SCHEME OF INSTRUCTION & EXAMINATION

B.E. (EEE) I Semester (Common to all Branches)

| | | | 5 | Schem | e of | | | eme of | Credits |
|-----|----------|--|----|--------|-------|---------|------|----------|---------|
| S. | Course | Course Title | I | nstruc | tion | | Exan | nination | |
| No. | Code | | | | | Contact | CIE | SEE | |
| | | | L | T | P/Dg. | Hrs/wk | | | |
| 1. | BS101MT | Engineering Mathematics-I | 3 | 1 | - | 4 | 30 | 70 | 3 |
| 2. | BS102PH | Engineering Physics-I | 3 | - | - | 3 | 30 | 70 | 3 |
| 3. | BS103CH | Engineering Chemistry-I | 3 | - | - | 3 | 30 | 70 | 3 |
| 4. | ES101CE | Engineering Graphics-I | - | - | 3+3 | 6 | 50 | 50 | 3 |
| 5. | ES102CE | Engineering Mechanics-I | 3 | - | - | 3 | 30 | 70 | 3 |
| 6. | ES103 CS | Computer Programming and Problem Solving | 3 | - | - | 3 | 30 | 70 | 3 |
| 7. | MC101EG | Engineering English | 3 | - | - | 3 | 30 | 70 | 3 |
| | | | | | | | | | |
| 8. | BS151PH | Engineering Physics Lab-I | - | - | 2 | 2 | 25 | 50 | 1 |
| 9. | BS152CH | Engineering Chemistry Lab-I | - | - | 2 | 2 | 25 | 50 | 1 |
| 10. | ES151CS | Computer Programming Lab | - | - | 2 | 2 | 25 | 50 | 1 |
| 11. | ES152ME | Engineering Workshop -I | - | - | 2 | 2 | 25 | 50 | 1 |
| 12. | MC151EG | Engineering English Lab | - | - | 2 | 2 | 25 | 50 | 1 |
| | | | 18 | 01 | 16 | 35 | 355 | 720 | 26 |

SCHEME OF INSTRUCTION & EXAMINATION

B.E.(EEE) II Semester

| S. | Course | Course Title | | heme truct | - | | | eme of ination | Credits |
|-----|---------|--|----|---------------|----|-------------------|-----|-------------------|---------|
| No. | Code | | L | Т | P | Contact Hrs/wk | CIE | SEE | |
| 1. | BS201MT | Engineering Mathematics-II | 3 | 1 | - | 4 | 30 | 70 | 3 |
| 2. | BS202PH | Engineering Physics-II | 3 | - | - | 3 | 30 | 70 | 3 |
| 3. | BS203CH | Engineering Chemistry-II | 3 | - | - | 3 | 30 | 70 | 3 |
| 4. | ES221ME | Elements of Mechanical Engineering | 3 | - | - | 3 | 30 | 70 | 3 |
| 5. | HS201EG | Business Communication and Presentation Skills | 3 | - | - | 3 | 30 | 70 | 3 |
| 6. | ES222EC | Electronic Engineering – I | 3 | - | - | 3 | 30 | 70 | 3 |
| 7. | BS251PH | Engineering Physics Lab-II | - | - | 2 | 2 | 25 | 50 | 1 |
| 8. | BS252CH | Engineering Chemistry Lab-II | - | - | 2 | 2 | 25 | 50 | 1 |
| 9. | HS251EG | Communication Skills Lab | - | - | 2 | 2 | 25 | 50 | 1 |
| 10. | ES251CS | Computer Skills Lab. | - | - | 2 | 2 | 25 | 50 | 1 |
| | | | 18 | 01 | 08 | 27 | 280 | 620 | 22 |

Interdisciplinary Courses Offered to Other Departments B.E. II Semester

| S. | Course | Course Title | Scheme of Instruction | | | Scheme of Examination | | Credits | |
|-----|---------|--|--------------------------|---|---|-----------------------|-----|---------|---|
| No. | Code | | L | T | P | Contact Hrs/wk | CIE | SEE | |
| 1. | ES221EE | Basic Electrical Engineering (For ECE & CSE) | 3 | - | - | 3 | 30 | 70 | 3 |

