

## ■ Electronics Engineering



### Program Overview

The Bachelor of Engineering (B.E.) in Electronics Engineering, affiliated with Mumbai University, is a four-year undergraduate program designed to provide a strong foundation in the principles and applications of electronics. The curriculum spans eight semesters and covers core subjects such as Electronic Devices and Circuits, Digital Circuit Design, Electrical Network Analysis, Microprocessors and Applications, Principles of Communication Engineering, and VLSI Design. Advanced topics include Embedded Systems, Computer Communication Networks, and Signals and Systems, ensuring students are well-versed in both hardware and software aspects of electronics.

The program integrates theoretical knowledge with practical experience through laboratory work, mini-projects, and a major final-year project. Students can choose from a range of departmental electives such as Biomedical Instrumentation, Microwave Engineering, Robotics, and Digital Image Processing, allowing them to specialize in areas of interest. The curriculum is regularly updated to align with industry trends and technological advancements.

Graduates are prepared for diverse careers in electronics design, embedded systems, telecommunications, automation, and research, or for pursuing higher studies. The program emphasizes analytical skills, innovation, and a problem-solving approach, equipping students to contribute to the rapidly evolving electronics industry.

### Program Highlights

- Curriculum covers core areas like electronic devices, circuits, microprocessors, and communication systems.
- Emphasis on hands-on learning through well-equipped laboratories and project work.
- Elective courses in advanced topics such as VLSI, robotics, neural networks, and biomedical instrumentation.
- Exposure to the latest industry tools, design software, and global technological trends.
- Regularly updated syllabus aligned with industry requirements and emerging technologies.
- Opportunities for internships, industry interaction, and participation in technical events and workshops.

### Career Prospects

- Embedded Systems Engineer
- VLSI Design Engineer
- IoT (Internet of Things) Engineer
- Communication Systems Engineer
- Signal Processing Engineer
- Robotics Engineer
- Electronics Design Engineer
- Network Architect or Telecommunications Engineer
- Control Systems Engineer
- Instrumentation Engineer
- Research & Development Engineer
- Automation & Industrial Systems Engineer

### Program Outcomes

- Apply knowledge of mathematics, science, and engineering to solve electronics problems.
- Analyze, design, and implement electronic circuits and systems.
- Use modern tools and techniques for electronics engineering practice.
- Communicate effectively and work in multidisciplinary teams.
- Identify and address professional, ethical, and societal responsibilities.
- Engage in lifelong learning and adapt to emerging technologies.