03     | 01         | -    | 03               | 0.5      | -    | 3.5   |
| FEC203  | Applied Chemistry -II       | 03     | 01         | -    | 03               | 0.5      |      | 3.5   |
| FEC204  | Engineering Drawing         | 03     | 04         | -    | 03               | 02       | -    | 05    |
| FEC205  | Structured                  | 04     | 02         | -    | 04               | 01       | -    | 05    |
|         | Programming                 |        |            |      |                  |          |      |       |
|         | Approach                    |        |            |      |                  |          |      |       |
|         |                             |        |            |      |                  |          |      |       |
| FEC206  | <b>Communication Skills</b> | 02     | 02         | -    | 02               | 01       | -    | 03    |
| FEL201  | Basic Workshop              | -      | 04         | -    | -                | 02       | -    | 02    |
|         | Practice -II                |        |            |      |                  |          |      |       |
|         |                             | 19     | 14         | 01   | 19               | 07       | 01   | 27    |

### **Scheme for Semester - II**

| Sub.   | Subject Name   | Examination Scheme |                     |            |      |       |    |   |     |
|--------|----------------|--------------------|---------------------|------------|------|-------|----|---|-----|
| Code   |                |                    | Term                | Pract      | Oral | Total |    |   |     |
|        |                | Inte               | Internal Assessment |            |      | Work  |    |   |     |
|        |                | Test 1             | Test 2              | Av. of     | exam |       |    |   |     |
|        |                |                    |                     | Test 1 & 2 |      |       |    |   |     |
| FEC201 | Applied        | 20                 | 20                  | 20         | 80   | 25    | -  | - | 125 |
|        | Mathematics-II |                    |                     |            |      |       |    |   |     |
| FEC202 | Applied        | 15                 | 15                  | 15         | 60   | 25    | -  | - | 100 |
|        | Physics-II     |                    |                     |            |      |       |    |   |     |
| FEC203 | Applied        | 15                 | 15                  | 15         | 60   | 25    | -  | - | 100 |
|        | Chemistry -II  |                    |                     |            |      |       |    |   |     |
| FEC204 | Engineering    | 15                 | 15                  | 15         | 60   | 25    | 50 | - | 150 |
|        | Drawing        |                    |                     |            |      |       |    |   |     |
| FEC205 | Structured     | 20                 | 20                  | 20         | 80   | 25    | 25 | - | 150 |
|        | Programming    |                    |                     |            |      |       |    |   |     |
|        | Approach       |                    |                     |            |      |       |    |   |     |
|        |                |                    |                     |            |      |       |    |   |     |
| FEC206 | Communication  | 10                 | 10                  | 10         | 40   | 25    | -  | - | 75  |
|        | Skills         |                    |                     |            |      |       |    |   |     |
| FEL201 | Basic Workshop | -                  | -                   | -          | -    | 50    | -  | - | 50  |
|        | Practice-II    |                    |                     |            |      |       |    |   |     |
|        |                |                    |                     | 95         | 380  | 200   | 75 |   | 750 |

the



- 1.1.1 The Institution ensures effective curriculum delivery through a wellplanned and documented process
- **1.1.2** The Institution adheres to the academic calendar including for the conduct of CIE

| Sr. No | Activity Name             |
|--------|---------------------------|
| 1      | Academic Calendar 2020-21 |
| 2      | Academic Calendar 2019-20 |
| 3      | Academic Calendar 2018-19 |
| 4      | Academic Calendar 2017-18 |
| 5      | Academic Calendar 2016-17 |



Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.



THADOMAL SHAHANI ENGINEERING COLLEGE

# Academic Calendar 2020-21



Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.

August 2020

| Date        | Day       | Activity   | Remark                                      |              |
|-------------|-----------|--|---|--------------|
| 01/08/2020  | Saturday  |  |   |              |
| 02/08/2020  | Sunday    |  | Holiday                                     |              |
| 03/08/2020  | Monday    |  |   |              |
| 04/08/2020  | Tuesday   |  |   |              |
| 05/08/2020  | Wednesday |  |   |              |
| 06/08/2020  | Thursday  |  |   |              |
| 07/08/2020  | Friday    | Term Starts for SE, TE, BE                           |   |              |
| 08/08/2020  | Saturday  | Webinar on Emerging Trends in Electronics            |   |              |
| 09/08/2020  | Sunday    |  | Holiday                                     |              |
| 10/08/2020  | Monday    |  |   |              |
| 11/08/2020  | Tuesday   |  |   |              |
| 12/08/2020  | Wednesday |  |   |              |
| 13/08/2020  | Thursday  |  |   |              |
| 14//08/2020 | Friday    |  |   |              |
| 15/08/2020  | Saturday  | Independence Day                                     | Holiday                                     |              |
| 16/08/2019  | Sunday    | Parsi New Year                                       | Holiday                                     |              |
| 17/08/2020  | Monday    |  |   |              |
| 18/08/2020  | Tuesday   |  |   |              |
| 19/08/2020  | Wednesday |  |   |              |
| 20/08/2020  | Thursday  |  |   |              |
| 21/08/2020  | Friday    |  |   |              |
| 22/08/2020  | Saturday  | Ganesh Chaturthi                                     | Holiday                                     |              |
| 23/08/2020  | Sunday    |  | Holiday                                     |              |
| 24/08/2020  | Monday    |  | _   |              |
| 25/08/2020  | Tuesday   |  | G. T. Thampi                                |              |
| 26/08/2020  | Wednesday | Thadomal S   | Shahani Engineering C<br>(W), Mumbai-400 05 | ollege<br>0. |
| 27/08/2020  | Thursday  | Bandra   |   |              |
| 28/08/2020  | Friday    |  |   |              |
| 29/08/2020  | Saturday  | Webinar on Sharpening your skills to take a big leap |   |              |
| 30/08/2020  | Sunday    | Moahrum  | Holiday                                     |              |



## September 2020

| Date       | Day       | Activity | Remark                |
|------------|-----------|----------|-----------------------|
| 01/09/2020 | Tuesday   |          |                       |
| 02/09/2020 | Wednesday |          |                       |
| 03/09/2020 | Thursday  |          |                       |
| 04/09/2020 | Friday    |          |                       |
| 05/09/2020 | Saturday  |          |                       |
| 06/09/2020 | Sunday    |          | Holiday               |
| 07/09/2020 | Monday    |          |                       |
| 08/09/2020 | Tuesday   |          |                       |
| 09/09/2020 | Wednesday |          |                       |
| 10/09/2020 | Thursday  |          |                       |
| 11/09/2020 | Friday    |          |                       |
| 12/09/2020 | Saturday  |          |                       |
| 13/09/2020 | Sunday    |          | Holiday               |
| 14/09/2020 | Monday    |          |                       |
| 15/09/2020 | Tuesday   |          |                       |
| 16/09/2020 | Wednesday |          |                       |
| 17/09/2020 | Thursday  |          |                       |
| 18/09/2020 | Friday    |          |                       |
| 19/09/2020 | Saturday  |          |                       |
| 20/09/2020 | Sunday    |          | Holiday               |
| 21/09/2020 | Monday    |          | <b>N</b> 1.           |
| 22/09/2020 | Tuesday   |          |                       |
| 23/09/2020 | Wednesday | Dr. (    | 3. T. Thampi          |
| 24/09/2020 | Thursday  | F        |                       |
| 25/09/2020 | Friday    | Bandra ( | W), Mumbai - 400 050. |
| 26/09/2020 | Saturday  |          |                       |
| 27/09/2020 | Sunday    |          | Holiday               |
| 28/09/2020 | Monday    |          |                       |
| 29/09/2020 | Tuesday   | 152      |                       |



| 30/09/2020 | Wednesday |  |
|------------|-----------|--|
|            |           |  |

### October 2020

| 01/10/2020<br>02/10/2020<br>03/10/2020<br>04/10/2020 | Thursday<br>Friday<br>Saturday<br>Sunday | Mahatma Gandhi Birthday               | Holiday           |
|--|--|---------------------------------------|-------------------|
| 03/10/2020   | Saturday<br>Sunday                       | Mahatma Gandhi Birthday               | Holiday           |
|  | Sunday                                   |                                       |                   |
| 04/10/2020   | -  |                                       | 1                 |
|  |  |                                       | Holiday           |
| 05/10/2020   | Monday                                   |                                       |                   |
| 06/10/2020   | Tuesday                                  |                                       |                   |
| 07/10/2020   | Wednesday                                |                                       |                   |
| 08/10/2020   | Thursday                                 |                                       |                   |
| 09/10/2020   | Friday                                   |                                       |                   |
| 10/10/2020   | Saturday                                 |                                       |                   |
| 11/10/2020   | Sunday                                   |                                       | Holiday           |
| 12/10/2020   | Monday                                   |                                       |                   |
| 13/10/2020   | Tuesday                                  |                                       |                   |
| 14/10/2020   | Wednesday                                |                                       |                   |
| 15/10/2020   | Thursday                                 |                                       |                   |
| 16/10/2020   | Friday                                   |                                       |                   |
| 17/10/202  | Saturday                                 |                                       |                   |
| 18/10/2020   | Sunday                                   |                                       | Holiday           |
| 19/10/2020   | Monday                                   |                                       |                   |
| 20/10/2020   | Tuesday                                  | Cardiac Arrest resuscitation Workshop | Ν.                |
| 21/10/2020   | Wednesday                                |                                       |                   |
| 22/10/2020   | Thursday                                 | Dr. G.                                | T. Thampi         |
| 23/10/2020   | Friday                                   | PR                                    | NCIPAL            |
| 24/10/2020   | Saturday                                 | Bandra (W),                           | Mumbai - 400 050. |
| 25/10/2020   | Sunday                                   | Dasera                                | Holiday           |
| 26/10/2020   | Monday                                   |                                       |                   |
| 27/10/2020   | Tuesday                                  |                                       |                   |
| 28/10/2020   | Wednesday                                | 153                                   |                   |



| 29/10/2020 | Thursday |             |         |
|------------|----------|-------------|---------|
| 30/10/2020 | Friday   | Miladi Nabi | Holiday |
| 31/10/2020 | Saturday |             |         |

### November 2020

| Date       | Day       | Activity  | Remark              |
|------------|-----------|-----------|---------------------|
| 01/11/2020 | Sunday    |           | Holiday             |
| 02/11/2020 | Monday    |           |                     |
| 03/11/2020 | Tuesday   |           |                     |
| 04/11/2020 | Wednesday |           |                     |
| 05/11/2020 | Thursday  |           |                     |
| 06/11/2020 | Friday    |           |                     |
| 07/11/2020 | Saturday  |           |                     |
| 08/11/2020 | Sunday    |           | Holiday             |
| 09/11/2020 | Monday    |           |                     |
| 10/11/2020 | Tuesday   |           |                     |
| 11/11/2020 | Wednesday |           |                     |
| 12/11/2020 | Thursday  |           |                     |
| 13/11/2020 | Friday    |           |                     |
| 14/11/2020 | Saturday  |           |                     |
| 15/11/2020 | Sunday    |           | Holiday             |
| 16/11/2020 | Monday    | Diwali    | Holiday             |
| 17/11/2020 | Tuesday   |           |                     |
| 18/11/2020 | Wednesday |           |                     |
| 19/11/2020 | Thursday  |           |                     |
| 20/11/2020 | Friday    |           | _                   |
| 21/11/2020 | Saturday  | Dr. G     | T. Thampi           |
| 22/11/2020 | Sunday    | PF        | INCIPAL             |
| 23/11/2020 | Monday    | Bandra (W | , Mumbai - 400 050. |
| 24/11/2020 | Tuesday   |           |                     |
| 25/11/2020 | Wednesday |           |                     |
| 26/11/2020 | Thursday  |           |                     |
| 27/11/2020 | Friday    | 154       |                     |



| 28/11/2020 | Saturday |                    |         |
|------------|----------|--------------------|---------|
| 29/11/2020 | Sunday   |                    | Holiday |
| 30/11/2020 | Monday   | Guru Nanak Jayanti | Holiday |
|            |          |                    |         |

### December 2020

| Date       | Day       | Activity    | Remark                            |
|------------|-----------|-------------|-----------------------------------|
| 01/12/2020 | Tuesday   |             |                                   |
| 02/12/2020 | Wednesday |             |                                   |
| 03/12/2020 | Thursday  |             |                                   |
| 04/12/2020 | Friday    |             |                                   |
| 05/12/2020 | Saturday  |             |                                   |
| 06/12/2020 | Sunday    |             | Holiday                           |
| 07/12/2020 | Monday    |             |                                   |
| 08/12/2020 | Tuesday   |             |                                   |
| 09/12/2020 | Wednesday |             |                                   |
| 10/12/2020 | Thursday  |             |                                   |
| 11/12/2020 | Friday    |             |                                   |
| 12/12/2020 | Saturday  |             |                                   |
| 13/12/2020 | Sunday    |             | Holiday                           |
| 14/12/2020 | Monday    |             |                                   |
| 15/12/2020 | Tuesday   |             |                                   |
| 16/12/2020 | Wednesday |             |                                   |
| 17/12/2020 | Thursday  |             |                                   |
| 18/12/2020 | Friday    |             | <b>N</b> .                        |
| 19/12/2020 | Saturday  |             | -                                 |
| 20/12/2020 | Sunday    | Dr. G.      | Hoticlampi                        |
| 21/12/2020 | Monday    | PR          | INCIPAL<br>ni Engineering College |
| 22/12/2020 | Tuesday   | Bandra (W), | Mumbai - 400 050.                 |
| 23/12/2020 | Wednesday |             |                                   |
| 24/12/2020 | Thursday  |             |                                   |
| 25/12/2020 | Friday    | Christmas   | Holiday                           |
| 26/12/2020 | Saturday  | 155         |                                   |



| 27/12/2020 | Sunday    | Holiday |
|------------|-----------|---------|
| 28/12/2020 | Monday    |         |
| 29/12/2020 | Tuesday   |         |
| 30/12/2020 | Wednesday |         |
| 31/12/2020 | Thursday  |         |

# January 2021

| Date       | Day       | Activity | Remark  |
|------------|-----------|----------|---|
| 01/01/2021 | Friday    |          |   |
| 02/01/2021 | Saturday  |          |   |
| 03/01/2021 | Sunday    |          | Holiday   |
| 04/01/2021 | Monday    |          |   |
| 05/01/2021 | Tuesday   |          |   |
| 06/01/2021 | Wednesday |          |   |
| 07/01/2021 | Thursday  |          |   |
| 08/01/2021 | Friday    |          |   |
| 09/01/2021 | Saturday  |          |   |
| 10/01/2021 | Sunday    |          | Holiday   |
| 11/01/2021 | Monday    |          |   |
| 12/01/2021 | Tuesday   |          |   |
| 13/01/2021 | Wednesday |          |   |
| 14/01/2021 | Thursday  |          |   |
| 15/01/2021 | Friday    |          |   |
| 16/01/2021 | Saturday  |          |   |
| 17/01/2021 | Sunday    |          | Holiday   |
| 18/01/2021 | Monday    |          | -Nu   |
| 19/01/2021 | Tuesday   |          | -   |
| 20/01/2021 | Wednesday | Dr.      | G. T. Thampi  |
| 21/01/2021 | Thursday  |          | PRINCIPAL<br>ahani Engineering College<br>W), Mumbai - 400 050. |
| 22/01/2021 | Friday    | Bandra ( | w), wumpar=sur 000.   |
| 23/01/2021 | Saturday  |          |   |
| 24/01/2021 | Sunday    |          | Holiday   |
| 25/01/2021 | Monday    |          |   |
| 26/01/2021 | Tuesday   | 156      |   |

| 27/01/2021 | Wednesday |         |
|------------|-----------|---------|
| 28/01/2021 | Thursday  |         |
| 29/01/2021 | Friday    |         |
| 30/01/2021 | Saturday  |         |
| 31/01/2021 | Sunday    | Holiday |
|            |           |         |



Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.

| Date       | Day                |                                   |         |
|------------|--------------------|-----------------------------------|---------|
| 01/01/2021 | Friday             |                                   |         |
| 02/01/2021 | Saturday           |                                   |         |
| 03/01/2021 | Sunday             |                                   | Holiday |
| 04/01/2021 | Monday             |                                   |         |
| 05/01/2021 | Tuesday            |                                   |         |
| 06/01/2021 | Wednesday          |                                   |         |
| 07/01/2021 | Thursday           |                                   |         |
| 08/01/2021 | Friday             |                                   |         |
| 09/01/2021 | Saturday           |                                   |         |
| 10/01/2021 | Sunday             |                                   | Holiday |
| 11/01/2021 | Monday             |                                   |         |
| 12/01/2021 | Tuesday            |                                   |         |
| 13/01/2021 | Wednesday          |                                   |         |
| 14/01/2021 | Thursday           |                                   |         |
| 15/01/2021 | Friday             |                                   |         |
| 16/01/2021 | Saturday           |                                   |         |
| 17/01/2021 | Sunday             |                                   | Holiday |
| 18/01/2021 | Monday             |                                   |         |
| 19/01/2021 | Tuesday            |                                   |         |
| 20/01/2021 | Wednesday          |                                   |         |
| 21/01/2021 | Thursday           |                                   |         |
| 22/01/2021 | Friday             |                                   |         |
| 23/01/2021 | Saturday           |                                   |         |
| 24/01/2021 | Sunday             |                                   | Holiday |
| 25/01/2021 | Monday             | College reopens for SE, TE and BE |         |
| 26/01/2021 | Tuesday            | Republic Day                      | Holiday |
| 27/01/2021 | Wednesday          |                                   |         |
| 28/01/2021 | Thursday           |                                   |         |
| 29/01/2021 | Friday             |                                   |         |
| 30/01/2021 | Saturday           |                                   |         |
| 31/01/2021 | Sunday             |                                   | Holiday |
|            | BANDRA<br>MBAI-50. |                                   |         |

Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.

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#### February 2020

| Date       | Day       | Activity                                  | Remark  |
|------------|-----------|---|---------|
| 01/02/2021 | Monday    |   |         |
| 02/02/2021 | Tuesday   |   |         |
| 03/02/2021 | Wednesday |   |         |
| 04/02/2021 | Thursday  |   |         |
| 05/02/2021 | Friday    |   |         |
| 06/02/2021 | Saturday  |   |         |
| 07/02/2021 | Sunday    |   | Holiday |
| 08/02/2021 | Monday    |   |         |
| 09/02/2021 | Tuesday   |   |         |
| 10/02/2021 | Wednesday |   |         |
| 11/02/2021 | Thursday  |   |         |
| 12/02/2021 | Friday    |   |         |
| 13/02/2021 | Saturday  |   |         |
| 14/02/2021 | Sunday    |   | Holiday |
| 15/02/2021 | Monday    |   |         |
| 16/02/2021 | Tuesday   |   |         |
| 17/02/2021 | Wednesday |   |         |
| 18/02/2021 | Thursday  |   |         |
| 19/02/2021 | Friday    | Chhatrapati Shivaji Maharaj Jayanti       | Holiday |
| 20/02/2021 | Saturday  |   |         |
| 21/02/2021 | Sunday    | Marathi Diwas Day                         | Holiday |
| 22/02/2021 | Monday    |   |         |
| 23/02/2021 | Tuesday   |   |         |
| 24/02/2021 | Wednesday |   |         |
| 25/02/2021 | Thursday  |   |         |
| 26/02/2021 | Friday    | FDP on emerging quantum computing Pardigm |         |
| 27/02/2021 | Saturday  | Convocation Day                           |         |
| 28/02/2021 | Sunday    |   | Holiday |
|            |           | ·   |         |





Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.

| Date       | Day       | Activity                                  | Remark  |
|------------|-----------|---|---------|
| 01/03/2021 | Monday    |   | Holiday |
| 02/03/2021 | Tuesday   |   |         |
| 03/03/2021 | Wednesday |   |         |
| 04/03/2021 | Thursday  |   |         |
| 05/03/2021 | Friday    | Oscillations                              |         |
| 06/03/2021 | Saturday  |   |         |
| 07/03/2021 | Sunday    |   | Holiday |
| 08/03/2021 | Monday    | Webinar on Sustainable Menstrual Products |         |
| 09/03/2021 | Tuesday   |   |         |
| 10/03/2021 | Wednesday |   |         |
| 11/03/2021 | Thursday  | Maha Shivaratri                           | Holiday |
| 12/03/2021 | Friday    | Azadi Ka Amrut Mahotsav Celebration       |         |
| 13/03/2021 | Saturday  |   |         |
| 14/03/2021 | Sunday    |   | Holiday |
| 15/03/2021 | Monday    |   |         |
| 16/03/2021 | Tuesday   |   |         |
| 17/03/2021 | Wednesday |   |         |
| 18/03/2021 | Thursday  |   |         |
| 19/03/2021 | Friday    |   |         |
| 20/03/2021 | Saturday  | CodeStorm Technovation                    |         |
| 21/03/2021 | Sunday    |   | Holiday |
| 22/03/2021 | Monday    |   |         |
| 23/03/2021 | Tuesday   |   |         |
| 24/03/2021 | Wednesday |   |         |
| 25/03/2021 | Thursday  |   |         |
| 26/03/2021 | Friday    | TSEC Hacks                                |         |
| 27/03/2021 | Saturday  |   |         |
| 28/03/2021 | Sunday    |   | Holiday |
| 29/03/2021 | Monday    | Holi                                      | Holiday |
|            | Tuesday   |   |         |

Dr. G. T. Thampi PRINCIPAL mal Shahani Engineering College andra (W), Mumbai - 400 050.

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| Date       | Day       | Activity               | Remark      |                     |
|------------|-----------|------------------------|-------------|---------------------|
| 01/04/2021 | Thursday  | NSS Webinar on Granulo |             |                     |
| 02/04/2021 | Friday    | Good Friday            | Holiday     |                     |
| 03/04/2021 | Saturday  | TSEC Annual Day        |             |                     |
| 04/04/2021 | Sunday    | ISTE Ascent            |             |                     |
| 05/04/2021 | Monday    |                        | Holiday     |                     |
| 06/04/2021 | Tuesday   |                        |             |                     |
| 07/04/2021 | Wednesday |                        |             |                     |
| 08/04/2021 | Thursday  |                        |             |                     |
| 09/04/2021 | Friday    |                        |             |                     |
| 10/04/2021 | Saturday  | DSE Theory Exam        |             |                     |
| 11/04/2021 | Sunday    |                        | Holiday     |                     |
| 12/04/2021 | Monday    |                        |             |                     |
| 13/04/2021 | Tuesday   | Gudi Padwa             | Holiday     |                     |
| 14/04/2021 | Wednesday | Dr Ambedkar Jayanti    | Holiday     |                     |
| 15/04/2021 | Thursday  |                        |             |                     |
| 16/04/2021 | Friday    |                        |             |                     |
| 17/04/2021 | Saturday  | End od DSE Theory Exam |             |                     |
| 18/04/2021 | Sunday    |                        | Holiday     |                     |
| 19/04/2021 | Monday    |                        |             |                     |
| 20/04/2021 | Tuesday   |                        |             |                     |
| 21/04/2021 | Wednesday | Ram Navami             | Holiday     |                     |
| 22/04/2021 | Thursday  |                        |             | TENGINEE            |
| 23/04/2021 | Friday    |                        |             | BANDRA<br>MUMBAI-50 |
| 24/04/2021 | Saturday  | Dr. G                  | . T. Thampi | OGAHT #             |
| 25/04/2021 | Sunday    | Mahavir Jayanti        | Holiday     |                     |
| 26/04/2021 | Monday    |                        | Holiday     |                     |
| 27/04/2021 | Tuesday   |                        |             |                     |
| 28/04/2021 | Wednesday |                        |             |                     |
| 29/04/2021 | Thursday  |                        |             |                     |
|            |           |                        | ·           |                     |

### April 2020

| 30/04/2021 | Friday |  |
|------------|--------|--|
|            |        |  |

#### May 2020

| Date       | Day       | Activity                           | Remark  |
|------------|-----------|------------------------------------|---------|
| 01/05/2021 | Saturday  | Maharashtra Day                    | Holiday |
| 02/05/2021 | Sunday    |                                    | Holiday |
| 03/05/2021 | Monday    |                                    |         |
| 04/05/2021 | Tuesday   |                                    |         |
| 05/05/2021 | Wednesday |                                    |         |
| 06/05/2021 | Thursday  |                                    |         |
| 07/05/2021 | Friday    |                                    |         |
| 08/05/2021 | Saturday  |                                    |         |
| 09/05/2021 | Sunday    |                                    | Holiday |
| 10/05/2021 | Monday    |                                    |         |
| 11/05/2021 | Tuesday   |                                    |         |
| 12/05/2021 | Wednesday |                                    |         |
| 13/05/2021 | Thursday  | Ramzan Eid                         | Holiday |
| 14/05/2021 | Friday    |                                    |         |
| 15/05/2021 | Saturday  |                                    |         |
| 16/05/2021 | Sunday    |                                    | Holiday |
| 17/05/2021 | Monday    |                                    |         |
| 18/05/2021 | Tuesday   |                                    |         |
| 19/05/2021 | Wednesday | Term End for SE, TE and BE         |         |
| 20/05/2021 | Thursday  | Oral Exam starts for SE, TE and BE |         |
| 21/05/2021 | Friday    |                                    |         |
| 22/05/2021 | Saturday  |                                    |         |
| 23/05/2021 | Sunday    |                                    | Holiday |
| 24/05/2021 | Monday    |                                    |         |
| 25/05/2021 | Tuesday   |                                    |         |
| 26/05/2021 | Wednesday | Buddha Purnima                     | Holiday |
| 27/05/2021 | Thursday  |                                    |         |
| 28/05/2021 | Friday    |                                    |         |
| 29/05/2021 | Saturday  | End of Oral Exam                   |         |
| 30/05/2021 | Sunday    |                                    | Holiday |
| I'MUN      | MBA       |                                    |         |

Dr. G. T. Thampi PRINCIPAL nal Shahani Engineering College ndra (W), Mumbai-400 050.

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| 31/05/2021 | Monday |                               |  |
|------------|--------|-------------------------------|--|
| 12/07/2021 | Monday | Term starts for SE, TE and BE |  |

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Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.



THADOMAL SHAHANI ENGINEERING COLLEGE

# Academic Calendar 2019-20



Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.

July 2019

| Date       | Day       | Activity                   | Remark  |
|------------|-----------|----------------------------|---|
| 01/07/2019 | Monday    |                            |   |
| 02/07/2019 | Tuesday   |                            |   |
| 03/07/2019 | Wednesday |                            |   |
| 04/07/2019 | Thursday  |                            |   |
| 05/07/2019 | Friday    |                            |   |
| 06/07/2019 | Saturday  |                            |   |
| 07/07/2019 | Sunday    |                            | Holiday   |
| 08/07/2019 | Monday    | Term Starts for SE, TE, BE |   |
| 09/07/2019 | Tuesday   |                            |   |
| 10/07/2019 | Wednesday |                            |   |
| 11/07/2019 | Thursday  |                            |   |
| 12/07/2019 | Friday    |                            |   |
| 13/07/2019 | Saturday  |                            |   |
| 14/07/2019 | Sunday    |                            | Holiday   |
| 15/07/2019 | Monday    |                            |   |
| 16/07/2019 | Tuesday   |                            |   |
| 17/07/2019 | Wednesday |                            |   |
| 18/07/2019 | Thursday  |                            |   |
| 19/07/2019 | Friday    |                            |   |
| 20/07/2019 | Saturday  |                            |   |
| 21/07/2019 | Sunday    |                            | Holiday   |
| 22/07/2019 | Monday    |                            |   |
| 23/07/2019 | Tuesday   |                            |   |
| 24/07/2019 | Wednesday |                            |   |
| 25/07/2019 | Thursday  |                            | Dr C T Thampi   |
| 26/07/2019 | Friday    |                            | Dr. G. I. Inampu<br>PRINCIPAL<br>Thadomal Shehani Engineering Col |
| 27/07/2019 | Saturday  | FE Orientation             | Thadomal Shphani Engineening Ool<br>Bandra (W), Mumbai-400 050.   |
| 28/07/2019 | Sunday    |                            | Holiday   |
| 29/07/2019 | Monday    | Term starts for FE         |   |
| 30/07/2019 | Tuesday   |                            |   |
| 31/07/2019 | Wednesday | 165                        |   |

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August 2019

| Date        | Day       | Activity                                       | Remark  |
|-------------|-----------|--|---|
| 01/08/2019  | Thursday  |  |   |
| 02/08/2019  | Friday    |  |   |
| 03/08/2019  | Saturday  |  |   |
| 04/08/2019  | Sunday    |  | Holiday   |
| 05/08/2019  | Monday    | Term starts for FE                             |   |
| 06/08/2019  | Tuesday   |  |   |
| 07/08/2019  | Wednesday | NSS Orientation                                |   |
| 08/08/2019  | Thursday  |  |   |
| 09/08/2019  | Friday    |  |   |
| 10/08/2019  | Saturday  | MAD Club Internship Mela' 19                   |   |
| 11/08/2019  | Sunday    |  | Holiday   |
| 12/08/2019  | Monday    | Bakri Id                                       | Holiday   |
| 13/08/2019  | Tuesday   |  |   |
| 14//08/2019 | Wednesday |  |   |
| 15/08/2019  | Thursday  | Independence day                               | Holiday   |
| 16/08/2019  | Friday    |  |   |
| 17/08/2019  | Saturday  | Parsi New Year day                             | Holiday   |
| 18/08/2019  | Sunday    | RC TSEC Community Service Event                | Holiday   |
| 19/08/2019  | Monday    |  |   |
| 20/08/2019  | Tuesday   |  |   |
| 21/08/2019  | Wednesday |  |   |
| 22/08/2019  | Thursday  |  |   |
| 23/08/2019  | Friday    | 1  |   |
| 24/08/2019  | Saturday  |  |   |
| 25/08/2019  | Sunday    |  | Holiday   |
| 26/08/2019  | Monday    | Periodic Test-1 for SE, TE, BE                 | Dr. G. T. Thampi<br>PRINCIPAL                         |
| 27/08/2019  | Tuesday   | Periodic Test-1 for SE, TE, BE Thadoma<br>Band | I Shahani Engineering Cul<br>dra (W), Mumbai-400 050. |
| 28/08/2019  | Wednesday | Periodic Test-1 for SE, TE, BE                 |   |
| 29/08/2019  | Thursday  |  |   |
| 30/08/2019  | Friday    |  |   |
| 31/08/2019  | Saturday  |  |   |



# September 2019

| Date       | Day       | Activity                                      | Remark                           |
|------------|-----------|---|----------------------------------|
| 01/09/2019 | Sunday    |   | Holiday                          |
| 02/09/2019 | Monday    | Ganesh Chaturthi Vacation Starts              | Holiday                          |
| 03/09/2019 | Tuesday   |   | Holiday                          |
| 04/09/2019 | Wednesday |   | Holiday                          |
| 05/09/2019 | Thursday  |   | Holiday                          |
| 06/09/2019 | Friday    | Ganesh Chaturthi Vacation Ends                | Holiday                          |
| 07/09/2019 | Saturday  |   |                                  |
| 08/09/2019 | Sunday    |   | Holiday                          |
| 09/09/2019 | Monday    |   |                                  |
| 10/09/2019 | Tuesday   | Muharram                                      | Holiday                          |
| 11/09/2019 | Wednesday |   |                                  |
| 12/09/2019 | Thursday  |   |                                  |
| 13/09/2019 | Friday    |   |                                  |
| 14/09/2019 | Saturday  |   |                                  |
| 15/09/2019 | Sunday    |   | Holiday                          |
| 16/09/2019 | Monday    | NSS Joy of Giving Week                        |                                  |
| 17/09/2019 | Tuesday   |   |                                  |
| 18/09/2019 | Wednesday | E-Cell Embark                                 |                                  |
| 19/09/2019 | Thursday  |   |                                  |
| 20/09/2019 | Friday    |   |                                  |
| 21/09/2019 | Saturday  | IIChE Chemergence<br>TSEC Codestorm Hackathon |                                  |
| 22/09/2019 | Sunday    |   | Holiday                          |
| 23/09/2019 | Monday    |   |                                  |
| 24/09/2019 | Tuesday   |   |                                  |
| 25/09/2019 | Wednesday | NSS Blood Donation Drive Dr. G                | T. Thampi                        |
| 26/09/2019 | Thursday  | PF<br>The demol Shah                          | ANCIPAL<br>ani Engineering Colle |
| 27/09/2019 | Friday    | Bandra (W)                                    | , Mumbai - 400 050.              |
| 28/09/2019 | Saturday  | ISTE Cryptech' 19                             |                                  |
| 29/09/2019 | Sunday    | IETE Elan                                     | Holiday                          |
| 30/09/2019 | Monday    |   |                                  |



