



BRAINWARE UNIVERSITY
School of Engineering
Department of Electrical Engineering
Programme Structure: Master of Technology in Electrical Engineering – Power System
2021

Semester-I

| Course Code | Course Name | L -T -P | Credits | Total Marks |
|-------------|--|---------|---------|-------------|
| PCC-MPS101 | Advanced Power System Analysis | 3-0-0 | 3 | 100 |
| PCC-MPS102 | Research Methodology and IPR | 2-0-0 | 2 | 100 |
| BSC-MPS 101 | Advanced Engineering Mathematics | 3-0-0 | 3 | 100 |
| PEC-MPS101 | Elective – I A. Power System Planning and Reliability B. Power System Apparatus C. Power Quality | 3-0-0 | 3 | 100 |
| POE-MPS102 | Elective – II A. Optimization Techniques B. Digital Signal Processing C. Object Oriented Programming | 3-0-0 | 3 | 100 |
| PCC-MPS191 | Laboratory I Power System Analysis Lab | 0-0-4 | 2 | 100 |
| PCC-MPS192 | Laboratory II Power System and Simulation lab | 0-0-4 | 2 | 100 |
| | Total | 16-0-8 | 18 | 700 |

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| MC-MPS181 | Audit I A. Research Paper Writing B. Constitution of India | 2-0-0 | 0 | 100 |
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Semester-II

| Course Code | Course Name | L - T - P | Credits | Total Marks |
|-------------|--|--------------------|-----------|-------------|
| PCC-MPS201 | Advanced Power System Protection | 3 - 0 - 0 | 3 | 100 |
| PCC-MPS202 | Power System Operation and Control | 3 - 0 - 0 | 3 | 100 |
| PEC-MPS201 | Elective – III A. Modeling and Simulation of dynamic systems B. Renewable Power Generation & Control C. Smart Grid Technologies | 3 - 0 - 0 | 3 | 100 |
| PEC-MPS 202 | Elective – IV A. Power System Harmonics B. Energy Management and Audit C. Advanced Electrical Drives | 3 - 0 - 0 | 3 | 100 |
| PCC-MPS 291 | Laboratory III Power System Protection and Simulation Lab | 0 - 0 - 4 | 2 | 100 |
| PCC-MPS 292 | Laboratory IV Power Quality Lab | 0 - 0 - 4 | 2 | 100 |
| PCC-MPS281 | Seminar I | 0 - 0 - 2 | 2 | 100 |
| | Total | 14 – 0 – 10 | 18 | 700 |

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| MC-MPS281 | Audit II A. Value Education B. Disaster Management | 2 - 0 - 0 | 0 | 100 |
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Semester-III

| Course Code | Course Name | L -T -P | Credits | Total Marks |
|--------------------|---|------------------|-----------|-------------|
| PEC-MPS301 | Elective – V A. Power System Transients B. FACTS and Custom Power Devices C. Industrial Load Modeling and Control | 3 - 0 - 0 | 3 | 100 |
| OEC-MPS301 | Elective – VI A. Business Analytics B. Industrial Safety C. Operations Research | 3 - 0 - 0 | 3 | 100 |
| PROJ-MPS381 | Dissertation-I | 0 - 0 - 20 | 10 | 100 |
| | Total | 6 – 0 –20 | 16 | 300 |

Semester-IV

| Course Code | Course Name | L -T -P | Credits | Total Marks |
|--------------------|------------------|-------------------|-----------|-------------|
| PROJ-MPS481 | Dissertation- II | 0 - 0 - 32 | 16 | 100 |
| | Total | 0 - 0 - 32 | 16 | 100 |