

SCHEME OF TEACHING & EXAMINATION

III SEMESTER

ELECTRICAL AND ELECTRONICS ENGINEERING

| Subject Code | Title | Teaching Dept. | Teaching hours/week | | Examination | | | |
|--------------|--|----------------|---------------------|-----------|-------------------|-------|-------------------|-------------|
| | | | Theory | Practical | Duration in hours | Marks | | |
| | | | | | | I. A | Theory/ Practical | Total Marks |
| 10MAT - 31 | Engineering Mathematics - III | Mat | 04 | | 03 | 25 | 100 | 125 |
| 10ES – 32 | Analog Electronic Circuits | @ | 04 | | 03 | 25 | 100 | 125 |
| 10ES – 33 | Logic Design | @ | 04 | | 03 | 25 | 100 | 125 |
| 10ES – 34 | Network Analysis | @ | 04 | | 03 | 25 | 100 | 125 |
| 10EE– 35 | Electrical and Electronic Measurements And Instrumentation | E&EE | 04 | | 03 | 25 | 100 | 125 |
| 10EE – 36 | Electric Power Generation | E&EE | 04 | | 03 | 25 | 100 | 125 |
| 10ESL – 37 | Analog Electronics Lab | @ | | 03 | 03 | 25 | 50 | 75 |
| 10ESL – 38 | Logic Design Lab | @ | | 03 | 03 | 25 | 50 | 75 |
| | | Total | 24 | 06 | 24 | 200 | 700 | 900 |

Note : @ indicates concerned discipline. ES (for theory) & ESL (for Lab) in the subject code indicates that the subject is common to electrical and electronics stream consisting of EE/EC/IT/TC/ML/BM branches of engineering. EE indicates, subjects specific to E & EE branch only.

**IV SEMESTER
ELECTRICAL AND ELECTRONICS ENGINEERING**

| Subject Code | Title | Teaching Dept. | Teaching hours/week | | Examination | | | |
|--------------|-------------------------------------|----------------|---------------------|-----------|-------------------|-------|-------------------|-------------|
| | | | Theory | Practical | Duration in hours | Marks | | |
| | | | | | | I. A | Theory/ Practical | Total Marks |
| 10MAT - 41 | Engineering Mathematics - IV | Mat | 04 | | 03 | 25 | 100 | 125 |
| 10ES- 42 | Microcontrollers | @ | 04 | | 03 | 25 | 100 | 125 |
| 10ES - 43 | Control Systems | @ | 04 | | 03 | 25 | 100 | 125 |
| 10EE - 44 | Field Theory | E&EE | 04 | | 03 | 25 | 100 | 125 |
| 10EE- 45 | Power Electronics | E&EE | 04 | | 03 | 25 | 100 | 125 |
| 10EE - 46 | Transformers and Induction Machines | E&EE | 04 | | 03 | 25 | 100 | 125 |
| 10ESL - 47 | Microcontrollers Lab | @ | | 03 | 03 | 25 | 50 | 75 |
| 10EEL - 48 | Power Electronics Lab | E&EE | | 03 | 03 | 25 | 50 | 75 |
| | | Total | 24 | 06 | 24 | 200 | 700 | 900 |

Note : @ indicates concerned discipline.ES (for theory) & ESL (for Lab) in the subject code indicates that the subject is common to electrical and electronics stream consisting of EE/EC/IT/TC/ML/BM branches of engineering. EE indicates, subjects specific to E & EE branch only.

V SEMESTER

ELECTRICAL AND ELECTRONICS ENGINEERING

| Sl. No. | Subject Code | Title of the Subject | Teaching Dept. | Teaching Hrs / Week | | Examination | | | |
|---------|--------------|--|----------------|---------------------|-----------|----------------|-------|--------------------|-------|
| | | | | Theory | Practical | Duration (Hrs) | Marks | | |
| | | | | | | | IA | Theory / Practical | Total |
| 01 | 10AL51 | Management and Entrepreneurship | @ | 4 | - | 3 | 25 | 100 | 125 |
| 02 | 10EE52 | Signals and Systems | E&EE | 4 | - | 3 | 25 | 100 | 125 |
| 03 | 10EE53 | Transmission and Distribution | E&EE | 4 | - | 3 | 25 | 100 | 125 |
| 04 | 10EE54 | D.C. Machines and Synchronous Machines | E&EE | 4 | - | 3 | 25 | 100 | 125 |
| 05 | 10EE55 | Modern Control theory | E&EE | 4 | - | 3 | 25 | 100 | 125 |
| 06 | 10EE56 | Linear IC's and Applications | E&EE | 4 | - | 3 | 25 | 100 | 125 |
| 07 | 10EEL57 | Measurements and Circuit Simulation Laboratory | E&EE | - | 3 | 3 | 25 | 50 | 75 |
| 08 | 10EEL58 | Transformers and Induction Machines Laboratory | E&EE | - | 3 | 3 | 25 | 50 | 75 |
| Total | | | | 24 | 06 | 24 | 200 | 700 | 900 |

@ Any Engineering department or department of Business study.