# October 2019

| Date       | Day       | Activity   | Remark                          |
|------------|-----------|--|---------------------------------|
| 01/10/2019 | Tuesday   |  |                                 |
| 02/10/2019 | Wednesday | Mahatma Gandhi Jayanti                                     | Holiday                         |
| 03/10/2019 | Thursday  |  |                                 |
| 04/10/2019 | Friday    |  |                                 |
| 05/10/2019 | Saturday  |  |                                 |
| 06/10/2019 | Sunday    |  | Holiday                         |
| 07/10/2019 | Monday    |  |                                 |
| 08/10/2019 | Tuesday   | Dussehra   | Holiday                         |
| 09/10/2019 | Wednesday |  |                                 |
| 10/10/2019 | Thursday  | TIE Club Activity - World Mental Health<br>Day Celebration |                                 |
| 11/10/2019 | Friday    |  |                                 |
| 12/10/2019 | Saturday  |  |                                 |
| 13/10/2019 | Sunday    |  | Holiday                         |
| 14/10/2019 | Monday    |  |                                 |
| 15/10/2019 | Tuesday   | Periodic Test-2 for SE, TE, BE                             |                                 |
| 16/10/2019 | Wednesday | Periodic Test-2 for SE, TE, BE                             |                                 |
| 17/10/2019 | Thursday  | Periodic Test-2 for SE, TE, BE                             |                                 |
| 18/10/2019 | Friday    |  |                                 |
| 19/10/2019 | Saturday  | RC TSEC Club Service Event                                 |                                 |
| 20/10/2019 | Sunday    | Sports Committee Footcup                                   | Holiday                         |
| 21/10/2019 | Monday    |  |                                 |
| 22/10/2019 | Tuesday   |  |                                 |
| 23/10/2019 | Wednesday |  | N.                              |
| 24/10/2019 | Thursday  |  | -                               |
| 25/10/2019 | Friday    | Term End for SE, TE, BE Dr. G                              | . T. Thampi                     |
| 26/10/2019 | Saturday  | PF   | RINCIPAL                        |
| 27/10/2019 | Sunday    | Diwali Bandra (W   | ), Mumbai - 400 050.<br>Holiday |
| 28/10/2019 | Monday    | Lakshmi Puja   | Holiday                         |
| 29/10/2019 | Tuesday   |  |                                 |
| 30/10/2019 | Wednesday | Oral/Practical Exam Starts for SE, TE, BE                  |                                 |
| 31/10/2019 | Thursday  | 168  |                                 |



### November 2019

| Date       | Day       | Activity                                  | Remark                                      |
|------------|-----------|---|---|
| 01/11/2019 | Friday    |   |   |
| 02/11/2019 | Saturday  |   |   |
| 03/11/2019 | Sunday    |   | Holiday                                     |
| 04/11/2019 | Monday    |   |   |
| 05/11/2019 | Tuesday   |   |   |
| 06/11/2019 | Wednesday |   |   |
| 07/11/2019 | Thursday  |   |   |
| 08/11/2019 | Friday    |   |   |
| 09/11/2019 | Saturday  |   |   |
| 10/11/2019 | Sunday    | Id-E-Milad                                | Holiday                                     |
| 11/11/2019 | Monday    | Oral/Practical Exam End for SE,TE,BE      |   |
| 12/11/2019 | Tuesday   | Guru Nanak Jayanti                        | Holiday                                     |
| 13/11/2019 | Wednesday |   |   |
| 14/11/2019 | Thursday  | Semester Exam Starts for SE, TE, BE       |   |
| 15/11/2019 | Friday    |   |   |
| 16/11/2019 | Saturday  |   |   |
| 17/11/2019 | Sunday    |   | Holiday                                     |
| 18/11/2019 | Monday    | Oral/Practical Exam Starts for FE         |   |
| 19/11/2019 | Tuesday   |   |   |
| 20/11/2019 | Wednesday |   |   |
| 21/11/2019 | Thursday  |   |   |
| 22/11/2019 | Friday    |   |   |
| 23/11/2019 | Saturday  | ι   |   |
| 24/11/2019 | Sunday    |   | Holiday                                     |
| 25/11/2019 | Monday    |   |   |
| 26/11/2019 | Tuesday   |   | T. Thampi                                   |
| 27/11/2019 | Wednesday | Oral/Practical Exam End for FE Bandra (W) | ani Engineering Coll<br>, Mumbai - 400 050. |
| 28/11/2019 | Thursday  |   |   |
| 29/11/2019 | Friday    |   |   |
| 30/11/2019 | Saturday  |   |   |



| Date       | Day       | Activity                         | Remark                 |                  |
|------------|-----------|----------------------------------|------------------------|------------------|
| 01/12/2019 | Sunday    |                                  |                        |                  |
| 02/12/2019 | Monday    | Semester Exam End for SE, TE, BE |                        |                  |
| 03/12/2019 | Tuesday   | Semester Exam Starts for FE      |                        |                  |
| 04/12/2019 | Wednesday |                                  |                        |                  |
| 05/12/2019 | Thursday  |                                  |                        |                  |
| 06/12/2019 | Friday    |                                  |                        |                  |
| 07/12/2019 | Saturday  |                                  | Holiday                |                  |
| 08/12/2019 | Sunday    |                                  |                        |                  |
| 09/12/2019 | Monday    |                                  |                        |                  |
| 10/12/2019 | Tuesday   |                                  |                        |                  |
| 11/12/2019 | Wednesday |                                  |                        |                  |
| 12/12/2019 | Thursday  |                                  |                        |                  |
| 13/12/2019 | Friday    |                                  |                        |                  |
| 14/12/2019 | Saturday  |                                  | Holiday                |                  |
| 15/12/2019 | Sunday    |                                  |                        |                  |
| 16/12/2019 | Monday    | Semester Exam End for FE         |                        |                  |
| 17/12/2019 | Tuesday   |                                  |                        |                  |
| 18/12/2019 | Wednesday |                                  |                        |                  |
| 19/12/2019 | Thursday  |                                  |                        |                  |
| 20/12/2019 | Friday    |                                  |                        |                  |
| 21/12/2019 | Saturday  |                                  | Holiday                |                  |
| 22/12/2019 | Sunday    |                                  |                        |                  |
| 23/12/2019 | Monday    |                                  |                        |                  |
| 24/12/2019 | Tuesday   |                                  |                        |                  |
| 25/12/2019 | Wednesday | Christmas                        | Holiday                | BANDRI<br>MUMBAL |
| 26/12/2019 | Thursday  |                                  |                        | BANDRI           |
| 27/12/2019 | Friday    | Dr. G                            | T Thampi               | MUNDOVAHI -      |
| 28/12/2019 | Saturday  | PF                               | ni Engineering College |                  |
| 29/12/2019 | Sunday    | Bandra (W)                       | , Mumbai - 400 050.    |                  |
| 30/12/2019 | Monday    |                                  |                        |                  |
| 31/12/2019 | Tuesday   |                                  |                        |                  |
| 06/01/2020 | Monday    | Term Starts for FE, SE, TE, BE   |                        |                  |

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## January 2020

| Date       | Day       | Activity                       | Remark  |
|------------|-----------|--------------------------------|---------|
| 01/01/2020 | Wednesday |                                |         |
| 02/01/2020 | Thursday  | Industrial visit to Hyderabad  |         |
| 03/01/2020 | Friday    |                                |         |
| 04/01/2020 | Saturday  |                                |         |
| 05/01/2020 | Sunday    |                                |         |
| 06/01/2020 | Monday    | Term Starts for FE, SE, TE, BE |         |
| 07/01/2020 | Tuesday   |                                |         |
| 08/01/2020 | Wednesday |                                |         |
| 09/01/2020 | Thursday  |                                |         |
| 10/01/2020 | Friday    |                                |         |
| 11/01/2020 | Saturday  |                                |         |
| 12/01/2020 | Sunday    |                                | Holiday |
| 13/01/2020 | Monday    |                                |         |
| 14/01/2020 | Tuesday   |                                |         |
| 15/01/2020 | Wednesday |                                |         |
| 16/01/2020 | Thursday  |                                |         |
| 17/01/2020 | Friday    |                                |         |
| 18/01/2020 | Saturday  | Alumni Meet 2020               |         |
| 19/01/2020 | Sunday    |                                | Holiday |
| 20/01/2020 | Monday    |                                |         |
| 21/01/2020 | Tuesday   |                                |         |
| 22/01/2020 | Wednesday |                                |         |
| 23/01/2020 | Thursday  |                                |         |
| 24/01/2020 | Friday    |                                |         |
| 25/01/2020 | Saturday  | ·                              |         |
| 26/01/2020 | Sunday    | Republic Day                   | Holiday |
| 27/01/2020 | Monday    |                                |         |
| 28/01/2020 | Tuesday   |                                |         |
| 29/01/2020 | Wednesday |                                |         |

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| 30/01/2020 | Thursday |  |
|------------|----------|--|
| 31/01/2020 | Friday   |  |

# February 2020

| Date       | Day       | Activity                            | Remark                       |
|------------|-----------|-------------------------------------|------------------------------|
| 01/02/2020 | Saturday  |                                     |                              |
| 02/02/2020 | Sunday    |                                     | Holiday                      |
| 03/02/2020 | Monday    |                                     |                              |
| 04/02/2020 | Tuesday   |                                     |                              |
| 05/02/2020 | Wednesday | TSEC Code Cell - Hackathon Day 1    |                              |
| 06/02/2020 | Thursday  | TSEC Code Cell - Hackathon Day 2    |                              |
| 07/02/2020 | Friday    |                                     |                              |
| 08/02/2020 | Saturday  |                                     |                              |
| 09/02/2020 | Sunday    |                                     | Holiday                      |
| 10/02/2020 | Monday    |                                     |                              |
| 11/02/2020 | Tuesday   |                                     |                              |
| 12/02/2020 | Wednesday |                                     |                              |
| 13/02/2020 | Thursday  |                                     |                              |
| 14/02/2020 | Friday    |                                     |                              |
| 15/02/2020 | Saturday  |                                     |                              |
| 16/02/2020 | Sunday    |                                     | Holiday                      |
| 17/02/2020 | Monday    |                                     |                              |
| 18/02/2020 | Tuesday   |                                     |                              |
| 19/02/2020 | Wednesday | Chhatrapati Shivaji Maharaj Jayanti | Holiday                      |
| 20/02/2020 | Thursday  |                                     |                              |
| 21/02/2020 | Friday    | Mahashivratri                       | Holiday                      |
| 22/02/2020 | Saturday  | D                                   | r. G. T. Thampi<br>PRINCIPAL |
| 23/02/2020 | Sunday    |                                     | Holiday                      |
| 24/02/2020 | Monday    |                                     |                              |
| 25/02/2020 | Tuesday   |                                     |                              |
| 26/02/2020 | Wednesday |                                     |                              |

| 27/02/2020 | Thursday |                 |
|------------|----------|-----------------|
| 28/02/2020 | Friday   | Traditional Day |
| 29/02/2020 | Saturday | ISTE Ascent' 20 |

# March 2020

| Date       | Day       | Activity Rema                                | ırk                 |
|------------|-----------|--|---------------------|
| 01/03/2020 | Sunday    | Holid  | lay                 |
| 02/03/2020 | Monday    |  |                     |
| 03/03/2020 | Tuesday   |  |                     |
| 04/03/2020 | Wednesday |  |                     |
| 05/03/2020 | Thursday  |  |                     |
| 06/03/2020 | Friday    | TSEC Annual day                              |                     |
| 07/03/2020 | Saturday  | TSEC Awards 2020                             |                     |
| 08/03/2020 | Sunday    | Holid  | lay                 |
| 09/03/2020 | Monday    |  |                     |
| 10/03/2020 | Tuesday   | Holi Holid                                   | lay                 |
| 11/03/2020 | Wednesday |  |                     |
| 12/03/2020 | Thursday  |  |                     |
| 13/03/2020 | Friday    |  |                     |
| 14/03/2020 | Saturday  | IETE Oscillation' 20                         |                     |
| 15/03/2020 | Sunday    | Holid  | lay                 |
| 16/03/2020 | Monday    |  |                     |
| 17/03/2020 | Tuesday   |  | ENGINE              |
| 18/03/2020 | Wednesday |  | BANDRA<br>MUMBALSO. |
| 19/03/2020 | Thursday  |  | MUMBAINT            |
| 20/03/2020 | Friday    | PRINCIPAL<br>Thadomal Shahani Engineering Co |                     |
| 21/03/2020 | Saturday  | RC TSEC Futsal' 20                           |                     |
| 22/03/2020 | Sunday    | Holid  | lay                 |
| 23/03/2020 | Monday    |  |                     |
| 24/03/2020 | Tuesday   |  |                     |

| 25/03/2020 | Wednesday | Gudi Padwa | Holiday |
|------------|-----------|------------|---------|
| 26/03/2020 | Thursday  |            |         |
| 27/03/2020 | Friday    |            |         |
| 28/03/2020 | Saturday  |            |         |
| 29/03/2020 | Sunday    |            | Holiday |
| 30/03/2020 | Monday    |            |         |
| 31/03/2020 | Tuesday   |            |         |

# April 2020

| Date       | Day       | Activity                                | Remark              |                     |
|------------|-----------|---|---------------------|---------------------|
| 01/04/2020 | Wednesday |   |                     |                     |
| 02/04/2020 | Thursday  | Ram Navmi                               | Holiday             |                     |
| 03/04/2020 | Friday    |   |                     |                     |
| 04/04/2020 | Saturday  |   |                     | -                   |
| 05/04/2020 | Sunday    |   | Holiday             |                     |
| 06/04/2020 | Monday    | Mahavir Jayanti                         | Holiday             |                     |
| 07/04/2020 | Tuesday   |   |                     |                     |
| 08/04/2020 | Wednesday |   |                     |                     |
| 09/04/2020 | Thursday  |   |                     |                     |
| 10/04/2020 | Friday    | Good Friday                             | Holiday             |                     |
| 11/04/2020 | Saturday  |   |                     |                     |
| 12/04/2020 | Sunday    |   | Holiday             | -                   |
| 13/04/2020 | Monday    |   |                     |                     |
| 14/04/2020 | Tuesday   | N N                                     |                     | ENGINES             |
| 15/04/2020 | Wednesday |   |                     | BANDRA<br>MUMBALSO. |
| 16/04/2020 | Thursday  |   | T Thampi            | MUMBALSU E          |
| 17/04/2020 | Friday    |   |                     | CHT P               |
| 18/04/2020 | Saturday  | Term Ends for FE, SE, TE, BE Bandra (W) | , Mumbai - 400 050. |                     |
| 19/04/2020 | Sunday    |   | Holiday             |                     |
| 20/04/2020 | Monday    | Oral and Practical Exam starts          |                     |                     |
| 21/04/2020 | Tuesday   |   |                     |                     |

| 22/04/2020 | Wednesday |                              |         |
|------------|-----------|------------------------------|---------|
| 23/04/2020 | Thursday  |                              |         |
| 24/04/2020 | Friday    |                              |         |
| 25/04/2020 | Saturday  |                              |         |
| 26/04/2020 | Sunday    |                              | Holiday |
| 27/04/2020 | Monday    |                              |         |
| 28/04/2020 | Tuesday   |                              |         |
| 29/04/2020 | Wednesday |                              |         |
| 30/04/2020 | Thursday  | Oral and Practical Exam ends |         |

# May 2020

| Date       | Day       | Activity                               | Remark                                       |         |
|------------|-----------|--|--|---------|
| 01/05/2020 | Friday    | Maharashtra Day                        | Holiday                                      |         |
| 02/05/2020 | Saturday  |  |  |         |
| 03/05/2020 | Sunday    |  | Holiday                                      |         |
| 04/05/2020 | Monday    |  |  |         |
| 05/05/2020 | Tuesday   |  |  |         |
| 06/05/2020 | Wednesday |  |  |         |
| 07/05/2020 | Thursday  | Theory Exam starts                     |  |         |
| 25/05/2020 | Monday    | Theory Exam ends                       |  |         |
| 06/07/2020 | Monday    | Term starts for SE, TE, BE (Tentative) |  |         |
|            |           |  |  |         |
|            |           |  |  |         |
|            |           |  |  |         |
|            |           | · · · · · · · · · · · · · · · · · · ·  |  | NENGINE |
|            |           |  | HSTUR  | BANDRA  |
|            |           |  |  | DANT +  |
|            |           | Thadomal Shah<br>Bandra (W)            | ani Engineering College<br>, Mumbai-400 050. |         |
|            |           |  |  |         |
|            |           |  |  |         |
|            |           |  |  |         |
|            |           |  |  |         |



THADOMAL SHAHANI ENGINEERING COLLEGE

# Academic Calendar 2018-19



Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.

# July 2018

| Date       | Day       | Activity                   | Remark                           |
|------------|-----------|----------------------------|----------------------------------|
| 01/07/2018 | Sunday    |                            | Holiday                          |
| 02/07/2018 | Monday    |                            |                                  |
| 03/07/2018 | Tuesday   |                            |                                  |
| 04/07/2018 | Wednesday |                            |                                  |
| 05/07/2018 | Thursday  |                            |                                  |
| 06/07/2018 | Friday    |                            |                                  |
| 07/07/2018 | Saturday  |                            |                                  |
| 08/07/2018 | Sunday    |                            | Holiday                          |
| 09/07/2018 | Monday    | Term Starts for SE, TE, BE |                                  |
| 10/07/2018 | Tuesday   |                            |                                  |
| 11/07/2018 | Wednesday |                            |                                  |
| 12/07/2018 | Thursday  |                            |                                  |
| 13/07/2018 | Friday    |                            |                                  |
| 14/07/2018 | Saturday  |                            |                                  |
| 15/07/2018 | Sunday    |                            | Holiday                          |
| 16/07/2018 | Monday    |                            |                                  |
| 17/07/2018 | Tuesday   |                            |                                  |
| 18/07/2018 | Wednesday |                            |                                  |
| 19/07/2018 | Thursday  |                            |                                  |
| 20/07/2018 | Friday    |                            |                                  |
| 21/07/2018 | Saturday  |                            |                                  |
| 22/07/2018 | Sunday    |                            | Holiday                          |
| 23/07/2018 | Monday    |                            |                                  |
| 24/07/2018 | Tuesday   |                            |                                  |
| 25/07/2018 | Wednesday |                            |                                  |
| 26/07/2018 | Thursday  | ι                          |                                  |
| 27/07/2018 | Friday    |                            |                                  |
| 28/07/2018 | Saturday  |                            | - W                              |
| 29/07/2018 | Sunday    |                            | Holiday                          |
| 30/07/2018 | Monday    | Dr                         | . G. T. Thampi                   |
| 31/07/2018 | Tuesday   | Thadamal                   | PRINCIPAL<br>Shahani Engineering |



Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.

### August 2018

| Date        | Day       | Activity                    |     | Remark       |
|-------------|-----------|-----------------------------|-----|--------------|
| 01/08/2018  | Wednesday |                             |     |              |
| 02/08/2018  | Thursday  |                             |     |              |
| 03/08/2018  | Friday    |                             |     |              |
| 04/08/2018  | Saturday  |                             |     |              |
| 05/08/2018  | Sunday    |                             |     | Holiday      |
| 06/08/2018  | Monday    | Term starts for FE          |     |              |
| 07/08/2018  | Tuesday   |                             |     |              |
| 08/08/2018  | Wednesday | NSS Orientation             |     |              |
| 09/08/2018  | Thursday  |                             |     |              |
| 10/08/2018  | Friday    |                             |     |              |
| 11/08/2018  | Saturday  |                             |     |              |
| 12/08/2018  | Sunday    |                             |     | Holiday      |
| 13/08/2018  | Monday    |                             |     |              |
| 14//08/2018 | Tuesday   |                             |     |              |
| 15/08/2018  | Wednesday | Independence day            |     | Holiday      |
| 16/08/2018  | Thursday  |                             |     |              |
| 17/08/2018  | Friday    | Parsi New Year              |     | Holiday      |
| 18/08/2018  | Saturday  |                             |     |              |
| 19/08/2018  | Sunday    |                             |     | Holiday      |
| 20/08/2018  | Monday    |                             |     |              |
| 21/08/2018  | Tuesday   |                             |     |              |
| 22/08/2018  | Wednesday | Bakri Id                    |     | Holiday      |
| 23/08/2018  | Thursday  |                             |     |              |
| 24/08/2018  | Friday    | Students' Council Avalanche |     |              |
| 25/08/2018  | Saturday  |                             |     |              |
| 26/08/2018  | Sunday    |                             |     | Holiday      |
| 27/08/2018  | Monday    |                             |     | N.           |
| 28/08/2018  | Tuesday   |                             |     |              |
| 29/08/2018  | Wednesday |                             |     |              |
| 30/08/2018  | Thursday  |                             | Dr. | G. T. Thampi |
| 31/08/2018  | Friday    |                             |     | PRINCIPAL    |



Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.

# September 2018

| Date       | Day       | Activity   |            | Remark                                     |
|------------|-----------|--|------------|--|
| 01/09/2018 | Saturday  |  |            |  |
| 02/09/2018 | Sunday    |  |            | Holiday                                    |
| 03/09/2018 | Monday    | Periodic Test-1 for SE,TE,BE                                     |            |  |
| 04/09/2018 | Tuesday   | Periodic Test-1 for SE,TE,BE                                     |            |  |
| 05/09/2018 | Wednesday | Periodic Test-1 for SE,TE,BE                                     |            |  |
| 06/09/2018 | Thursday  |  |            |  |
| 07/09/2018 | Friday    |  |            |  |
| 08/09/2018 | Saturday  | CSI Technext   |            |  |
| 09/09/2018 | Sunday    |  |            | Holiday                                    |
| 10/09/2018 | Monday    |  |            |  |
| 11/09/2018 | Tuesday   |  |            |  |
| 12/09/2018 | Wednesday |  |            |  |
| 13/09/2018 | Thursday  | Ganesh Chaturthi Vacation Starts                                 |            | Holiday                                    |
| 14/09/2018 | Friday    |  |            | Holiday                                    |
| 15/09/2018 | Saturday  |  |            | Holiday                                    |
| 16/09/2018 | Sunday    |  |            | Holiday                                    |
| 17/09/2018 | Monday    | Ganesh Chaturthi Vacation Ends                                   |            | Holiday                                    |
| 18/09/2018 | Tuesday   |  |            |  |
| 19/09/2018 | Wednesday |  |            |  |
| 20/09/2018 | Thursday  | Muharram   |            | Holiday                                    |
| 21/09/2018 | Friday    |  |            |  |
| 22/09/2018 | Saturday  | IE(I) Engineers Month Celebration<br>TSEC Code Storm – Hackathon |            |  |
| 23/09/2018 | Sunday    |  |            | Holiday                                    |
| 24/09/2018 | Monday    | NSS Joy of Giving Week   |            |  |
| 25/09/2018 | Tuesday   |  |            |  |
| 26/09/2018 | Wednesday | E-Cell Embark  |            |  |
| 27/09/2018 | Thursday  |  |            |  |
| 28/09/2018 | Friday    |  |            | _  |
| 29/09/2018 | Saturday  | IETE Elan<br>IIChE Chemergence                                   | Dr.        | G. T. Thampi<br>PRINCIPAL                  |
| 30/09/2018 | Sunday    |  | Thadomal S | hahani Enlificering (<br>(W), Mumbai-400 0 |



ollege Bandra (W), Mumbai - 400 050.

### October 2018

| Date       | Day       | Activity                     | Remark       |
|------------|-----------|------------------------------|--------------|
| 01/10/2018 | Monday    |                              |              |
| 02/10/2018 | Tuesday   | Mahatma Gandhi Jayanti       | Holiday      |
| 03/10/2018 | Wednesday |                              |              |
| 04/10/2018 | Thursday  |                              |              |
| 05/10/2018 | Friday    |                              |              |
| 06/10/2018 | Saturday  | ISTE                         |              |
| 07/10/2018 | Sunday    |                              | Holiday      |
| 08/10/2018 | Monday    |                              |              |
| 09/10/2018 | Tuesday   |                              |              |
| 10/10/2018 | Wednesday | NSS Blood Donation Drive     |              |
| 11/10/2018 | Thursday  |                              |              |
| 12/10/2018 | Friday    |                              |              |
| 13/10/2018 | Saturday  |                              |              |
| 14/10/2018 | Sunday    |                              | Holiday      |
| 15/10/2018 | Monday    | Periodic Test-2 for SE,TE,BE |              |
| 16/10/2018 | Tuesday   | Periodic Test-2 for SE,TE,BE |              |
| 17/10/2018 | Wednesday | Periodic Test-2 for SE,TE,BE |              |
| 18/10/2018 | Thursday  | Dussehra                     | Holiday      |
| 19/10/2018 | Friday    |                              |              |
| 20/10/2018 | Saturday  | RC-TSEC Club Service Event   |              |
| 21/10/2018 | Sunday    |                              | Holiday      |
| 22/10/2018 | Monday    |                              |              |
| 23/10/2018 | Tuesday   |                              |              |
| 24/10/2018 | Wednesday |                              |              |
| 25/10/2018 | Thursday  |                              |              |
| 26/10/2018 | Friday    | Term End for SE,TE,BE        |              |
| 27/10/2018 | Saturday  |                              | N.           |
| 28/10/2018 | Sunday    |                              | Holiday      |
| 29/10/2018 | Monday    |                              | _            |
| 30/10/2018 | Tuesday   | Dr.                          | G. T. Thampi |
| 31/10/2018 | Wednesday | 82 <sup>1</sup>              | PRINCIPAL    |



Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.

### November 2018

| Date       | Day       | Activity           | Remark           |
|------------|-----------|--------------------|------------------|
| 01/11/2018 | Thursday  |                    |                  |
| 02/11/2018 | Friday    |                    |                  |
| 03/11/2018 | Saturday  |                    |                  |
| 04/11/2018 | Sunday    |                    | Holiday          |
| 05/11/2018 | Monday    |                    |                  |
| 06/11/2018 | Tuesday   |                    |                  |
| 07/11/2018 | Wednesday | Diwali             | Holiday          |
| 08/11/2018 | Thursday  |                    |                  |
| 09/11/2018 | Friday    |                    |                  |
| 10/11/2018 | Saturday  |                    |                  |
| 11/11/2018 | Sunday    |                    | Holiday          |
| 12/11/2018 | Monday    |                    |                  |
| 13/11/2018 | Tuesday   |                    |                  |
| 14/11/2018 | Wednesday |                    |                  |
| 15/11/2018 | Thursday  |                    |                  |
| 16/11/2018 | Friday    |                    |                  |
| 17/11/2018 | Saturday  |                    |                  |
| 18/11/2018 | Sunday    |                    | Holiday          |
| 19/11/2018 | Monday    |                    |                  |
| 20/11/2018 | Tuesday   |                    |                  |
| 21/11/2018 | Wednesday | Eid e Milad        | Holiday          |
| 22/11/2018 | Thursday  |                    |                  |
| 23/11/2018 | Friday    | Guru Nanak Jayanti | Holiday          |
| 24/11/2018 | Saturday  |                    |                  |
| 25/11/2018 | Sunday    |                    | Holiday          |
| 26/11/2018 | Monday    |                    |                  |
| 27/11/2018 | Tuesday   |                    | IN.              |
| 28/11/2018 | Wednesday |                    |                  |
| 29/11/2018 | Thursday  |                    |                  |
| 30/11/2018 | Friday    |                    | Dr. G. T. Thampi |



PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.

### December 2018

| Date       | Day       | Activity                           | Remark  |
|------------|-----------|------------------------------------|---|
| 01/12/2018 | Saturday  |                                    |   |
| 02/12/2018 | Sunday    |                                    | Holiday   |
| 03/12/2018 | Monday    |                                    |   |
| 04/12/2018 | Tuesday   |                                    |   |
| 05/12/2018 | Wednesday |                                    |   |
| 06/12/2018 | Thursday  |                                    |   |
| 07/12/2018 | Friday    |                                    |   |
| 08/12/2018 | Saturday  |                                    |   |
| 09/12/2018 | Sunday    |                                    | Holiday   |
| 10/12/2018 | Monday    |                                    |   |
| 11/12/2018 | Tuesday   |                                    |   |
| 12/12/2018 | Wednesday |                                    |   |
| 13/12/2018 | Thursday  |                                    |   |
| 14/12/2018 | Friday    |                                    |   |
| 15/12/2018 | Saturday  |                                    |   |
| 16/12/2018 | Sunday    |                                    | Holiday   |
| 17/12/2018 | Monday    |                                    |   |
| 18/12/2018 | Tuesday   |                                    |   |
| 19/12/2018 | Wednesday |                                    |   |
| 20/12/2018 | Thursday  |                                    |   |
| 21/12/2018 | Friday    |                                    |   |
| 22/12/2018 | Saturday  |                                    |   |
| 23/12/2018 | Sunday    |                                    | Holiday   |
| 24/12/2018 | Monday    |                                    |   |
| 25/12/2018 | Tuesday   | Christmas day                      | Holiday   |
| 26/12/2018 | Wednesday |                                    |   |
| 27/12/2018 | Thursday  |                                    | N.  |
| 28/12/2018 | Friday    |                                    |   |
| 29/12/2018 | Saturday  |                                    | -   |
| 30/12/2018 | Sunday    | r                                  | Dr. G. THotiqampi   |
| 31/12/2018 | Monday    | 32                                 | PRINCIPAL   |
| 07/01/2019 | Monday    | Term Starts for FE, SE, TE, BE Ban | al Shahani Engineering Colleg<br>dra (W), Mumbai-400 050. |



## January 2019

| Date       | Day                | Activity                       | Remark  |
|------------|--------------------|--------------------------------|---------|
| 01/01/2019 | Tuesday            |                                |         |
| 02/01/2019 | Wednesday          |                                |         |
| 03/01/2019 | Thursday           |                                |         |
| 04/01/2019 | Friday             |                                |         |
| 05/01/2019 | Saturday           |                                |         |
| 06/01/2019 | Sunday             |                                | Holiday |
| 07/01/2019 | Monday             | Term Starts for FE, SE, TE, BE |         |
| 08/01/2019 | Tuesday            |                                |         |
| 09/01/2019 | Wednesday          |                                |         |
| 10/01/2019 | Thursday           |                                |         |
| 11/01/2019 | Friday             |                                |         |
| 12/01/2019 | Saturday           |                                |         |
| 13/01/2019 | Sunday             |                                | Holiday |
| 14/01/2019 | Monday             |                                |         |
| 15/01/2019 | Tuesday            |                                |         |
| 16/01/2019 | Wednesday          |                                |         |
| 17/01/2019 | Thursday           |                                |         |
| 18/01/2019 | Friday             | Dice Boot Camp for BE          |         |
| 19/01/2019 | Saturday           |                                |         |
| 20/01/2019 | Sunday             |                                | Holiday |
| - M        | BANDRA<br>MUMBALSC | COLL COLL                      |         |

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| 21/01/2019 | Monday    |              |         |
|------------|-----------|--------------|---------|
| 22/01/2019 | Tuesday   |              |         |
| 23/01/2019 | Wednesday |              |         |
| 24/01/2019 | Thursday  |              |         |
| 25/01/2019 | Friday    |              |         |
| 26/01/2019 | Saturday  | Republic Day | Holiday |
| 27/01/2019 | Sunday    |              | Holiday |
| 28/01/2019 | Monday    |              |         |
| 29/01/2019 | Tuesday   |              |         |
| 30/01/2019 | Wednesday |              |         |
| 31/01/2019 | Thursday  |              |         |

# February 2019

|   | Date       | Day  | Activity   | Remark  |
|---|------------|--|--|---------|
|   | 01/02/2019 | Friday   |  |         |
|   | 02/02/2019 | Saturday   | RC-TSEC Club Service Event                             |         |
|   | 03/02/2019 | Sunday   | Sports Committee Yudh '19                              | Holiday |
|   | 04/02/2019 | Monday   |  |         |
|   | 05/02/2019 | Tuesday  |  |         |
|   | 06/02/2019 | Wednesday  | NSS Blood Donation Drive<br>TSEC Code Cell - Hackathon |         |
|   | 07/02/2019 | Thursday   |  |         |
|   | 08/02/2019 | Friday   |  |         |
|   | 09/02/2019 | Saturday   | ISTE- Ascent '19                                       |         |
| 1 | 10/02/2019 | Sunday   |  | Holiday |
|   | In         | BANDRA<br>BANDRA<br>BANDRA<br>BANDRA<br>BANDRA<br>BANDRA<br>BANDRA | r col  |         |

Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.

