**Excel Engineering College**

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**Department of Electrical and Electronics Engineering**

| 1.1.1Curriculadevelopedandimplementedhaverelevancetothelocal,national,regionalandglobaldevelopmentalneedswhicharereflectedinProgrammeOutcomes(POs),Programme SpecificOutcomes(PSOs)andCourseOutcomes(COs)ofthevariousProgrammesofferedbytheInstitution: | | | | |
|---|---|---|---|---|
| **Classification/Mapping of Course with their societal needs** | | | | |
| **Course code and name** | **Local needs** | **Regional Needs** | **National Needs** | **Global Needs** |
| | **B.E- ELECTRICAL AND ELECTRONICS ENGINEERING Regulation2020** | | | |
| 20MA104- Mathematics – I for Electrical Sciences | | ✓ | ✓ | ✓ |
| 20EE101- Fundamentals of Electrical Engineering | | | ✓ | ✓ |
| 20ENE01- Communicative English | | | ✓ | ✓ |
| 20ENE02- Advanced Communicative English | | | ✓ | ✓ |
| 20PH102- Physics for Electrical Sciences | | | ✓ | ✓ |
| 20CS102- Problem Solving Using Python | | ✓ | ✓ | ✓ |
| 20EE102- Electrical Engineering Practices Laboratory | ✓ | | ✓ | ✓ |
| 20MC101- Induction Programme | | | ✓ | ✓ |
| 20MA204- Mathematics – II for Electrical Sciences | | | ✓ | ✓ |
| 20EE201- Circuit Theory | | ✓ | ✓ | ✓ |
| 20ENE02- Advanced Communicative English | | | ✓ | ✓ |
| 20ENE03- Hindi | | ✓ | ✓ | ✓ |
| 20ENE04- French | | ✓ | ✓ | ✓ |
| 20ENE05- German | | ✓ | ✓ | ✓ |
| 20CH202- Chemistry for Electrical Sciences | ✓ | | ✓ | ✓ |
| 20ME203- Engineering Graphics | | ✓ | ✓ | ✓ |
| 20EE202- Electric Circuits Laboratory | ✓ | | ✓ | ✓ |
| 20MC202- Interpersonal Skills | | | ✓ | ✓ |

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| | | | | |
|---|---|---|---|---|
| **M.E POWER ELECTRONICS AND DRIVES-Regulation 2020** | | | | |
| 20PMA104- Applied Mathematics for Electronics Engineers | | ✓ | ✓ | ✓ |
| 20PPE101-Power Semiconductor Devices | | | ✓ | ✓ |
| 20PPE102- Analysis of Electrical Machines | | | ✓ | ✓ |
| 20PPE103-Analysis and Design of Power Converters | | ✓ | ✓ | ✓ |
| 20PPEE01-Soft Computing Techniques | | | ✓ | ✓ |
| 20PPEE02- Electromagnetic Field Computation and Modeling | ✓ | | ✓ | ✓ |
| 20PPEE03- Control System Design for Power Electronics | | | ✓ | ✓ |
| 20PPEE11- Analog and Digital Controllers | | ✓ | ✓ | ✓ |
| 20PPEE12- Flexible AC Transmission Systems | | | ✓ | ✓ |
| 20PPEE13- Distributed Generation and Micro grid | | ✓ | ✓ | ✓ |
| 20PPE104-Power Electronics Circuits Laboratory | | | ✓ | ✓ |
| 20PPE201-Analysis and Design of Inverters | | ✓ | ✓ | ✓ |
| 20PPE202- Solid State Drives | | | ✓ | ✓ |
| 20PPE203-Special Electrical Machines | ✓ | | ✓ | ✓ |
| 20PPE204- Power Quality | | ✓ | ✓ | ✓ |
| 20PPEE21- Modern Rectifiers and Resonant Converters | | ✓ | ✓ | ✓ |
| 20PPEE22- Computer Aided Simulation and Design of Power Electronics Systems | | | ✓ | ✓ |
| 20PPEE23- Field Programmable Gate Array Design | ✓ | | ✓ | ✓ |
| 20PPEE31-High Voltage Direct Current Transmission | | ✓ | ✓ | ✓ |
| 20PPEE32-Solar and Energy Storage Systems | ✓ | | ✓ | ✓ |
| 20PPEE33-Non Linear Control | | ✓ | ✓ | ✓ |
| 20PPEE34-Electric Vehicles and Power Management | ✓ | | ✓ | ✓ |
| 20PPE205- Electrical Drives Laboratory | | ✓ | ✓ | ✓ |
| 20PPE206- Mini Project | ✓ | | ✓ | ✓ |

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| ME-EMBEDDED SYSTEM TECHNOLOGIES | | | | |
|---|---|---|---|---|
| 20PMA104- Applied Mathematics for Electronics Engineers | | ✓ | ✓ | ✓ |
| 20PES101- Software for Embedded Systems | ✓ | | ✓ | ✓ |
| 20PES102- Microcontroller Based System Design | | ✓ | ✓ | ✓ |
| 20PES103- Design of Embedded Systems | | ✓ | ✓ | ✓ |
| 20PESE01- ASIC and FPGA Design | | ✓ | ✓ | ✓ |
| 20PESE02- Advanced Computer Architecture and Parallel Processing | ✓ | | ✓ | ✓ |
| 20PESE03- Digital Instrumentation | | | ✓ | ✓ |
| 20PESE11- Device Driver Embedded Linux | | ✓ | ✓ | ✓ |
| 20PESE12- Advanced Digital Signal Processors | | | ✓ | ✓ |
| 20PESE13- Embedded & Real Time Systems | | ✓ | ✓ | ✓ |
| 20PES104- Embedded System Laboratory-I | | | ✓ | ✓ |
| Real Time Operating Systems | ✓ | | ✓ | ✓ |
| 20PES202- Python Programming With Machine Learning | | | ✓ | ✓ |
| 20PES203- RISC Processor Architecture and Programming | | ✓ | ✓ | ✓ |
| 20PES204- Internet of Things | | ✓ | ✓ | ✓ |
| Embedded Product Development | | | ✓ | ✓ |
| 20PESE22- Electric Vehicles and Power Management | ✓ | | ✓ | ✓ |
| 20PESE23- Reconfigurable Processor and SoC Design | | ✓ | ✓ | ✓ |
| 20PESE31- Digital Image Processing | | ✓ | ✓ | ✓ |
| 20PESE32- Embedded Networking and Automation of Electrical System | | ✓ | ✓ | ✓ |
| 20PESE33- Smart System Design | | | ✓ | ✓ |
| 20PES205- Embedded System Laboratory-II | ✓ | | ✓ | ✓ |
| | **Prepared by** | **Reviewed by** | **Approved By** | |
| **SIGN** | K.S.NANTHINI | M.K.ANANDKUMAR | Dr.V.S.ARUTMURUGAN, B.E.,ME,Ph.D., Professor & Head Department of Electrical & Electronics Engineering, Excel Engineering and Technology, Komarapalayam, Namakkal-Dt. | |
| NAME | | | | |