

**University School of Engineering & Technology**

**STUDY SCHEME (All Semesters)**

**Batch 2015 onwards**

**Programme : Engineering**

**Level : Undergraduate**

**Course : B.Tech.**

**Branch : Computer Science and  
Engineering**

## SCHEME OF B. TECH. COMPUTER SC. & ENGINEERING

### Semester I

| Sr. No.      | Code   | Subject Name                                  | L         | T        | P         | Credit    |
|--------------|--------|---|-----------|----------|-----------|-----------|
| 1            | AM1101 | Engineering Maths-I                           | 3         | 1        | 0         | 4         |
| 2            | PY1102 | Engineering Physics-I                         | 3         | 1        | 2         | 5         |
| 3            | EC1103 | BEEE  | 3         | 0        | 2         | 4         |
| 4            | CH1104 | Engineering Chemistry                         | 3         | 0        | 0         | 3         |
| 5            | ME1105 | Engineering Drawing /Workshop                 | 1         | 0        | 4         | 3         |
| 6            | ME1106 | Basics of Mechanical Engineering              | 3         | 1        | 0         | 4         |
| 7            | CS1107 | Computer Fundamentals & Open Source Standards | 3         | 0        | 2         | 4         |
| 8            | FS1108 | Effective Communication Skill                 | 0         | 0        | 2         | 1         |
| 9            | IE1109 | Industry Exposure-I                           | 0         | 0        | 0         | 2         |
| <b>Total</b> |        |   | <b>19</b> | <b>3</b> | <b>12</b> | <b>30</b> |

### Semester II

| Sr. No.      | Code   | Subject Name  | L         | T        | P         | Credit    |
|--------------|--------|---|-----------|----------|-----------|-----------|
| 1            | AM1201 | Engineering Maths-II                                | 3         | 1        | 0         | 4         |
| 2            | PY1202 | Engineering Physics-II                              | 3         | 1        | 0         | 4         |
| 3            | PY1203 | Engineering Physics-II(Laboratory)                  | 0         | 0        | 2         | 1         |
| 4            | EC1204 | Mechatronics  | 3         | 0        | 0         | 3         |
| 5            | EC1205 | Mechatronics(Laboratory)                            | 0         | 0        | 2         | 1         |
| 6            | CH1206 | Engineering Chemistry Lab                           | 0         | 0        | 2         | 1         |
| 7            | ME1207 | Engineering Drawing/Workshop                        | 1         | 0        | 4         | 3         |
| 8            | CS1208 | Programming in C                                    | 3         | 0        | 0         | 3         |
| 9            | CS1209 | Programming in C (Lab)                              | 0         | 0        | 2         | 1         |
| 10           | HV1210 | Human Value & Professional Ethics                   | 2         | 0        | 0         | 2         |
| 11           | FS1211 | Effective Communication Skills-II and Team Building | 0         | 0        | 2         | 1         |
| 12           | IE1212 | Industry Exposure-II                                | 0         | 0        | 0         | 2         |
| <b>Total</b> |        |   | <b>15</b> | <b>2</b> | <b>14</b> | <b>26</b> |

### Semester III

| Sr. No.      | Code   | Subject Name                                     | L         | T        | P         | Credit    |
|--------------|--------|--|-----------|----------|-----------|-----------|
| 1            | CS2301 | Digital Electronics                              | 3         | 0        | 0         | 3         |
| 2            | CS2302 | Object Oriented Programming                      | 3         | 1        | 0         | 4         |
| 3            | CS2303 | Data Structures                                  | 4         | 0        | 0         | 4         |
| 4            | CS2304 | Operating System                                 | 3         | 0        | 0         | 3         |
| 5            | MA2305 | Maths III  | 3         | 1        | 0         | 4         |
| 6            | ES2306 | Environmental Studies                            | 2         | 0        | 0         | 2         |
| 7            | CS2307 | Digital Electronics Lab                          | 0         | 0        | 2         | 1         |
| 8            | CS2308 | Object Oriented Programming Lab                  | 0         | 0        | 2         | 1         |
| 9            | CS2309 | Operating System Lab                             | 0         | 0        | 2         | 1         |
| 10           | CS2310 | Data Structures Lab                              | 0         | 0        | 2         | 1         |
| 11           | FS2311 | Intra-Personal Skills and Business Communication | 0         | 0        | 2         | 1         |
| 12           | CS2312 | Institutional Training                           | -         | -        | -         | 2         |
| <b>Total</b> |        |  | <b>18</b> | <b>2</b> | <b>10</b> | <b>27</b> |

### Semester IV

| Sr. No.      | Code   | Subject Name                               | L         | T        | P        | Credit    |
|--------------|--------|--|-----------|----------|----------|-----------|
| 1            | CS2401 | Computer Architecture & Organization       | 3         | 0        | 0        | 3         |
| 2            | CS2402 | Design & Analysis of Algorithm             | 3         | 1        | 0        | 4         |
| 3            | CS2403 | Microprocessor & Programming               | 3         | 0        | 0        | 3         |
| 4            | CS2404 | Data Communication & Computer Networks     | 3         | 0        | 0        | 3         |
| 5            | MA2405 | Discrete Structure                         | 4         | 1        | 0        | 5         |
| 6            | CS2406 | Design & Analysis of Algorithm Lab         | 0         | 0        | 2        | 1         |
| 7            | CS2407 | Microprocessor & Programming Lab           | 0         | 0        | 2        | 1         |
| 8            | CS2408 | Data Communication & Computer Networks Lab | 0         | 0        | 2        | 1         |
| 9            | FS2409 | Leadership Skills                          | 0         | 0        | 2        | 1         |
| <b>Total</b> |        |  | <b>16</b> | <b>2</b> | <b>8</b> | <b>22</b> |