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| 11/02/2019 | Monday    | Periodic Test- 1                    |         |
|------------|-----------|-------------------------------------|---------|
| 12/02/2019 | Tuesday   | Periodic Test- 1                    |         |
| 13/02/2019 | Wednesday | Periodic Test- 1                    |         |
| 14/02/2019 | Thursday  |                                     |         |
| 15/02/2019 | Friday    | Dice Boot Camp for TE               |         |
| 16/02/2019 | Saturday  |                                     |         |
| 17/02/2019 | Sunday    |                                     | Holiday |
| 18/02/2019 | Monday    |                                     |         |
| 19/02/2019 | Tuesday   | Chhatrapati Shivaji Maharaj Jayanti | Holiday |
| 20/02/2019 | Wednesday |                                     |         |
| 21/02/2019 | Thursday  |                                     |         |
| 22/02/2019 | Friday    |                                     |         |
| 23/02/2019 | Saturday  | CSI Rubix                           |         |
| 24/02/2019 | Sunday    |                                     | Holiday |
| 25/02/2019 | Monday    |                                     |         |
| 26/02/2019 | Tuesday   |                                     |         |
| 27/02/2019 | Wednesday |                                     |         |
| 28/02/2019 | Thursday  |                                     |         |

### March 2019

| Date       | Day      | Activity                  | Remark  |
|------------|----------|---------------------------|---------|
| 01/03/2019 | Friday   | Traditional Day           |         |
| 02/03/2019 | Saturday | TEDx TSEC                 |         |
| 03/03/2019 | Sunday   | Sports Committee Marathon | Holiday |
| 04/03/2019 | Monday   | Mahashivratri             | Holiday |
| 05/03/2019 | Tuesday  |                           |         |

Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050. BANDRI

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|   | 06/03/2019 | Wednesday         | E-Cell Project Expo  |         |
|---|------------|-------------------|----------------------|---------|
|   | 07/03/2019 | Thursday          |                      |         |
|   | 08/03/2019 | Friday            |                      |         |
|   | 09/03/2019 | Saturday          | IE(I) TantrAvishkar  |         |
|   | 10/03/2019 | Sunday            | IETE Oscillation '19 | Holiday |
|   | 11/03/2019 | Monday            |                      |         |
|   | 12/03/2019 | Tuesday           |                      |         |
|   | 13/03/2019 | Wednesday         |                      |         |
|   | 14/03/2019 | Thursday          |                      |         |
|   | 15/03/2019 | Friday            | Trifles 2019 Day 1   |         |
|   | 16/03/2019 | Saturday          | Trifles 2019 Day 2   |         |
|   | 17/03/2019 | Sunday            |                      | Holiday |
|   | 18/03/2019 | Monday            |                      |         |
|   | 19/03/2019 | Tuesday           |                      |         |
|   | 20/03/2019 | Wednesday         |                      |         |
|   | 21/03/2019 | Thursday          | Holi                 | Holiday |
|   | 22/03/2019 | Friday            |                      |         |
|   | 23/03/2019 | Saturday          |                      |         |
|   | 24/03/2019 | Sunday            |                      | Holiday |
|   | 25/03/2019 | Monday            |                      |         |
|   | 26/03/2019 | Tuesday           |                      |         |
|   | 27/03/2019 | Wednesday         |                      |         |
|   | 28/03/2019 | Thursday          |                      |         |
|   | 29/03/2019 | Friday            |                      |         |
|   | 30/03/2019 | Saturday          |                      |         |
|   | 31/03/2019 | Sunday            |                      | Holiday |
| - | AHS THINK  | ANDRA<br>UMBAL50. | t.                   |         |

Dr. G. T. Thampi PRINCIPAL Jomal Shahani Engineering College Bandra (W), Mumbai-400 050. MONTH I

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### April 2019

| Date       | Day       | Activity                       | Remark  |
|------------|-----------|--------------------------------|---------|
| 01/04/2019 | Monday    |                                |         |
| 02/04/2019 | Tuesday   |                                |         |
| 03/04/2019 | Wednesday | Periodic Test- 2               |         |
| 04/04/2019 | Thursday  | Periodic Test- 2               |         |
| 05/04/2019 | Friday    | Periodic Test- 2               |         |
| 06/04/2019 | Saturday  | Gudi Padwa                     | Holiday |
| 07/04/2019 | Sunday    |                                | Holiday |
| 08/04/2019 | Monday    |                                |         |
| 09/04/2019 | Tuesday   |                                |         |
| 10/04/2019 | Wednesday |                                |         |
| 11/04/2019 | Thursday  |                                |         |
| 12/04/2019 | Friday    |                                |         |
| 13/04/2019 | Saturday  | Ram Navmi                      | Holiday |
| 14/04/2019 | Sunday    |                                | Holiday |
| 15/04/2019 | Monday    |                                |         |
| 16/04/2019 | Tuesday   |                                |         |
| 17/04/2019 | Wednesday | Mahavir Jayanti                | Holiday |
| 18/04/2019 | Thursday  |                                |         |
| 19/04/2019 | Friday    | Good Friday                    | Holiday |
| 20/04/2019 | Saturday  | Term Ends for FE, SE, TE, BE   |         |
| 21/04/2019 | Sunday    |                                | Holiday |
| 22/04/2019 | Monday    | Oral and Practical Exam starts |         |
| 23/04/2019 | Tuesday   |                                |         |

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| 24/04/2019 | Wednesday |         |
|------------|-----------|---------|
| 25/04/2019 | Thursday  |         |
| 26/04/2019 | Friday    |         |
| 27/04/2019 | Saturday  |         |
| 28/04/2019 | Sunday    | Holiday |
| 29/04/2019 | Monday    |         |
| 30/04/2019 | Tuesday   |         |

## May 2019

| Date       | Day       | Activity                     | Remark                     |
|------------|-----------|------------------------------|----------------------------|
| 01/05/2019 | Wednesday | Maharashtra Day              | Holiday                    |
| 02/05/2019 | Thursday  | Oral and Practical Exam ends |                            |
| 03/05/2019 | Friday    |                              |                            |
| 04/05/2019 | Saturday  |                              |                            |
| 05/05/2019 | Sunday    |                              | Holiday                    |
| 06/05/2019 | Monday    |                              |                            |
| 07/05/2019 | Tuesday   | Theory Exam starts           |                            |
| 08/05/2019 | Wednesday |                              |                            |
| 09/05/2019 | Thursday  |                              |                            |
| 10/05/2019 | Friday    |                              |                            |
| 11/05/2019 | Saturday  |                              |                            |
| 12/05/2019 | Sunday    |                              | Holiday                    |
| 13/05/2019 | Monday    |                              |                            |
| 14/05/2019 | Tuesday   |                              |                            |
| 15/05/2019 | Wednesday |                              |                            |
| 16/05/2019 | Thursday  |                              | ENGING<br>BANDRA<br>BANDRA |

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| 17/05/2019 | Friday    |                |         |
|------------|-----------|----------------|---------|
| 18/05/2019 | Saturday  | Buddha Purnima | Holiday |
| 19/05/2019 | Sunday    |                | Holiday |
| 20/05/2019 | Monday    |                |         |
| 21/05/2019 | Tuesday   |                |         |
| 22/05/2019 | Wednesday |                |         |
| 23/05/2019 | Thursday  |                |         |
| 24/05/2019 | Friday    |                |         |
| 25/05/2019 | Saturday  |                |         |
| 26/05/2019 | Sunday    |                | Holiday |
| 27/05/2019 | Monday    |                |         |
| 28/05/2019 | Tuesday   |                |         |
| 29/05/2019 | Wednesday |                |         |
| 30/05/2019 | Thursday  |                |         |
| 31/05/2019 | Friday    |                |         |

| 08/07/2019 | Monday | Term starts for SE, TE, BE (Tentative) |  |
|------------|--------|--|--|
|            |        |  |  |

ENGIN BANDE DHI

Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.



THADOMAL SHAHANI ENGINEERING COLLEGE

# Academic Calendar 2017-18



JULY

| Date       | Day       | Activity                 | Remark  |
|------------|-----------|--------------------------|---------|
| 01-07-2017 | Saturday  |                          |         |
| 02-07-2017 | Sunday    |                          | Holiday |
| 03-07-2017 | Monday    |                          |         |
| 04-07-2017 | Tuesday   |                          |         |
| 05-07-2017 | Wednesday |                          |         |
| 06-07-2017 | Thursday  |                          |         |
| 07-07-2017 | Friday    |                          |         |
| 08-07-2017 | Saturday  |                          |         |
| 09-07-2017 | Sunday    |                          | Holiday |
| 10-07-2017 | Monday    | Term Starts for SE TE BE |         |
| 11-07-2017 | Tuesday   |                          |         |
| 12-07-2017 | Wednesday |                          |         |
| 13-07-2017 | Thursday  |                          |         |
| 14-07-2017 | Friday    |                          |         |
| 15-07-2017 | Saturday  |                          |         |
| 16-07-2017 | Sunday    |                          | Holiday |
| 17-07-2017 | Monday    |                          |         |
| 18-07-2017 | Tuesday   |                          |         |
| 19-07-2017 | Wednesday |                          |         |
| 20-07-2017 | Thursday  |                          |         |
| 21-07-2017 | Friday    |                          |         |
| 22-07-2017 | Saturday  |                          |         |
| 23-07-2017 | Sunday    |                          | Holiday |
| 24-07-2017 | Monday    |                          |         |
| 25-07-2017 | Tuesday   |                          |         |
| 26-07-2017 | Wednesday |                          |         |
| 27-07-2017 | Thursday  |                          |         |
| 28-07-2017 | Friday    |                          |         |
| 29-07-2017 | Saturday  |                          | 18 .    |
| 30-07-2017 | Sunday    |                          | Noiday  |
| 31-07-2017 | Monday    |                          |         |



Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.

## AUGUST

| Date       | Day       | Activity                   | Remark     |
|------------|-----------|----------------------------|------------|
| 01-08-2017 | Tuesday   |                            |            |
| 02-08-2017 | Wednesday |                            |            |
| 03-08-2017 | Thursday  |                            |            |
| 04-08-2017 | Friday    |                            |            |
| 05-08-2017 | Saturday  |                            |            |
| 06-08-2017 | Sunday    |                            | Holiday    |
| 07-08-2017 | Monday    |                            |            |
| 08-08-2017 | Tuesday   |                            |            |
| 09-08-2017 | Wednesday |                            |            |
| 10-08-2017 | Thursday  | IE(I) Orientation          |            |
| 11-08-2017 | Friday    |                            |            |
| 12-08-2017 | Saturday  | Students Council Avalanche |            |
| 13-08-2017 | Sunday    | Students Council Avalanche | Holiday    |
| 14-08-2017 | Monday    |                            |            |
| 15-08-2017 | Tuesday   | Independence Day           | Holiday    |
| 16-08-2017 | Wednesday |                            |            |
| 17-08-2017 | Thursday  | Parsi New Year             | Holiday    |
| 18-08-2017 | Friday    |                            |            |
| 19-08-2017 | Saturday  | CSI Technext               |            |
| 20-08-2017 | Sunday    | CSI Technext               | Holiday    |
| 21-08-2017 | Monday    |                            |            |
| 22-08-2017 | Tuesday   |                            |            |
| 23-08-2017 | Wednesday |                            |            |
| 24-08-2017 | Thursday  |                            |            |
| 25-08-2017 | Friday    | Ganesh Chathurthi          | Holiday    |
| 26-08-2017 | Saturday  | Ganesh Chathurthi Vacation |            |
| 27-08-2017 | Sunday    | Ganesh Chathurthi Vacation | Holiday    |
| 28-08-2017 | Monday    | Ganesh Chathurthi Vacation |            |
| 29-08-2017 | Tuesday   | Ganesh Chathurthi Vacation |            |
| 30-08-2017 | Wednesday | Ganesh Chathurthi Vacation | _          |
| 31-08-2017 | Thursday  | Ganesh Chathurthi Vacation | G. T. Tham |



## SEPTEMBER

| Date       | Day       | Activity                             | Remark  |
|------------|-----------|--------------------------------------|---------|
| 01-09-2017 | Friday    | Ganesh Chathurthi Vacation           |         |
| 02-09-2017 | Saturday  | Bakri Id                             | Holiday |
| 03-09-2017 | Sunday    |                                      | Holiday |
| 04-09-2017 | Monday    | Periodic Test 1 SE TE BE             |         |
| 05-09-2017 | Tuesday   | Periodic Test 1 SE TE BE             |         |
| 06-09-2017 | Wednesday | Periodic Test 1 SE TE BE             |         |
| 07-09-2017 | Thursday  |                                      |         |
| 08-09-2017 | Friday    |                                      |         |
| 09-09-2017 | Saturday  | IETE ELAN                            |         |
| 10-09-2017 | Sunday    | IETE ELAN                            | Holiday |
| 11-09-2017 | Monday    |                                      |         |
| 12-09-2017 | Tuesday   |                                      |         |
| 13-09-2017 | Wednesday |                                      |         |
| 14-09-2017 | Thursday  |                                      |         |
| 15-09-2017 | Friday    |                                      |         |
| 16-09-2017 | Saturday  |                                      |         |
| 17-09-2017 | Sunday    |                                      | Holiday |
| 18-09-2017 | Monday    |                                      |         |
| 19-09-2017 | Tuesday   |                                      |         |
| 20-09-2017 | Wednesday |                                      |         |
| 21-09-2017 | Thursday  |                                      |         |
| 22-09-2017 | Friday    |                                      |         |
| 23-09-2017 | Saturday  | IE(I) Engineers Month Celebration    |         |
| 24-09-2017 | Sunday    |                                      | Holiday |
| 25-09-2017 | Monday    |                                      |         |
| 26-09-2017 | Tuesday   |                                      |         |
| 27-09-2017 | Wednesday |                                      |         |
| 28-09-2017 | Thursday  |                                      |         |
| 29-09-2017 | Friday    | Management Society CARMA             | N.      |
| 30-09-2017 | Saturday  | Dussehra<br>Management Society CARMA | Holiday |



## OCTOBER

| Date       | Day       | Activity                            | Remark                 |
|------------|-----------|-------------------------------------|------------------------|
| 01-10-2017 | Sunday    | Muharram                            | Holiday                |
| 02-10-2017 | Monday    | Gandhi Jayanti<br>IIChE Chemergence | Holiday                |
| 03-10-2017 | Tuesday   | IIChE Chemergence                   |                        |
| 04-10-2017 | Wednesday |                                     |                        |
| 05-10-2017 | Thursday  |                                     |                        |
| 06-10-2017 | Friday    |                                     |                        |
| 07-10-2017 | Saturday  |                                     |                        |
| 08-10-2017 | Sunday    |                                     | Holiday                |
| 09-10-2017 | Monday    |                                     |                        |
| 10-10-2017 | Tuesday   |                                     |                        |
| 11-10-2017 | Wednesday |                                     |                        |
| 12-10-2017 | Thursday  |                                     |                        |
| 13-10-2017 | Friday    |                                     |                        |
| 14-10-2017 | Saturday  |                                     |                        |
| 15-10-2017 | Sunday    |                                     | Holiday                |
| 16-10-2017 | Monday    | Periodic Test 2 SE TE BE            |                        |
| 17-10-2017 | Tuesday   | Periodic Test 2 SE TE BE            |                        |
| 18-10-2017 | Wednesday | Periodic Test 2 SE TE BE            |                        |
| 19-10-2017 | Thursday  | Diwali                              | Holiday                |
| 20-10-2017 | Friday    |                                     |                        |
| 21-10-2017 | Saturday  |                                     |                        |
| 22-10-2017 | Sunday    |                                     | Holiday                |
| 23-10-2017 | Monday    |                                     |                        |
| 24-10-2017 | Tuesday   |                                     |                        |
| 25-10-2017 | Wednesday |                                     |                        |
| 26-10-2017 | Thursday  |                                     |                        |
| 27-10-2017 | Friday    | \<br>\                              |                        |
| 28-10-2017 | Saturday  |                                     |                        |
| 29-10-2017 | Sunday    |                                     | Holiday                |
| 30-10-2017 | Monday    |                                     |                        |
| 31-10-2017 | Tuesday   | Dr.                                 | G. T. Tha<br>PRINCIPAL |



Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.

## NOVEMBER

| Date       | Day       | Activity           | Remark  |
|------------|-----------|--------------------|---------|
| 01-11-2017 | Wednesday |                    |         |
| 02-11-2017 | Thursday  |                    |         |
| 03-11-2017 | Friday    |                    |         |
| 04-11-2017 | Saturday  | Guru Nanak Jayanti | Holiday |
| 05-11-2017 | Sunday    |                    | Holiday |
| 06-11-2017 | Monday    |                    |         |
| 07-11-2017 | Tuesday   |                    |         |
| 08-11-2017 | Wednesday |                    |         |
| 09-11-2017 | Thursday  |                    |         |
| 10-11-2017 | Friday    |                    |         |
| 11-11-2017 | Saturday  |                    |         |
| 12-11-2017 | Sunday    |                    | Holiday |
| 13-11-2017 | Monday    |                    |         |
| 14-11-2017 | Tuesday   |                    |         |
| 15-11-2017 | Wednesday |                    |         |
| 16-11-2017 | Thursday  |                    |         |
| 17-11-2017 | Friday    |                    |         |
| 18-11-2017 | Saturday  |                    |         |
| 19-11-2017 | Sunday    |                    | Holiday |
| 20-11-2017 | Monday    |                    |         |
| 21-11-2017 | Tuesday   |                    |         |
| 22-11-2017 | Wednesday |                    |         |
| 23-11-2017 | Thursday  |                    |         |
| 24-11-2017 | Friday    |                    |         |
| 25-11-2017 | Saturday  |                    |         |
| 26-11-2017 | Sunday    |                    | Holiday |
| 27-11-2017 | Monday    |                    |         |
| 28-11-2017 | Tuesday   |                    |         |
| 29-11-2017 | Wednesday |                    | 1.      |
| 30-11-2017 | Thursday  |                    |         |



## DECEMBER

| Date       | Day       | Activity  | Remark      |
|------------|-----------|-----------|-------------|
| 01-12-2017 | Friday    |           |             |
| 02-12-2017 | Saturday  |           |             |
| 03-12-2017 | Sunday    |           | Holiday     |
| 04-12-2017 | Monday    |           |             |
| 05-12-2017 | Tuesday   |           |             |
| 06-12-2017 | Wednesday |           |             |
| 07-12-2017 | Thursday  |           |             |
| 08-12-2017 | Friday    |           |             |
| 09-12-2017 | Saturday  |           |             |
| 10-12-2017 | Sunday    |           | Holiday     |
| 11-12-2017 | Monday    |           |             |
| 12-12-2017 | Tuesday   |           |             |
| 13-12-2017 | Wednesday |           |             |
| 14-12-2017 | Thursday  |           |             |
| 15-12-2017 | Friday    |           |             |
| 16-12-2017 | Saturday  |           |             |
| 17-12-2017 | Sunday    |           | Holiday     |
| 18-12-2017 | Monday    |           |             |
| 19-12-2017 | Tuesday   |           |             |
| 20-12-2017 | Wednesday |           |             |
| 21-12-2017 | Thursday  |           |             |
| 22-12-2017 | Friday    |           |             |
| 23-12-2017 | Saturday  |           |             |
| 24-12-2017 | Sunday    |           | Holiday     |
| 25-12-2017 | Monday    | Christmas | Holiday     |
| 26-12-2017 | Tuesday   |           |             |
| 27-12-2017 | Wednesday | N 1       |             |
| 28-12-2017 | Thursday  |           |             |
| 29-12-2017 | Friday    |           |             |
| 30-12-2017 | Saturday  |           |             |
| 31-12-2017 | Sunday    | Dr.       | G.Holidayam |



PRINCIPÁL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.

#### **JANUARY 2018**

| DATE       | DAY       | ΑCTIVITY                             | REMARK  |
|------------|-----------|--------------------------------------|---------|
| 01-01-2018 | MONDAY    |                                      |         |
| 02-01-2018 | TUESDAY   |                                      |         |
| 03-01-2018 | WEDNESDAY |                                      |         |
| 04-01-2018 | THURSDAY  |                                      |         |
| 05-01-2018 | FRIDAY    |                                      |         |
| 06-01-2018 | SATURDAY  |                                      |         |
| 07-01-2018 | SUNDAY    |                                      | HOLIDAY |
| 08-01-2018 | MONDAY    | TERM STARTS                          |         |
| 09-01-2018 | TUESDAY   |                                      |         |
| 10-01-2018 | WEDNESDAY |                                      |         |
| 11-01-2018 | THURSDAY  |                                      |         |
| 12-01-2018 | FRIDAY    |                                      |         |
| 13-01-2018 | SATURDAY  |                                      |         |
| 14-01-2018 | SUNDAY    |                                      | HOLIDAY |
| 15-01-2018 | MONDAY    | NSS-JOY OF GIVING WEEK               |         |
| 16-01-2018 | TUESDAY   |                                      |         |
| 17-01-2018 | WEDNESDAY | NSS MASS AWARENESS PROJECT AUDITIONS |         |
| 18-01-2018 | THURSDAY  |                                      |         |
| 19-01-2018 | FRIDAY    |                                      |         |
| 20-01-2018 | SATURDAY  |                                      |         |
| 21-01-2018 | SUNDAY    | ROTARACT CLUB- CYCLING BY THE SEA    | HOLIDAY |
| 22-01-2018 | MONDAY    |                                      |         |
| 23-01-2018 | TUESDAY   |                                      |         |
| 24-01-2018 | WEDNESDAY |                                      |         |
| 25-01-2018 | THURSDAY  | NSS-SWACH TSEC CAMPAIGN              |         |
| 26-01-2018 | FRIDAY    | REPUBLIC DAY                         | HOLIDAY |
| 27-01-2018 | SATURDAY  | YUDH                                 |         |
| 28-01-2018 | SUNDAY    | YUDH                                 | HOLIDAY |
| 29-01-2018 | MONDAY    |                                      |         |
| 30-01-2018 | TUESDAY   |                                      |         |
| 31-01-2018 | WEDNESDAY | NSS-BLOOD DONATION DRIVE 2           |         |

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Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.

#### FEBRUARY

| DATE       | DAY       | ΑCΤΙVΙΤΥ                           | REMARK  |
|------------|-----------|------------------------------------|---------|
| 01-02-2018 | THURSDAY  |                                    |         |
| 02-02-2018 | FRIDAY    |                                    |         |
| 03-02-2018 | SATURDAY  | ISTE ASCENT '18                    |         |
| 04-02-2018 | SUNDAY    | ISTE ASCENT '18                    | HOLIDAY |
| 05-02-2018 | MONDAY    |                                    |         |
| 06-02-2018 | TUESDAY   |                                    |         |
| 07-02-2018 | WEDNESDAY |                                    |         |
| 08-02-2018 | THURSDAY  |                                    |         |
| 09-02-2018 | FRIDAY    |                                    |         |
| 10-02-2018 | SATURDAY  | CSI RUBIX                          |         |
| 11-02-2018 | SUNDAY    | CSI RUBIX                          | HOLIDAY |
| 12-02-2018 | MONDAY    | PERIODIC TEST-1                    |         |
| 13-02-2018 | TUESDAY   | MAHA SHIVRATRI                     | HOLIDAY |
| 14-02-2018 | WEDNESDAY | PERIODIC TEST-1                    |         |
| 15-02-2018 | THURSDAY  | PERIODIC TEST-1                    |         |
| 16-02-2018 | FRIDAY    |                                    |         |
| 17-02-2018 | SATURDAY  | IETE OSCILLATIONS                  |         |
| 18-02-2018 | SUNDAY    | IETE OSCILLATIONS                  | HOLIDAY |
| 19-02-2018 | MONDAY    | CHATRAPATI SHIVAJI MAHARAJ JAYANTI | HOLIDAY |
| 20-02-2018 | TUESDAY   |                                    |         |
| 21-02-2018 | WEDNESDAY |                                    |         |
| 22-02-2018 | THURSDAY  |                                    |         |
| 23-02-2018 | FRIDAY    |                                    |         |
| 24-02-2018 | SATURDAY  | IE(I)-TANTRAVISHKAR 2K18           |         |
| 25-02-2018 | SUNDAY    | IE(I)-TANTRAVISHKAR 2K18           | HOLIDAY |
| 26-02-2018 | MONDAY    |                                    |         |
| 27-02-2018 | TUESDAY   |                                    |         |
| 28-02-2018 | WEDNESDAY |                                    |         |

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Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.

#### MARCH

| DATE       | DAY       | ΑCTIVITY                                | REMARK  |
|------------|-----------|---|---------|
| 01-03-2018 | THURSDAY  |   |         |
| 02-03-2018 | FRIDAY    | HOLI                                    | HOLIDAY |
| 03-03-2018 | SATURDAY  | TRADITIONAL DAY                         |         |
| 04-03-2018 | SUNDAY    | ECELL- PROJECT EXPO                     | HOLIDAY |
| 05-03-2018 | MONDAY    |   |         |
| 06-03-2018 | TUESDAY   |   |         |
| 07-03-2018 | WEDNESDAY |   |         |
| 08-03-2018 | THURSDAY  | WOMEN'S DAY CELEBRATION                 |         |
| 09-03-2018 | FRIDAY    |   |         |
| 10-03-2018 | SATURDAY  | MS SPEAKTACULAR                         |         |
| 11-03-2018 | SUNDAY    | TSEC-MARATHON MS SPEAKTACULAR           | HOLIDAY |
| 12-03-2018 | MONDAY    |   |         |
| 13-03-2018 | TUESDAY   |   |         |
| 14-03-2018 | WEDNESDAY |   |         |
| 15-03-2018 | THURSDAY  |   |         |
| 16-03-2018 | FRIDAY    | TSEC AWARDS CEREMONY                    |         |
| 17-03-2018 | SATURDAY  | TRIFLES                                 |         |
| 18-03-2018 | SUNDAY    | TRIFLES                                 | HOLIDAY |
| 19-03-2018 | MONDAY    |   |         |
| 20-03-2018 | TUESDAY   |   |         |
| 21-03-2018 | WEDNESDAY |   |         |
| 22-03-2018 | THURSDAY  |   |         |
| 23-03-2018 | FRIDAY    |   |         |
| 24-03-2018 | SATURDAY  | ROTARACT CLUB – COMMUNITY SERVICE EVENT |         |
| 25-03-2018 | SUNDAY    |   | HOLIDAY |
| 26-03-2018 | MONDAY    |   |         |
| 27-03-2018 | TUESDAY   |   |         |
| 28-03-2018 | WEDNESDAY |   |         |
| 29-03-2018 | THURSDAY  | MAHAVIR JAYANTI                         | HOLIDAY |
| 30-03-2018 | FRIDAY    | GOOD FRIDAY                             | HOLIDAY |
| 31-03-2018 | SATURDAY  |   |         |

ENGIN BANDR SHA MUMBA VHI.

Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.

#### **APRIL**

| DATE       | DAY       | ACTIVITY                   | REMARK  |
|------------|-----------|----------------------------|---------|
| 01-04-2018 | SUNDAY    |                            | HOLIDAY |
| 02-04-2018 | MONDAY    | PERIODIC TEST-2            |         |
| 03-04-2018 | TUESDAY   | PERIODIC TEST-2            |         |
| 04-04-2018 | WEDNESDAY | PERIODIC TEST-2            |         |
| 05-04-2018 | THURSDAY  |                            |         |
| 06-04-2018 | FRIDAY    |                            |         |
| 07-04-2018 | SATURDAY  |                            |         |
| 08-04-2018 | SUNDAY    |                            | HOLIDAY |
| 09-04-2018 | MONDAY    |                            |         |
| 10-04-2018 | TUESDAY   |                            |         |
| 11-04-2018 | WEDNESDAY |                            |         |
| 12-04-2018 | THURSDAY  |                            |         |
| 13-04-2018 | FRIDAY    |                            |         |
| 14-04-2018 | SATURDAY  | BABASAHEB AMBEDKAR JAYANTI | HOLIDAY |
| 15-04-2018 | SUNDAY    |                            |         |
| 16-04-2018 | MONDAY    |                            |         |
| 17-04-2018 | TUESDAY   |                            |         |
| 18-04-2018 | WEDNESDAY |                            |         |
| 19-04-2018 | THURSDAY  |                            |         |
| 20-04-2018 | FRIDAY    |                            |         |
| 21-04-2018 | SATURDAY  |                            |         |
| 22-04-2018 | SUNDAY    |                            | HOLIDAY |
| 23-04-2018 | MONDAY    | TERM END                   |         |
| 24-04-2018 | TUESDAY   |                            |         |
| 25-04-2018 | WEDNESDAY | RAM NAVMI                  | HOLIDAY |
| 26-04-2018 | THURSDAY  |                            |         |
| 27-04-2018 | FRIDAY    |                            |         |
| 28-04-2018 | SATURDAY  |                            |         |
| 29-04-2018 | SUNDAY    |                            | HOLIDAY |
| 30-04-2018 | MONDAY    |                            |         |

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Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.



