

**GURU NANAK DEV ENGINEERING COLLEGE, LUDHIANA**  
**ELECTRICAL ENGINEERING DEPARTMENT**

| <b>MASTER OF TECHNOLOGY (FULL-TIME) POWER ENGINEERING COURSE SUBJECTS<br/>(2014 ONWARDS)</b> |                     |   |                  |          |          |                |
|--|---------------------|---|------------------|----------|----------|----------------|
| <b>Sr.<br/>No.</b>   | <b>Subject code</b> | <b>Course title</b>                                 | <b>Type</b>      | <b>L</b> | <b>P</b> | <b>Credits</b> |
| 1  | MTPEE – 501         | Advanced Power System Analysis                      | Core             | 4        | -        | 4              |
| 2  | MTPEE – 502         | Power System Operation and Control                  | Core             | 4        | -        | 4              |
| 3  | MTPEE – 503         | Advanced Electrical Machines                        | Core             | 4        | -        | 4              |
| 4  | MTPEE – 504         | HVDC Transmission                                   | Core             | 4        | -        | 4              |
| 5  | MTPEE – 505         | Power System Protection                             | Core             | 4        | -        | 4              |
| 6  | MTPEE – 506         | EHVAC Transmission                                  | Core             | 4        | -        | 4              |
| 7  | MTPEE – 507         | Power System Software Lab - I                       | Core             | -        | 2        | 2              |
| 8  | MTPEE – 508         | Industrial Automation Lab - II                      | Core             | -        | 2        | 2              |
| 9  | MTPEE – 509         | Pre Thesis Seminar                                  | Core             | -        | 2        | 4              |
| 10   | MTPEE – 510         | Pre Thesis Project                                  | Core             | -        | 2        | 4              |
| 11   | MTPEE – 511         | Thesis  | Core             | -        | -        | 14             |
| 12   | MTPEE – 601         | Research Methodology                                | Program Elective | 3        | -        | 3              |
| 13   | MTPEE – 602         | Advanced Power Electronics                          | Program Elective | 3        | -        | 3              |
| 14   | MTPEE – 603         | Digital Control System                              | Program Elective | 3        | -        | 3              |
| 15   | MTPEE – 604         | Energy Efficient Machines                           | Program Elective | 3        | -        | 3              |
| 16   | MTPEE – 605         | Power System Planning                               | Program Elective | 3        | -        | 3              |
| 17   | MTPEE – 606         | Power Systems Stability                             | Program Elective | 3        | -        | 3              |
| 18   | MTPEE – 607         | Advanced Electrical Drives                          | Program Elective | 3        | -        | 3              |
| 19   | MTPEE – 608         | Microprocessors & their applications                | Program Elective | 3        | -        | 3              |
| 20   | MTPEE – 609         | Industrial Instrumentation and Process Control      | Program Elective | 3        | -        | 3              |
| 21   | MTPEE – 610         | Power System Transients                             | Program Elective | 3        | -        | 3              |
| 22   | MTPEE – 611         | Operation and Modeling of Restructured Power System | Program Elective | 3        | -        | 3              |
| 23   | MTPEE – 612         | Power System Reliability                            | Program Elective | 3        | -        | 3              |
| 24   | MTPEE – 613         | Renewable Energy Resources                          | Program Elective | 3        | -        | 3              |
| 25   | MTPEE – 614         | Reliability Engineering                             | Program Elective | 3        | -        | 3              |
| 26   | MTPEE – 615         | Optimization Techniques                             | Program Elective | 3        | -        | 3              |
| 27   | MTPEE – 616         | Neural Networks & Fuzzy Logic                       | Program Elective | 3        | -        | 3              |
| 28   | MTPEE – 617         | Economics and Organization of Power Sector          | Program Elective | 3        | -        | 3              |