

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY  
BELAGAVI**



**Scheme of Teaching and Examinations (2026)**

**M.Tech. in Electrical and Electronics Engineering Stream**

Choice-Based Credit System (CBCS) and Outcome-Based Education (OBE), with Laboratory for Self-Directed Learning

**M. Tech. in Electrical Engineering Stream**  
**Scheme of Teaching and Examinations 2025-26**  
**Applicable to Power System Engineering (EPS), Power Electronics (EPE), Energy System Engineering (ESE), and Electric Vehicle Technology (EVT)**

Outcome-Based Education (OBE) and Choice-Based Credit System (CBCS) (Effective from the academic year 2025-26)

**I SEMESTER**

| Sl. No | Course and Course Code |             | Course Title                                  | Teaching Department (TD) and Question Paper Setting Board (PSB) | Teaching and Learning Scheme                  |    |                                                |                                    |                                                         | Examination       |           |           |             | Credits |    |
|--------|------------------------|-------------|-----------------------------------------------|-----------------------------------------------------------------|-----------------------------------------------|----|------------------------------------------------|------------------------------------|---------------------------------------------------------|-------------------|-----------|-----------|-------------|---------|----|
|        |                        |             |                                               |                                                                 | Classroom Instruction (CI) hours per semester |    | Laboratory Instruction (LI) hours Per semester | Term work & self-learning in hours | Teaching - Learning hours per semester = CI + LI+ TW+SL | Duration in hours | CIE Marks | SEE Marks | Total Marks |         |    |
|        |                        |             |                                               |                                                                 | L                                             | T  | P                                              | TW+SL                              |                                                         |                   |           |           |             |         |    |
| 1      | MAT                    | 1MEEMAT101  | Advanced Engineering Mathematics              | Mathematics                                                     | 42                                            | 0  | 0                                              | 48                                 | 90                                                      | 3                 | 50        | 50        | 100         | 3       |    |
| 2      | PCC                    | 1MEE102     | Modelling and Analysis of Electrical Machines | EEE                                                             | 42                                            | 0  | 0                                              | 48                                 | 90                                                      | 3                 | 50        | 50        | 100         | 3       |    |
| 3      | PCC                    | 1MEE103     | Power Electronic Converters                   | EEE                                                             | 42                                            | 0  | 0                                              | 48                                 | 90                                                      | 3                 | 50        | 50        | 100         | 3       |    |
| 4      | PCC                    | 1MExxx104x  | Professional Core Course (PCC)                | EEE                                                             | 56                                            | 0  | 0                                              | 64                                 | 120                                                     | 3                 | 50        | 50        | 100         | 4       |    |
| 5      | PCC                    | 1MExxx105x  | Professional Core Course (PCC)                | EEE                                                             | 42                                            | 0  | 0                                              | 48                                 | 90                                                      | 3                 | 50        | 50        | 100         | 3       |    |
| 6      | PEC                    | 1MExxx106x  | Professional Elective Course-I                | EEE                                                             | 42                                            | 0  | 0                                              | 48                                 | 90                                                      | 2                 | 50        | 50        | 100         | 3       |    |
| 7      | PCCL                   | 1MExxxL107x | Professional Core Courses Labs                | EEE                                                             | --                                            | -- | 28                                             | 2                                  | 30                                                      | 03                | 50        | 50        | 100         | 1       |    |
| 8      | NCMC                   | 1MRMI108    | Research Methodology and IPR                  | CDOE                                                            | Teaching and CIE evaluation by CDOE           |    |                                                |                                    |                                                         |                   |           |           |             | PP      |    |
|        |                        |             |                                               |                                                                 |                                               |    |                                                |                                    | Total                                                   | 600               | --        | 350       | 350         | 700     | 20 |

| Professional Core Course (PCC) |                                                                                     |  | Professional Core Courses (PEC) |                                                |
|--------------------------------|-------------------------------------------------------------------------------------|--|---------------------------------|------------------------------------------------|
| Code                           | Title of the Course                                                                 |  | Code                            | Title of the Course                            |
| 1MEEE104A                      | Power Systems Operation, Stability, Protection and PQ (Common to EPS, EPE, and ESE) |  | 1MEE105A                        | Embedded Systems (Common to EPS, EPE, and ESE) |
| 1MEVT104B                      | Electric Power Train                                                                |  | 1MEVT105B                       | Battery Electric Vehicles Powertrain           |

| Professional Elective Courses (PEC)-I |                                               |  | Professional Core Courses Lab (PCCL) |                                                                                   |
|---------------------------------------|-----------------------------------------------|--|--------------------------------------|-----------------------------------------------------------------------------------|
| Code                                  | Title of the Course                           |  | Code                                 | Title of the Course                                                               |
| 1MEPS106A                             |                                               |  | 1MEPS107A                            | Power Systems Laboratory<br>(Laboratory for Self-Directed Learning)               |
| 1MEPE106B                             | Semiconductor Devices                         |  | 1MEPE107B                            | Power Electronic Converters Laboratory<br>(Laboratory for Self-Directed Learning) |
| 1MESE106C                             | Renewable Energy Systems and Grid Integration |  | 1MESE107C                            | Solar and Wind Energy Laboratory<br>(Laboratory for Self-Directed Learning)       |
| 1MEVT106D                             | Power Electronics for BEVs                    |  | 1MEVT107D                            | EV Technology Laboratory<br>(Laboratory for Self-Directed Learning)               |