**Semester V**

| <b>Sr. No.</b> | <b>Code</b> | <b>Subject Name</b>                       | <b>L</b>  | <b>T</b> | <b>P</b> | <b>Credit</b> |
|----------------|-------------|---|-----------|----------|----------|---------------|
| 1              | CS3501      | Software Engineering                      | 3         | 0        | 0        | 3             |
| 2              | CS3502      | Relational Database Management System     | 4         | 1        | 0        | 5             |
| 3              | CS3503      | Multimedia System                         | 3         | 0        | 0        | 3             |
| 4              | CS3504      | Computer Graphics                         | 4         | 0        | 0        | 4             |
| 5              | CS3505      | Cloud Computing                           | 4         | 0        | 0        | 4             |
| 6              | CS3506      | HRM                                       | 3         | 0        | 0        | 3             |
| 7              | CS3507      | Relational Database Management System Lab | 0         | 0        | 2        | 1             |
| 8              | CS3508      | Software Engineering Lab                  | 0         | 0        | 2        | 1             |
| 9              | CS3509      | Computer Graphics Lab                     | 0         | 0        | 2        | 1             |
| 10             | FS3510      | Campus to Company                         | 0         | 0        | 2        | 1             |
| 11             | IE3511      | Industrial Training                       | -         | -        | -        | 2             |
| <b>Total</b>   |             |   | <b>21</b> | <b>1</b> | <b>8</b> | <b>28</b>     |

**Semester VI**

| <b>Sr. No.</b> | <b>Code</b> | <b>Subject Name</b>                        | <b>L</b>  | <b>T</b> | <b>P</b>  | <b>Credit</b> |
|----------------|-------------|--|-----------|----------|-----------|---------------|
| 1              | CS3601      | Programming in Java                        | 4         | 1        | 0         | 5             |
| 2              | CS3602      | Mobile Applications Development            | 3         | 1        | 0         | 4             |
| 3              | CS3603      | Theory of Computation                      | 4         | 1        | 0         | 5             |
| 4              | CS3604      | Programming in Java Lab                    | 0         | 0        | 4         | 2             |
| 5              | CS3605      | Mobile Applications Development Lab        | 0         | 0        | 4         | 2             |
| 6              | FS3606      | Group Discussion, Presentation & Interview | 0         | 0        | 2         | 1             |
| 7              | CS3607      | Industry Institute Interface               | 0         | 0        | 0         | 2             |
| 8              | CS36XX      | Elective I                                 | 3         | 0        | 0         | 3             |
| 9              | CS36XX      | Elective II                                | 3         | 0        | 0         | 3             |
| <b>Total</b>   |             |  | <b>17</b> | <b>3</b> | <b>10</b> | <b>27</b>     |

## Semester VII

| Sr. No.      | Code   | Subject Name                                   | L  | T | P  | Credit    |
|--------------|--------|--|----|---|----|-----------|
| 1            | CS4701 | Artificial Intelligence & Neural Networks      | 3  | 1 | 0  | 4         |
| 2            | CS4702 | Web Technology                                 | 3  | 0 | 0  | 3         |
| 3            | CS4703 | Unix & Shell Programming                       | 3  | 1 | 0  | 4         |
| 4            | CS4704 | Major Project                                  | 0  | 0 | 4  | 2         |
| 5            | CS4705 | Artificial Intelligence & Neutral Networks Lab | 0  | 0 | 2  | 1         |
| 6            | CS4706 | Web Technology Lab                             | 0  | 0 | 2  | 1         |
| 7            | CS4707 | Unix & Shell Programming Lab                   | 0  | 0 | 2  | 1         |
| 8            | CS47XX | Elective III                                   | 3  | 0 | 0  | 3         |
| 9            | CS47XX | Open Elective                                  | 3  | 0 | 0  | 3         |
| 10           | CS47XX | Open Elective Lab                              | 0  | 0 | 2  | 1         |
| <b>Total</b> |        |  | 15 | 2 | 12 | <b>23</b> |

## Semester VIII

| Sr. No.      | Code   | Subject Name        | L | T | P | Credit    |
|--------------|--------|---------------------|---|---|---|-----------|
| 1            | IE4801 | Industrial Training | - | - | - | 20        |
| <b>Total</b> |        |                     |   |   |   | <b>20</b> |

## **List of Electives**

### CS36XX Elective I

- CS3608 Agile Software Engineering
- CS3609 Distributed Databases
- CS3610 Advanced Computer Networks
- CS3611 Advanced Operating System

### CS36XX Elective II

- CS3612 Software Testing
- CS3613 Data Mining & Knowledge Management
- CS3614 Network Security & Cryptography
- CS3615 Fundamentals of Machine Learning

### CS47XX Elective III

- CS4708 Software Project Management
- CS4709 Natural Language Processing
- CS4710 Digital Image Processing
- CS4711 Big Data Analytics

### CS47XX Open Elective

- CS4712 Essential of Information Technology
- CS4713 Software Engineering
- CS4714 Object Oriented Programming
- CS4715 Basics of Mobile Applications Development

### CS47XX Open Elective Lab

- CS4716 Essential of Information Technology Lab
- CS4717 Software Engineering Lab
- CS4718 Object Oriented Programming Lab
- CS4719 Basics of Mobile Applications Development Lab