SCHEME OF INSTRUCTION & EXAMINATION

B.E.(EEE) III Semester

| S. | Course | Course Title | Scheme of Instruction | | | | Scheme of Examination | | Credits |
|-----|---------|---|--------------------------|---|---|-------------------|--------------------------|-----|---------|
| No. | Code | | L | T | P | Contact Hrs/wk | CIE | SEE | |
| 1. | BS301MT | Mathematics - III | 3 | 1 | - | 4 | 30 | 70 | 3 |
| 2. | PC301EE | Electrical Circuits - I | 3 | 2 | - | 5 | 30 | 70 | 4 |
| 3. | PC302EE | Electromagnetic Fields | 3 | 1 | - | 4 | 30 | 70 | 3 |
| 4. | PC303EE | Digital Electronics & Logic Design | 3 | - | - | 3 | 30 | 70 | 3 |
| 5. | ES322EC | Electronic Engineering-II | 3 | - | - | 3 | 30 | 70 | 3 |
| 6. | ES322ME | Prime Movers & Pumps | 3 | - | - | 3 | 30 | 70 | 3 |
| 7. | MC321CE | Environmental Studies | 3 | - | - | 3 | 30 | 70 | 3 |
| | | | | | | | | | |
| 8. | ES325EC | Electronic Engineering Lab. | - | - | 2 | 2 | 25 | 50 | 1 |
| 9. | PC351EE | Computer Aided Electrical Drawing Lab. | • | - | 2 | 2 | 25 | 50 | 1 |
| | | | 21 | 4 | 4 | 29 | 260 | 590 | 24 |

Interdisciplinary Courses Offered to Other Departments B.E III Semester

| S. | Course Code | Course Title | Scheme of Course Title Instruction | | | Scheme of Examination | | Credits | |
|-----|-------------|-------------------------------|------------------------------------|---|---|-----------------------|-----|---------|---|
| No. | | | | | | Contact | CIE | SEE | |
| | | | L | T | P | Hrs/wk | | | |
| 1. | ES321EE | Electrical Technology | 2 | - | - | 2 | 15 | 35 | 2 |
| | | (For CE) | | | | | | | |
| 2. | ES322EE | Electrical Circuits & | | | | | | | |
| | | Machines | 3 | - | - | 3 | 30 | 70 | 3 |
| | | (For ME) | | | | | | | |
| 3. | ES323EE | Electrical Engineering | - | - | 2 | 2 | 25 | 50 | 1 |
| | | Lab | | | | | | | |
| | | (For ECE & CSE) | | | | | | | |

SCHEME OF INSTRUCTION & EXAMINATION

B.E.(EEE) IV Semester

| S. | Course | Course Title | Scheme of Instruction | | | | | me of ination | Credits |
|-----|---------|--|--------------------------|----|----|-------------------|-----|------------------|---------|
| No. | Code | | L | T | P | Contact Hrs/wk | CIE | SEE | |
| 1. | BS401MT | Mathematics - IV | 3 | 1 | - | 4 | 30 | 70 | 3 |
| 2. | PC401EE | Electrical Circuits - II | 3 | 2 | - | 5 | 30 | 70 | 4 |
| 3. | PC402EE | Electrical Machines-I | 3 | 1 | - | 4 | 30 | 70 | 3 |
| 4. | PC403EE | Power System-I | 3 | 1 | - | 4 | 30 | 70 | 3 |
| 5. | PC404EE | Electrical Measurements & Instrumentation | 3 | 1 | - | 4 | 30 | 70 | 3 |
| 6. | PC405EE | Linear Integrated Circuits | 3 | - | - | 3 | 30 | 70 | 3 |
| 7. | HS401BM | Managerial Economics & Accountancy | 3 | - | - | 3 | 30 | 70 | 3 |
| | | | | | | _ | | | |
| 8. | PC451EE | Electrical Circuits Lab | - | - | 2 | 2 | 25 | 50 | 1 |
| 9. | ES421ME | Prime Movers & Pumps Lab | - | - | 2 | 2 | 25 | 50 | 1 |
| | | | 21 | 06 | 04 | 31 | 260 | 590 | 24 |

Interdisciplinary Courses Offered to Other Departments B.E. IV Semester

| S. | Course Code | Course Title | Scheme of Instruction | | | Scheme of Examination | | Credits | |
|-----|-------------|---|--------------------------|---|---|-----------------------|-----|---------|---|
| No. | | | L | Т | P | Contact Hrs/wk | CIE | SEE | |
| 1. | ES421EE | Electrical Circuits & Machines Lab (For ME) | | - | 2 | 2 | 25 | 50 | 1 |