VI SEMESTER

ELECTRICAL AND ELECTRONICS ENGINEERING

| Sl. No. | Subject Code | Title of the Subject | Teaching Dept. | Teaching | | Examination | | | |
|---------|--------------|--|----------------|------------|-----------|----------------|-------|--------------------|-------|
| | | | | Hrs / Week | | Duration (Hrs) | Marks | | |
| | | | | Theory | Practical | | IA | Theory / Practical | Total |
| 1 | 10EE61 | Power System Analysis and Stability | E&EE | 4 | - | 3 | 25 | 100 | 125 |
| 2 | 10EE62 | Switchgear & Protection | E&EE | 4 | - | 3 | 25 | 100 | 125 |
| 3 | 10EE63 | Electrical Machine Design | E&EE | 4 | - | 3 | 25 | 100 | 125 |
| 4 | 10EE64 | Digital Signal Processing | E&EE | 4 | - | 3 | 25 | 100 | 125 |
| 5 | 10EE65 | E- CADD | E&EE | 1 | 3 | 3 | 25 | 100 | 125 |
| 6 | 10EE66X | Elective-I (Group A) | E&EE | 4 | - | 3 | 25 | 100 | 125 |
| 7 | 10EEL67 | D.C. Machines and Synchronous Machines Laboratory | E&EE | - | 3 | 3 | 25 | 50 | 75 |
| 8 | 10EEL68 | Control Systems Laboratory | E&EE | - | 3 | 3 | 25 | 50 | 75 |
| Total | | | | 21 | 09 | 24 | 200 | 700 | 900 |

Elective-I (Group A)

10EE661-Operation Research

10EE662 - Advanced Power Electronics

10EE663 – Fuzzy Logic

10EE664 - Object Oriented Programming using C++

10EE665 - Embedded Systems

10EE666 – Electrical Engineering Materials

VII SEMESTER

ELECTRICAL AND ELECTRONICS ENGINEERING

| Sl. No. | Subject Code | Title of the Subject | Teaching Dept. | Teaching Hrs / Week | | Examination | | | |
|---------|--------------|--|----------------|---------------------|-----------|----------------|-------|--------------------|-------|
| | | | | Theory | Practical | Duration (Hrs) | Marks | | |
| | | | | | | | IA | Theory / Practical | Total |
| 1 | 10EE71 | Computer Techniques in Power System Analysis | E&EE | 4 | - | 3 | 25 | 100 | 125 |
| 2 | 10EE72 | Electrical Power Utilization | E&EE | 4 | - | 3 | 25 | 100 | 125 |
| 3 | 10EE73 | High Voltage Engineering | E&EE | 4 | - | 3 | 25 | 100 | 125 |
| 4 | 10EE74 | Industrial Drives and Applications | E&EE | 4 | - | 3 | 25 | 100 | 125 |
| 5 | 10EE75X | Elective-II (Group B) | E&EE | 4 | - | 3 | 25 | 100 | 125 |
| 6 | 10EE76X | Elective-III (Group C) | E&EE | 4 | - | 3 | 25 | 100 | 125 |
| 7 | 10EEL77 | Relay and High Voltage Laboratory | E&EE | - | 3 | 3 | 25 | 50 | 75 |
| 8 | 10EEL78 | Power System Simulation Laboratory | E&EE | - | 3 | 3 | 25 | 50 | 75 |
| Total | | | | 24 | 06 | 24 | 200 | 700 | 900 |

Elective-II (Group B)

10EE751 - HVDC Transmission
 10EE752 - Programmable Logic Controllers
 10EE753 - Artificial Neural Network
 10EE754 - Operating System
 10EE755 - Digital System with VHDL
 10EE756 - Testing and Commissioning of Electrical Equipment

Elective-III (Group C)

10EE761 - Power System Planning
 10EE762 - Computer Control of Electrical Drives
 10EE763 - Data Structure
 10EE764 - VLSI Circuits and Design
 10EE765 - Micro & Smart System Technology
 10EE766 - Electromagnetic Compatibility

VIII SEMESTER

ELECTRICAL AND ELECTRONICS ENGINEERING

| Sl. No. | Subject Code | Title of the Subject | Teaching Dept. | Teaching Hrs / Week | | Examination | | | |
|---------|--------------|--|----------------|---------------------|-----------|----------------|-------|--------------------|-------|
| | | | | Theory | Practical | Duration (Hrs) | Marks | | |
| | | | | | | | IA | Theory / Practical | Total |
| 1 | 10EE81 | Electrical Design, Estimation and Costing | E&EE | 4 | - | 3 | 25 | 100 | 125 |
| 2 | 10EE82 | Power System Operation and Control | E&EE | 4 | - | 3 | 25 | 100 | 125 |
| 3 | 10EE83X | Elective-IV (Group D) | E&EE | 4 | - | 3 | 25 | 100 | 125 |
| 4 | 10EE84X | Elective-V (Group E) | E&EE | 4 | - | 3 | 25 | 100 | 125 |
| 5 | 10EEP85 | Project Work | E&EE | - | 6 | 3 | 100 | 100 | 200 |
| 6 | 10EES86 | Seminar (on a latest topic relevant to the branch and independent of the project work) | E&EE | - | 3 | - | 50 | - | 50 |
| Total | | | | 16 | 09 | 15 | 250 | 500 | 750 |

Elective-IV (Group-D)

10EE831 - Reactive Power Management
 10EE832 - Flexible A.C. Transmission Systems (FACTS)
 10EE833- Advanced Instrumentation System
 10EE834 - AI Applications to Power Systems
 10EE835 - Data Base Management Systems (DBMS)
 10EE836 - Renewable Energy Sources

Elective-V (Group-E)

10EE841 - Power Systems Dynamics and Stability
 10EE842 - Energy Auditing & Demand Side Management
 10EE843 - Data communications and Networking
 10EE844 - Electrical Distribution Systems
 10EE845 - Insulation Engineering
 10EE846 - Intellectual Property Rights
 10EE847 - Electrical Power Quality