

## Electrical Engineering

### Semester - I (Common for all B.Tech Courses)

| S.No                         | C. Code     | Course                                             | L | T | P | C     |
|------------------------------|-------------|----------------------------------------------------|---|---|---|-------|
| 1                            | MA 101      | Calculus                                           | 3 | 1 | 0 | 8     |
| 2                            | PH 101      | Quantum Physics and Applications                   | 2 | 1 | 0 | 6     |
| 3                            | CH 102      | Fundamental Concepts and Applications of Chemistry | 3 | 0 | 0 | 6     |
| 4                            | BB 103      | Introduction to Modern biology                     | 3 | 0 | 0 | 6     |
| 5                            | PH 113      | Hands on Science Laboratory - I                    | 0 | 0 | 3 | 3     |
| 6                            | CS 101      | Computer Programming                               | 3 | 0 | 2 | 8     |
| 7                            | HS 103      | Introduction to Fine Arts                          | 0 | 0 | 1 | PP/NP |
| 8                            | HS 106      | Design Thinking and Creativity                     | 1 | 0 | 0 | PP/NP |
| 9                            | NO107/NO105 | NSO/NSS                                            | 0 | 0 | 2 | 2     |
| First Semester Total Credits |             |                                                    |   |   |   | 37    |

### Semester - II

| S. No         | Course Code    | Course Name                                                      | L | T | P | C  |
|---------------|----------------|------------------------------------------------------------------|---|---|---|----|
| 1             | MA 102         | Linear Algebra (1st Half)                                        | 3 | 1 | 0 | 4  |
| 2             | MA 103         | Differential Equations - I (2nd Half)                            | 3 | 1 | 0 | 4  |
| 3             | ME 111         | Engineering Graphics Laboratory                                  | 1 | 0 | 3 | 5  |
| 4             | EE 101         | Introduction to Electrical Systems and Electronics               | 3 | 0 | 0 | 6  |
| 5             | CS 201         | Data Structures and Algorithms                                   | 3 | 0 | 0 | 6  |
| 6             | CS 211         | Data Structures and Algorithms Laboratory                        | 0 | 0 | 3 | 3  |
| 7             | ME 113         | Hands on Engineering Laboratory                                  | 0 | 0 | 3 | 3  |
| 8             | PH 102         | Electricity and magnetism                                        | 2 | 1 | 0 | 6  |
| 9             | NO 105/ NO 107 | National Sports Organization (NSO)/National Service Scheme (NSS) | 0 | 0 | 2 | 2  |
| Total Credits |                |                                                                  |   |   |   | 37 |

### Semester III

| S.No | Course Code | Course Name                                | L | T | P | C |
|------|-------------|--------------------------------------------|---|---|---|---|
| 1    | EE 221      | Introduction to Probability (1st Half)     | 3 | 0 | 0 | 3 |
| 2    | EE 227      | Data Analysis (2nd Half)                   | 3 | 0 | 0 | 3 |
| 3    | EE 229      | Electronic Devices (1st Half)              | 3 | 0 | 0 | 3 |
| 4    | EE 202      | Introduction to Analog Circuits (2nd Half) | 3 | 0 | 0 | 3 |
| 5    | EE 205      | Network Theory                             | 2 | 1 | 0 | 6 |
| 6    | EE 210      | Signals and Systems                        | 2 | 1 | 0 | 6 |
| 7    | MA 201      | Complex Analysis (1st Half)                | 3 | 1 | 0 | 4 |
| 8    | MA 203      | Differential Equations II (2nd Half)       | 3 | 1 | 0 | 4 |

|   |        |               |   |   |   |    |
|---|--------|---------------|---|---|---|----|
| 9 | HS 201 | Economics     | 3 | 0 | 0 | 6  |
|   |        | Total Credits |   |   |   | 38 |
|   |        |               |   |   |   |    |
|   |        |               |   |   |   |    |

### Semester - IV

| S. No | Course Code | Course Name                                      | L | T | P | C  |
|-------|-------------|--------------------------------------------------|---|---|---|----|
| 1     | EE 206      | Introduction to Electrical Machines (1st Half)   | 3 | 0 | 0 | 3  |
| 2     | EE 209      | Introduction to Power Electronics (2nd Half)     | 3 | 0 | 0 | 3  |
| 3     | EE 208      | Engineering Electromagnetics (1st Half)          | 2 | 1 | 0 | 3  |
| 4     | EE 223      | Introduction to Power Systems (2nd Half)         | 2 | 0 | 2 | 3  |
| 5     | EE 232      | Introduction to Communication Systems (1st Half) | 3 | 1 | 0 | 3  |
| 6     | EE 216      | Communications Lab (2nd Half)                    | 0 | 0 | 4 | 2  |
| 7     | EE 204      | Digital Systems                                  | 3 | 0 | 0 | 6  |
| 8     | EE 214      | Digital Circuits Lab                             | 0 | 0 | 3 | 3  |
| 9     | EE 226      | Control Systems and Laboratory                   | 2 | 0 | 2 | 6  |
| 10    | EE 212      | Devices and Circuits Lab                         | 0 | 0 | 3 | 3  |
|       |             | Total Credits                                    |   |   |   | 35 |
|       |             |                                                  |   |   |   |    |
|       |             |                                                  |   |   |   |    |

### Semester V

| S.No | Course Code | Course Name                                   | L | T | P | C  |
|------|-------------|-----------------------------------------------|---|---|---|----|
| 1    | EE301T      | Microprocessors and Microcontrollers          | 3 | 0 | 0 | 6  |
| 2    | EE302C      | Digital Signal Processing                     | 3 | 0 | 0 | 3  |
| 3    | EE304L      | Digital Signal Processing Lab                 | 0 | 0 | 4 | 2  |
| 4    | EE302L      | Microprocessors and Microcontrollers Lab      | 0 | 0 | 3 | 3  |
| 5    | EE202L      | Electrical Machines and Power Electronics Lab | 0 | 0 | 3 | 3  |
| 6    |             | HSS Elective                                  | 3 | 0 | 0 | 6  |
| 7    |             | Electives                                     |   |   |   | 12 |
|      |             | Total Credits                                 |   |   |   | 35 |
|      |             |                                               |   |   |   |    |
|      |             |                                               |   |   |   |    |

### Semester VI

| <u>S.No</u> | Course Code | Course Name            | L | T | P | C  |
|-------------|-------------|------------------------|---|---|---|----|
| 1           | CE301T      | Environmental Studies  | 3 | 0 | 0 | 6  |
| 2           | EE301L      | Electronics Design Lab | 3 | 0 | 0 | 6  |
| 3           |             | Elective Courses       |   |   |   | 24 |
|             |             | Total Credits          |   |   |   | 36 |
|             |             |                        |   |   |   |    |
|             |             |                        |   |   |   |    |