THADOMAL SHAHANI ENGINEERING COLLEGE

# Academic Calendar 2016-17



# TSEC

### CALENDAR OF ACADEMIC/ SPORTS / CULTURAL ACTIVITES FOR SESSION JULY 2016 TO DECEMBER 2016

## JULY

| Date     | Day | Activity                 | Par     |
|----------|-----|--------------------------|---------|
| 01/07/16 | Fri |                          | Remark  |
| 02/07/16 | Sat |                          |         |
| 03/07/16 | Sun |                          |         |
| 04/07/16 | Mon |                          | Holiday |
| 05/07/16 | Tue |                          |         |
| 06/07/16 | Wed | Ramzan Id                |         |
| 07/07/16 | Thu |                          | Holiday |
| 08/07/16 | Fri |                          |         |
| 09/07/16 | Sat |                          |         |
| 10/07/16 | Sun |                          |         |
| 11/07/16 | Mon | Term Starts for SE TE BE | Holiday |
| 12/07/16 | Tue |                          |         |
| 13/07/16 | Wed |                          |         |
| 14/07/16 | Thu |                          |         |
| 15/07/16 | Fri |                          |         |
| 16/07/16 | Sat |                          |         |
| 17/07/16 | Sun |                          |         |
| 18/07/16 | Mon |                          | Holiday |
| 19/07/16 | Tue |                          |         |
| 20/07/16 | Wed |                          |         |
| 21/07/16 | Thu |                          |         |
| 22/07/16 | Fri |                          |         |
| 23/07/16 | Sat |                          |         |
| 24/07/16 | Sun |                          | 0.84    |
| 25/07/16 | Mon |                          | Holiday |
| 26/07/16 | Tue |                          |         |
| 27/07/16 | Wed |                          |         |
| 28/07/16 | Thu |                          |         |
| 29/07/16 | Fri |                          |         |
| 30/07/16 | Sat |                          |         |
| 31/07/16 | Sun |                          | Holiday |



# TSEC

#### CALENDAR OF ACADEMIC/ SPORTS / CULTURAL ACTIVITES FOR SESSION JULY 2016 TO DECEMBER 2016

# AUGUST

| emark   | Remark      | Activity  | Day | Date  |
|---|-------------|---|-----|---|
|   | -           | Term Starts for FE  | Mon | 01/08/16  |
|   |             |   | Tue | 02/05/16  |
|   |             |   | Wed | 03/08/16  |
|   |             |   | Thu | 04/08/16  |
|   |             |   | Fri | 05/08/16  |
|   |             |   | Sat | 06/08/16  |
| oliday  | Holiday     |   | Sun | 07/08/16  |
|   |             |   | Mon | 08/08/15  |
| and the second se | 3 P.M. Onwa | NSS Orientation   | Tue | 09/08/16  |
| Onwards   | 3 P.M. Onwa | IE (I) Orientation  | Wed | 10/05/16  |
|   |             |   | Thu | 11/08/16  |
|   |             |   | Fri | 12/08/16  |
|   |             | Students Council Avalanche                                  | Sat | 13/08/16  |
|   | Holiday     | Students Council Avalanche                                  | Sun | 14/08/16  |
| oliday  | Holiday     | Independence Day  | Mon | 15/08/16  |
|   |             |   | Tue | 16/08/16  |
| oliday  | Holiday     | Parsi New Year  | Wed | 17/08/16  |
|   |             |   | Thu | 18/08/16  |
|   |             |   | Fri | 19/08/16  |
| -   |             | CSI Technext  | Sat | 20/08/16  |
| oliday  | Holiday     | CSI Technext  | Sun | 21/08/16  |
|   | -           |   | Mon | 22/08/16  |
|   |             |   | Tue | 23/08/16  |
|   |             |   | Wed | 24/08/16  |
|   |             |   | Thu | 25/08/16  |
|   |             |   | Fri | 26/08/16  |
|   |             |   | Sat | 27/08/16  |
| bliday  | Holiday     |   | Sun | 28/08/16  |
|   |             | Periodic Test 1 for SE TE BE                                | Mon | 29/08/16  |
|   |             | Periodic Test 1 for SE TE BE                                | Tue | 30/08/16  |
|   |             | PeriodicTest 1 for SE TE BE                                 | Wed | 31/08/16  |
|   |             |   |     |   |
|   |             | Periodic Test 1 for SE TE BE<br>PeriodicTest 1 for SE TE BE |     | and the local division of the local division of the |

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# TSEC

### CALENDAR OF ACADEMIC/ SPORTS / CULTURAL ACTIVITES FOR SESSION JULY 2016 TO DECEMBER 2016

# SEPTEMBER

| Date     | Day | Activity                          | Remark  |
|----------|-----|-----------------------------------|---------|
| 01/09/16 | Thu |                                   |         |
| 02/09/16 | Fri |                                   |         |
| 03/09/16 | Sat | IETE ELAN                         |         |
| 04/09/16 | Sun |                                   | Holiday |
| 05/09/16 | Mon | Ganesh Chaturthi                  | Holiday |
| 06/09/16 | Tue | Ganesh Chaturthi Vacation         | Holiday |
| 07/09/16 | Wed | Ganesh Chaturthi Vacation         | Holiday |
| 08/09/16 | Thu | Ganesh Chaturthi Vacation         | Holiday |
| 09/09/16 | Fri | Ganesh Chaturthi Vacation         | Holiday |
| 10/09/16 | Sat | Ganesh Chaturthi Vacation         | Holiday |
| 11/09/16 | Sun | Ganesh Chaturthi Vacation         | Holiday |
| 12/09/16 | Mon | Ganesh Chaturthi Vacation         | Holiday |
| 13/09/16 | Tue | Bakri Id                          | Holiday |
| 14/09/16 | Wed |                                   | Holiday |
| 15/09/16 | Thu |                                   |         |
| 16/09/16 | Fri |                                   |         |
| 17/09/16 | Sat | Management Society CARMA          |         |
| 18/09/16 | Sun | Management Society CARMA          | Harris  |
| 19/09/16 | Mon |                                   | Holiday |
| 20/09/16 | Tue |                                   | _       |
| 21/09/16 | Wed |                                   |         |
| 22/09/16 | Thu |                                   | _       |
| 23/09/16 | Fri |                                   | _       |
| 24/09/16 | Sat | IE(I) Engineers Month Celebration | _       |
| 25/09/16 | Sun | ety Engineers Month Celebration   |         |
| 26/09/16 | Mon | NSS Joy Of Chile IN               | Holiday |
| 27/09/16 | Tue | NSS Joy Of Giving Week            |         |
| 28/09/16 | Wed |                                   |         |
| 29/09/16 | Thu |                                   |         |
| 30/09/16 | Fri |                                   |         |
|          |     |                                   |         |
|          |     |                                   |         |



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|          |     | TSEC  |   |
|----------|-----|---|---|
|          | CAL | ENDAR OF ACADEMIC/ SPORTS / CULTURAL<br>FOR SESSION JULY 2016 TO DECEMBER 2 | ACTIVITES<br>016  |
|          |     | OCTOBER   |   |
| Date     |     | Activity  | Remark  |
| 01/10/16 | Sat | IIChE Chemergence   |   |
| 02/10/16 | Sun | Gandhi Jayanti<br>IIChE Chemergence   | Holiday   |
| 03/10/16 | Mon | irone chemergence   |   |
| 04/10/16 | Tue |   |   |
| 05/10/16 | Wed | NSS Blood Donation Drive  |   |
| 06/10/16 | Thu | NSS Blood Donation Drive  |   |
| 07/10/16 | Fri |   |   |
| 08/10/15 | Sat |   |   |
| 09/10/16 | Sun |   |   |
| 10/10/15 | Mon | Periodic Test 2 SE TE BE  | Holiday   |
| 11/10/16 | Tue | Dussehra  |   |
| 12/10/16 | Wed | Muharram  | Holiday   |
| 13/10/16 | Thu | Periodic Test 2 SE TE BE  | Holiday   |
| 14/10/16 | Fri | Periodic Test 2 SE TE BE  |   |
| 15/10/16 | Sat |   | -   |
| 16/10/16 | Sun |   | Holiday   |
| 17/10/16 | Mon |   | Holiday   |
| 18/10/16 | Tue |   |   |
| 19/10/16 | Wed |   |   |
| 20/10/16 | Thu |   |   |
| 21/10/16 | Fri |   |   |
| 22/10/16 | Sat |   |   |
| 23/10/16 | Sun |   | Holiday   |
| 24/10/16 | Mon |   | rivinday  |
| 25/10/16 | Tue |   |   |
| 26/10/16 | Wed |   |   |
| 27/10/16 | Thu |   |   |
| 28/10/16 | Fri | Term Ends for SE TE BE  |   |
| 29/10/16 | Sat | Practicals and Orals Commence<br>for SE TE BE                               |   |
| 30/10/16 | Sun |   | Holiday   |
| 31/10/16 | Mon | Diwali  | the second se |
|          |     |   | Hollday   |

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|          | CALEN | DAR OF ACADEMIC/ SPORTS / CULTURAL ACTIVITES | 1       |
|----------|-------|--|---------|
|          |       | FOR SESSION JULY 2010 TO DESCRIBER 2010      |         |
|          |       | NOVEMBER                                     |         |
| Date     | Day   | Activity                                     | Remark  |
| 1/11/16  | Tue   |  |         |
| 2/11/16  | Wed   |  |         |
| 3/11/16  | Thu   |  |         |
| 4/11/16  | Fri   |  |         |
| 5/11/16  | Sat   |  |         |
| 6/11/16  | Sun   |  | Holiday |
| 07/11/16 | Mon   |  |         |
| 08/11/16 | Tue   |  |         |
| 09/11/16 | Wed   |  |         |
| 10/11/16 | Thu   |  |         |
| 11/11/16 | Fri   |  |         |
| 12/11/16 | Sat   | Practicals and Orals End for SE TE BE        |         |
| 13/11/16 | Sun   |  | Holiday |
| 14/11/16 | Mon   | Gurunanak Jayanti                            | Holiday |
| 15/11/16 | Tue   |  | ()onday |
| 16/11/16 | Wed   |  |         |
| 17/11/16 | Thu   |  |         |
| 18/11/16 | Fri   |  |         |
| 19/11/16 | Sat   | Term Ends for FE                             |         |
| 20/11/16 | Sun   | Practicals and Orals Commence for FE         | Mallday |
| 21/11/16 | Mon   | Contract of the optimiserice for PE          | Holiday |
| 22/11/16 | Tue   | Commencement of Theory Exams for SE TE BE    |         |
| 23/11/16 | Wed   | Exams for SE TE BE                           |         |
| 24/11/16 | Thu   |  |         |
| 25/11/16 | Fri   |  |         |
| 26/11/16 | Sat   |  |         |
| 27/11/16 | Sun   | Practicals and Out. 5                        |         |
| 28/11/16 | Mon   | Practicals and Orals End for FE              | Holiday |
| 29/11/16 | Tue   |  |         |
| 30/11/16 | Wed   |  |         |
|          |       |  |         |

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Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.

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|          |      | TSEC  |         |
|----------|------|---|---------|
|          | CALE | NDAR OF ACADEMIC/ SPORTS / CULTURAL ACT<br>FOR SESSION JULY 2016 TO DECEMBER 2016 | VITES   |
|          |      | DECEMBER  |         |
| Date     |      | Activity  |         |
| 01/12/16 | Thu  |   | Remark  |
| 02/12/16 | Fri  |   |         |
| 03/12/16 | Sat  | Commencement of Theory Exams for FE   |         |
| 04/12/16 | Sun  | Exams for FE  |         |
| 05/12/16 | Mon  |   | Holiday |
| 06/12/16 | Tue  |   |         |
| 07/12/16 | Wed  |   |         |
| 08/12/16 | Thu  |   |         |
| 09/12/16 | Fri  |   |         |
| 10/12/16 | Sat  |   |         |
| 11/12/16 | Sun  |   |         |
| 12/12/16 | Mon  |   | Holiday |
| 13/12/16 | Tue  | 1   |         |
| 14/12/16 | Wed  | 1   |         |
| 15/12/16 | Thu  | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   |         |
| 16/12/16 | Fri  |   |         |
| 17/12/16 | Sat  |   |         |
| 18/12/16 | Sun  |   | Holiday |
| 19/12/16 | Mon  |   | Holiday |
| 20/12/16 | Tue  |   |         |
| 21/12/16 | Wed  |   |         |
| 22/12/16 | Thu  |   | 10000   |
| 23/12/16 | Fri  |   |         |
| 24/12/16 | Sat  |   | 1.5     |
| 25/12/16 | Sun  |   | Holiday |
| 26/12/16 | Mon  |   |         |
| 27/12/16 | Tue  |   |         |
| 28/12/16 | Wed  |   |         |
| 29/12/16 | Thu  |   |         |
| 30/12/16 | Fri  |   |         |
| 31/12/16 | Sat  |   |         |



### 1.1.1 The Institution ensures effective curriculum delivery through a wellplanned and documented process

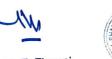
| Sr. No | Activity Name  |
|--------|--|
| 1      | College Academic Advisory Committee Minutes of Meeting |





THADOMAL SHAHANI ENGINEERING COLLEGE

# College Academic Advisory Committee Minutes of Meeting



BANDRA MUMBLISO JUNIO JUNI 1 200



### **MINUTES OF MEETING**

1 01

Date: July 6, 2018 Time: 11:00 pm Location: Principal Office

1.Convener: Prof. Jayant Gadge

#### In Attendance:

Dr. G.T.Thampi Dr. Anita Kumari Dr. Tanuja Sarode Dr. M. Maniroja Dr. Ashwini Kunte Prof. C. S. Kulkarni Prof. Sunil Gidwani Prof.Sharmila Barve Dr. Mita Bhowmick Dr. Madhuri Rao Prof. Mudita Dixit

#### Absentee:

Prof. Bharati Ingale

Prof. Mahesh Rao

2. Submitting NBA Accreditation report in next semester of A.Y 2018-19.

3. Prof C.S.Kulkarni is appointed as FE Incharge

4. Preparing the booklet for maintaining academic information of students and Professor I/G is Prof.Sunil Gidwani

5. Head of Departments are advised to keep track of their concern departments and coordinate with staff members to create new content if any for upgradation.

Dr.G.T.Thampi (Principal)

Prof.Jayant Gadge (Convener)







#### THADOMAL SHAHANI ENGINEERING COLLEGE

### **Attendance Sheet**

Academic Advisory Body meeting at 6<sup>th</sup> July 11 pm at Principal Office.

| Sr No | Name                 | Signature |
|-------|----------------------|-----------|
|       |                      |           |
| 1     | Dr. G.T.Thampi       | N.        |
| 2     | Mr. Jayant Gadge     | Palge     |
| 3     | Dr. Ashwini Kunte    | Xite      |
| 4     | Dr. Mita Bhowmick    | Malasmint |
| 5     | Dr. Anita Kumari     | ALS       |
| 6     | Prof. C. S. Kulkarni | Ques      |
| 7     | Dr. Madhuri Rao      | Ru        |
| 8     | Dr. Tanuja Sarode    | Sto       |
| 9     | Prof. Sunil Gidwani  | Sul       |
| 10    | Prof. Mudita Dixit   | 12        |
| 11    | Prof. Mahesh Rao     |           |
| 12    | Dr. M. Maniroja      | Alex      |
| 13    | Prof. Bharati Ingale |           |
| 14    | Prof.Sharmila Barve  | Marmila   |
|       |                      | Mermil    |



Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.



### **MINUTES OF MEETING**

Date: July 21, 2018 Time: 11:00 pm Location: Principal Office

1. Convener: Prof. Jayant Gadge

#### In Attendance:

Dr. G.T.Thampi Dr. Anita Kumari Dr. Tanuja Sarode Dr. M. Maniroja Dr. Ashwini Kunte Prof. Jayant Gadge Prof. Sunil Gidwani Prof Poonam Soni Dr. Mita Bhowmick Dr. Madhuri Rao Prof. Mudita Dixit Dr. R. K. Pathak i

#### Absentee:

Prof Mahesh Rao

Prof. Sharmila Barve

- 1. Principal Dr. G. T. informed that Governing Council of HSNCB permitted repair work terrace of old TSEC building.
- Principal Dr. G. T. informed that Governing Council of HS<sub>N</sub>CB agreed to closure of M.E. (Computer) course.
- 3. Principal asked visiting/ad-hoc faculties of chemical Engineering Department to maintain biometric attendance.

Dr.G.T.Thampi (Principal)



Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.

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Prof.Jayant Gadge (Convener)



Date: 21/07/2018

### THADOMAL SHAHANI ENGINEERING COLLEGE <u>Attendance Sheet</u>

11 6

Academic Advisory Body meeting at 21<sup>st</sup> July 02:00 pm at Principal Office.

| Sr No | Name                 | Signature  |
|-------|----------------------|------------|
| 1     | Dr. G.T.Thampi       | N.         |
| 2     | Mr. Jayant Gadge     | Chadge     |
| 3     | Dr. Ashwini Kunte    | Atra       |
| 4     | Dr. Mita Bhowmick    | mphoromick |
| 5     | Dr. Anita Kumari     | At         |
| 6     | Prof. R.K.Pathak     | 90         |
| 7     | Dr. Madhuri Rao      | R          |
| 8     | Dr. Tanuja Sarode    | 540        |
| 9     | Prof. Sunil Gidwani  | She        |
| 10    | Prof. Mudita Dixit   | minent     |
| 11    | Prof. Mahesh Rao     | -AB-       |
| 12    | Dr. M. Maniroja      | Aller      |
| 13    | Prof. Bharati Ingale | bingale    |
| 14    | Prof.Sharmila Barve  |            |
| 15    | Prof. Poonam Soni    | MUMBAN BA  |

BANDRA BANDRA MUMBAISO, MU

#### **MINUTES OF THE MEETING**

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Date: 23/02/2019

Time: 11 A.M.

Location: Principal office

Convenor: Prof Jayant Gadge

In attendance:

Dr. G.T. Thampi Dr. R.K. Pathak Prof. Sunil Gidwani Prof Sharmila Barve Dr. Ashwini Kunte Dr. Tanuja Sarode Prof. Mudita Dixit Prof. Bharti Ingle Dr. Mita Bhowmick Dr. Madhuri Rao Prof. Mahesh Rao Dr. Anita Kumari Dr. Mani Roja Prof. Poonam Soni

Absentee:

Nil

- 1. Submitting NBA Accreditation Report for Chemical Engineering department by the end of this semester. (AY 2018-19)
- 2. Revised PEO and PSO for Chemical Engineering Department were presented and approved.
- 3. Revised Mission and Vision statement of Chemical Engineering Department were presented and approved.
- 4. HOD, Chemical Engg is advised to form Program Assessment Committee( PAC) and Quality Improvement Committee(QIC).

Dr. G. T. Thampi (Principal)

Prof. Jayant Gadge

(Convenor)

#### **Chemical Engineering Department**

| Vision  | To be a learning organization to provide total solution for sustainable<br>industrial business in the realm of chemical engineering process, bio-<br>technology, material technology, energy and environment, by leveraging |
|---------|---|
|         | evolving information communication technology.  |
|         | 1. Radically modify the curriculum design process to be abreast with new  |
|         | changes in the core and auxiliary enabling technology. (M1)   |
|         | 2. Create world class experimental facilities for carrying investigation and  |
|         | research in biotechnology. (M2)   |
|         | 3. Create center of Excellency in environmental studies and research. (M3)  |
|         | 4. Train students about ethical and societal impact of their professional   |
|         | activities. (M4)  |
| Mission | 5. Create world class laboratories to further the cause of material   |
|         | technology. (M5)  |
|         | 6. Initiate startup in space based energy generation and related research.  |
|         | (M6)  |
|         | 7. Initiate students to entrepreneur training, industrial finance and risk  |
|         | management. (M7)  |

 Constitute a chair to promote the necessity and virtue of sustainable development model for industrial activity. (M8)



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#### **PROGRAM EDUCATIONAL OBJECTIVES (PEOs)**

- **PEO1:** To provide comprehensive chemical engineering education based on the solid foundations of basic sciences (physics, advanced mathematics and chemistry), engineering sciences, humanities & social sciences and management through choice based credit system
- **PEO2:** To impart knowledge and experience in conceptual and applied problem solving skills required for innovative chemical engineering research and chemical industries
- **PEO3:** To make students capable of using advanced computational and design techniques and their applications in chemical engineering field
- **PEO4:** To enable the students to become successful professionals (in industry, government, academia, research, entrepreneurial pursuit and consulting firms) with excellent communication skills, integrity, ethics, scientific temperament to work for betterment of society by focusing on environmental- societal and industrial issues

#### **PROGRAM SPECIFIC OUTCOMES (PSOs)**

- **PSO1**: Graduates will apply knowledge of basic engineering sciences in the field of chemical engineering to create sustainable products and process.
- **PSO2**: Graduates will have propensity to design and develop new and existing chemical operation and process based on standard specification.
- **PSO3**: Graduates will be able to use advanced computational and design techniques in chemical engineering field.
- **PSO4**: Graduates will become successful professionals (in industry, government, academia, research, entrepreneurial pursuit and consulting firms) with excellent communication & scientific skills, integrity, ethics and will work for the betterment of society by focusing on environmental, societal and industrial issues.





# MINUTES OF MEETING ACADEMIC ADVISORY BODY

Date: 12<sup>th</sup> April 2019 Time: 12:15 pm Venue: Room 105

#### 1. Convener: Dr. G.T. Thampi

#### In Attendance:

| Prof. Jayant Gadge   | Dr.Ashwini Kunte    | Dr.Mita Bhowmick    |
|----------------------|---------------------|---------------------|
| Dr.Mani Roja M       | Dr.Madhuri rao      | Dr.Tanuja Sarode    |
| Dr.Anita Kumari      | Dr.R.K.Pathak       | Dr.Archana patankar |
| Prof. Anjali Malviya | Prof. Sunil Gidwani | Prof. Mudita Dixit  |
| Dr. Mansha Kotwani   | Prof.Poonam Soni    | Prof. Monica Tolani |
|                      |                     |                     |

2. HOD's are advised to keep track of Internship Activities of respective Departments.

3. HOD's should forward messages to all students & initiate more participation in activities.

4. Institute Level Subjects shall be Operation Research, Cyber Security & Laws, Management Information System, Disaster Management and Mitigation Measures, Energy Audit & Management.

5. Computer Department shall offer Management Information System, IT Department shall offer Management Information System, Cyber Security & Laws, Mathematics Department-Operation Research, Biomedical Engineering shall offer Disaster Management and Mitigation Measures, Chemical Engineering Department shall offer Energy Audit & Management.

6.Tentatively 3 Batches for Management Information Systems, 2 Batches for Operation Research, 1 Batch for Cyber Security & laws, 1 Batch for Disaster Management and Mitigation Measures, 1 Batch for Energy Audit & Management

7. Saturday Slot shall be assigned for offering Institute Level Electives to B.E students.

8. Every Department is expected to submit 1 page of Subject Profile of Elective they are offering.

9. Exhort Students for training & coding competitions.

10. Every HOD should focus on competency building activities.



Dr G.T.Thampi Principal







### ACADEMIC ADVISORY BODY

Academic Advisory Body Meeting held on 12<sup>th</sup> April 2019 at 12:15 pm -Principal Office.

| <u>Sr. No</u> | Name                 | Signature  |
|---------------|----------------------|------------|
| 1.            | Dr. G.T.Thampi       | L.         |
| 2.            | Prof. Jayant Gadge   | Produce    |
| 3.            | Dr. Ashwini Kunte    | Julte      |
| 4.            | Dr. Mita Bhowmick    | mphormek   |
| 5.            | Dr. Mani Roja M      | marter     |
| 6.            | Dr. Madhuri Rao      | R          |
| 7.            | Dr. Tanuja Sarode    | SP         |
| 8.            | Dr. Anita Kumari     | ALS        |
| 9.            | Dr. R.K.Pathak       | 4          |
| 10.           | Dr. Archana Patankar | The is     |
| 11.           | Prof. Anjali Malviya | Muf-       |
| 12.           | Prof. Mahesh Rao     |            |
| 13.           | Prof. Sharmila Barve | $\wedge$   |
| 14.           | Prof. Sunil Gidwani  | Sthoolwand |
| 15.           | Prof. Mudita Dixit   | Findiz     |
| 16.           | Prof. Gopal Pardesi  |            |
| 17.           | Prof. Poonam Soni    | dr.        |
| 18.           | Prof. Monica Tolani  | Chefor [19 |



Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.



### - MINUTES OF MEETING ACADEMIC ADVISORY BODY

Date: 08<sup>th</sup> July 2019 Time: 11: 00am Venue: Room 105

#### 1. Convener: Dr. G.T. Thampi

#### In Attendance:

Prof. Jayant GadgeDr. Mani Roja MDr. Tanuja SarodeDr. Anita KumariDr. R.K. PathakProf. Anjali MalviyaProf. Sharmila BarveProf. Gopal PardesiProf. Poonam Soni

Prof. Monica Tolani

2. NBA Visit for Chemical Engineering Department is scheduled on 25<sup>th</sup> & 26<sup>th</sup> August 2019, 25<sup>th</sup> August shall be a working day.

3. Payment of Fees for Academic Year 2019-20 shall be immediately after the declaration of result, Office Staff is instructed regarding the same.

4. Department is instructed to spread awareness about Campus Placement from Second Year Onwards.

5. All departments are instructed to strengthen Internship Activity.

6. To provide one point solution to parents by creating academic ambience/competency building exercises.

7. Student should be engage positively to minimize absenteeism and bring them normal course of academic engagement.

8. College shall provide all the assistance to organize activities which add value to building competency to student.

9. All members agreed to avoid manual writing of lab experiments and all such similar non value activities.

10. All departments are expected to encourage student for Hackthons.

11. All departments are expected to submit more Mumbai University Minor Research Grant Proposal and all departments shall submit minimum 5 Minor Grant Research Proposal in next meeting schedule on 29<sup>th</sup> July 2019.

12. We need to encourage student to Join MOOC's/NPTEL/Coursera and other online course.

Prof.Jayant Gadge

Convener

Dr G.T.Thampi Principal

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Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai -400 050.





### ACADEMIC ADVISORY BODY

Academic Advisory Body Meeting held on 08<sup>th</sup> July 2019 at 11:00 am -Principal Office.

| Sr. No | Name                 | Signature |
|--------|----------------------|-----------|
| 1.     | Dr. G.T.Thampi       | M         |
| 2.     | Prof. Jayant Gadge   | Padge     |
| 3.     | Dr. Ashwini Kunte    | Abs.      |
| 4.     | Dr. Mita Bhowmick    | Aberl     |
| 5.     | Dr. Mani Roja M      | A         |
| 6.     | Dr. Madhuri Rao      | ABEN .    |
| 7.     | Dr. Tanuja Sarode    | T         |
| 8.     | Dr. Anita Kumari     | AR        |
| 9.     | Dr. R.K.Pathak       | Ar        |
| 10.    | Dr. Archana Patankar | ABEN!     |
| 11.    | Prof. Anjali Malviya | Muf.      |
| 12.    | Prof. Mahesh Rao     | Abent     |
| 13.    | Prof. Sharmila Barve | Aneunik   |
| 14.    | Prof. Sunil Gidwani  | rbent.    |
| 15.    | Prof. Mudita Dixit   | At Abril  |
| 16.    | Prof. Gopal Pardesi  | Ge-la     |
| 17.    | Prof. Poonam Soni    |           |
| 18.    | Prof. Monica Tolani  | madal.    |



Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.



# MINUTES OF MEETING ACADEMIC ADVISORY BODY

Date: 3<sup>rd</sup> October 2019 Time: 12:00 pm Venue: Room 105

#### Chairman: Dr. G.T.Thampi

#### In Attendance:

| Dr. Jayant Gadge    | Dr.Ashwini Kunte     | Dr.Mita Bl  |
|---------------------|----------------------|-------------|
| Dr.Mani Roja M. E   | Dr.Madhuri Rao       | Dr.Tanuja   |
| Dr.R.K.Pathak       | Dr.Archana Patankar  | Prof. Anja  |
| Dr.Arun Kulkarni    | Prof. Sunil Gidwani  | Dr.Gopal I  |
| Prof. Mukesh Israni | Prof. Sharmila Barve | Prof. Cheta |
| Dr.Bhushan Jadhav   | Dr. Poonam Soni      | Prof. Moni  |

Dr.Mita Bhowmick Dr.Tanuja Sarode Prof. Anjali Malviya Dr.Gopal Pardesi Prof. Chetan Agarwal Prof. Monica Tolani

#### The following consensuses are discussed in the meeting:

 Every department is expected to understand the changing curriculum and pedagogy and shall make an attempt to sensitize all concerns of drastic change in Higher & Professional Education.
 Every HOD is expected to discuss the prospects of autonomy and shall discuss the feedback in the next meeting.

4. Based on the feedback, following Institute Level Subjects are decided:

|      | Subject Name                 | Department Offering                                  |
|------|------------------------------|--|
| Ι.   | Project Management           | Computer Department, Information Technology          |
| II.  | Human Resource<br>Management | Electronics & Telecommunication, Computer Department |
| III. | Research Methodology         | Mathematics Department                               |
| IV.  | Environmental<br>Management  | Chemical Engineering                                 |

5. HOD's are expected to submit the Internship data along with complete documentation and proof.

6. Departments are expected to collect, analyze, maintain results of every semesters of all \* students and should take corrective measures to improve student performance.



Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050. 7. Department can consider the change of title/nomenclature as per the AICTE Approval Process Handbook 2019-20 and forth coming APH 2020-21 and department are expected to submit the new course structure as per the title decided once the new APH is release.

8. No stone unturned for nurturing the students and gap between teacher & student should be reduced, possibility of productive engagement of student shall be improved.

9. HOD's should submit departmental budget at the start of financial year, and they are expected to prepare the draft of the proposed budget and submit in the next meeting.

10. Every department should collect Facilities feedback by student; general format of the feedback shall be prepared and circulated to all departments.

11. Teachers are expected to take their own feedback, collect & document the same.

12. Department can offer student internship in form of Research Assistantship.

13. EXTC department is expected to approve the new vision & mission statement in the next meeting.

14. Next meeting of committee is scheduled on 22<sup>nd</sup> October 2019.

Prof.Jayant Gadge Convener

Dr G.T.Thampi Principal

Dr. G. T. Thampi

Dr. G. T. Hamp: PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.



### ACADEMIC ADVISORY BODY



Academic Advisory Body Meeting held on 03<sup>rd</sup> October 2019 at 12:00 pm - Principal Office.

| Sr. No | Name                   | Signature   |
|--------|------------------------|-------------|
| 1.     | Dr. G T Thampi         | M           |
| 2.     | Dr. Jayant Gadge       | Galge       |
| 3.     | Dr. Ashwini Kunte      | Atc.        |
| 4.     | Dr. Mita Bhowmick      | mpshoemick  |
| 5.     | Dr. Mani Roja M.E      | alle        |
| 6.     | Dr. Madhuri Rao        | P           |
| 7.     | Dr. Tanuja Sarode      | - Alexandre |
| 8.     | Dr. R K.Pathak         | 4           |
| 9.     | Dr. Archana Patankar   | 03.10.19    |
| 10.    | Prof. Anjali Malviya   | Mi          |
| 11.    | Dr. Arun Kulkarni      | - de        |
| 12.    | Dr. Elizabeth Joseph   | ABSENT      |
| 13.    | Prof. Mukesh Israni    | Juneon      |
| 14.    | Prof. Sharmila Barve   | SB          |
| 15.    | Prof. Sunil Gidwani    |             |
| 16.    | Dr. Gopal Pardesi      | all         |
| 17.    | Prof. Chetan Agarwal   | Classing    |
| 18.    | Dr. Bhushan Jadhav     | Tent        |
| 19.    | Dr Prof. Poonam Soni   |             |
| 20.    | Prof .Monica G. Tolani | Aletin      |



Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.



### MINUTES OF MEETING ACADEMIC ADVISORY BODY

**Date:** 17<sup>th</sup> March 2020 **Time:** 11:00 am **Venue:** Room 105

### 1. Chairman: Dr. G.T.Thampi

#### In Attendance:

| Dr. Jayant Gadge    | Dr.Ashwini Kunte     | Dr.Mani Roja M. E    |
|---------------------|----------------------|----------------------|
| Dr.R.K.Pathak       | Dr.Madhuri Rao       | Prof. Anjali Malviya |
| Dr.Arun Kulkarni    | Prof. Sunil Gidwani  | Dr.Gopal Pardesi     |
| Prof. Mukesh Israni | Prof. Chetan Agarwal | Dr.Bhushan Jadhav    |
| Dr.Poonam Soni      | Prof. Monica Tolani  |                      |

#### The following consensuses are discussed in the meeting:

1. Strategy planning and assigning work during the "Work from Home" period so as to continue teaching & learning process.

2. Head of the Departments shall assign duty to all teachers & decide on the timelines for completion of the syllabus.

3. Various technological tools possible at remote location to continue teaching & the learning process in a more effective way were discussed.

4. E-Content of all the subject to be circulated amongst the student, a record of the same shall be documented and periodic quizzes to be conducted during this period to check well preparedness of the students.

5. Teachers' efforts shall revolve around not to postpone the exams and to conduct practical/viva voce/internal test on timeline decided/declared.

6. Periodic Test 2 to be conducted immediately after the college reopening and question bank shall be circulated amongst the students well in advance for well preparedness in all the subjects.

8. Head of Department should send a message to all the student regarding the availability of teachers for clarification of doubts/doubt solving/queries related to the subject content.

9. External examiners for upcoming viva voce/practical exams should be fixed and to reaffirm the dates fixed for the exam.

10. Final Year Student to be advised to complete the Black Book, amounting to findings of their work that they have carried out during the due course of the project.

Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050. 11. Institute Level Subjects shall be Operation Research, Cyber Security & Laws, Management Information System, Disaster Management and Mitigation Measures.

12. Head of the Department shall circulate respective Department Level Elective Form.

13. Dr. Mani Roja shall circulate Institute Level Elective Form to all students across all six departments & as well as Department Level Elective Form for Chemical Engineering, Biomedical Engineering & Biotechnology; Biomedical Engineering head of the department & Dr. Gauri Shukla are requested to further disseminate the information & follow up.

14. Faculties were advised to submit various FDP/Research Grant Proposals to AICTE/DST or any other funding agency.

15. Minutes of IQAC meeting were discussed and suggestions regarding the same were welcomed.

16. Letter to be forwarded to university for not delaying the University Exams and meticulous adoption of various technological tools adopted during "Work from Home" period to continue teaching & learning process.

Dr G.T.Thampi **Principal** 

Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.



### MINUTES OF MEETING ACADEMIC ADVISORY BODY

Date: 27<sup>th</sup> October 2020 Time: 12:30 PM Venue: Online Zoom Platform

### 1. Chairman: Dr. G. T. Thampi

#### In Attendance:

| Dr. Ashwini Kunte    | Dr. Mita Bhowmick       | Dr. Maniroja Edinburgh |
|----------------------|-------------------------|------------------------|
| Dr. R.K. Pathak      | Dr. Madhuri Rao         | Dr. Tanuja Sarode      |
| Dr. Anita Kumari     | Dr. Archana Patankar    | Prof. Anjali Malviya   |
| Dr. Jayant Gadge     | Dr. Arun Kulkarni       | Dr. Elizabeth Joseph   |
| Prof. Sunil Gidwani  | Dr. Gopal Pardesi       | Prof. Mukesh Israni    |
| Prof. Sharmila Barve | Dr. Poonam Soni         | Dr. Arti Deshpande     |
| Dr. Bhushan Jadhav   | Prof. Praseeda Nambisan | Prof. Monica Tolani    |

#### The following consensuses are discussed in the meeting:

1. Deciding on the schedule for conduction of Internal Assessment 2 for current academic year

2. Slots for conduction of Internal Assessment 2 shall be from 5<sup>th</sup> November to 12<sup>th</sup> November 2020

3. Based on the upcoming unlock guidelines from the state government, college shall suggest to the university for a schedule to complete practical session for the current semester subjects

4. Maximum of 20 days shall be allotted for completion of subject practical if government guidelines permit and whole day shall be engaged for conduction of practical, students shall be called in groups so that simultaneous conduction of practical sessions are possible

5. Internal KT examination of the lower semesters shall be conducted after 15th November 2020



Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.



Dr G. T. Thampi Principal

Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.



