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| 1.1.1Curricula developed and implemented have relevance to the local, national, regional and global developmental needs which are reflected in Programme Outcomes(POs), Programme Specific Outcomes(PSOs) and Course Outcomes(COs) of the various Programmes offered by the Institution: | | | | |
|---|---|---|---|---|
| **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 - Regulation 2020** | | | | |
| 20MA104- Mathematics – I for Electrical Sciences | | ✓ | ✓ | ✓ |
| 20EE101- Fundamentals of Electrical Engineering | | | ✓ | ✓ |
| 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 | | ✓ | ✓ | ✓ |
| 20CH202- Chemistry for Electrical Sciences | ✓ | | ✓ | ✓ |
| 20ME203- Engineering Graphics | | ✓ | ✓ | ✓ |
| 20EE202- Electric Circuits Laboratory | ✓ | | ✓ | ✓ |
| 20MC202- Interpersonal Skills | ✓ | | ✓ | ✓ |
| 20ENE03-Hindi | | ✓ | ✓ | ✓ |
| 20ENE04-French | ✓ | | ✓ | |
| 20ENE05-German | | | ✓ | ✓ |
| 20MA301-Transforms and Boundary Value Problems | | ✓ | ✓ | |
| 20EE302- Electromagnetic Theory | ✓ | ✓ | | ✓ |
| 20EE303- Power Generation Systems | ✓ | | ✓ | ✓ |
| 20CS302- Object Oriented Programming Systems | ✓ | ✓ | | |
| 20EE305- Electrical Machines I | | ✓ | ✓ | |
| 20EE301- Electronic Devices and Circuits | | ✓ | ✓ | ✓ |
| 20EE306- DC Machines & Transformers Laboratory | ✓ | | | ✓ |

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|---|---|---|---|---|
| 20CS305- Object Oriented Programming Laboratory | | ✓ | | ✓ |
| 20MC301- Environmental Science | ✓ | | ✓ | ✓ |
| 20MA405- Numerical Methods | | ✓ | | ✓ |
| 20EE402- Digital Logic Circuits | ✓ | | | ✓ |
| 20EE403- Transmission and Distribution | | | | ✓ |
| 20EE404- Measurement and Instrumentation | | ✓ | | ✓ |
| 20EE405- Electrical Machines II | | | | ✓ |
| 20EE406- Integrated Circuits and Applications | ✓ | | ✓ | ✓ |
| 20EE407- Synchronous and Induction Machines Laboratory | | | ✓ | ✓ |
| 20EE408- Instrumentation Engineering Laboratory | ✓ | ✓ | | ✓ |
| 20MC401- Soft Skills | | ✓ | | ✓ |
| 20EEA01- PLC Automation | | ✓ | | ✓ |
| 20EEA02- MATLAB Design | ✓ | | ✓ | ✓ |
| 20EEA03- Industrial Automation | | ✓ | | ✓ |
| 20EEA04- Quality Management System | ✓ | | ✓ | ✓ |
| 20EEA05- Applications of Synchronous Generator in Industries | ✓ | | | ✓ |
| 20EEA06- Hybrid Solar PV System | ✓ | | ✓ | ✓ |
| 20EEA07- Embedded Control of Electric Drives | | ✓ | | ✓ |
| **M.E POWER ELECTRONICS AND DRIVES - Regulation 2020** | | | | |
| | | | | |
| 20PTE301-Research Methodology and IPR | | | | ✓ |
| 20PPE302- Power Electronics for Renewable Energy Systems | ✓ | | | ✓ |
| 20PPEE41-Wind Energy Conversion Systems | | ✓ | | ✓ |
| 20PPEE42- Energy Management and Auditing | ✓ | | | ✓ |
| 20PPEE43 - Smart Grid | | ✓ | | ✓ |
| 20PPEE44 - Electric Vehicles | ✓ | | | ✓ |
| 20PPE303 - Project Work Phase- I | ✓ | | | ✓ |

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| 20PPE401 - Project Work Phase -II | ✓ | | | ✓ |
| **ME-EMBEDDED SYSTEM TECHNOLOGIES - Regulation 2020** | | | | |
| 20PTE301- Research Methodology and IPR | | ✓ | | ✓ |
| 20PES302- Wireless And Mobile Communication | ✓ | | | ✓ |
| 20PPEE43- Smart Grid | ✓ | | ✓ | ✓ |
| 20PESE42- Soft Computing and Optimization Techniques | | | | ✓ |
| 20PESE43- Cryptography And Network Security | | ✓ | | ✓ |
| 20PESE44- Robotics and Control | | ✓ | | ✓ |
| 20PESE45- Digital Signal Processors | ✓ | | | ✓ |
| 20PES303- Project Work Phase- I | | ✓ | | ✓ |
| 20PES401- Project Work Phase -II | | ✓ | | ✓ |