SCHEME OF INSTRUCTION & EXAMINATION

B.E.(EEE) V Semester

| S. | Course | Course Title | Scheme of Instruction | | | | Scheme of Examination | | Credits |
|-----|---------|--|--------------------------|----|----|-------------------|--------------------------|-----|---------|
| No. | Code | | L | Т | P | Contact Hrs/wk | CIE | SEE | |
| 1. | PC501EE | Power Systems - II | 3 | 1 | - | 4 | 30 | 70 | 3 |
| 2. | PC502EE | Electrical Machines-II | 3 | 2 | - | 5 | 30 | 70 | 4 |
| 3. | PC503EE | Power Electronics | 3 | 1 | - | 4 | 30 | 70 | 3 |
| 4. | PC504EE | Linear Control Systems | 3 | 1 | - | 4 | 30 | 70 | 3 |
| 5. | PC505EE | Digital Signal Processing and Applications | 3 | 1 | - | 4 | 30 | 70 | 3 |
| 6. | PE-I | PROFESSIONAL ELECTIVE-I | 3 | - | - | 3 | 30 | 70 | 3 |
| 7. | PC551EE | Electrical Machines Lab – I | - | - | 2 | 2 | 25 | 50 | 1 |
| 8. | PC552EE | Digital Electronics and Integrated Circuits Lab | - | - | 2 | 2 | 25 | 50 | 1 |
| 9. | PC553EE | Electrical Measurements & Instrumentation Lab | - | - | 2 | 2 | 25 | 50 | 1 |
| | | | 18 | 06 | 06 | 30 | 255 | 570 | 22 |

| PROFESSIONAL ELECTIVE-I | | | | | |
|-------------------------|----------------------------|--|--|--|--|
| PE501EE | Electric Traction System | | | | |
| PE502EE | Electronic Instrumentation | | | | |
| PE503EE | High Voltage Engineering | | | | |

SCHEME OF INSTRUCTION & EXAMINATION

B.E.(EEE) VI Semester

| S. | Course | Course Title | | heme o | | | | me of ination | Credits |
|-----|---------|---|----|--------|----|-------------------|-----|---------------|---------|
| No. | Code | | L | Т | P | Contact Hrs/wk | CIE | SEE | |
| 1. | PC601EE | Electrical Machines-III | 3 | 2 | | 5 | 30 | 70 | 4 |
| 2. | PC602EE | Microprocessors and Microcontrollers | 3 | 1 | - | 4 | 30 | 70 | 3 |
| 3. | PC603EE | Switchgear and Protection | 3 | - | - | 3 | 30 | 70 | 3 |
| 4. | PC604EE | Renewable Energy Technologies | 3 | - | - | 3 | 30 | 70 | 3 |
| 5. | PE-II | PROFESSIONAL ELECTIVE-II | 3 | - | - | 3 | 30 | 70 | 3 |
| 6. | OE-I | OPEN ELECTIVE-I | 3 | - | - | 3 | 30 | 70 | 3 |
| 7. | PC651EE | Electrical Machines Lab-II | - | - | 2 | 2 | 25 | 50 | 1 |
| 8. | PC652EE | Power Electronics Lab | - | - | 2 | 2 | 25 | 50 | 1 |
| 9. | PC653EE | Control Systems Lab | - | - | 2 | 2 | 25 | 50 | 1 |
| 10. | SI* | Summer Internship* | - | - | - | - | - | - | - |
| | | | 18 | 03 | 06 | 27 | 255 | 570 | 22 |

^{*} The students have to undergo a Summer Internship of 6 weeks duration after VI semester and credits will be awarded in VII semester after evaluation.

| PROFESSIONAL ELECTIVE-II | | | | | | |
|--------------------------|---------------------------------------|--|--|--|--|--|
| PE601EE | AI Techniques | | | | | |
| PE602EE | Programmable Logic Controllers | | | | | |
| PE603EE | Digital Control Systems | | | | | |

| (| OPEN ELECTIVE-I | | | | | | |
|----------|-------------------------------|--|--|--|--|--|--|
| OE601BE | MEMS | | | | | | |
| OE602CE | Disaster Management | | | | | | |
| OE603CE | Geospatial Techniques | | | | | | |
| OE604CS | Operating Systems | | | | | | |
| OE605CS | OOPS using JAVA | | | | | | |
| OE606EC | Embedded Systems | | | | | | |
| OE607EC | Signal Analysis and Transform | | | | | | |
| | Techniques | | | | | | |
| *OE608EE | Reliability Engineering | | | | | | |
| OE609ME | Robotics | | | | | | |
| OE610ME | Material Handling | | | | | | |
| OE611LA | Intellectual Property Rights | | | | | | |
| | - | | | | | | |

^{*}OE608EE Elective is not offered to the students of Electrical Engineering Department