### MINUTES OF MEETING ACADEMIC ADVISORY BODY

Date: 09th February 2021 Time: 11:00 AM Venue: Online Zoom Platform

### 1. Chairman: Dr. G. T. Thampi

#### **In Attendance:**

| Dr. Mita Bhowmick       | Dr. Maniroja Edinburgh | Dr. Madhuri Rao      |
|-------------------------|------------------------|----------------------|
| Dr. Tanuja Sarode       | Dr. Anita Kumari       | Prof. Anjali Malviya |
| Dr. Jayant Gadge        | Dr. Arun Kulkarni      | Dr. Elizabeth Joseph |
| Dr. Gopal Pardesi       | Prof. Mukesh Israni    | Prof. Nita Mehta     |
| Dr. Poonam Soni         | Prof. Sharmila Barve   | Dr. Mansha Kotwani   |
| Prof. Chetan Agarwal    | Dr. Arti Deshpande     | Dr. Bhushan Jadhav   |
| Prof. Praseeda Nambisan | Prof. Monica Tolani    |                      |

#### The following consensuses are discussed in the meeting:

1. Deciding on the time of reopening college for physical classes.

2. All departments are expected to send google form to parents through students and take their consent on: Whether they prefer 15<sup>th</sup> March 2021 or 2<sup>nd</sup> April for starting of offline classes and are they satisfied with current level of engagement through online platform.

3. Consent responses collected shall be forwarded to the Principal by Head of Department.

4. If some department wants offline engagement of classes sparingly that can be considered. They can submit the proposal and that shall be decided by the Head of Department.

5. Theoretical syllabus can be completed first and then for practical sessions, students shall be called in batches, Teachers and Head of the Department to decide on that.

6. Computer driven practical can be conducted online, offline practical sessions can be conducted towards the end of March/first week of April.

7. Periodic tests shall be scheduled on completion of 40% & 80% of syllabus respectively through online mode.

8. Every teacher can decide on timelines for conduction of periodic test and are expected to submit the marksheet copy to Head of Department & College. Head of the Department shall decide the time framework for submission of the periodic test marks.

Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.

9. If any students wish to report to college before 15<sup>th</sup> March for project engagement, then students are expected to submit parents' consent to Head of Department through email.

10. Collectively it was decided by all Academic Advisory members to reopen/start physical classes from 15<sup>th</sup> March 2021 or 1<sup>st</sup> week of April 2021.

11. One more meeting of shall be conducted on the receipt of University schedule of examination.

Dr G. T. Thampi **Principal** 

Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.



### 1.1.1 The Institution ensures effective curriculum delivery through a wellplanned and documented process

| Sr. No | Activity Name  |
|--------|--|
| 1      | 2020-21 Department Academic Advisory Minutes of Meetings |
| 2      | 2019-20 Department Academic Advisory Minutes of Meetings |
| 3      | 2018-19 Department Academic Advisory Minutes of Meetings |
| 4      | 2017-18 Department Academic Advisory Minutes of Meetings |
| 5      | 2016-17 Department Academic Advisory Minutes of Meetings |

11 Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.



# **Department Academic**

# **Advisory Committee**

# **Minutes of Meeting**





## 2020-2021

### **Department Academic**

### **Advisory Committee**

### **Minutes of Meeting**



### Thadomal Shahani Engineering College

### **Computer Engineering Department**

### Minutes of online meeting of Department Advisory Committee (DAC)

Ref. No. DAC No.01/2021

Online meeting of Department Advisory committee was held on Saturday, 7<sup>th</sup> August 2021 at 11:00 am through Teams Meeting app, when following members were present:-

| 1 | Dr. G. T. Thampi         | Principal TSEC (Convenor DAC)  |  |
|---|--------------------------|--|--|
| 2 | Dr. Parmanand Budhwani,  | Law officer, MSRDC, (Parent), Member DAC                                     |  |
| 3 | Mr. Sushil Ingle         | Manager, Cloud Service Delivery, Cap Gemini<br>(Industry Expert), Member DAC |  |
| 4 | Mr. S. N. Pundkar        | Head, Computer Department, SNDT, Mumbai (Alumni), Member DAC                 |  |
| 5 | Dr. Tanuja Sarode        | Professor & Head of Computer Engineering Department,<br>Member DAC           |  |
| 6 | Dr. Archana Patankar     | Professor, Member DAC  |  |
| 7 | Dr. Jayant Gadge         | Associate Professor, Member DAC  |  |
| 8 | Dr. Anil Chhangani       | Associate Professor, Member DAC  |  |
| 9 | Ms. Vaishali Suryawanshi | Assistant Professor, Member DAC  |  |

- 1. Dr. Tanuja Sarode introduced new member and welcome all the DAC members.
- 2. Ms. Vaishali Suryawanshi briefed the members about the agenda of the meeting.
- 3. Ms. Vaishali Suryawanshi proposed the criteria for CO attainment as given below and Dr. Archana Patankar and Dr. Anil Chhangani seconded the proposed criteria and it was also accepted by all the members.

| CO attainment Criteria<br>(Previous)    | Proposed CO attainment<br>Criteria      | Attainment Level |
|---|---|------------------|
| More than 80% students got<br>above 45% | More than 80% students got above 50%    | 3                |
| 60%<>80% students got above<br>45%      | 60% 80% students got<br>above 50%       | 2                |
| Less than 60% students got<br>above 45% | Less than 60% students got<br>above 50% | 1                |



Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.

4. Dr. Tanuja Sarode proposed two program specific outcomes (PSO) as mentioned below and her proposal was seconded by Dr. Jayant Gadge and accepted by all the committee members.

**PSO1:** To exhibit competency in emerging technologies like Block chain, Artificial Intelligence and Data Science, Data analytics and Cloud services driven computational procedures.

**PSO2:** To acquire the ability to work in multidisciplinary environment while demonstrating leadership skills with effective communication and adapt to nascent technologies for self and lifelong learning.

- 5. Dr. G. T. Thampi appreciated the PSOs as ambitious and commendable. He mentioned efforts can be put towards practicing and developing instructional content to achieve the competency in emerging technologies.
- 6. Dr. G. T. Thampi proposed to invite guest lectures from academia/industry experts to impart the guidance in order to improve students' engagement through experiments, internships and training programs.
- 7. Mr. S. N. Pundkar suggested the engagement of students in the internship programs shall be for longer duration and Dr. G. T. Thampi upheld his opinion saying to the longer duration internships would help the students to understand the working pattern in the industry. He also mentioned about the weekend online internship trend followed by students during the lockdown.
- 8. Dr. G. T. Thampi suggested inviting talks from external/government agencies followed by conducting feedback to identify the students who have innate ability for business processes and are motivated for start-ups and entrepreneurship. These students can be encouraged and supported by provided the space for the start-up and incubation center.
- 9. Mr. Sushil Ingle suggested to have a proper governance structure and having a quarterly meeting to promote the start-ups. He also mentioned about the virtual meeting (since pandemic) to be conducted with the interested students. Dr. G. T. Thampi seconded his opinion saying we will formalize and it is advisable to have a serious governance structure for clarity.
- Mr. S. N. Pundkar suggested to have a dedicated faculty to take care of the activities related to incubation center. Dr. G. T. Thampi welcomed his suggestion and informed him about the existing structure.
- 11. Dr. G. T. Thampi advised that faculty should focus on upgrading and perpetuating their knowledge by initiating projects based on the emerging technologies. He also suggested to have a procedure in place to encourage the faculties to upgrade themselves with emerging technologies/practices. Mr. Parmanand Budhwani appreciated the efforts of the faculty and also supported Dr. G. T. Thampi's views.

Dr. G. T. Thampi (Convenor DAC)

Principal, TSEC



Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbar-400 050.

# Attendance Record of Online Computer Engineering Department Meeting held 7th August 2021 at 11:00 am

| Meeting Summary<br>Total Number of<br>Participants<br>Meeting Title<br>Meeting Start Time<br>Meeting End Time<br>Debug Id | 9<br>General                           | ,  |           |
|---|--|--|-----------|
| Full Name   | Join Time<br>07/08/2021,               | userPrincipalName                                    | Role      |
| Tanuja Sarode   | 10:53:22<br>07/08/2021,                | Tanuja13024@tsecedu.org                              | Organiser |
| Vaishali Suryawanshi  | 10:56:25<br>07/08/2021,                | Vaishali13035@tsecedu.org                            | Presenter |
| Anil Chhangani  | 10:58:00<br>07/08/2021,                | Anil13028@tsecedu.org                                | Presenter |
| Jayant Gadge  | 10:59:10<br>07/08/2021,                | Jayant13026@tsecedu.org                              | Presenter |
| Sumedh Pundkar VisFac   | 10:59:29<br>07/08/2021,                | Sumedh.PundkarVisFac@<br>svkmmumbai.onmicrosoft .com | Presenter |
| Ingle, Sushil   | 11:03:00<br>07/08/2021,                | sushil.ingle@capgemini.com                           | Presenter |
| Archana Patankar<br>P W BUDHWANI  | 11:03:31<br>07/08/2021,                | Archana13025@tsecedu.org                             | Presenter |
| (Guest)   | 07/08/2021,<br>11:05:32<br>07/08/2021, |  | Presenter |
| gtt (Guest)   | 11:07:21                               |  | Presenter |
|   |  |  |           |



Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.

eANDRA HUMBALSO

#### **Minutes of Meeting**

#### **Department Advisory Committee Meeting**

**Time: 7.00 pm to 7.45 pm** 

#### Attendees:

| Dr. Elizabeth.B.Joseph  | Associate Professor & Head of Department |
|-------------------------|--|
| Dr. Anita Kumari        | Professor                                |
| Prof. Nita Mehta        | Associate Professor                      |
| Mr. Atul Choudhari      | Industry Expert                          |
| Mr. Jayesh Tekchandaney | Alumni                                   |
| Mr. Sam Maladkar        | Parent                                   |
| Mr.Saket Mundra         | Student                                  |

Dr. Elizabeth.B.Joseph welcomed the attendees to the Department Advisory Committee Meeting and updated on the activities of the department. They were informed that Dr. Anita Kumari has handed over charge as head of department to Dr. Elizabeth.B.Joseph.

Mr. Atul Choudhari suggested that various groups on chemical engineering topics could be made for the purpose of discussion and sharing of knowledge. These could develop interest in students and built confidence in out going students.

Mr. Jayesh Tekchandaney suggested use of online video by renowned professors for enriched learning.

Mr. Sam Maladkar offered opportunity for few students to do internship in industry .

Dr. Anita Kumari discussed on research and publication viability for students.

Prof. Nita Mehta talked about various initiatives by the department like expert lecture series by eminent alumni on chemical engineering and allied topics, placement training and mentorship by experienced alumni for projects.

Saket Mundra was encouraged to collaborate with student and teaching fraternity for efficient learning experience of students.

Dr. Elizabeth.B.Joseph concluded the meeting by thanking everyone for their valuable input .



Date:

23.08.2021



# 2019-2020

### **Department Academic**

## **Advisory Committee**

### **Minutes of Meeting**



# Minutes of Meeting of Department Advisory Committee (DAC) of Computer Engineering Department held on 19–01 - 2019 at 11:00 am

The Third meeting of DAC of Computer Engineering Department was held on 19 - 01 - 2019, in Room no. 204 at 11:00 AM. The meeting was chaired by Dr. G. T. Thampi. All the eight members were present for the following discussion.

- I. Dr. Tanuja K. Sarode read out minutes of meeting held on 13 10 2018.
- II. Dr. G. T. Thampi emphasized on correlating Program Educational Objectives(PEO) with the Vision-Mission statements of the program.
- III. Following PEO's were decided after brainstorming session

### **Program Education Objectives**

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- 1. To aspire successful carrier utilizing technical and professional skills while complying with ethical standards
- 2. To provide techno-social solutions through communication, entrepreneurial, collaborative and engineering skills.
- 3. To help learners to develop competency in specialized areas like deep learning, data science, business intelligence, block chain technologies, etc.
- 4. To inculcate to comprehend, analyze, design and build software/hardware solutions for real time problems.
- 5. Indulge in lifelong learning through higher studies, research and continuing education.
- IV. Head of the department Dr. Tanuja K. Sarode thanked all the members.





## THADOMAL SHAHANI ENGGINEERING COLLGE, BANDRA (W) COMPUTER ENGINEERING DEPARTMENT

# Department Advisory Committee Attendance

Date:- 19.01.2019 Time:- 11:00 am

| Sr. N | 0 Name                  | Signature                             |  |
|-------|-------------------------|---------------------------------------|--|
| 1     | Dr. G. T. Thampi        | M.                                    |  |
| 2     | Mr. S. N. Pundkar       | Odrelh                                |  |
| 3     | Mr. Sushil Ingle        | Carle .                               |  |
| 4     | Dr. Parmanand Budhawani | (S. W.C.                              |  |
| 5     | Dr. Tanuja Sarode       |                                       |  |
| 6     | Dr. Archana Patankar    | A A A A A A A A A A A A A A A A A A A |  |
| 7     | Mr. Jayant Gadge        | Jadge                                 |  |
| 8     | Dr. Anil Chhangani      | Ash                                   |  |
|       |                         |                                       |  |



Dr. G. T. Thampi PRINCIPAL domal Shahani Engineering College Bandra (W), Mumbai-400 050.



THADOMAL SHAHANI ENGINEERING COLLEGE

### Attendance for Department advisory board (EXTC) Meeting held on 30<sup>th</sup> March 2019

| Sr. No. | Name                      | Type of stake<br>holder     | Signature |
|---------|---------------------------|-----------------------------|-----------|
| 1.      | Dr. G. T. Thampi          | Convener                    | C.D.      |
| 2.      | Dr. Ashwini Kunte         | HOD/Staff                   | tite.     |
| 3.      | Mr. K. K. Mathew          | Secretary/Staff             | B         |
| 4.      | Dr. Mani Roja             | Staff                       | Miles -   |
| 5.      | Ms. Anuradha Rao          | Staff                       | KARe.     |
| 6.      | Mrs. Mani Manjari Pittala | Parent                      | P. Jarjan |
| 7.      | Dr. Parul Shah            | Industrial Expert           | py. hat   |
| 8.      | Ms. Seema Wadhwani        | Industrial<br>Expert/Alumni | D         |
| 9.      | Mr. Vikram Apte           | Student                     | Imaple:   |
| 10.     | Ms. Himbindu Reddy        | Student                     | Hima      |

N Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai-400 050.

THADOMAL SHAHANI

9

Minutes of Department Advisory Board (EXTC) meeting held on 30<sup>th</sup> March 2019

A meeting of the Department Advisory Board (EXTC) members was held on 30<sup>th</sup> March 2019 at 11.00 AM in Room No. 103 under the Chairman ship of Dr. G. T. Thampi, Convener-DAB, Principal,TSEC.

Total 9 members attended the meeting. Ms. Seema Wadhwani was absent.

Principal in his opening address talked about teaching learning process and what is expected from students point of view is understanding market place and the requirement of various competency in organizations. He also said, it is important that curriculum should be setup according to the market needs, however since we are working under a setup framed by Mumbai University it is difficult to setup such needs within the frame. He suggested that we can indulge in bringing Industrial experts and bring in knowledge in the mind of students as per the demand of Industry. Electronic Industries are going to get a boom in India and it is expected that branch of EXTC will be in great demand in coming future.

He requested the student members, Parent representative & the Industrial expert to give their feedback.

Ms. Himabindu (Student member) spoke about more Hand on experience than emphasis on theory.

Principal in this reply said, as graduate engineers he or she should be expert in design and knowledge in new development across the world, diploma engineers and technical know how people can always over shine graduate engineers.

Ms. Pittala (Parent representative) talked positively of the department and she hope the same will continue for the years to come.

Mr. Vikram (Student member) requested more time should be provided to students in laboratory & he said all labs should be available from 10.AM to 5.00 PM. for students.

Members all felt this suggestion can be implemented.

Dr. Parul Shah in her remark suggested

- 1. The staff member can divide the topic among the students and make them present the topic. This will make every group to be master of that topic.
- 2. If lecture can be video recorded and made available in sites this will give the students or any other member to understand the topic at any point of time.
- 3. Alumini should be called for expertise lectures in their field of work.

Dr. Ashwini Kunte – Head of Department requested secretary to read the minutes of DAB (EXTC) meeting dated 13<sup>th</sup> January 2018.

The secretary read the minutes and the same was approved unanimously by members.

Dr. Ashwini Kunte informed all members that the Department is accreditated till June 2022.

Members appreciated.

1.

20 Dr. G. T. Thampi PRINCIPAL adomal Shahani Engineering College Bandra (W), Mumbai-400 050.

She also read the revised mission & PEO's of the department which was circulated among all the members.

Meeting unanimously approved the same.

It was decided the members should participate their interaction through mail for the improvement of department any time.

Secretary thanked all members and meeting ended at 12.30 PM.

a)-

K.K. Mathew Secretary-DAB (EXTC) Read and approved in the DAB meeting dated 15/02/2020

ly

Dr. G. T. Thampi (Convenor DAB) Principal, TSEC

Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.





THADOMAL SHAHANI ENGINEERING COLLEGE

### Attendance for Department advisory board (EXTC) Meeting held on 15<sup>th</sup> February 2020

| Sr. No. | Name                      | Type of stake     | Signature |
|---------|---------------------------|-------------------|-----------|
|         |                           | holder            |           |
| 1.      | Dr. G. T. Thampi          | Convener          | U.S.      |
| 2.      | Dr. Ashwini Kunte         | HOD/Staff         | X.tc.     |
| 3.      | Mr. K. K. Mathew          | Secretary/Staff   | 3         |
| 4.      | Dr. Mani Roja             | Staff             | Ariles    |
| 5.      | Ms. Anuradha Rao          | Staff             | KA Res -  |
| 6.      | Mrs. Mani Manjari Pittala | Parent            | P. Myari  |
| 7.      | Dr. Parul Shah            | Industrial Expert | puvert    |
| 8.      | Ms. Seema Wadhwani        | Industrial        |           |
|         |                           | Expert/Alumni     |           |
| 9.      | Mr. Vikram Apte           | Student           | Vmapte :  |
| 10.     | Ms. Himbindu Reddy        | Student           | Hlina     |

Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.

THADOMAL SHAHANI

ADVOCATE NARI GURSAHANI MARG, 37TH ROAD, (OFF LINKING ROAD), TPS III, BANDRA (WEST), MUMBAI - 400 050, INDIA. Tel. : 91 - 22 - 26495808 / 26488830; Fax<sup>2</sup><sup>4</sup><sup>2</sup><sup>1</sup>-22-26053590 • E-mail : gtthampi@yahoo.com • Website : www.tsec.edu

#### Minutes of Department Advisory Board (EXTC) meeting held on 15th February 2020

#### (Yet to be approved)

A meeting of the Department Advisory Board (EXTC) members was held on 15<sup>th</sup> February 2020 at 11.00 AM in Room No. 103 under the Chairman ship of Dr. G. T. Thampi, Convener-DAB, Principal, TSEC.

Total 9 members attended the meeting. Ms. Seema Wadhwani was absent.

Secretary Mr. K. K. Mathew welcomed the Principal, parents, students and the faculty members. He then read the minutes of DAB (EXTC) meeting held on 30<sup>th</sup> March 2019. Members present approved unanimously.

Convenor Principal Dr. G. T. Thampi requested student members to point out their feedback and suggestions. Student's representative Ms. Himabindu Reddy and Mr. Vikram Apte talked the following points:

- 1. <u>Reference Books</u>: We find it difficult to refer to the reference books. To inculcate interest in the subject we can conduct open book tests and also conduct quiz from some topics covered in the reference books.
- 2. <u>Syllabus Revision</u>: Department should encourage Student representative to meet the Board of studies and get the syllabus revised as per industry requirement. Subjects like Data Analytics and Artificial Intelligence must be introduced in all departments.
- 3. <u>Interdisciplinary Projects:</u> Students from different departments should form project group and work on interdisciplinary projects.
- 4. <u>Video recording of Lectures:</u> All lectures should be recorded and made available. Students who miss lectures can catch up and come for the next lecture.

Prof. Parul Shah talked about the importance of bringing subject and industrial experts to give students good exposure. Also she said it is noted only IT companies were coming for placement in campus. Department should promote core companies to visit the campus.

Secretary thanked all members present and requested to give suggestion and feedback to HOD. Meeting ended at 01.00 PM

K.K. Mathew Secretary-DAB (EXTC) Read and approved in the DAB meeting dated

Dr. G. T. Thampi (Convenor DAB) Principal ,TSEC





# 2018-2019

### **Department Academic**

## **Advisory Committee**

### **Minutes of Meeting**



# THADOMAL SHAHANI ENGINEERING COLLEGE

A meeting of members of IT Department Advisory Committee (ITDAC) will be held on 12/10/2018 at 1:00pm, in Room No. 906 of the New Building of the college. You are requested to kindly attend the meeting.

#### Agenda:

- 1. Informing the committee about revision of PEOs
- 2. Approval of revised PEOs.
- 3. Anything else with the permission of the Chair.

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Chairman (G. T. Thampi)

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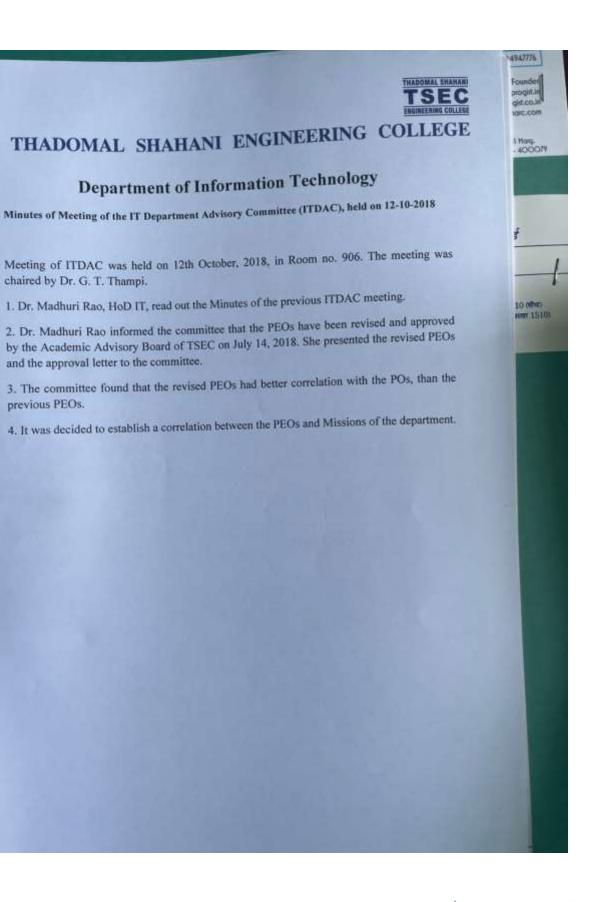
- 1. Dr. Madhuri Rao
- 2. Ms. Archana Kale
- 3. Ms. Anjali Malviya
- 4. Mr. Arun Kulkarni
- 5. Mr. Jaikisan Vaswani
- 6. Ms. Bilkish Musa Janjiriya
- 7. Mr. Bhavik Bansali
- 8. Mr. Santosh Shukia
- 9. Mr. Akash Mishra





Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.

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previous PEOs.



### THADOMAL SHAHANI ENGINEERING COLLEGE Dept. of IT

|     |                            | to balance           | Signature              |
|-----|----------------------------|----------------------|------------------------|
| No. | Name                       | Type of stake holder | -th                    |
| 1   | Dr. G. T. Thampi           | Principal, TSEC      | - 12                   |
| 2   | Dr. Madhuri Rao            | HOD, IT              | - that                 |
| 3   | Ms. Archana Kale           | Faculty Member, IT   | And                    |
| 4   | Ms. Anjali Malviya         | Faculty Member, IT   | Dont                   |
| 5   | Mr Arun B Kulkarni         | Faculty Member, IT   | (m)                    |
| 6   | Mr. Jaikisan Vaswani       | Alumni               | pilien                 |
| 7   | MS. Bilkish Musa Janjiriya | Alumni               | pitien<br>B.M. Janjing |
| 8   | Mr. Bhavik Bansali         | Industry Expert      | R                      |
| 9   | Mr. Shukla                 | Parent               | Aluano                 |
| 10  | Akash Mishra               | Current Student      | Alall                  |





Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.

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### THADOMAL SHAHANI ENGGINEERING COLLGE CHEMICAL ENGINEERING DEPARTMENT

### Subject: Minutes of Meeting of Quality Improvement Committee of Chemical Engineering Department held on 10<sup>th</sup> Aug 2019 at 12.15 pm

The Quality Improvement Committee meeting of Department of Chemical Engineering was held on 10<sup>th</sup> Aug 2019 at 12.15 pm at Principal's office. The meeting was chaired by Dr. G. T. Thampi, Principal, Thadomal Shahani Enggineering Collge.

Following members were present:

- 1. Dr. G. T. Thampi
- 2. Dr. Anita Kumari
- 3. Dr. Sadhna Purohit
- 4. Mr. Atul Choudhary
- 5. Mr. Jayesh Tekchandaney
- 6. Mr. Pramod Kulkarni

Following points were discussed:

- 1. Meeting started with introduction of each members.
- 2. Dr. Anita Kumari, Head of Chemical Engineering Department briefed all members about the program and curriculum, rubrics of practical, project, seminar & tutorials.
- 3. Rubrics for practical, project, seminar & tutorials got approved by QIC members present in meeting.
- 4. Principal Dr. G. T. Thampi highlighted on new emerging areas /techniques, challenges, opportunities & scope of Chem. Engg. Students in industry.
- 5. Mr. Jayesh Tekchandaney suggested training for placement and one year internship /training in industry for the students which will help them in securing job. Improving on/off campus job opportunity for students.
- 6. He also suggested to appoint Professional counsellors for all Chemical Engg. students.
- 7. Dr. Anita Kumari & Dr. Sadhna Purohit mentioned that each faculty of Dept. is assigned for mentoring & counselling of 15-20 students (5-8 students of each SE, TE & BE class).



- 8. Mr. Jayesh Tekchandaney suggested structured industry institute interactions should be part of course curricula. It should be measureable.
- Principal asked HoD to write to MHRD & chairman, board of study, Mumbai Univ reg compulsorily accommodating practical aspects of training / internship for 6 months to 1 year in industry in Chem. Engg. Students course curricula.
- Mr. Jayesh Tekchandaney & Mr. Pramod Kulkarni suggested that students should do BE project in industry (BPCL, RCF, Gharda Chemicals), R&D organizations (NCL, Pune, NEERI, Nagpur, BARC, Mumbai) & reputed institute (IITS, ICT) etc.
- Mr. Atul Choudhary suggested to make students associate with industry, R&D organizations, reputed institutes for their BE project for better utilization of concepts learned in college. Students should be encouraged to work on data base model than on physics based model.
- 9. Dr. Anita kumari mentioned that option for doing BE project in Industry, R&D organizations & reputed institutes is there for students however many students opt for BE project guided by internal guide so that they can present papers & publish papers from project report. This improves their CV & SOP for getting admission in higher degree in abroad besides helping them in various way in personality development. Students gain in long run if internal project is offered in continuing presentations & publication, getting opportunity for guest lecture either in Dept. or in professional society like IIChE events besides getting LOR from his /her Prof any time in future.
- 10. Dept. encourages students to solve complex problem using available resources & improve project quality based on students' feedback.
- 11. If Industry can provide LOR to students & allow students to use Industry data for presenting & publishing papers Dept. will be glad in encouraging students to take external projects.
- 12. Dept. has been organizing guest lectures, design contests, seminar, conference, annual technical festival, workshop etc. on regular basis for students to improve industry institute interactions.
- 13. Students are encouraged to participate on online one week /two week certificate courses offered by reputed institute of India & abroad.



- 14. Principal Dr. G. T. Thampi opined that students should be encouraged for publications/presentations without being exploited.
- 15. He suggested to upskill the students in the emerging technologies.

Meeting ended with thanks to the Chair.

11 Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.



## 2017-2018

### **Department Academic**

## **Advisory Committee**

### **Minutes of Meeting**



### THADOMAL SHAHANI ENGGINEERING COLLGE, BANDRA (W) COMPUTER ENGINEERING DEPARTMENT

Minutes of Meeting of Department Advisory Committee (DAC) of Computer Engineering Department held on 18-11-2017 at 11:00 am

The second meeting of DAC of Computer Engineering Department was held on 18-11-2017, in Room no. 204 at 11:00 AM. The meeting was chaired by Dr. G. T. Thampi. All the eight members were present for the following discussion.

- 1. Dr. Tanuja K. Sarode introduced new co-opted member Dr. Anil Chhangani.
- 2. Dr. Tanuja K. Sarode read out minutes of meeting held on 10-12-2016.
- 3. It was thoroughly discussed about the points to be covered in the vision statement of the program.
- 4. It was decided to reduce the Mission statements as per the suggestion given by the NBA evaluator.
- 5. Mr. Sushil Ingle suggested to incorporate technical and global challenges in the Mission statement.
- 6. Dr. Pramanand Budhwani emphasized on including social and ethical values in Mission statements.
- 7. Mr. Sumedh Pundkar opined that Mission statement should include modern teaching methods.

PRINCIPAL omal Shahani Engineering College landra (W), Mumbai-400 050.





### THADOMAL SHAHANI ENGGINEERING COLLGE, BANDRA (W) COMPUTER ENGINEERING DEPARTMENT

### Department Advisory Committee Attendance

Time:- 11:00 am

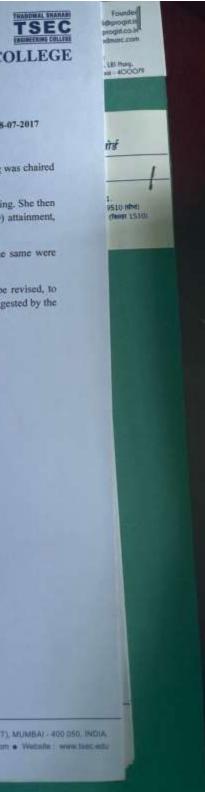
| Sr. No | Name                    | Signature  |
|--------|-------------------------|------------|
| 1      | Dr. G. T. Thampi        | m          |
| 2      | Mr. S. N. Pundkar       | Juset      |
| 3      | Mr. Sushil Ingle        | Bat        |
| 4      | Dr. Parmanand Budhawani | Rige       |
| 5      | Dr. Tanuja Sarode       | SP         |
| 6      | Dr. Archana Patankar    | the second |
| 7      | Mr. Jayant Gadge        | Contre     |
| 8      | Dr. Anil Chhangani      | Ach        |

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Dates- 18-11-2017



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### THADOMAL SHAHANI ENGINEERING COLLEGE

### Department of Information Technology

Minutes of Meeting of the IT Department Advisory Committee (ITDAC), held on 28-07-2017

Meeting of ITDAC was held on 28th July, 2017, in Room no. 906. The meeting was chaired by Dr. G. T. Thampi.

I. Dr. Madhuri Rao, HoD IT, read out the Minutes of the previous ITDAC meeting. She then presented the details of the Program Outcome (PO) and Course Outcome (CO) attainment, during the year 2016-17.

2. The revised Missions of the Dept, were presented to the committee and the same were approved.

3. It was discussed that the Program Educational Objectives (PEOs) need to be revised, to improve the correlation between the Program Outcomes (POs) and PEOs, as suggested by the visiting NBA member.

ADVOCATE NARI GURSAHANI MARG, 37TH ROAD, (OFF LINKING ROAD), TPS III, BANDRA (WEST), MUMBAI - 400 050, INDIA Tel - 91 - 22 - 26495508 / 26485830 Fax: 01-22-26053590 • E-mail: gthumpi@yahoo.com • Website: www.taec.edu





| Signature     | Type of stake holder  | Name                       | sr. No. |
|---------------|-----------------------|----------------------------|---------|
| - UNA         | Principal, TSEC       | Dr. G. T. Thampi           | 1       |
| P.            | HOD, IT               | Dr. Madhuri Rao            | 2       |
| And           | Faculty Member, IT    | Ms. Archana Kale           | 3       |
| N. Mys        | Faculty Member, IT C. | Ms. Anjali Malviya         | 4       |
| Er.           | Faculty Member, IT    | Mr Arun B Kulkarni         | 5       |
| Julien        | Alumni                | Mr. Jaikisan Vaswani       | 6       |
| B.M. Janjinya | Alumni                | MS. Bilkish Musa Janjiriya | 7       |
| A             | Industry Expert       | Mr. Bhavik Bansali         | 8       |
| distingite    | Parent                | Mr. Shukla                 | 9       |
|               | Current Student       | Akash Mishra               | 10      |

THADOMAL SHAHANI ENGINEERING COLLEGE Dept. of IT

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THADOMAL SHAHANI ENGINEERING COLLEGE

# Attendance for Department advisory board (EXTC) meeting held on 13<sup>th</sup> Jan. 2018

| Sr. No. | Name                       | Type of stake<br>holder  | Signature  |
|---------|----------------------------|--------------------------|------------|
| 1.      | Dr. G. T. Thampi           | Convenor                 | m          |
| 2.      | Dr. Ashwini Kunte          | HOD/Staff                | Kate-      |
| 3.      | Mr. K. K. Mathew           | Secretary/Staff          | N.         |
| 4.      | Dr. Mani Roja              | Staff                    | MK         |
| 5.      | Ms. Anuradha Rao           | Staff                    | UNRe 1     |
| 6.      | Mr. Charanjit Singh Bhatia | Parent                   | 1 mming    |
| 7.      | Dr. Parul Shah             | Industrial Expert        | Wheet      |
| 8.      | Ms. Seema Wadhwani         | Industrial               | Ramp       |
| 9.      | Mr. Rohan Ram Vaswani      | Expert/Alumni<br>Student | King       |
| 10.     | Mr. Gurkiran Singh Bhatia  | Student                  | Clywrkina. |

Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.

