



JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

(Established by Andhra Pradesh Act No.30 of 2008)

Kukatpally, Hyderabad – 500 085, Andhra Pradesh (India)

B.TECH. (ELECTRICAL & ELECTRONICS ENGINEERING)

I YEAR

| Code | Subject | L | T/P/D | Credits |
|------|---|-----------|-----------|-----------|
| | English | 2 | - | 4 |
| | Mathematics – I | 3 | - | 6 |
| | Mathematical Methods | 3 | - | 6 |
| | Engineering Physics | 3 | - | 6 |
| | Engineering Chemistry | 3 | - | 6 |
| | Computer Programming | 3 | - | 6 |
| | Engineering Drawing | 3 | 3 | 6 |
| | Computer Programming Lab | - | 3 | 4 |
| | Engineering Physics & Engineering Chemistry Lab | - | 3 | 4 |
| | English Language Communication Skills Lab | - | 3 | 4 |
| | Engineering Workshop/IT Workshop | - | 3 | 4 |
| | Total | 20 | 15 | 56 |

II YEAR I SEMESTER

| Code | Subject | L | T/P/D | Credits |
|------|---|-----------|----------|-----------|
| | Mathematics – III | 4 | - | 4 |
| | Fluid Mechanics and Hydraulic Machinery | 4 | - | 4 |
| | Electronic Devices & Circuits | 4 | - | 4 |
| | Electrical Circuits | 4 | - | 4 |
| | Electromagnetic fields | 4 | - | 4 |
| | Electrical Machines-I | 4 | - | 4 |
| | Fluid Mechanics and Hydraulic Machinery Lab | - | 3 | 2 |
| | Electronic devices & Circuit labs | - | 3 | 2 |
| | Total | 24 | 6 | 28 |

II YEAR II SEMESTER

| Code | Subject | L | T/P/D | Credits |
|------|---|-----------|----------|-----------|
| | Managerial Economics & Financial Analysis | 4 | - | 4 |
| | Power Systems-I | 4 | - | 4 |
| | Electronic Circuits | 4 | - | 4 |
| | Switching Theory and Logic Design | 4 | - | 4 |
| | Network Theory | 4 | - | 4 |
| | Electrical Machines-II | 4 | - | 4 |
| | Electrical Machines lab -I | - | 3 | 2 |
| | Electrical Circuits and Simulation Lab | - | 3 | 2 |
| | Total | 24 | 6 | 28 |

III YEAR I SEMESTER

| Code | Subject | L | T/P/D | Credits |
|------|------------------------------------|-----------|----------|-----------|
| | IC Applications | 4 | - | 4 |
| | Management Science | 4 | - | 4 |
| | Power Systems-II | 4 | - | 4 |
| | Control Systems | 4 | - | 4 |
| | Power Electronics | 4 | - | 4 |
| | Electrical Machines-III | 4 | - | 4 |
| | Electrical Machines lab –II | - | 3 | 2 |
| | Control Systems and Simulation Lab | - | 3 | 2 |
| | Total | 24 | 6 | 28 |

III YEAR II SEMESTER

| Code | Subject | L | T/P/D | Credits |
|------|---|-----------|----------|-----------|
| | Electrical and Electronics Instrumentation | 4 | - | 4 |
| | Static Drives | 4 | - | 4 |
| | Computer Methods in Power Systems | 4 | - | 4 |
| | Microprocessors and Interfacing Devices | 4 | - | 4 |
| | Environmental Studies | 4 | - | 4 |
| | Open Elective Disaster Management Intellectual Property Rights Human Values and Professional Ethics | 4 | - | 4 |
| | Advanced Communication Skills Lab | - | 3 | 2 |
| | Power Electronics and Simulation Lab | - | 3 | 2 |
| | Total | 24 | 6 | 28 |

IV YEAR I SEMESTER

| Code | Subject | L | T/P/D | Credits |
|------|---|-----------|----------|-----------|
| | Switch Gear and Protection | 4 | - | 4 |
| | Utilization of Electrical Energy | 4 | - | 4 |
| | Digital Signal Processing | 4 | - | 4 |
| | Power System Operation and Control | 4 | - | 4 |
| | Elective-I High Voltage Engineering VLSI Design Digital Control Systems Data Structures | 4 | - | 4 |
| | Elective-II Optimization Techniques Electrical Distribution Systems Electrical Estimation and Costing | 4 | - | 4 |
| | Microprocessors and Interfacing Devices Lab | - | 3 | 2 |
| | Electrical Measurements Lab | - | 3 | 2 |
| | Total | 24 | 6 | 28 |

IV YEAR II SEMESTER

| Code | Subject | L | P | Credits |
|------|---|-----------|-----------|-----------|
| | Fundamentals of HVDC and FACTS Devices | 4 | - | 4 |
| | Elective-III Neural Networks and Fuzzy Logic Renewable Energy Sources Principles of Reliability Engineering | 4 | - | 4 |
| | Elective-IV Advanced Control Systems EHV AC Transmission Introduction to Nanotechnology | 4 | - | 4 |
| | Industry Oriented Mini Project | 0 | 0 | 2 |
| | Seminar | 0 | 6 | 2 |
| | Project Work | 0 | 15 | 10 |
| | Comprehensive Viva-Voce | 0 | 0 | 2 |
| | Total | 12 | 21 | 28 |

Note:All End Examinations (Theory and Practical) are of three hours duration.

T-Tutorial L – Theory P – Practical/Drawing C – Credits