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| **M.E POWER ELECTRONICS AND DRIVES - Regulation 2022** | | | | |
| 22PMA104 - Applied Mathematics for Electronics Engineers | ✓ | | | ✓ |
| 22PPE101 - Power Semiconductor Devices | | | | ✓ |
| 22PPE102 - Analysis of Electrical Machines | | ✓ | ✓ | ✓ |
| 22PPE103 - Analysis and Design of Power Converters | | | | ✓ |
| 22PPEE01 - Soft Computing Techniques | ✓ | ✓ | | ✓ |
| 22PPEE02 - Electromagnetic Field Computation and Modeling | | ✓ | ✓ | ✓ |
| 22PPEE03 - Control System Design for Power Electronics | | | | ✓ |
| 22PPEE11 - Analog and Digital Controllers | | ✓ | | ✓ |
| 22PPEE12 - Flexible AC Transmission Systems | ✓ | | | ✓ |
| 22PPEE13 - Distributed Generation and Micro grid | | ✓ | | ✓ |
| 22PPE104 - Power Electronics Circuits Laboratory | | | ✓ | ✓ |
| 22PPE201- Analysis and Design of Inverters | | ✓ | | ✓ |
| 22PPE202 - Solid State Drives | ✓ | | ✓ | ✓ |
| 22PPE203 - Special Electrical Machines | | | | ✓ |
| 22PPE204 - Electric Vehicles and Power | | ✓ | | ✓ |

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|---|---|---|---|---|
| Management | | | | |
| 22PPEE21 - Modern Rectifiers and Resonant Converters | ✓ | | | ✓ |
| 22PPEE22 - Computer Aided Simulation and Design of Power Electronics Systems | | | | ✓ |
| 22PPEE23 - Field Programmable Gate Array Design | ✓ | ✓ | | ✓ |
| 22PPEE31- High Voltage Direct Current Transmission | | | ✓ | ✓ |
| 22PPEE32- Solar and Energy Storage Systems | | ✓ | | ✓ |
| 22PPEE33- Non Linear Control | ✓ | | | ✓ |
| 22PPEE34 - Power Quality | | ✓ | | ✓ |
| 22PPE205- Electrical Drives Laboratory | | | ✓ | ✓ |
| 22PPE206 - Mini Project | ✓ | | | ✓ |

| ME-EMBEDDED SYSTEM TECHNOLOGIES - Regulation 2022 | | | | |
|---|---|---|---|---|
| 22PMA104 - Applied Mathematics for Electronics Engineers | ✓ | | | ✓ |
| 22PES101 – VLSI Design and Reconfigurable Architecture | ✓ | ✓ | | ✓ |
| 22PES102 - Microcontroller Based System Design | | | ✓ | ✓ |
| 22PES103 - Design of Embedded Systems | | | | ✓ |
| 22PESE01 – ASIC and FPGA Design | ✓ | | | ✓ |
| 22PESE02 - Advanced Computer Architecture and Parallel Processing | | ✓ | ✓ | ✓ |
| 22PESE03 - Digital Instrumentation | | | | ✓ |
| 22PESE11 - Device Driver Embedded Linux | | | ✓ | ✓ |
| 22PESE12 - Advanced Digital Signal Processors | | ✓ | | ✓ |
| 22PESE13 - Embedded & Real Time Systems | | ✓ | | ✓ |
| 22PESE21- Embedded Product Development | ✓ | | | ✓ |
| 22PESE22 - Electric Vehicles and Power Management | | | ✓ | ✓ |
| 22PESE23 - Reconfigurable Processor | ✓ | | | ✓ |

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| and SoC Design | | | | |
| 22PES104 – Embedded System Laboratory-I | ✓ | | | ✓ |
| 22PES201 – Real Time Operating Systems | | ✓ | | ✓ |
| 22PES202 – Python Programming With Machine Learning | ✓ | | | ✓ |
| 22PES203- RISC Processor Architecture and Programming | | | ✓ | ✓ |
| 22PES204 - Internet of Things | ✓ | | | ✓ |
| 22PESE01 – ASIC and FPGA Design | | | | ✓ |
| 22PESE02 – Advanced Computer Architecture and Parallel Processing | ✓ | | ✓ | ✓ |
| 22PESE03 – Digital Instrumentation | | | | ✓ |
| 22PESE11 – Device Driver Embedded Linux | | ✓ | | ✓ |
| 22PESE12 – Advanced Digital Signal Processors | | | ✓ | ✓ |
| 22PESE13 – Embedded & Real Time Systems | ✓ | | | ✓ |
| 22PESE21 – Embedded Product Development | | ✓ | | ✓ |
| 22PESE22 – Electric Vehicles and Power Management | ✓ | | ✓ | ✓ |
| 22PESE23 – Reconfigurable Processor and SoC Design | ✓ | | | ✓ |
| 22PESE31 – Digital Image Processing | | ✓ | | ✓ |
| 22PESE32 - Embedded Networking and Automation of Electrical System | | | ✓ | ✓ |
| 22PESE33 – Smart System Design | | ✓ | | ✓ |
| 22PES205 – Embedded System Laboratory-II | ✓ | | | ✓ |

| | Prepared by | Reviewed by | Approved By |
|---|---|---|---|
| SIGN | S.B. | K. Anandkumar | |
| NAME | S.B. Vshabharathi | K.K. ANANDKUMAR | Dr. M.R. Mohanraj<br>Head of the Department<br>Dept. of Electrical and Electronics Engineering<br>Excel Engineering College (Autonomous)<br>NH-544, Pallakkapalayam,<br>Komarapalayam-637303 Namakkal (Dt.), Tamilnadu. |

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