THADOMAL SHAHANI

ADVOCATE NARI GURSAHANI MARG, 37TH ROAD, (OFF LINKING ROAD), TPS III, BANDRA (WEST), MUMBAI - 400 050, INDIA. Tel. : 91 - 22 - 26495808 / 26488830; Fax2591-22-26053590 • E-mail : gtthampi@yahoo.com • Website : www.tsec.edu Minutes of Department Advisory Board (EXTC) meeting held on 13th Jan. 2018

A meeting of the Department Advisory Board (EXTC) members was held on 13<sup>th</sup> January 2018 at 10.45 AM in Room No. 603 under the Chairman ship of Dr. G. T. Thampi, Convener-DAB, Principal,TSEC.

Dr. Ashwini Kunte (HOD -EXTC) thanked members for 100% attendance .

Principal in his opening remark suggested to device ways & means of modifying students emotional quotient & exposure to 5G technology to be suitable for placement in consulting firms. Principal also suggested initiate students to massive online open course (moocs) resources to build proficiency, Deep learning Python & R Programming.

- Secretary Mr. K. K. Mathew read the minutes of DAB (EXTC) meeting held on 21<sup>st</sup> Jan. 2017. Members present approved unanimously. Matters arising out of the minutes
- 2. HOD thanked majority of members for giving there feedback & suggestions for changes to be made in Mission, PEO's & PO's of the department.
- 3. HOD presented 2017 batch students feedback analysis of direct & indirect attainment of Program Outcomes to the committee.
- 4. Ms. Anuradha Rao (staff) suggested need for extracurricular activity promotion also to be included in PEO's.
- 5. Secretary informed that he has received a document from Principal Dr. G. T. Thampi about the expectation of Industry from higher Educational Institutes. A copy of the same was distributed to all members present.
- 6. Members felt the above points also to be included in mission of the department.
- 7. HOD proposed new mission & program educational objectives to committee and also mentioned that PO's of department need not be changed since they are aligned with graduate attributes given by NBA.
- 8. Mr. Gurkiran Singh & Mr. Rohan Vaswani requested that they should be relived from the board & a new member should be selected. Members approved the same.
- 9. As there was no matter for discussion, meeting ended at 12.30 PM.

-14



K.K. Mathew Secretary-DAB (EXTC) Read and approved in the DAB meeting dated 30/03/19

Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering Colleg Bandra (W), Mumbai - 400 050.

Dr. G. T. Thampi (Convenor DAB) Principal ,TSEC



# 2016-2017

# **Department Academic**

# **Advisory Committee**

# **Minutes of Meeting**





### THADOMAL SHAHANI ENGGINEERING COLLGE, BANDRA (W) COMPUTER ENGINEERING DEPARTMENT

Minutes of Meeting of Department Advisory Committee (DAC) of Computer Engineering Department held on 10-12-2016 at 11:00 am

The first meeting of DAC of computer engineering department was held on 10-12-2016, in Room no. 204 at 11:00 AM. The meeting was chaired by Dr. G. T. Thampi. All the seven members were present for the following discussion.

- 1. Dr. Tanuja K. Sarode, Head of Computer Engineering department introduced all the members.
- 2. Dr. Tanuja K. Sarode briefed all members about the programme and curriculum.
- 3. Dr. Tanuja K. Sarode discussed in brief about the agenda of the meeting.
- 4. Principal Dr. G. T. Thampi highlighted on new emerging techniques like Artificial Intelligence, Deep Learning, Block Chain, Machine Learning, etc.
- 5. Dr. Parmanand Budwani suggested about training for placement and internship for the students which will help them in securing job.
- 6. Mr. Sushil Ingle and Mr. Sumedh Pundkar suggested to upskill the students in the emerging technologies by asking them to implement projects and mini projects of courses in the new technology.

Committee decided to incorporate the above point (4, 5, 6) in the vision and mission of the programme



# THADOMAL SHAHANI ENGGINEERING COLLGE, BANDRA (W) COMPUTER ENGINEERING DEPARTMENT

# Department Advisory Committee Attendance

Date:- 10-12-2016

Time:- 11:00 am

| Sr. No | Name                    | Signature |
|--------|-------------------------|-----------|
| 1      | Dr. G. T. Thampi        | 14        |
| 2      | Mr. S. N. Pundkar       | - Ontelh  |
| 3      | Mr. Sushil Ingle        | Sitt      |
| 4      | Dr. Parmanand Budhawani | (Luge     |
| 5      | Dr. Tanuja Sarode       | 2         |
| 6      | Dr. Archana Patankar    | JAR.      |
| 7      | Mr. Jayant Gadge        | Padge     |



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### THADOMAL SHAHANI ENGINEERING COLLEGE NOTICE

A meeting of members of IT Department Advisory Committee (ITDAC) will be held on 07/01/2017 at 11.00 07/01/2017 at 11:30 am; in Room No. 906 of the New Building of the college. You are requested to kindly attend the meeting.

#### Agenda:

- 1. Welcome of new members by HOD, Dr. Madhuri Rao.
- Reporting the remarks made by the member of NBA committee, while on visit to the department.
- 3. Discussion on the current vision and mission of the department and suggestions if any, of modification.
- 4. Strengthening of the Teaching Learning process.

W

Chairman (G. T. Thampi)

CC to:

- 1. Dr. Madhuri Rao
- 2. Ms. Archana Kale
- 3. Ms. Anjali Malviya
- 4. Mr. Arun Kulkarni
- 5. Mr. Jaikisan Vaswani
- 6. Ms. Bilkish Musa Janjiriya
- 7. Mr. Bhavik Bansali
- 8. Mr. Santosh Shukla

P. G. KHER MARG (OFF LINKING ROAD), TPS III, BANDRA (WEST), MUMBAI - 400 950, INDIA F. G. KHER MARO (0488830; Fax: 91-22-26053590; E-mail ; glihampi@yahoo.com; Weballe : www.tsec.edu





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# THADOMAL SHAHANI ENGINEERING COLLEGE

Department of Information Technology

Minutes of Meeting of the IT Department Advisory Committee (ITDAC), held on 07-01-2017

The first meeting of ITDAC was held on 7th January, 2017, in Room no. 906. The meeting was chaired by Dr. G. T. Thampi. All the members were present for the following discussion.

1. Dr. Madhuri Rao, Head of IT Department, introduced all the members.

2. Dr. Madhuri Rao briefed all members about the program and curriculum. She then proceeded to discuss in brief, the agenda of the meeting.

3. Principal Dr. G. T. Thampi discussed the broader picture of the role of IT engineers in today's world. He insisted upon the need of sensitizing the students to new emerging techniques like Artificial Intelligence, Deep Learning, Block Chain, Machine Learning, etc.

4. Mr. Bhansali suggested that the students should be encouraged to take internships, to understand the real world needs.

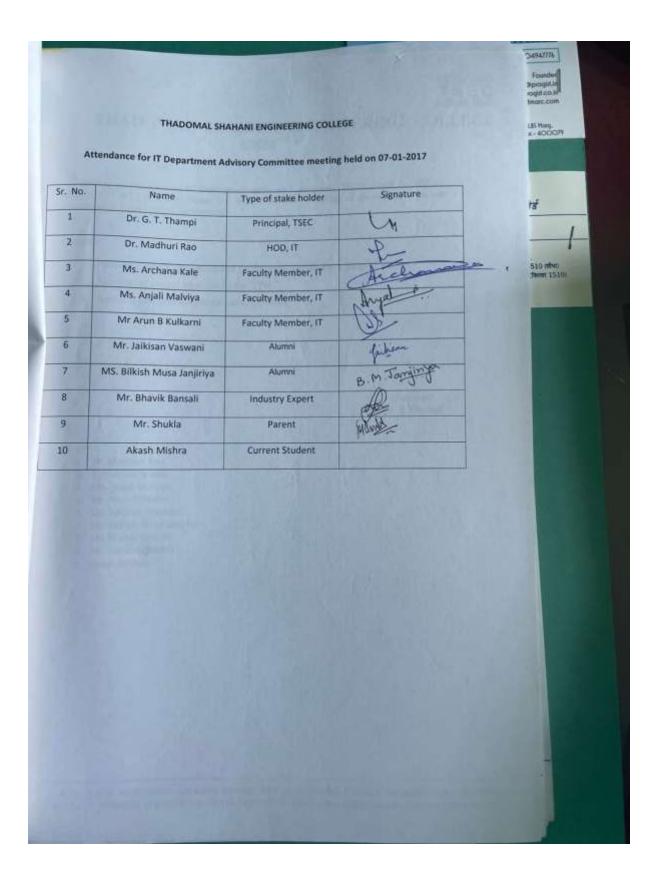
5. The Alumni members felt that there is a need of bridging the gap between the industry and academia. They offered to help in conducting beyond the curriculum lectures and providing internships.

6. The faculty members suggested that students can implement projects and mini projects of courses in the new technology, to enhance their learning,

Committee decided to incorporate the above point (4, 5, 6,7) in the mission of the program.

P. G. KHER MARG (OFF LINKING ROAD), TPS III, BANDRA (WEST), MUMBAL- 400 050, INDIA Tel. : 91-22-26495808/26488830. Fax 91-22-26053590: E-mail gtthampi@yaboo.com: Website : www.tacc.edu









THADOMAL SHAHANI TSEC ENGINEERING COLLEGE

### THADOMAL SHAHANI ENGINEERING COLLEGE

### Attendance for Department advisory board (EXTC) meeting held on 21<sup>st</sup> Jan. 2017

| Sr. No. | Name                       | Type of stake               | Signature   |
|---------|----------------------------|-----------------------------|-------------|
|         |                            | holder                      |             |
| 1.      | Dr. G. T. Thampi           | Convenor                    | Th <u>a</u> |
| 2.      | Dr. Ashwini Kunte          | HOD/Staff                   | Arts        |
| 3.      | Mr. K. K. Mathew           | Secretary/Staff             | Sala        |
| 4.      | Dr. Mani Roja              | Staff                       | Až          |
| 5.      | Ms. Anuradha Rao           | Staff                       | Kithe       |
| 6.      | Mr. Charanjit Singh Bhatia | Parent                      |             |
| 7.      | Dr. Parul Shah             | Industrial Expert           | purent      |
| 8.      | Ms. Seema Wadhwani         | Industrial<br>Expert/Alumni | Carril.     |
| 9.      | Mr. Rohan Ram Vaswani      | Student                     | X. con      |
| 10.     | Mr. Gurkiran Singh Bhatia  | Student                     |             |



ADVOCATE NARI GURSAHANI MARG, 37TH ROAD, (OFF LINKING ROAD), TPS III, BANDRA (WEST), MUMBAI - 400 050, INDIA. Tel. : 91 - 22 - 26495808 / 26488830; Fax26#1-22-26053590 • E-mail : gtthampi@yahoo.com • Website : www.tsec.edu Minutes of department advisory board (EXTC) meeting held on 21st Jan. 2017

A meeting of the newly appointed department advisory board (EXTC) members was held on 21st January 2017 at 11 AM in Room No. 603 under the Chairman ship of Dr. G. T. Thampi, Convener-DAB, Principal, TSEC.

Altogether 8 members attended the meeting.

- 1. HOD-EXTC, Dr. Ashwini Kunte welcomed members.
- 2. She explained in detail the visit of NBA committee during 23<sup>rd</sup> to 25<sup>th</sup> Sep. 2016. However, she pointed out the need expressed by the expert committee members regards to mapping of mission, PEO's & PO's of the department.
- 3. She requested Mr. K.K. Mathew to become secretary of this department advisory board (EXTC).
- 4. Members present unanimously agreed.
- 5. Principal Dr.G.T.Thampi suggested department faculty members to engage board of studies members of university to orient the syllabus for building skills state of electronics manufacturing. He also said department to gear up for Industry4.0via all business industry activity will be energized by automation, Robotics & Artificial Intelligence
- 6. Dr. Mani Roja said that one mission statement "To support the institute's research activities and consultancy services by introducing the doctoral programs in future" is already fulfilled and hence the mission statement need to be modified.
- 7. Ms. Seema Wadhwani (Industry Expert/Alumni) explained the need of equipping the students about the global market scenario thereby increasing Industry Institute Interaction. Members present agreed to the suggestion.
- 8. Prof.K.K.Mathew suggested that students should be encouraged to write National/International level paper research/review along with studies so that they will be exposed to latest research ideas & topics.
- 9. Student member Mr. Rohan Vaswani said that lot of time is spent on classroom learning & no Industrial Exposure is obtained.
- 10. Dr. Parul Shah, Industrial Expert suggested students should be asked to use variety of software tools through online platforms.
- 11. HOD Dr. Ashwini Kunte made a suggestion regarding modification on mission, PEO's & PO's of department. She asked all members to give feedback and suggestions in this regard. Member's appreciated and unanimously approved.
- 12. As there was no matter for discussion, meeting ended at 1 PM.

K.K. Mathew Secretary-DAB (EXTC)

Read and approved in the DAB meeting dated 13th Jan 2018

r. Thampi



PRINCIPAL domal Shahani Engineering College Bandra (W), Mumbai - 400 050.

Dr. G. T. Thampi (Convenor DAB) Principal, TSEC

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THADOMAL SHAHANI ENGINEERING COLLEGE

# Attendance for Department advisory board (EXTC) meeting held on 13<sup>th</sup> Jan. 2018

| Sr. No. | Name                       | Type of stake<br>holder     | Signature  |
|---------|----------------------------|-----------------------------|------------|
| 1.      | Dr. G. T. Thampi           | Convenor                    | m          |
| 2.      | Dr. Ashwini Kunte          | HOD/Staff                   | the        |
| 3.      | Mr. K. K. Mathew           | Secretary/Staff             | P          |
| 4.      | Dr. Mani Roja              | Staff                       | MK         |
| 5.      | Ms. Anuradha Rao           | Staff                       | UNRe 1     |
| 6.      | Mr. Charanjit Singh Bhatia | Parent                      | 1 mmin of  |
| 7.      | Dr. Parul Shah             | Industrial Expert           | lung of    |
| 8.      | Ms. Seema Wadhwani         | Industrial<br>Expert/Alumni | Samo       |
| 9.      | Mr. Rohan Ram Vaswani      | Student                     | K. Coy     |
| 10.     | Mr. Gurkiran Singh Bhatia  | Student                     | Clywrkiran |

(W) Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.

THADOMAL SHAHANI



..... ENGINEERING COLLEGE THADOMAL SHAHANI ENGINEERING COLLEGE

#### 1.1.1 The Institution ensures effective curriculum delivery through a well-

#### planned and documented process

THADOMAL SHAHANI

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| Sr. No | Activity Name                          |
|--------|--|
| 1      | 2020-21 Department Minutes of Meetings |
| 2      | 2019-20 Department Minutes of Meetings |
| 3      | 2018-19 Department Minutes of Meetings |
| 4      | 2017-18 Department Minutes of Meetings |
| 5      | 2016-17 Department Minutes of Meetings |



# **Department** Minutes of Meeting





# 2020-2021

# Department

# **Minutes of Meeting**







#### MINUTES OF MEETING

Date: May 7, 2021 Time: 10:30 am Location: Online Microsoft Teams Meeting Room

#### **1.Convener**: Dr. Madhuri Rao

#### In Attendance:

| Ms. Archana Kale        | Ms. Anj  |
|-------------------------|----------|
| Ms. Sampada Pinge       | Dr. Shar |
| Dr. Gopal Pardesi       | Dr. Muk  |
| Ms. Nagaveni Hebbar     | Mr. Che  |
| Mr. Sanjay Kumar Pandey | Ms. Sun  |
| Dr. Shachi Natu         | Dr. Bhus |
| Ms. Himani Deshpande    | Ms. Mor  |
| Dr. Darshan Ingle       | Ms. She  |

Ms. Anjali Malviya Dr. Shanti Therese Dr. Mukesh Israni Mr. Chetan Agarwal Ms. Sunita Rathod Dr. Bhushan Jadhav Ms. Monica Tolani Ms. Sheetal Gondal Dr. Arun Kulkarni Ms. Kumkum Saxena Ms. Geeta Karande Ms. Reshma Malik Mr. Nikhilesh Joshi Ms. Sanober Shaikh Ms. Vijal Jain

2. General Purpose department meeting regarding the term Jan-June 2021

3. Discussion on the difficulties & bottleneck faced during online internal assessment test conducted for TE & BE classes, SE faculty are expected to strategize a plan for online internal assessment engagement which are schedule from 10<sup>th</sup> May 2021

4. Faculty shall submit dates/slots of upcoming viva-voce to the respective class teachers

5. Discussed ways and means of reenergizing/ reorienting Academic activities and building efficiencies in student engagement- remedial lectures to be conducted for the students who have missed practical sessions during regular slots

Dr Madhuri Rao

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### **MINUTES OF MEETING**

Date: 21<sup>st</sup> July 2020 Time: 12:00 pm Location: Zoom Meeting Platform

#### Convener: Dr. Madhuri Rao

#### In Attendance:

- Ms. Archana Kale Ms. Sampada Pinge Dr. Gopal Pardesi Mr. Chetan Agarwal Ms. Sunita Rathod Dr. Shachi Natu Ms. Monica Tolani
- Ms. Anjali Malviya Dr. Shanti Therese Mr. Mukesh Israni Ms. Reshma Malik Mr. Nikhilesh Joshi Ms. Sanober Shaikh Ms. Vijal Jain
- Dr. Arun Kulkarni Ms. Kumkum Saxena Ms. Geeta Karande Mr. Sanjay Pandey Dr. Bhushan Jadhav Ms. Himani Deshpande Dr. Darshan Ingle

#### Absentee:

Ms. Nagaveni Hebbar

#### The following consensuses arrived at the meeting:

- 1. Strategize a plan to reenergize & improve the preparedness for upcoming academic year
- 2. The new Academic Year shall start through online mode from 17th August 2020
- 3. Academic Load distribution & timetable for upcoming semester
- 4. Department faculty shall use Microsoft Teams for conduction of online classes
- 5. Prof. Mukesh Israni & Prof. Sanjay Pandey are appointed as Department coordinators for student's enrolment on Microsoft Teams platform

6. Institute Level elective subjects for B.E students are: **Operation Research, Management Information Systems, Cyber Security & Laws** and slots allotted for elective subjects shall be every Monday, Wednesday & Friday from 04:00 pm to 05:00 pm, instead of 3 hours of slot on every Friday.

7. Prof. Kumkum Saxena appointed as SE Class Teacher, Prof. Sunita Rathod as TE Class Teacher & Prof. Nagaveni Hebbar as BE Class Teacher



### **DEPARTMENT OF INFORMATION TECHNOLOGY**

#### **MINUTES OF MEETING**

Date: 10<sup>th</sup> July 2020 Time: 03:00 pm Location: Microsoft Teams Platform

#### Convener: Dr. Madhuri Rao

#### In Attendance:

| Ms. Archana Kale   |
|--------------------|
| Dr. Shanti Therese |
| Dr. Mukesh Israni  |
| Mr. Chetan Agarwal |
| Ms. Sunita Rathod  |
| Ms. Sanober Shaikh |
| Ms. Vijal Jain     |

Dr. Arun Kulkarni Ms. Kumkum Saxena Ms. Geeta Karande Ms. Reshma Malik Mr. Nikhilesh Joshi Ms. Himani Deshpande Ms. Sheetal Gondal Ms. Sampada Pinge Dr. Gopal Pardesi Ms. Nagaveni Hebbar Mr. Sanjay Pandey Dr. Shachi Natu Ms. Monica Tolani

#### Absentee:

Ms. Anjali Malviya

Dr. Darshan Ingle

#### The following consensuses arrived at the meeting:

1. Strategize a plan to reenergize & improve the preparedness for upcoming academic year

2. The new Academic Year for Third Year & Fourth Year shall start through online mode from 12<sup>th</sup> July 2021 and for Second Year from 23<sup>rd</sup> August 2021

3. Academic Load distribution & timetable for upcoming semester

4. Faculty Mentors for third year mini project shall be allotted same groups which were allotted during last academic year

5. Prof. Kumkum Saxena shall be TE Mini Project Coordinator

6. Updating NBA Activity Files: Calculations have to be done by all faculties till last semester Jan-June 2021, results in soft copy excel format shall be provided from the examination section to all the departments

7. Faculty Mentors for 2021 pass out batch are expected to collect placement offer letter/higher studies admit letter from the respective mentees group and maintain record of the same

8. Class teachers for the new academic year; SE Class - Dr. Darshan Ingle; TE Class Sanober Shaikh, BE Class: Prof. Himani Deshpande. Class teachers are expected to share the Timetable with the students





Dr Madhuri Rao ( HOD IT)

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### **Thadomal Shahani Engineering College**

#### **Computer Engineering Department**

#### Minutes of online meeting of Computer Engineering Department

Computer Engineering Department meeting was held on Sunday, 1<sup>st</sup> August 2021 at 4:15 pm through Teams Meeting app, when following members were present:-

| 1  | Dr. Tanuja Sarode        | Professor & Head of<br>Computer<br>Engineering<br>Department | 13 | Ms. Manisha<br>Dumbre  | Assistant Professor |
|----|--------------------------|--|----|------------------------|---------------------|
| 2  | Dr. Archana Patankar     | Professor  | 14 | Ms. Rupali Sarode      | Assistant Professor |
| 3  | Dr. Jayant Gadge         | Associate Professor  | 15 | Ms. Vijaya P.          | Assistant Professor |
| 4  | Dr. Shilpa Verma         | Associate Professor  | 16 | Dr. Arti<br>Deshpande  | Assistant Professor |
| 5  | Dr. Anil Chhangani       | Associate Professor  | 17 | Ms. Urvi Kore          | Assistant Professor |
| 6  | Dr. Seema Kolkur         | Assistant Professor  | 18 | Mr. Aejazul Khan       | Assistant Professor |
| 7  | Ms. Tasneem Mirza        | Assistant Professor  | 19 | Mr. Vaibhav<br>Ambhire | Assistant Professor |
| 8  | Ms. Sakshi Surve         | Assistant Professor  | 20 | Ms. Nabanita<br>Mandal | Assistant Professor |
| 9  | Dr. Ujawala Bharambe     | Assistant Professor  | 21 | Ms. Darakhshan<br>Khan | Assistant Professor |
| 10 | Ms. Anagha Durugkar      | Assistant Professor  | 22 | Ms. Juhi Ganwani       | Assistant Professor |
| 11 | Ms. Sonal Shroff         | Assistant Professor  | 23 | Ms. Parul Jain         | Assistant Professor |
| 12 | Ms. Vaishali Suryawanshi | Assistant Professor  | 24 | Ms. Saloni Dhuru       | Assistant Professor |

- 1. Ms. Vaishali Suryawanshi explained the procedure of CO attainment and PO attainment to all the faculties.
- All Subject in-charges has to submit CO and PO attainment of their subject for the years 2018-19, 2019-20, and 2020-21 latest by 10<sup>th</sup> August 2021 to Ms. Vaishali Suryawanshi.
- 3. Internal audit report for the years 2018-19, 2019-20, and 2020-21 has to be submitted by respective subject in-charges to Ms. Rupali Sarode.

Sd/-

Dr. Tanuja K. Sarock

Professor & Head, Computer Engineering Department

PRINCIPAL Thadomal Shahani Engineering College



- 5. Ms. Darakshan Khan is appointed as Periodic test coordinator for the semester July Nov 2020.
- 6. Ms. Darakshan Khan is appointed as Mini-project coordinator for SE Computer Engineering.
- Dr. Seema Kolkur and Dr. Ujwala Bharambe are appointed as BE Project coordinator for the AY 2020 - 21 for Computer Engineering.
- 8. Following staff members are appointed as the subject in charges for the Final Year Computer Engineering: -

| Faculty                  | Subject  |
|--------------------------|----------|
| Dr. Archana Patankar     | DSIP     |
| Dr. Jayant Gadge         | MCC      |
| Ms. Vaishali Suryawanshi | AISC     |
| Dr. Archana Patankar     | Robotics |
| Ms. Vijaya Padmadas      | BDA      |

9. Following staff members are appointed as the subject in charges for the Third Year Computer Engineering: -

| Faculty             | Subject |  |
|---------------------|---------|--|
| Ms. Juhi Ganwani    | MP      |  |
| Dr. Arti Deshpande  | DBMS    |  |
| Ms. Shilpa Verma    | CN      |  |
| Mr. Vaibhav Ambhire | TCS     |  |
| Dr. Anil Chhangani  | AA      |  |
| Ms. Rupali Sarode   | WDL     |  |

10. Following staff members are appointed as the subject in charges for the Second Year Computer Engineering: -

| Faculty             | Subject |
|---------------------|---------|
| Ms. Nabanita Mandal | DSGT    |
| Ms. Shilpa Ingoley  | DS      |
| Ms. Tasneem Mirza   | DLCA    |
| Ms. Sonal Shroff    | CG      |
| Ms. Manisha Dumbre  | OOP     |

Sd/-Dr. Tanuja K. Sarock

Professor & Head, Computer Engineering Department

W



| Rupali Patil<br>Darakshan | 01/08/2021,<br>16:17:41<br>01/08/2021, | 01/08/2021,<br>17:38:51<br>01/08/2021, | 1h 21m  | Rupali13038@tsecedu.org    | Presenter |
|---------------------------|--|--|---------|----------------------------|-----------|
| Khan                      | 16:17:48<br>01/08/2021,                | 17:29:02<br>01/08/2021,                | 1h 11m  | Darakshan13044@tsecedu.org | Presenter |
| Juhi Ganwani<br>Vaishali  | 16:18:07<br>01/08/2021,                | 17:38:40<br>01/08/2021,                | 1h 20m  | Juhi13045@tsecedu.org      | Presenter |
| Suryawanshi<br>Ujwala     | 16:18:17<br>01/08/2021,                | 17:38:50<br>01/08/2021,                | 1h 20m  | Vaishali13035@tsecedu.org  | Presenter |
| Bharambe<br>Ujwala        | 16:21:01<br>01/08/2021,                | 16:21:43<br>01/08/2021,                | 42s     | Ujwala13032@tsecedu.org    | Presenter |
| Bharambe<br>Nabanita      | 16:23:33<br>01/08/2021,                | 16:50:11<br>01/08/2021,                | 26m 38s | Ujwala13032@tsecedu.org    | Presenter |
| Mandal                    | 16:26:45<br>01/08/2021,                | 18:01:12                               | 1h 34m  | Nabanita13043@tsecedu.org  | Presenter |
| Aejazul Khan              | 16:27:14                               | 01/08/2021,<br>17:39:36                | 1h 12m  | Aejazul 13042@tsecedu.org  | Presenter |

PRINCIPAL Thadomal Shahani Engineering College Nari Gurshahani Marg, T. P. S. III, Bandra (W), Mumbai - 400 050.



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### **Thadomal Shahani Engineering College**

**Computer Engineering Department** 

## Minutes of online meeting of Computer Engineering Department

Computer Engineering Department meeting was held on Thursday, 8<sup>th</sup> July 2021 at 4:00 pm through Teams Meeting app, when following members were present:-

| 1 Dr. Tanuja Sarode         | Professor & Head of Computer Engineering Department |
|-----------------------------|---|
| 2 Dr. Archana Patankar      | Professor   |
| 3 Dr. Jayant Gadge          | Associate Professor                                 |
| 4 Dr. Shilpa Verma          | Associate Professor                                 |
| 5 Dr. Anil Chhangani        | Associate Professor                                 |
| 6 Dr. Seema Kolkur          | Assistant Professor                                 |
| 7 Ms. Tasneem Mirza         | Assistant Professor                                 |
| 8 Ms. Sakshi Surve          | Assistant Professor                                 |
| 9 Dr. Ujawala Bharambe      | Assistant Professor                                 |
| 10 Ms. Anagha Durugkar      | Assistant Professor                                 |
| 11 Ms. Sonal Shroff         | Assistant Professor                                 |
| 12 Ms. Vaishali Suryawanshi | Assistant Professor                                 |
| 13 Ms. Manisha Dumbre       | Assistant Professor                                 |
| 14 Ms. Rupali Sarode        | Assistant Professor                                 |
| 15 Ms. Vijaya P.            | Assistant Professor                                 |
| 16 Dr. Arti Deshpande       | Assistant Professor                                 |
| 17 Ms. Urvi Kore            | Assistant Professor                                 |
| 18 Mr. Aejazul Khan         | Assistant Professor                                 |
| 19 Mr. Vaibhav Ambhire      | Assistant Professor                                 |
| 20 Ms. Nabanita Mandal      | Assistant Professor                                 |
| 21 Ms. Darakhshan Khan      | Assistant Professor                                 |
| 22 Ms. Juhi Ganwani         | Assistant Professor                                 |
| 23 Ms. Shilpa Ingoley       | Assistant Professor                                 |
| 24 Ms. Poonam Jadhay        |   |
| 25 Ms. Parul Jain           | Assistant Professor                                 |
| 26 Ms. Saloni Dhuru         | Assistant Professor                                 |
|                             | Assistant Professor                                 |

Dr. G. T. Thampi PRINCIPAL Radomal Subani Engineering College

- 1. Time Table was distributed to all faculty through email by HOD and every one gave confirmation of the receipt of the same.
- 2. Ms. Darakshan Khan is appointed as Periodic test coordinator for the term July Nov 2021.
- 3. Ms. Manisha Dumbre and Ms. Juhi Ganwani are appointed as class teachers for second year Computer Engineering.



