MSBTE
(Maharashtra State Board of Technical Education, Mumbai)

Diploma in Electrical Engineering (EE)
(3 Year Full Time after S.S.C.)
Semester Pattern

Admission Eligibility:

- **S.S.C. Passed with 35% of marks for all category students, for First Year.**
- **H.S.C. (Science/ VOC/ Technical), MCVC and ITI passed with 35% of marks for all category students, for direct admission to 2nd year (20% Seats of Total Intake are allotted).**

Course overview:

- **Electrical engineering is the branch of engineering that deals with the technology of electricity. Electrical engineers work on a wide range of components, devices and systems, from tiny microchips to huge power station generators.**
- **Since its early beginnings, the field of electrical engineering has grown and branched out into a number of specialized categories, including power generation and transmission systems, motors, batteries and control systems. Electrical engineering also includes electronics, which has itself branched into an even greater number of subcategories, such**

as radio frequency (RF) systems, telecommunications, remote sensing, signal processing, digital circuits, instrumentation, audio, video and optoelectronics.

- **Electrical engineers design, develop, test and supervise the manufacturing of electrical equipment, such as electric motors, radar and navigation systems, communications systems and power generation equipment. Real-world device that produces, conducts or uses electricity, in all likelihood, it was designed by an electrical engineer. Additionally, engineers may conduct or write the specifications for destructive or nondestructive testing of the performance, reliability and long-term durability of devices and components.**

Course Curriculum includes:

· Fundamentals of Electrical Engineering
· Electrical Circuits
· Electrical & Electronics Measurements
· Electrical Power Generation
· Electrical Materials and Wiring Practice
· Electric Motors and Transformer
· Electrical Power Transmission & Distribution
· Digital Electronics & Microcontroller Application
· Electrical Drawing and CAD
· Switchgear and Protection
· Energy Conservation and Audit
· Power Electronics Application
· Maintenance of Electric Equipment
· Utilization of Electrical Energy
·Electrical Estimation and Contracting
·Emerging Trends in Electrical Engineering
·Industrial Drives and Control

Special Features of the Course:

- **Electrical Engineering, one of the science branches deals with the technical aspects of electricity. In Electrical Engineering branch aspirants learn about the wide range of electrical components, devices and systems. The branch imparts knowledge from tiny microchips to huge power station generators.**
- **This course grants adequate knowledge and practical skills to students which can be used in various fields. The work area of electrical engineers is very wide as it ranges from the power industry to the automation sector.**
- **Electrical engineering has become one of the most sought after courses among Indian Students.**

Employment Prospects:

- **After completing diploma in Electrical Engineering students can work as supervisor of electrical maintenance department in any engineering industry. Electrical Engineering has a wide career opportunity in sectors like Electronics, Power Corporation, IT consultants or Manager, Aviation Technology, Communication Technology, Radio Engineers, Electromagnet Engineers, Aviation Power Supply, etc. Some of the major hiring companies in India are TCS, ONGC, MTNL, BSNL, NTPC, BHEL (Bharat Heavy Electricals Limited). Apart from private jobs, the scope for Government jobs is also higher for people from an engineering background.**
- **Diploma holder in Electrical Engineering can work as junior supervisor in different sectors of MSEB like Generation, Transmission and distribution.**
- **Salary depends upon the employing organization, its range of operation and the work profile.**

Work Environment:

- **Electrical and electronics engineers work in industries including research and development, engineering services, manufacturing, telecommunications, and the federal government. Electrical and electronics engineers generally work indoors in offices. However, they may have to visit sites to observe a problem or a piece of complex equipment.**
- **Electrical engineers may spend time at a desk developing designs, planning budgets, and preparing project schedules.**