SCHEME OF INSTRUCTION & EXAMINATION

B.E.(EEE) VII Semester

| S. | Course | Course Title | | cheme structi | | | Scheme of Examination | | Credits |
|-----|---------|--|----|------------------|----|-------------------|-----------------------|-----|---------|
| No. | Code | | L | Т | P | Contact Hrs/wk | CIE | SEE | |
| 1. | PC701EE | Power System Operation and Control | 3 | 1 | - | 4 | 30 | 70 | 3 |
| 2. | PC702EE | Electric Drives and Static Control | | 1 | - | 4 | 30 | 70 | 3 |
| 3. | PC703EE | Power Electronic Applications to Power Systems | 3 | 1 | - | 4 | 30 | 70 | 3 |
| 4. | PE-III | PROFESSIONAL ELECTIVE-III | 3 | - | - | 3 | 30 | 70 | 3 |
| 5. | OE-II | OPEN ELECTIVE-II | 3 | - | - | 3 | 30 | 70 | 3 |
| 6. | PC751EE | Electrical Simulation Lab | - | - | 2 | 2 | 25 | 50 | 1 |
| 7. | PC752EE | Microprocessor and Microcontrollers Lab | - | - | 2 | 2 | 25 | 50 | 1 |
| 8. | EEP-I | Project Work-I | - | - | 2 | 2 | 50 | - | 2 |
| 9. | SI | Summer Internship | - | - | - | - | 50 | - | 2 |
| | | | 15 | 03 | 06 | 24 | 300 | 450 | 21 |

| PROFESSIONAL ELECTIVE-III | | | | | | |
|---------------------------------|----------------------------------|--|--|--|--|--|
| PE701EE Electrical Distribution | | | | | | |
| | Systems | | | | | |
| PE702EE | Electrical Machine Design | | | | | |
| PE703EE | Power System Reliability | | | | | |

| OPEN ELECTIVE-II | | | | | | |
|------------------|--------------------------|--|--|--|--|--|
| OE701BE | Image Processing | | | | | |
| OE702CE | Optimization Techniques | | | | | |
| OE703CS | Data Base Systems | | | | | |
| OE704CS | Information Security | | | | | |
| OE705EC | Neural Networks | | | | | |
| *OE706EE | Renewable Energy Sources | | | | | |
| OE707ME | Entrepreneurship | | | | | |
| OE708ME | Finite Element Analysis | | | | | |

^{*}OE706EE Elective is not offered to the students of Electrical Engineering Department

SCHEME OF INSTRUCTION & EXAMINATION

B.E.(EEE) VIII Semester

| S. | Course | Course Title | Scheme of Instruction | | | | Scheme of Examination | | Credits |
|-----|---------|-------------------------------------|--------------------------|---|----|-------------------|-----------------------|-----|---------|
| No. | Code | | L | Т | P | Contact Hrs/wk | CIE | SEE | |
| 1. | PC801EE | Utilization of Electrical Energy | 3 | - | - | 3 | 30 | 70 | 3 |
| 2. | PE-IV | PROFESSIONAL ELECTIVE-IV | 3 | - | - | 3 | 30 | 70 | 3 |
| 3. | PC851EE | Power System Lab | - | - | 2 | 2 | 25 | 50 | 1 |
| 4. | EEP-2 | Project Work-II | | | 6 | 6 | 50 | 100 | 8 |
| | | | 06 | - | 08 | 14 | 135 | 290 | 15 |

| PROFESSIONAL ELECTIVE-IV | | | | | | | |
|----------------------------------|--|--|--|--|--|--|--|
| PE801EE Advanced Control Systems | | | | | | | |
| PE802EE | Electrical Estimation Costing & Safety | | | | | | |
| PE803EE | Advanced Power Electronics | | | | | | |

| S.No. | Course Work- Subject Area | Credits/Semester | | | | | | | | Total Credits |
|-------|--|------------------|----------------|-----------------|--------------|-----------------|-----------------|--------------|----------------|------------------|
| | _ | I | II | III | IV | V | VI | VII | VIII | |
| 1. | Humanities and Social Sciences (HS) | - | 4 (1+1) | - | 3 (1) | - | - | - | - | 07 (4%) |
| 2. | Basic Sciences (BS) | 11 (3+2) | 11 (3+2) | 3 (1) | 3 (1) | - | - | - | - | 28 (16%) |
| 3. | Engineering Sciences (ES) | 11 (3+2) | 7 (2+1) | 7 (2+1) | 1 (0+1) | - | - | - | - | 26 (15%) |
| 4. | Professional Subjects- Core (EE) | - | - | 11 (3+1) | 17 (5+1) | 19 (5+3) | 16 (4+3) | 11 (3+2) | 4 (1+1) | 78 (44%) |
| 5. | Professional Subject-Electives (EE*) | - | - | - | - | 3 (1) | 3 (1) | 3 (1) | 3 (1) | 12 (7%) |
| 6. | Open Subjects- Electives (OE) | - | - | - | - | - | 3 (1) | 3 (1) | - | 06 (4%) |
| 7. | Project Work, Seminar and/or Internships (EEP) | - | - | - | - | - | - | 4 | 8 | 12 (7%) |
| 8. | Mandatory Courses (MC) | 4 (1+1) | - | 3 (1) | - | - | - | - | - | 07 (4%) |
| | | 26 | 22 | 24 | 24 | 22 | 22 | 21 | 15 | 176 |