PRINCIPAL Thedewol Chebent Engineering College

# Attendance Record of Online Computer Engineering Department Meeting held 8th July 2021 at 4:00 pm

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Total Number of

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| Total Number of  |             |             |                                      |  |           |
|--|-------------|-------------|--------------------------------------|--|-----------|
| Participants   | 26          | 5           |                                      |  |           |
| Meeting Title  | General     |             |                                      |  |           |
| Meeting Start  |             |             |                                      |  |           |
| Time   | 08/07/2021, | 15:53:49    |                                      |  |           |
| Meeting End  | 10 EZ - 2   |             |                                      | ¥  |           |
| Time   | 08/07/2021, | 17:19:54-   |                                      |  |           |
|  |             |             |                                      | 5 <b>*</b>   |           |
| Full Name  | Join Time   | Leave Time  | Duration                             | Email  | Role      |
| Anagha   | 08/07/2021, | 08/07/2021, | 2.2000 C 1990 C 1990 C 1990 C 1990 C |  | Note      |
| Durugkar   | 15:53:49    | 17:15:56    | 1h 22m                               | Anagha13033@tsecedu.org  | Presenter |
|  | 08/07/2021, | 08/07/2021, |                                      | Contraction Contraction B  | resenter  |
| Poonam Jadhav  | 15:54:23    | 17:15:59    | 1h 21m                               | Poonam324@tsecedu.org  | Presenter |
|  | 08/07/2021, | 08/07/2021, |                                      |  | riesentei |
| Urvi Kori  | 15:55:59    | 16:58:59    | 1h 3m                                | Urvi13041@tsecedu.org  | Presenter |
|  | 08/07/2021, | 08/07/2021, |                                      | of the beccuuling  | Fresenter |
| Rupali Patil   | 15:56:18    | 17:15:59    | 1h 19m                               | Rupali13038@tsecedu.org  | Presenter |
|  | 08/07/2021, | 08/07/2021, |                                      | Rupulioobe isceed.org  | Fresenter |
| Arti Deshpande   | 15:56:53    | 17:10:07    | 1h 13m                               | Arti13040@tsecedu.org  | Presenter |
|  | 08/07/2021, | 08/07/2021, |                                      | in a second big to coccur.org  | Fresenter |
| Sakshi Surve   | 15:57:02    | 17:15:58    | 1h 18m                               | Sakshi13031@tsecedu.org  | Droconton |
|  | 08/07/2021, | 08/07/2021, |                                      | Salamisosi @ isecedu.oig   | Presenter |
| Darakshan Khan   | 15:57:19    | 17:15:48    | 1h 18m                               | Darakshan13044@tsecedu.org   | Droconton |
| Nabanita   | 08/07/2021, | 08/07/2021, | 2.1. 20111                           | bulakshan13044@tsecedu.org   | Presenter |
| Mandal   | 15:58:19    | 16:32:34    | 34m 15s                              | Nabanita13043@tsecedu.org  | Durant    |
|  | 08/07/2021, | 08/07/2021, | 0 111 100                            | Rabalita13043@isecedu.org  | Presenter |
| Parul Jain   | 15:58:48    | 17:17:50    | 1h 19m                               | Parul13402@tsecedu.org   | Dura      |
| Vaibhav  | 08/07/2021, | 08/07/2021, | 211 25111                            | Tarai 19402 @ (Seceda.org  | Presenter |
| Ambhire  | 15:59:05    | 17:16:22    | 1h 17m                               | Vaibhav13046@tsecedu.org   | <b>D</b>  |
|  | 08/07/2021, | 08/07/2021, | /                                    | valonaviso40@isecedu.org   | Presenter |
| Tanuja Sarode  | 15:59:29    | 17:19:54    | 1h 20m                               | Tanuja13024@tsecedu.org  | o .       |
|  | 08/07/2021, | 08/07/2021, | 20120111                             | Tunga15024@tsecedu.olg   | Organiser |
| Saloni Dhuru   | 16:00:14    | 17:19:40    | 1h 19m                               | Saloni.Dhuru7621@tsecedu.org   | D         |
| Archana  | 08/07/2021, | 08/07/2021, | 2012000                              | Scion. Dharay 021@tsecedu.org  | Presenter |
| Patankar   | 16:00:20    | 17:19:49    | 1h 19m                               | Archana13025@tsecedu.org   | Desert    |
|  | 08/07/2021, | 08/07/2021, | 111 10111                            | Archana13025@tsecedu.org   | Presenter |
| Shilpa Ingoley   | 16:00:43    | 17:16:51    | 1h 16m                               | Shilpa13047@tsecedu.org  | <b>D</b>  |
| Vaishali   | 08/07/2021, | 08/07/2021, | 2012000                              | Simparso47@csecedu.org   | Presenter |
| Suryawanshi  | 16:01:07    | 16:53:47    | 52m 39s                              | Vaishali13035@tsecedu.org  | <b>D</b>  |
| 1000 - 100 - | 08/07/2021, | 08/07/2021, |                                      | Contraction of the contraction o | Presenter |
| Seema Kolkur   | 16:01:41    | 17:15:47    | 1h 14m                               | Seema13029@tsecedu.org   | Duese     |
|  |             |             | V                                    | Weing 2029@isecedu.org   | Presenter |
|  |             |             | 277                                  |  |           |

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### **Thadomal Shahani Engineering College**

### **Computer Engineering Department**

# Minutes of online meeting of Computer Engineering Department

Computer Engineering Department meeting was held on Friday, 22<sup>nd</sup> January 2021 at 2:00 pm through Teams Meeting app, when following members were present:-

| _  |                          |   |
|----|--------------------------|---|
| 1  | Dr. Tanuja Sarode        | Professor & Head of Computer Engineering Department |
| 2  | Dr. Archana Patankar     | Professor   |
| 3  | Dr. Shilpa Verma         | Associate Professor                                 |
| 4  | Dr. Anil Chhangani       | Associate Professor                                 |
| 5  | Dr. Seema Kolkur         | Assistant Professor                                 |
| 6  | Ms. Tasneem Mirza        | Assistant Professor                                 |
| 7  | Ms. Sakshi Surve         | Assistant Professor                                 |
| 8  | Dr. Ujawala Bharambe     | Assistant Professor                                 |
| 9  | Ms. Anagha Durugkar      | Assistant Professor                                 |
| 10 | Ms. Sonal Shroff         | Assistant Professor                                 |
| 11 | Ms. Vaishali Suryawanshi | Assistant Professor                                 |
| 12 | Ms. Manisha Dumbre       | Assistant Professor                                 |
| 13 | Ms. Rupali Sarode        | Assistant Professor                                 |
| 14 | Ms. Vijaya P.            | Assistant Professor                                 |
| 15 | Dr. Arti Deshpande       | Assistant Professor                                 |
| 16 | Ms. Urvi Kore            | Assistant Professor                                 |
| 17 | Mr. Aejazul Khan         | Assistant Professor                                 |
| 18 | Mr. Vaibhav Ambhire      | Assistant Professor                                 |
| 19 | Ms. Nabanita Mandal      | Assistant Professor                                 |
| 20 | Ms. Darakhshan Khan      | Assistant Professor                                 |
| 21 | Ms. Juhi Ganwani         | Assistant Professor                                 |
|    | Ms. Shilpa Ingoley       | Assistant Professor                                 |

- 1. Time Table was distributed to all faculty through email by HOD and all faculty gave confirmation of the receipt of the same.
- 2. Ms. Manisha Dumbre, Ms. Rupali Sarode and Ms. Vaishali Suryawanshi are appointed as class teachers for second year Computer Engineering.
- 3. Ms. Nabanita Mandal and Mr. Vaibhav Ambhire are appointed as class teachers for final year Computer Engineering.
- 4. Ms. Urvi Kore and Ms. Shilpa Verma are appointed as class teachers for third year Computer Engineering.



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# Attendance Record of Online Computer Engineering Department Meeting held on 22<sup>nd</sup> January 2021 at 2:00 pm

| Total Number of<br>Participants        |                         | 22-                     |                                  |            |
|--|-------------------------|-------------------------|----------------------------------|------------|
| Meeting Title                          | General                 | 22                      |                                  |            |
| Meeting Start                          | 22/01/2021,             |                         |                                  |            |
| Time                                   | 13:53:49                |                         |                                  |            |
| rinic                                  | 22/01/2021,             |                         |                                  |            |
| Meeting End Time                       |                         |                         |                                  |            |
| meeting Line Hine                      | 15.15.54                |                         |                                  |            |
| Full Name                              |                         |                         |                                  |            |
| Full Name                              | Join Time               | Leave Time              | Email                            | Role       |
| Anarha Dumurkan                        | 22/01/2021,             | 22/01/2021,             | 4 13 Monorect contrast on some V |            |
| Anagha Durugkar                        | 13:53:49                | 15:13:56                | Anagha13033@tsecedu.org          | Presenter  |
| Urvi Kori                              | 22/01/2021,             | 22/01/2021,             |                                  |            |
|  | 13:55:59                | 14:58:59                | Urvi13041@tsecedu.org            | Presenter  |
| Rupali Patil                           | 22/01/2021,<br>13:56:18 | 22/01/2021,             |                                  |            |
| Napan rath                             | 22/01/2021,             | 15:13:59                | Rupali13038@tsecedu.org          | Presenter  |
| Arti Deshpande                         | 13:56:53                | 22/01/2021,<br>15:10:07 |                                  |            |
| i a di Bestipariae                     | 22/01/2021,             |                         | Arti13040@tsecedu.org            | Presenter  |
| Sakshi Surve                           | 13:57:02                | 22/01/2021,<br>15:13:58 | C-1-1:12021 O                    |            |
| Sunorn Surve                           | 22/01/2021,             | 22/01/2021,             | Sakshi13031@tsecedu.org          | Presenter  |
| Darakshan Khan                         | 13:57:19                | 15:13:48                | Development                      | =          |
|  | 22/01/2021,             | 22/01/2021,             | Darakshan13044@tsecedu.org       | Presenter  |
| Nabanita Mandal                        | 13:58:19                | 14:32:34                | Nabanita 12042 @tasa             |            |
|  | 22/01/2021,             | 22/01/2021,             | Nabanita13043@tsecedu.org        | Presenter  |
| Vaibhav Ambhire                        | 13:59:05                | 15:14:22                | Vaibhav13046@tsecedu.org         | D          |
|  | 22/01/2021,             | 22/01/2021,             | vabilav15046@tsecedu.org         | Presenter  |
| Tanuja Sarode                          | 13:59:29                | 15:19:54                | Tanuja13024@tsecedu.org          | Onenia     |
| CLASSIC FILME CLASSIC CONTRACTOR STATE | 22/01/2021,             | 22/01/2021,             | Tanaja13024@tsetedu.org          | Organiser  |
| Archana Patankar                       | 14:00:20                | 15:19:49                | Archana13025@tsecedu.org         | Presenter  |
|  | 22/01/2021,             | 22/01/2021,             | A changes of the second of g     | Presenter  |
| Shilpa Ingoley                         | 14:00:43                | 15:14:51                | Shilpa13047@tsecedu.org          | Presenter  |
| Vaishali                               | 22/01/2021,             | 22/01/2021,             | simplified in the include of g   | Fresenter  |
| Suryawanshi                            | 14:01:07                | 14:53:47                | Vaishali13035@tsecedu.org        | Presenter  |
|  | 22/01/2021,             | 22/01/2021,             |                                  | Tresenter  |
| Seema Kolkur                           | 14:01:41                | 15:13:47                | Seema13029@tsecedu.org           | Presenter  |
|  | 22/01/2021,             | 22/01/2021,             |                                  | riesenter  |
| Sonal Shroff                           | 14:01:58                | 15:13:50                | Sonal13034@tsecedu.org           | Presenter  |
|  | 22/01/2021,             | 22/01/2021,             |                                  | resenter   |
| Tasneem Mirza                          | 14:02:02                | 15:14:37                | Tasneem13030@tsecedu.org         | Presenter  |
| 2                                      | 22/01/2021,             | 22/01/2021,             |                                  | resenter   |
| Anil Chhangani                         | 14:02:19                | 15:19:44                | Anil13028@tsecedu.org            | Presenter  |
| 2 <b>441 41</b> 75 10                  | 22/01/2021,             | 22/01/2021,             | 5                                |            |
| Shilpa Verma                           | 14:02:47                | 15:15:30                | Shilpa13027@tsecedu.org          | Presenter  |
|  | 22/01/2021,             | 22/01/2021,             |                                  |            |
| Ujwala Bharambe                        | 14:04:05                | 15:12:01                | Ujwala13032@tsecedu.org          | Presenter  |
|  | 22/01/2021,             | 22/01/2021,             |                                  |            |
| Juhi Ganwani                           | 14:04:08                | 15:13:58                | Juhi13045@tsecedu.org            | Presenter  |
|  |                         |                         | A na                             | UII CIUSIA |



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PRINCIPAL

Thedemal Chakeni Engineering College

### **Thadomal Shahani Engineering College**

### **Computer Engineering Department**

# Minutes of online meeting of Computer Engineering Department

Computer Engineering Department meeting was held on Monday, 22<sup>nd</sup> March 2021 at 5pm on Microsoft teams, when following members were present:-

| 1  | Dr. Tanuja Sarode        | Professor & Head of Computer Engineering Department |
|----|--------------------------|---|
| 2  | Dr. Archana Patankar     | Professor   |
| 3  | Dr. Jayant Gadge         | Associate Professor                                 |
| 4  | Dr. Shilpa Verma         | Associate Professor                                 |
| 5  | Dr. Seema Kolkur         | Assistant Professor                                 |
| 6  | Ms. Tasneem Mirza        | Assistant Professor                                 |
| 7  | Ms. Sakshi Surve         | Assistant Professor                                 |
| 8  | Dr. Ujawala Bharambe     | Assistant Professor                                 |
| 9  | Ms. Anagha Durugkar      | Assistant Professor                                 |
| 10 |                          | Assistant Professor                                 |
| 11 | Ms. Vaishali Suryawanshi | Assistant Professor                                 |
| 12 | Ms. Manisha Dumbre       | Assistant Professor                                 |
| 13 | Ms. Rupali Patil.        | Assistant Professor                                 |
| 14 | Ms. Vijaya P.            | Assistant Professor                                 |
| 15 | Dr. Arti Deshpande       | Assistant Professor                                 |
| 16 | Ms. Urvi Kore            | Assistant Professor                                 |
| 17 | Mr. Vaibhav Ambhire      | Assistant Professor                                 |
| 18 | Ms. Nabanita Mandal      | Assistant Professor                                 |
| 19 | Ms. Darakhshan Khan      | Assistant Professor                                 |
| 20 | Ms. Juhi Ganwani         | Assistant Professor                                 |
| 21 | Ms. Shilpa Ingoley       | Assistant Professor                                 |
| 22 | Ms. Poonam Jadhav        | Assistant Professor                                 |
|    | Ms. Parul Jain           | Assistant Professor                                 |
|    |                          | *   |

- 1. TSEC CodeCell is organizing TSEC Hacks, an 40 hour online hackathon under guidance of prof. Tasneem Mirza from 26th of March to the 28th of March, 2021.
- 2. Participants will be from different colleges, different streams and different undergraduate levels.
- 3. Schedule of TSEC Hacks will be:

| 26 <sup>th</sup> March (Day 1) | i o o o o o o o o o o o o o o o o o o o        |
|--------------------------------|--|
| 27th March (Day 2)             | Mentoring sessions will be from 10am to 8 20am |
|                                | At the end winners will be announced.          |



PRINCIPAL PRINCIPAL Shahani Engineering College 11. Mentors of Hackathon will be:

| Web Development   | AI/ML          | Social Cause/Blockchain |  |
|-------------------|----------------|-------------------------|--|
| Saurabh Daware    | Rishit Dagli   | Vaibhav Chellani        |  |
| Vilva Athiban     | Aanchal Mishra |                         |  |
| Tanisha Sabherwal | +              | 2                       |  |
|                   |                | ÷                       |  |

12. Sponsors of Hackathon are:

- 1. CertifyMe Education Partner
- 2. SITH Education Partner
- 3. Pair a Dice Cafe Gaming Partner
- 4. Wolfram Language Technology Partner
- 5. Repl.it Technology Partner
- 6. Taskade Collaboration Partner
- 7. Give My Certificate Certificate Partner
- 8. SashiDo Technology Partner
- 9. Coding Blocks Community Partner

Sd/

Dr. Tanuja K. Sarode

Professor & Head, Computer Engineering Department

PRINCIPAL Thadomal Shahani Engineering College Nari Gurshahani Marg, T. P. S. III, Bandra (W), Mumbal - 400 050.



| Rupali Patil              | 22/03/2021,             | 22/03/2021,             |         |                          |           |
|---------------------------|-------------------------|-------------------------|---------|--------------------------|-----------|
| Rupan Pati                | 17:03:15<br>22/03/2021, | 17:26:33<br>22/03/2021, | 23m 18s | Rupali13038@tsecedu.org  | Presenter |
| Poonam Jadhav             | 17:03:33<br>22/03/2021, | 17:26:43                | 23m 10s | Poonam324@tsecedu.org    | Presenter |
| Vaibhav Ambhire           | 17:03:47                | 22/03/2021,<br>17:26:52 | 23m 4s  | Vaibhav13046@tsecedu.org |           |
| Shilpa Ingoley            | 22/03/2021,<br>17:04:03 | 22/03/2021,<br>17:26:36 |         | _                        | Presenter |
|                           | 22/03/2021,             | 22/03/2021,             | 22m 32s | Shilpa13047@tsecedu.org  | Presenter |
| Jayant Gadge              | 17:07:23<br>22/03/2021, | 17:25:54<br>22/03/2021, | 18m 31s | Jayant13026@tsecedu.org  | Presenter |
| Anagha Durugkar<br>Vijaya | 17:09:32<br>22/03/2021, | 17:26:06<br>22/03/2021, | 16m 33s | Anagha13033@tsecedu.org  | Presenter |
| Padamadas                 | 17:11:08                | 17:26:11                | 15m 2s  | Vijaya13039@tsecedu.org  | Presenter |



#### Date: 09/07/2020

Time: 11.30 a.m.

Microsoft Teams

A faculty meeting was called and the following points were discussed:

VNE

- 1. To make lesson plans for the allotted subjects.
- 2. To make attendance sheets for the current semesters and make batches for practical.

(Dr.R.K.Pathak)

HOD

- 1. Dr.Nitin Periera
- 2. Praseeda Nambisan
- 3. Sruthi Menon SP.
- 4. Reshma VK Resh



Date: 26/10/2020

Time: 11.30 a.m.

Microsoft Teams

A faculty meeting was called and the following points were discussed:

- 1. The load distribution for the upcoming semesters were discussed and finalized.
- 2. The time table slots were finalized.

(Dr.R.K.Pathak)

HOD

- 1. Dr.Nitin Periera
- 2. Praseeda Nambisan
- 3. Sruthi Menon SP.
- 4. Reshma VK Res



Date: 06/01/2021

Time: 11.30 a.m.

Microsoft Teams

A faculty meeting was called and the following points were discussed:

- 1. The load distribution for the upcoming semesters were discussed and finalized.
- 2. The time table slots were finalized.

(Dr.R.K.Pathak) HOD

- 1. Dr.Nitin Periera
- 2. Praseeda Nambisan  $\gamma c$
- 3. Sruthi Menon SL.
- 4. Reshma VK Restra.



Date: 23/04/2021

Time: 11.30 a.m.

Microsoft Teams

A faculty meeting was called and the following points were discussed:

- 1. To make lesson plans for the allotted subjects.
- 2. To make attendance sheets for the current semesters and make batches for practical.

(Dr.R.K.Pathak) HOD

- 1. Dr.Nitin Periera
- 2. Praseeda Nambisan
- 3. Sruthi Menon SP
- Reshma VK



06/1/2020

#### NOTICE

### DEPARTMENT MEETING

A departmental meeting is organized on 7th January, 2020 (11.30 am) for the following agend

All are requested to attend.

1. Time-table finalization

Updating Experimental Files in each Lab

Planning of Xeuron -departmental event

. Appointment of Coordinators for various activities

. Defaulters list

5. Orientation workshops of new subjects

7. Seminar talks/visits by experts from Industry/hospital

Maloremick Df. Mita Bhowmick)

- 1. Bharati Ingale Borngolu
- 2. Dhananjay Theckedath
- 3. Dr. Gauri Shukla
- 4. Rithesh Kini
- 5. Anuradha Mistry
- 6. Tanvir Daphedar

PRINCIPAL Thadomal Shah 287 Engineering College Nari Gurshahani Marg, T. P. S. III,



|            | Minutes of Meeting   |                         |   |                          |                            |  |  |  |
|------------|--|-------------------------|---|--------------------------|----------------------------|--|--|--|
|            | Chemical Department faculty teaching load distribution                                     |                         |   |                          |                            |  |  |  |
|            | IV Online Meeting for AY July 2020- June 2021  |                         |   |                          |                            |  |  |  |
| _          |  | <u> Time: 11:0</u>      | 0 A.M to 12.00 P.M                          |                          | <u>Date:</u><br>15.06.2020 |  |  |  |
|            | Attendees:   |                         |   |                          | 1010012020                 |  |  |  |
|            | Dr. Anita Kumari   | Dr.Sadhana<br>Purohit   | Dr. R. K. Pathak                            | Dr. Elizabeth<br>Joseph  |                            |  |  |  |
|            | Prof. Usha<br>Nambiar  | Prof. Nita<br>Mehta     | Prof. Prasad<br>Parulekar                   | Prof. Ravindra<br>Joshi  |                            |  |  |  |
|            | Prof. Sangita<br>Gaikwad   | Dr. Trupti<br>Dharmarao | Prof. Mannat<br>Khanwani                    |                          |                            |  |  |  |
|            |  |                         |   |                          |                            |  |  |  |
| Sr.<br>No. |  |                         | nical Department fac<br>MS Teams) for AY Ju |                          | istribution                |  |  |  |
|            | Load Distribution:   |                         |   |                          |                            |  |  |  |
|            | The department co-   | ordinator, Dr. Eliz     | zabeth Joseph presen                        | ted the load distributio | n sheet.                   |  |  |  |
| 1          | Since the Chemical same was distribute   |                         | ory) and CELS lab are<br>ulty members.      | e introduced in third s  | emester load of            |  |  |  |
| 2          | 2 The load distribution will be reviewed and finalised after discussion with Principal Sir |                         |   |                          |                            |  |  |  |

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| (          | Chamical and Char   |   | of Meeting  | for conducting c   | nlino loho                                      |
|------------|---|---|---|--|---|
| <u> </u>   | Chemical and Cher   |   | or AY July 2020-  |  |   |
| -          |   |   |   |  | <u>Date:</u><br><u>19.11.2020</u>               |
|            | Attendees:  |   |   | T  |   |
|            | Dr. Anita Kumari  | Dr.Sadhana<br>Purohit   | Dr. R. K. Pathak  | Dr. Elizabeth  |   |
|            | Prof. Usha  | Puronit<br>Prof. Nita Mehta   | Dr. Ramesh  | Joseph<br>Dr. Anupama  |   |
|            | Nambiar   |   | Bhande  | Sawant   |   |
|            | Prof.Anjali Kirkire   | Prof. Vandana<br>Kadam  | Prof. Prasad<br>Parulekar   | Prof. Sangita<br>Gaikwad   |   |
|            | Dr. Trupti<br>Dharmarao   | Prof. Mannat<br>Khanwani  |   |  |   |
| Sr.<br>No. |   |   |   | epartment faculty i<br>Y July 2020- June2  |   |
| 1          | Online labs:<br>Department Co-ordinator Dr. Elizabeth Joseph informed to all the faculty members about online<br>labs to be finished by next 10 days.<br>For next week only online labs will be engaged                             |   |   |  |   |
|            |   |   |   |  |   |
|            | Online Lab timetab  | le  |   |  |   |
| 2          | Online Lab timetab<br>Slots for all the yea<br>and are fixed accord   | rs for the subjects I   |   |  | oncerned faculty                                |
| 2          | Slots for all the yea<br>and are fixed accord<br>Modes for Online la  | rs for the subjects l<br>ingly. Timetable for<br>ab   | the same will be floa   | ated.  | oncerned faculty                                |
| 2          | Slots for all the yea<br>and are fixed accord<br><b>Modes for Online la</b><br>Faculty members we   | rs for the subjects l<br>ingly. Timetable for<br><b>ab</b><br>ere advised for vario   | the same will be floa<br>us modes to conduc   | ated.<br>ot the online labs  | oncerned faculty                                |
|            | Slots for all the yea<br>and are fixed accord<br><b>Modes for Online la</b><br>Faculty members we<br>Faculty members we   | rs for the subjects l<br>ingly. Timetable for<br><b>ab</b><br>ere advised for vario   | the same will be floa<br>us modes to conduc   | ated.<br>ot the online labs  | oncerned faculty                                |
|            | Slots for all the yea<br>and are fixed accord<br>Modes for Online la<br>Faculty members we<br>Faculty members we<br>Lab Journals  | rs for the subjects lingly. Timetable for<br>ab<br>ere advised for vario<br>ere encouraged to p   | the same will be floa<br>us modes to conduc<br>resent new ideas for   | ated.<br>of the online labs<br><sup>-</sup> the same   |   |
|            | Slots for all the yea<br>and are fixed accord<br>Modes for Online la<br>Faculty members we<br>Faculty members we<br>Lab Journals<br>Faculty members are   | rs for the subjects l<br>ingly. Timetable for<br><b>ab</b><br>ere advised for vario<br>ere encouraged to p<br>e asked to finish up  | the same will be floa<br>us modes to conduc<br>resent new ideas for<br>the online labs and  | ated.<br>of the online labs<br>of the same<br>collect lab journals in  | n next 10 days                                  |
|            | Slots for all the yea<br>and are fixed accord<br>Modes for Online la<br>Faculty members we<br>Faculty members we<br>Lab Journals<br>Faculty members are<br>It was advised by the  | rs for the subjects lingly. Timetable for<br><b>ab</b><br>ere advised for vario<br>ere encouraged to pr<br>e asked to finish up<br>e co-ordinator that s                                | the same will be floa<br>us modes to conduc<br>resent new ideas for<br>the online labs and<br>tudents should not b                        | ated.<br>t the online labs<br>the same<br>collect lab journals in<br>be overburdened with                        | n next 10 days<br>h the lab work                |
| 3          | Slots for all the yea<br>and are fixed accord<br>Modes for Online la<br>Faculty members we<br>Faculty members we<br>Lab Journals<br>Faculty members are<br>It was advised by the<br>therefore faculty sho                           | rs for the subjects lingly. Timetable for<br>ab<br>ere advised for vario<br>ere encouraged to p<br>e asked to finish up<br>e co-ordinator that s<br>uld facilitate the pro              | the same will be floa<br>us modes to conduc<br>resent new ideas for<br>the online labs and<br>tudents should not b                        | ated.<br>t the online labs<br>the same<br>collect lab journals in<br>be overburdened with                        | n next 10 days<br>h the lab work                |
| 3          | Slots for all the yea<br>and are fixed accord<br>Modes for Online la<br>Faculty members we<br>Faculty members we<br>Lab Journals<br>Faculty members are<br>It was advised by the<br>therefore faculty sho<br>collected as the softe | rs for the subjects lingly. Timetable for<br>ab<br>ere advised for vario<br>ere encouraged to p<br>e asked to finish up<br>e co-ordinator that s<br>uld facilitate the pro              | the same will be floa<br>us modes to conduc<br>resent new ideas for<br>the online labs and<br>tudents should not b                        | ated.<br>t the online labs<br>the same<br>collect lab journals in<br>be overburdened with                        | n next 10 days<br>h the lab work                |
| 3          | Slots for all the yea<br>and are fixed accord<br>Modes for Online la<br>Faculty members we<br>Faculty members we<br>Lab Journals<br>Faculty members are<br>It was advised by the<br>therefore faculty sho                           | rs for the subjects lingly. Timetable for<br>ab<br>ere advised for vario<br>ere encouraged to pro-<br>e asked to finish up<br>e co-ordinator that so<br>uld facilitate the pro-<br>copy | the same will be floa<br>us modes to conduc<br>resent new ideas for<br>the online labs and<br>tudents should not b<br>per mode of journal | ated.<br>t the online labs<br>the same<br>collect lab journals in<br>be overburdened with<br>submission. Journal | n next 10 days<br>h the lab work<br>ls shall be |

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## 06/1/2020

#### NOTICE

### DEPARTMENT MEETING

A departmental meeting is organized on 7th January, 2020 (11.30 am) for the following agend All are requested to attend.

1. Time-table finalization

Updating Experimental Files in each Lab

. Planning of Xeuron -departmental event

. Appointment of Coordinators for various activities

S. Defaulters list

5. Orientation workshops of new subjects

7. Seminar talks/visits by experts from Industry/hospital

Maloromick Dr. Mita Bhowmick)

- 1. Bharati Ingale
- 2. Dhananjay Theckedath
- Bomgale skedath
- 3. Dr. Gauri Shukla
- 4. Rithesh Kini
- 5. Anuradha Mistry
- 6. Tanvir Daphedar





## 2019-2020

## Department

## **Minutes of Meeting**

11



# MINUTES OF MEETING DEPARTMENT MEETING

**Date:** 10<sup>th</sup> July 2019 **Time:** 12:15 pm **Venue:** Room 1006

### Agenda of the Meeting:

- Individual Faculty Timetable distribution
- About Minor Research Grant proposal
- Internship Activity / Online courses / Hackathons

### 1. Convener: Dr. Madhuri Rao

### In Attendance:

| Prof. Arun Kulkarni   | Prof. Archana Kale   | Prof. Sampada Pinge    |
|-----------------------|----------------------|------------------------|
| Prof. Shanthi Therese | Prof. Gopal Pardesi  | Prof.Mukesh Israni     |
| Prof. Kumkum Saxena   | Prof.Nagaveni Hebbar | Prof.Chetan Agarwal    |
| Prof.Sanjay K Pandey  | Prof.Sunita Rathod   | Prof.Nikhlesh Joshi    |
| Prof.Bhushan Jadhav   | Prof.Sanober Shaikh  | Prof. Himani Deshpande |
| Prof.Vijal Jain       | Dr. Darshan Ingle    |                        |

### Absentee:

| Prof. Anjali Malviya | Prof. Geeta Karande | Prof. Reshma Malik |
|----------------------|---------------------|--------------------|
| Prof. Shachi Natu    | Prof.Monica Tolani  |                    |

2. General Purpose department meeting regarding the term July- Nov 2019.

3. Individual Faculty Timetable Distribution for current semester.

4. NBA Visit for chemical Engineering Department is scheduled on 25<sup>th</sup> & 26<sup>th</sup> August 2019, 25<sup>th</sup> August shall be working day.

5. To spread awareness about Campus Placement From Second Year onwards.

6. All teachers were instructed to strengthen Internship Activity

7. To provide one point solution to parents by creating academic ambience/ competency building exercise.

8. College shall provide the assistance to organize activities which add value to building competency to student.

9. To encourage students for Hackathons.



10. Encorage students for joining MOOC's / NPTEL / Coursera and other online course.

11. Minimum Five Minor Grant Research Proposal is expected from the department till 29<sup>th</sup> July 2019.

12. Students should be aware of all competency required for job market and importance of communication skills.

13. Mentors/ Teachers were advise to find out if any student lacks in soft skill / communication skills and advised to arrange some courses for these students.

14. To Arrange Guest lectures / Hands on experience(Workshops) for students.

Dr. Madhuri Rao HOD

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### **Minutes of meeting**

Date: 21/10/2019

Time: 11.30 a.m.

Room No: 202

A faculty meeting was called and the following points were discussed:

- 1. The load distribution for the upcoming semesters were discussed and finalized.
- 2. The time table slots were finalized.
- 3. Lab in charges were decided for the labs.
- 4. Lab requirements were discussed and a list of instruments to be serviced was made.

(Dr.R.K.Pathak) HOD

- 1. Dr.Nitin Periera
- 2. Praseeda Nambisane an Yri Sl. Restres.
- 3. Sruthi Menon S
- 4. Reshma VK



Date: 09/07/2019

Time: 11.30 a.m.

Room No: 202

A faculty meeting was called and the following points were discussed:

- 1. To make lesson plans for the allotted subjects.
- 2. To design protocols for the practicals and to check the availability of requirements for the same.
- 3. To make attendance sheets for the current semesters and make batches for practical.
  - 4. To check the working status of computers and projectors in the allotted classrooms for the department.

(Dr.R.K.Pathak) HOD

- 1. Dr.Nitin Periera
- Fre 2. Praseeda Nambisan-
- 3. Sruthi Menon SP
- 4. Reshma VK



### **Minutes of meeting**

Date: 07/01/2020

Time: 11.30 a.m.

Room No: 202

A faculty meeting was called and the following points were discussed:

- 1. To make lesson plans for the allotted subjects.
- 2. To design protocols for the practicals and to check the availability of requirements for the same.
- 3. To make attendance sheets for the current semesters and make batches for practical.
- 4. To check the working status of computers and projectors in the allotted classrooms for the department.

(Dr.R.K.Pathak) HOD

- 1. Dr.Nitin Periera
- 2. Praseeda Nambisar
- 3. Sruthi Menon SI
- 4. Reshma VK Resh



06.07.2019

### Subject: First Meeting of the Teaching Staff

### Dear All,

First meeting of teaching staff of Chem. Engg. Dept. for the academic year July-2019 to June-2020 is scheduled on 13<sup>th</sup> July, Sat at 12.15 pm in Room. No. 102.

The agenda for the meeting are as follows:

- 1. Review on NBA work
- 2. Events to be organized in coming semester
- 3. TSEC website updates
- 4. Any other matters

Kindly make it convenient to attend and please do come on time. With regards.

Dr. Anita Kumari HOD, Chem. Engg. Dept. TSEC, Bandra(W), Mumbai

T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.

### Date: 13.07.2019, Time: 12.15 pm - 2.15 pm

### MINUTES OF SECOND TEACHING STAFF MEETING

- 1. NBA work related relevant data were discussed and (hard copies with proof) were prepared as per NBA format.
- 2. Teacher coordinator discussed in detail for various Events to be organized in regular IIChE TSEC student chapter annual program which is held every year in October since 2006. Suggestions and feedbacks were taken from Professors to improve quality of event.
- 3. Collected data for updating TSEC website was reviewed.
- 4. All the issues related to students & staff were discussed & sorted out by conducting meeting with coordinator of sub-committee, staff & students, separately.

Remark: List of attendee detail (name, sign, date) is maintained in register for same.

Dr. Anita Kumari HOD, Chem. Engg. Dept. TSEC, Bandra(W), Mumbai

Dr. G. T. Thampi domal Shahani Engineering College Bandra (W), Mumbai-400 050.

## Minutes of the Meeting

### Date: 29/7/2019

1. BE project synopsis presentation on 5<sup>th</sup> August 2019 from 12.15 onwards

2.

|    | Class Teacher   | Mentor               |
|----|-----------------|----------------------|
| SE | Gauri Shukla    | Rithesh Kini         |
| TE | Anuradha Mistry | Dhananjay Theckedath |
| BE | Bharati Ingale  | Tanvir Daphedar      |

- 3. Periodic Test 1 on 26th , 28th and 29th August Periodic Test time I table coordinator : Gauri Shukla, Anuradha Mistry, Bharati Ingale
- 4. Defaulters List on 19th count till 16th 2019
- 5. Internship & Placement files will be compiled by the Internship and Placement coordinators Dhananjay and Rithesh
- 6. Result Analysis: Tanvir Daphedar
- 7. Web cam, Mic & Speaker System needs to be purchased.
- 8. White board for #606 needed.
- 9. API forms will be resubmitted with required documents.
- 10 CAP coordinaters 3

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## 2018-2019

## Department

## **Minutes of Meeting**





## MINUTES OF MEETING DEPARTMENT OF INFORMATION TECHNOLOGY

**Date:** 03<sup>rd</sup> May 2019 **Time:** 01:00 pm **Venue:** Room 1006

### Agenda of the Meeting:

- Subject Distribution for next Semester (A.Y 2019-20-Odd Semester)
- Academic/NBA File Discussion
- FDP/STTP discussion for upcoming Academic Year: 2019-20
- Departmental Result Discussion.

### 1. Convener: Dr. Madhuri Rao

### In Attendance:

| Prof. Archana Kale   | Prof. Arun Kulkarni  | Prof. Sampada Pinge |
|----------------------|----------------------|---------------------|
| Prof. Kumkum Saxena  | Prof.Mukesh Israni   | Prof.Geeta Karande  |
| Prof.Nagaveni Hebbar | Prof.Sanjay K Pandey | Prof.Sunita Rathod  |
| Prof.Nikhlesh Joshi  | Prof.Bhushan Jadhav  | Dr.Shachi Natu      |
| Prof.Sanober Shaikh  | Prof.Monica Tolani   | Prof.Vijal Jain     |
| Dr.Darshan Ingle     |                      |                     |

### Absentee:

| Prof. Anjali Malviya | Prof.Shanthi Therese | Prof. Gopal Pardesi   |
|----------------------|----------------------|-----------------------|
| Prof. Chetan Agarwal | Prof. Reshma Malik   | Prof.Himani Deshpande |

2. General Purpose department meeting regarding the term Jan-May 2019.

3. Individual Faculty Subject Distribution for upcoming semester.

4. **Updating NBA Activity Files**: Calculations have to be done by all faculties till last semester Jan-May 2019.

5. CO-PO & LO attainment to be done by all faculties till semester Jan-May 2019.

6. Discussed ways and means of reenergizing/ reorienting Academic activities and building efficiencies in student engagement.

7. Academic File and self-appraisal form shall be submitted by all faculties before proceeding for vacation.

8. Analysis of last semester result (Dec'18 Result) & current semester (except theory result) shall be submitted with the Academic File.

Thampi PRINCIPAL domal Shahani Engineering College Bandra (W), Mumbai-400 050.



| Sr. No | Faculty Name          | Subject Allocated                           |  |
|--------|-----------------------|---|--|
| 1      | Dr.G.T.Thampi         | Data Structures & Analysis                  |  |
| 2      | Dr.Madhuri Rao        | Management Information System               |  |
| 3      | Prof. Archana Kale    | Artificial Intelligence                     |  |
| 4      | Prof. Anjali Malviya  | E-Commerce & E-Business, Cyber Security and |  |
|        |                       | Laws  |  |
| 5      | Prof. Arun Kulkarni   | Soft Computing                              |  |
| 6      | Prof. Sampada Pinge   | Microcontroller and Embedded Programming    |  |
| 7      | Prof.Shanthi Therese  | Advanced Data Management Technology         |  |
| 8      | Prof. Gopal Pardesi   | Microcontroller and Embedded Programming,   |  |
|        |                       | Infrastructure Security                     |  |
| 9      | Prof. Kumkum Saxena   | Advanced Data Structures & Analysis of      |  |
|        |                       | Algorithms                                  |  |
| 10     | Prof.Mukesh Israni    | Logic Design                                |  |
| 11     | Prof.Geeta Karande    | Principle of Communications                 |  |
| 12     | Prof.Nagaveni Hebbar  | Infrastructure Security                     |  |
| 13     | Prof. Chetan Agarwal  | Mobile Application Development              |  |
| 14     | Prof.Sanjay K Pandey  | Enterprise Network Design                   |  |
| 15     | Prof.Sunita Rathod    | Internet Programming                        |  |
| 16     | Prof.Nikhlesh Joshi   | Java Programming Lab                        |  |
| 17     | Prof.Bhushan Jadhav   | Enterprise Network Design                   |  |
| 18     | Dr.Shachi Natu        | Cryptography & Network Security             |  |
| 19     | Prof.Sanober Shaikh   | Internet Programming, Advanced Data         |  |
|        |                       | Management Technology                       |  |
| 20     | Prof.Himani Deshpande | Logic Design                                |  |
| 21     | Prof.Monica Tolani    | Database Management System                  |  |
| 22     | Prof.Vijal Jain       | Cryptography & Network Security, Artificial |  |
|        |                       | Intelligence                                |  |
| 23     | Dr.Darshan Ingle      | Data Structures & Analysis                  |  |

9. The subject allocation is as follows:

Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (10)2Mumbai - 400 050.

Dr.Madhuri Rao HOD



### MINUTES OF MEETING

**Date:** January 10, 2019 **Time:** 02:30 pm **Location:** Room 1005

### 1.Convener: Dr. Madhuri Rao

### In Attendance:

| Mr. Arun Kulkarni  | Ms. Archana Kale   | Ms. Anjali Malviya      |
|--------------------|--------------------|-------------------------|
| Ms. Sampada Pinge  | Ms. Shanti Therese | Ms. Kumkum Saxena       |
| Mr. Gopal Pardesi  | Ms. Geeta Karande  | Mr. Sanjay Kumar Pandey |
| Mr. Chetan Agarwal | Ms. Sunita Rathod  | Ms. Shachi Natu         |
| Mr. Bhushan Jadhav | Ms. Sanober Shaikh | Ms. Himani Deshpande    |
| Ms. Monica Tolani  | Ms. Vijal Jain     | Mr Darshan Ingle        |

### Absentee:

| Mr. Mukesh Israni | Ms. Nagaveni Hebbar | Mr. Nikhilesh Joshi |
|-------------------|---------------------|---------------------|
| Ms. Reshma Malik  |                     |                     |

2. General Purpose department meeting regarding the term Jan-May 2019.

3. Individual Faculty Time Table Distribution.

4. Periodic Test dates were declared. PT1 dates- 11, 13, 15 February & PT 2 dates-1,3,5 April 2019.

5. Academic Calendar for all three Years (SE, TE, BE) shall be informed later.

6. Prof. Nikhilesh Joshi appointed as Periodic Test Coordinator.

7. NBA Compliance Report: Distribution of all points under Compliance Report to all faculties.

8. Discussed ways and means of reenergizing/ reorienting Academic activities and building efficiencies in student engagement- 1<sup>st</sup> Parents Teachers Meeting of Critical Defaulters on 25<sup>th</sup> Jan 2019.

Dr Madhuri Rao

(HOD IT)



### **MINUTES OF MEETING**

**Date:** July 9, 2018 **Time:** 12:00 pm **Location:** Room 906

### 1.Convener: Dr. Madhuri Rao

#### In Attendance:

Mr. Arun Kulkarni Ms. Archana Kale Ms. Anjali Malviya Ms. Kumkum Saxena Ms. Sampada Pinge Ms. Shanti Therese Mr. Mukesh Israni Mr. Gopal Pardesi Ms. Nagaveni Hebbar Mr. Chetan Agarwal Ms. Reshma Malik Ms. Sunita Rathod Ms. Shachi Natu Mr. Bhushan Jadhav Ms. Sanober Shaikh Ms. Monica Tolani Ms. Himani Deshpande Mr Darshan Ingle Ms. Vijal Jain

### Absentee:

Ms. Geeta Karande

Mr. Sanjay Kumar Pandey

Mr. Nikhilesh Joshi

2. General Purpose department meeting regarding the term July-Nov 2018.

3. Individual Faculty Time Table Distribution.

4. **Updating NBA Activity Files**: Calculations have to be done by all faculties till last semester Jan-May 2018.

5. CO-PO attainment to be done by all faculties till semester Jan-May 2018.

6. Academic Calendar for all three Years (SE, TE, BE) was discussed.

7. Periodic Test dates were declared. PT1 dates- 4, 6, 7 September & PT 2 dates-15, 17, 19 October 2018.

9. Discussed ways and means of reenergizing/ reorienting Academic activities and building

### efficiencies in student engagement.

10. Prof. Darshan Ingle appointed as Periodic Test Co-ordinator.

Dr Madhuri Rao ( HOD IT)

In



### **Minutes of meeting**

Date: 11/07/2018

Time: 11.30 a.m.

Room No: 202

A faculty meeting was called and the following points were discussed:

- 1. To make lesson plans for the allotted subjects.
- 2. To design protocols for the practicals and to check the availability of requirements for the same.
- 3. To make attendance sheets for the current semesters and make batches for practical.
- 4. To check the working status of computers and projectors in the allotted classrooms for the department.

(Dr.R.K.Pathak) HOD

- 1. Dr.Nitin Periera
- 2. Praseeda Nambisan
- 3. Sruthi Menon SL .
- Fro Do Reshma VK 4.
- 5. Pallavi Bhalerao

Thadomal Shahani Eng Nari Gurshahani Marg, T. P. S. III, leering College Bandra (W), Mumbal - 400 050.



### **Minutes of meeting**

Date: 22/10/2018

Time: 11.30 a.m.

Room No: 202

A faculty meeting was called and the following points were discussed:

- 1. The load distribution for the upcoming semesters were discussed and finalized.
- 2. The time table slots were finalized.
- 3. Lab in charges were decided for the labs.
- 4. Lab requirements were discussed and a list of instruments to be serviced was made.

(Dr.R.K.Pathak) HOD

- 1. Dr.Nitin Periera
- st St Restar .2. Praseeda Nambisan
- 3. Sruthi Menon St
- 4. Reshma VK
- 5. Pallavi Bhalerao



### **Minutes of meeting**

Date: 08/01/2019

Time: 11.30 a.m.

Room No: 202

A faculty meeting was called and the following points were discussed:

- 1. To make lesson plans for the allotted subjects.
- 2. To design protocols for the practicals and to check the availability of requirements for the same.
- 3. To make attendance sheets for the current semesters and make batches for practical.
- 4. To check the working status of computers and projectors in the allotted classrooms for the department.

(Dr.R.K.Pathak) HOD

- 1. Dr.Nitin Periera
- Praseeda Nambisan
- Sruthi Menon SL.
   Reshma VK Reshma .



### **Minutes of meeting**

Date: 22/04/2019

Time: 11.30 a.m.

Room No: 202

A faculty meeting was called and the following points were discussed:

shee.

- 1. The load distribution for the upcoming semesters were discussed and finalized.
- 2. The time table slots were finalized.
- 3. Lab in charges were decided for the labs.
- 4. Lab requirements were discussed and a list of instruments to be serviced was made.

(Dr.R.K.Pathak) HOD

- 1. Dr.Nitin Periera
- 2. Praseeda Nambisan
- 3. Sruthi Menon SL
- 4. Reshma VK



#### **Biomedical Department**

17/7/2018

### NOTICE

## DEPARTMENT MEETING

departmental meeting is organized on 18th July (12.15 pm) for the following agenda.

If are requested to attend.

Time-table and classrooms finalization

Submission of department budget

**BE** Projects

Updating the website

Analysis of Exit Survey report

IE panel

Class teachers and Mentors for this semester.

Other departmental issues

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1. Bharati Ingale BTS

- Dhananjay Theckedath (Father
   Gauri Shukla Greeburg
   Rithesh Kini (Father
   Anuradha Mistry Master

6. Tanvir Daphedar Dychedd



16.01.2019

Subject: Fourth Meeting of the Non-Teaching Staff

Dear All,

The fourth meeting of non-teaching staff of Chem. Engg. Dept. is scheduled on 23<sup>rd</sup> Jan at 10.30 am in HOD office.

The Agenda for the meeting are as follows:

- 1. Faculty Room Duties
- 2. Reg Petty Cash
- 3. Reg Stationery Requirements
- 4. Any Other Matters

Dr. Anita Kumari HOD, Chem. Engg. Dept. TSEC, Bandra(W), Mumbai



### MINUTES OF FOURTH NON-TEACHING STAFF MEETING

Date: 23.01.19

Timing: 10.30 am - 11.30 am

- 1. Faculty Room duties are assigned to all lab attendants as per their consents.
- 2. Since none of the lab assistants took responsibility to keep petty cash it is decided that money has to be paid by concerned staff & should be claimed later on by submitting voucher & bill or submit the voucher in advance.
- 3. Stationery will be bought once in an academic year in the beginning of semester i.e. in July every year.
- 4. In absence of Lab attendant in any lab on any day, either Mr. Chhediram Tiwari or Mr. Santosh Yadav will do duty for same depending on who is free at that time slot.
- 5. In absence of Mr. Santosh Yadav, Mr. Chhediram Tiwari will do duty for dispatch/Xerox.
- 6. Mr. Shobha Singh will work as nonteaching staff representative to sort out any issues related to lab/class room/any other non-teaching staff issues.

### Remark: List of attendee detail (name, sign, date) is maintained in register for same.

Dr. Anita Kumari HOD, Chem. Engg. Dept. TSEC, Bandra(W), Mumbai

Dr. G. T. Thampi PRINCIPAL domal Shahani Engineering College Bandra (W), Mumbai-400 050.

02.07.2018

### Subject: Second Meeting of the Teaching Staff

### Dear All,

Second meeting of teaching staff of Chem. Engg. Dept. for the academic year July-2018 to June-2019 is scheduled on 7<sup>th</sup> July, Sat at 12.15 pm in Room. No. 102.

The Agenda for the meeting are as follows:

- 1. Time table and extra teaching load
- 2. Events to be organized in coming semester
- 3. TSEC website updates
- 4. Review on Project load distribution
- 5. Any other matters

Kindly make it convenient to attend and please do come on time. With regards.

Dr. Anita Kumari HOD, Chem. Engg. Dept. TSEC, Bandra(W), Mumbai



### Date: 07.07.2018, Time: 12.15 pm - 2.15 pm

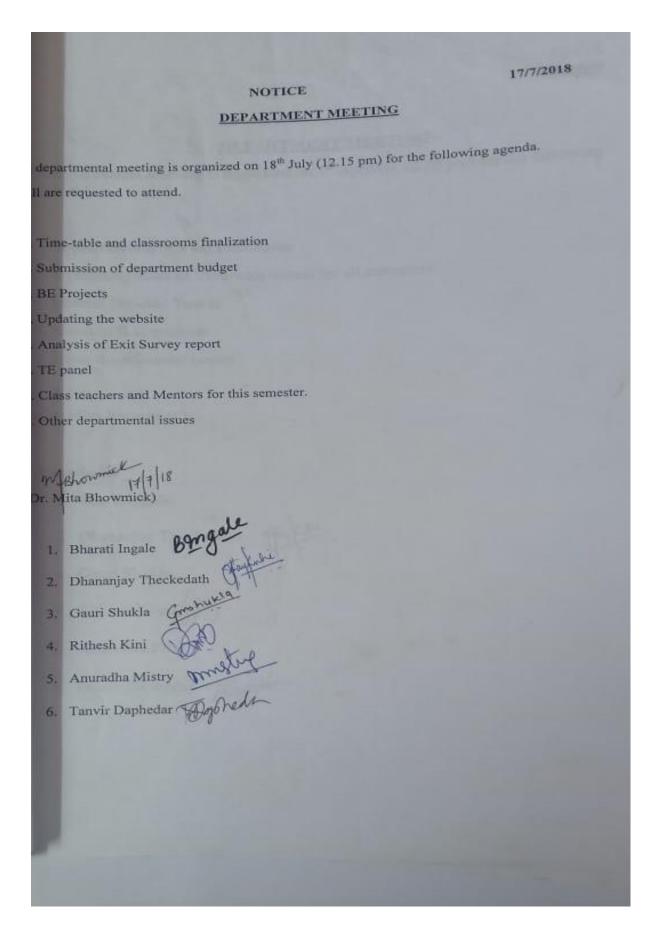
### MINUTES OF SECOND TEACHING STAFF MEETING

- 1. Time table was circulated to all. 2 Professors were on maternity leave so extra teaching loads were assigned to 3 visiting faculty from the list available with HoD as per college rule.
- 2. Teacher coordinator discussed in detail for various Events to be organized in regular IIChE TSEC student chapter annual program which is held every year in October since 2006. Suggestions and feedbacks were taken from Professors to improve quality of event.
- 3. Collected data for updating TSEC website was reviewed before sending to concerned staff.
- 4. Extra project load was adjusted among the existing faculty as per their consent. Suggestions & feedback for calling project examiners from Industry was taken.
- 5. All the issues related to students & staff were discussed & sorted out by conducting meeting with coordinator of sub-committee, staff & students, separately.

Remark: List of attendee detail (name, sign, date) is maintained in register for same.

Dr. Anita Kumari HOD, Chem. Engg. Dept. TSEC, Bandra(W), Mumbai









## 2017-2018

## Department

## **Minutes of Meeting**

N



### **Minutes of meeting**

Date: 11/07/2017

Time: 11.30 a.m.

Room No: 502

A faculty meeting was called and the following points were discussed:

1. To make lesson plans for the allotted subjects.

- 2. To design protocols for the practicals and to check the availability of requirements for the same.
- 3. To make attendance sheets for the current semesters and make batches for practical.
- 4. To check the working status of computers and projectors in the allotted classrooms for the department.

(Prof. C.S.Kulkarni) HOD

- 1. Dr.R.K.Pathak
- 2. Dr.Nitin Periera
- 3. Praseeda Nambisan
- 4. Sruthi Menon S
- 5. Reshma VK Resh
- 6. Lavanya K
- 7. Manasvee D



### **Minutes of meeting**

Date: 23/10/2017

Time: 11.30 a.m.

Room No: 502

A faculty meeting was called and the following points were discussed:

- 1. The load distribution for the upcoming semesters were discussed and finalized.
- 2. The time table slots were finalized.
- 3. Lab in charges were decided for the labs.
- 4. Lab requirements were discussed and a list of instruments to be serviced was made.

(Prof. C.S Kulkarni) HOD

- 1. Dr.R.K.Pathak
- 2. Dr.Nitin Periera
- 3. Praseeda Nambisan
- 4. Sruthi Menon S
- 5. Reshma VK
- 6. Lavanya K
- 7. Manasvee D



### **Minutes of meeting**

Date: 08/01/2018

Time: 11.30 a.m.

Room No: 202

A faculty meeting was called and the following points were discussed:

- 1. To make lesson plans for the allotted subjects.
- 2. To design protocols for the practicals and to check the availability of requirements for the same.
- 3. To make attendance sheets for the current semesters and make batches for practical.
- 4. To check the working status of computers and projectors in the allotted classrooms for the department.

(Prof. C HO

- 1. Dr.R.K.Pathak
- 2. Dr.Nitin Periera
- 3. Praseeda Nambisari
- 4. Sruthi Menon S
- 5. Reshma VK Resh
- 6. Pallavi Bhalerao
- 7. Manappier D



### **Minutes of meeting**

Date: 23/04/2018

Time: 11.30 a.m.

Room No: 202

A faculty meeting was called and the following points were discussed:

- 1. The load distribution for the upcoming semesters were discussed and finalized.
- 2. The time table slots were finalized.
- 3. Lab in charges were decided for the labs.
- 4. Lab requirements were discussed and a list of instruments to be serviced was made.

(Prof. C.S.Kulkarni) HOD

- 1. Dr.R.K.Pathak
- 2. Dr.Nitin Periera
- 3. Praseeda Nambisan
- 4. Sruthi Menon SA
- 5. Reshma VK
- 6. Pallavi Bhalerao
- 7. Manasvee Dhanesha



02.07.2018

Subject: First meeting of the Non-Teaching Staff

Dear All,

First meeting of non-teaching staff of Chem. Engg. Dept. is scheduled on 3<sup>rd</sup> July, Tuesday at 11.30 am in Room. No. 102.

The Agenda for the meeting are as follows:

- 1. Faculty Room /Lab Duties
- 2. PT Duties
- 3. Class Room Incharge
- 4. Reg Comparative Studies / Stationery Requirements
- 5. Non-teaching Staff Profile Updates in TSEC Website
- 6. Journal Submission
- 7. Any other matters

Dr. Anita Kumari HOD, Chem. Engg. Dept. TSEC, Bandra(W), Mumbai



### MINUTES OF FIRST NON-TEACHING STAFF MEETING

### Date: 03/07/18

### Timing: 11:30-12:30 pm

- 1. Lab duties are assigned to all non-teaching staff. Details are available in separate circular.
- 2. Periodic Test duties: Lab assistants & Lab attendant will not do Periodic test duties as per GR.
- 3. Mr. Tiwari is assigned to open & close all class rooms of Chemical Dept.
- 4. Ms. Vrishali /Ms. Deepti will do work related to Stationery requirements.
- 5. Ms. Deepti & Ms. Vrishali will do Comparative studies for quotations obtained. If number of quotations are less than three then reminder will be sent to vendors before Practical classes start.
- 6. Ms. Deepti will compile data for non-teaching staff to add in staff profile of chemical engineering department at TSEC website.
- 7. Submission of Journals will be taken by respective Professors during certification. Lab attendant associated with professor will bundle up journals & will keep in store room.

### Remark: List of attendee detail (name, sign, date) is maintained in register for same.

Dr. Anita Kumari HOD, Chem. Engg. Dept. TSEC, Bandra(W), Mumbai



Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.

11.04.2018

### Subject: First Meeting of the Teaching Staff

### Dear All,

First meeting of teaching staff of Chem. Engg. Dept. is scheduled on 18<sup>th</sup> April, Wednesday at 12.15 pm in Room. No. 102.

The agenda for the meeting are as follows:

- 1. Various committee to be formed
- 2. Events to be organized in coming semester
- 3. Faculty profile updates in TSEC website
- 4. Journal submission
- 5. Any other matters

Kindly make it convenient to attend and please do come on time. With regards.

Dr. Anita Kumari HOD, Chem. Engg. Dept. TSEC, Bandra(W), Mumbai

Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.

### Date: 18.04.2018, Time: 12.15 pm - 2.15 pm

### MINUTES OF FIRST TEACHING STAFF MEETING

- 1. For smooth function of department various committee was made as per Professor's choice.
- 2. Event calendar for up-coming semester was made. It was decided to conduct 4 guest lectures & regular IIChE TSEC student chapter annual program which is held every year in October since 2006.
- 3. Data was collected as per TSEC website format to update website.
- 4. Since non-teaching staff refused to take submission of Journals, it is conveyed to all that journal submission will be taken by respective Professors during certification. Lab attendant associated with professor will bundle up journals & will keep in store room.

### Remark: List of attendee detail (name, sign, date) is maintained in register for same.

Dr. Anita Kumari HOD, Chem. Engg. Dept. TSEC, Bandra(W), Mumbai

Dr. G. T. Thampi PRINCIPAL Thadomal Shahani Engineering College Bandra (W), Mumbai - 400 050.

## 09/1/2018

### NOTICE

## DEPARTMENT MEETING

A departmental meeting is organized on 11<sup>th</sup> January(12.15 pm) for the following igenda. All are requested to attend.

. Load distribution for the semester

. Time-table work

Designating responsibilities to lab incharges

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Gonshukig

Other departmental issues

Brownick n Dr. Mita Bhowmick)

- 1. Bharati Ingale
- 2. Dhananjay Theckedath
- 3. Gauri Shukla
- 4. Rithesh Kini
- Anuradha Mistry multy
   Tanvir Daphedar Poppedo







## 2016-2017

## Department

## **Minutes of Meeting**





### **MINUTES OF MEETING**



Date : Oct 15,2016 Time : 1200hrs Location : Room 908 Minutes Keeper : Ms. Vipra Dave

1. Convener : Dr. Madhuri Rao

### In Attendance:

| Mr. Arun Kulkarni   | Ms. Archana Kale        | Ms. Anjali Malviya   |
|---------------------|-------------------------|----------------------|
| Ms. Santhi Therese  | Ms. Sampada Pinge       | Mr. Gopal Pardesi    |
| Mr. Mukesh Ishrani  | Ms. Geeta Karande       | Ms. Nagveni Hebber   |
| Mr. Chetan Agarwal  | Ms. Reshma Malik        | Ms. Sunita Rathore   |
| Mr. Nikhilesh Joshi | Ms. Sachi Natu          | Mr. Bhushan Jadhav   |
| Ms. Sanobar Sheikh  | Mr. Sanjay Kumar Pandey | Ms. Himani Deshpande |
| Ms. Vipra Dave      | Ms. Shalu Bakhtiani     |                      |
| Absentee:           |                         |                      |
| Ms. Kumkum Saxena   | Ms. Preeti Mistry       | Ms. Tahrim Sheikh    |

- 2. General Purpose department meeting regarding the term July Nov 2016.
- 3. **Defaulter's cases** the respective Subject In-charge *and* Class Teacher's will take care of the defaulter students in the semester.
- 4. Discussion on *Feedback* from Students was carried out to mail the form link to all the students for S.E , T.E and B.E. Form includes both Course Outcome feedback as well as Faculty Feedback.

Forms have to be filled up by students before end of 2<sup>nd</sup> Periodic Tests.

- Course Attainment calculations have to be done by all the Faculties for the current semester July – Nov 2016. It has to be put in Academic File for the current session.
- 6. Certification and Submission dates are decided from 24 Oct 26 Oct.
   Respective Lab have been assigned to each subject and the list is displayed for all the faculties according to Subjects.
- 7. Before vacation all faculties have to submit their Course/Academic Files. One has to update Personal File (if required).

Content beyond syllabus also has to be mentioned in the academic file if taken for the Subject (with proof)



Dr. Madhuri Rao (HOD – IT)

## Minutes of Meeting

### Date: 3.3.2017

## Time: 12:15 p.m

### Room No.-203

A faculty meeting was called and the following agendas were discussed:-

- All vouchers needs to be cleared by department petty cash as early as possible. No bills will be cleared after 25<sup>th</sup> March.
- CO attainment needs to be calculated from Periodic Test Marks and Lab. Assignments.
- 3. Forms for External Survey and Course End Survey has to be designed by respective subject incharges.
- 4. All students should fill the Course End Survey for all subjects. Course End Survey forms should contain Name and Roll no. of the student.
- 5. Proper slots should be prepared and faculties should be appointed as incharges to ensure that students are filling the survey forms.
- 6. All faculties should design Feedback forms.
- 7. Program Exit Survey has to be taken from B.E students.

Tanuja Sarode



## Minutes of Meeting \*\*\*

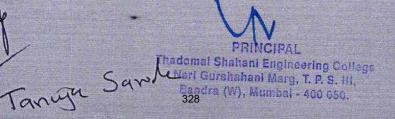
### Date: 9.1.2017

### Time: 12:15 p.m

### Room No.-203

A faculty meeting was called and the following agendas were discussed:-

- 1. Jan-April semester starts on 11.1.2017 and ends on 29.4.2017
- 2. The following teachers have been appointed as class teachers:
  - a) Ms. Sakshi Surve and Ms. Urvi Kore for S.E
  - b) Ms. Seema Kolkur and Ms. Anagha Durugkar for T.E.
  - c) Dr. Archana Patankar and Ms. Tasneem Mirza for B.E.
- 3. Ms. Vijaya Padmadas and Ms. Vaishali Suryawanshi have been appointed as Project Coordinators.
- 4. Mr. Aejazul Khan and Ms. Arti Deshpande have been appointed as Periodic Test Coordinators.
- 5. List of experiments has to be displayed in the notice board of all labs. by the respective subject inchparges by 12.1.2017.
- 6. First Periodic Test will be conducted on 3rd week of February.
- 7. Redefinition of Course outcomes according to Bloom's Taxonomy for current semester has to be done. It has to be verified by the following faculties:
  - a) Mr. Aejazul Khan for S.E
  - b) Ms. Vijaya Padmadas for T.E
  - c) Dr. Archana Patankar for B.E
- 8. Interaction with the outside world and Papers published has to be submitted to Ms. Nabanita Mandal.
- 9. Departmental Petty Cash will be handled by Mr. Kiran Patil.
- 10. Ms. Darakhshan Khan has to collect faculty profile and letter of appointment from the new faculties.



## **Minutes of Meeting**

## Date: 26.10.2016

### Time: 11:30 a.m

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**Room No.-203** 

A faculty meeting was called and the following points were discussed -

- 1. Exam remuneration to be handled by Ms. Angelin Florence and Ms. Darakhshan Khan.
- 2. Model answer scripts for both periodic test question papers to be attached in course file
- 3. Print out of Lab. Rubrics needs to be attached in course file.
- 4. Periodic test-1, test- 2 and average marks to be submitted to HOD by respective subject incharge
- 5. Termwork breakup marks has to be submitted to HOD by respective subject incharge.
- 6. Print out of excel sheet for feedback and course end survey has to be attached in course file.
- 7. Mapping of grades with marks has to be done for Lab. Experiments as well as Written Assignments.
- 8. Lab. Rubrics-Grades for each experiment has to be given considering the following parameters:
  - a) Conceptual Knowledge -3 marks
  - b) Procedural Knowledge-3 marks
  - c) Programming/Designing-3 marks
  - d) Write-up/Presentation-3 marks
  - e) Overall Behaviour-3 marks
- 9. Written Assignment Rubrics- Grades for written experiment has to be given considering the following parameters:
  - a) Assignment Completion-3 marks
  - b) Accuracy-3 marks
  - c) Legibility-3 marks
- 10. B.E Project Rubrics- Grades for project has to be given considering the following parameters:-

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- a) Understanding of Problem-4 marks
- b) Analysis of Project-4 marks
- c) Design of Project-4 marks
- d) Report Writing-4 marks
- e) Presentation and Question Answer-4 marks
- f) Discipline and Team Work-5 marks





### Minutes of meeting

Date: 07/07/2016

Time: 11.30 a.m.

Room No: 502

A faculty meeting was called and the following points were discussed:

- 1. To make lesson plans for the allotted subjects.
- 2. To design protocols for the practicals and to check the availability of requirements for the same.
- 3. To make attendance sheets for the current semesters and make batches for practical.
- 4. To check the working status of computers and projectors in the allotted classrooms for the department.

(Prof. C.S.Kulka HOD

- 1. Dr.R.K.Pathak
- 2: Dr.Nitin Periera
- 3. Praseeda Nambisan
- 4. Sruthi Menon
- 5. Reshma VK Rest



### **Minutes of meeting**

Date: 24/10/2016

Time: 11.30 a.m.

Room No: 502

A faculty meeting was called and the following points were discussed:

- 1. The load distribution for the upcoming semesters were discussed and finalized.
- 2. The time table slots were finalized.
- 3. Lab in charges were decided for the labs.
- 4. Lab requirements were discussed and a list of instruments to be serviced was made.

(Prof. C.S.Kulka HOD

- 1. Dr.R.K.Pathak
- 2. Dr.Nitin Periera
- 3. Praseeda Nambisan
- 4. Reshma VK Re
- 5. Lavanya K
- 6. Manasvee D



### Minutes of meeting

Date: 10/01/2017

Time: 11.30 a.m.

Room No: 502

A faculty meeting was called and the following points were discussed:

1. To make lesson plans for the allotted subjects.

- To design protocols for the practicals and to check the availability of requirements for the same. 2.
- To make attendance sheets for the current semesters and make batches for practical. 3.
- 4. To check the working status of computers and projectors in the allotted classrooms for the department.

(Prof. C.S.Kulkarni) HOD

- 1. Dr.R.K.Pathak
- Dr.Nitin Periera 2.
- 3.
- Praseeda Nambisan Prove 4. Sruthi Menon St
- Res 5. Reshma VK
- 6. Manasvee D
- 7. Lavanya K



### **Minutes of meeting**

Date: 24/04/2017

Time: 11.30 a.m.

Room No: 502

A faculty meeting was called and the following points were discussed:

YO

- 1. The load distribution for the upcoming semesters were discussed and finalized.
- 2. The time table slots were finalized.
- 3. Lab in charges were decided for the labs.
  - 4. Lab requirements were discussed and a list of instruments to be serviced was made.

(Prof. C.S.Ku HOD

- 1. Dr.R.K.Pathak
- 2. Dr.Nitin Periera
- 3. Praseeda Nambisan
- 4. Sruthi Menon St
- 5. Reshma VK Review
  - 6. Manasvee D
  - 7. Lavanya K

