## Highlights of B.E. Robotics and **Artificial Intelligence at MMIT Pune**

- ✤ Industry focused, project-based curriculum with regular workshops, hackathons to enhance practical skills
- ✤ E-Yantra Robotics lab (A robotics outreach program by IIT) Bombay)
- Robotics Society of India (Student Chapter)
- ✤ All India Council for Robotics & Automation
- Internship opportunities at partner industries and research labs
- Award winning and experience faculties from premier institutes of India
- ✤ Representing MMIT in the prestigious National Robotics Contest-ROBOCON
- ✤ Presenting research papers at national and international conferences

## **Co-curricular Activities**

- Participation Hackathons and Innovative Challenge Competitions
- Membership of Student's Club and Technical Societies
- Startup Culture and Entrepreneurship
- **Research and Publications** ÷.
- Workshops and Short-Term Certifications
- Seminar and Guest Lectures
- Continuous Mentoring

#### **Next-Gen Engineering Jobs**

- Robotics and AI Engineer
- Smart Manufacturing and Industry 4.0 \*
- ✤ Automation Engineer
- Data Analyst for Manufacturing  $\dot{\mathbf{v}}$
- Human-Robot Interaction (HRI) Designer
- **Bio-Robotics Engineer**  $\diamond$
- Robotics Cybersecurity Engineer

# **Faculty Information**

#### Faculties from esteemed universities







Dr. Amol Bhanage Head & Associate Professor Ph.D from VIT, Vellore

- Dr. Nilesh Satonkar Prof. Nilesh Dhobale Assistant Assistant Professor Professor
- Assistant Professor Ph.D from VIT, Chennai M.Tech from VIT, Chennai M.E. Design, SPPU, Pune

Prof. Shilpa Tambe

# Lab's Information



**Robot Simulation Lab** 



Python Programming Lab / AIML Lab / Data Analytics Lab



E-Yantra Robotics Lab



**Digital Manufacturing** Lab- 3D Printer



Analog and Digital Electronics Lab

#### **Industrial Opportunities**



For Admissions, Contact: 8482992795, 9673035530, 9021836099, 8177910728

For admissions, scan QR







# "Techno-Social Excellence" Marathwada Mitra Mandal's Institute of Technology (MMIT)

Survey No. 35, Vadgaon Shinde Road, Lohgaon, Pune 411047. Approved by AICTE | Recognized by DTE Permanently Affiliated to SPPU | Accredited with 'A' Grade by NAAC

# B.E.

# **Robotics and Artificial Intelligence**

DTE Choice Code: 0620326610

**Information Brochure** 





Industrial Robotics Lab





#### **Institute Information**

The Marathwada Mitramandal's Institute of Technology, Lohgaon was established in 2008. The institution is affiliated to Savitribai Phule Pune University (SPPU), Pune and is approved by AICTE, New Delhi, recognized by DTE, Government of Maharashtra. The institute is accredited with NAAC "A" Grade. Marathwada Mitra Mandal's Institute of Technology, Pune offers Bachelor of Engineering (B.E.) in 6 Engineering Disciplines: Robotics and Artificial Intelligence, Mechanical Engineering, Mechatronics Engineering, Civil Engineering, Computer Engineering, and Artificial Intelligence and Data Science. Also offers Master of Engineering in Computer Engineering and Robotics and Automation.

## Vision

To be a center of excellence in Robotics and Artificial Intelligence education and research, fostering innovation, ethical leadership, and sustainable solutions for societal and industrial advancement.



#### **Mission 1: Technical and Research Excellence**

To provide high-quality education that equips students with strong foundational knowledge and advanced technical skills in Robotics, Artificial Intelligence, and core Mechanical Engineering, enabling them to solve complex real-world problems.

#### **Mission 2: Innovation and Ethical Responsibility**

To cultivate a learning environment that promotes innovation, ethical practices, leadership, and social responsibility, preparing graduates to contribute positively to industry and society.

#### **Mission 3: Lifelong Learning and Entrepreneurship**

To encourage continuous learning, entrepreneurial mindset, and adaptability, empowering students to excel in dynamic technological landscapes and pursue impactful professional careers.

# **Overview of the Department**

Robotics and Artificial Intelligence is a dynamic, interdisciplinary field that blends Computer Science, Mechanical Engineering, and Electronics Engineering. It encompasses the design, development, and deployment of robots, along with their real-world applications. Advances in robotics are driving a technological revolution, creating diverse and exciting career opportunities for future innovators.

#### Salient Features:

- The curriculum is designed in line with the latest industry trends and as per NEP (National Education policy) to ensure a futureready education
- State-of-the-art workshops, labs, and fabrication facilities spread across the campus
- Implementation of industry-driven programs, hands-on experiential learning, skill development modules, and realworld engineering applications
- Regular industrial visits, expert guest lectures, technical workshops, hackathons, and project expos to enhance practical knowledge
- Advanced laboratories for design, automation, manufacturing, thermal engineering, and material sciences
- Highly qualified faculty with strong academic, research, and industrial credentials
- A highly interactive learning environment with opportunities to engage with industry professionals and researchers
- Excellent internship and placement records with top recruiters from core and interdisciplinary sectors
- MoUs and collaborations with leading Industries, research organizations, and academic institutions for research, innovation, and professional growth

# **Outline of the Course**

Program offered: B.E. (Robotics and Artificial Intelligence)



The Robotics and AI program distinguishes itself through a cuttingedge, interdisciplinary curriculum that integrates cognitive technologies, AI/ML, computer vision, and robotics-equipping students with the skills to solve real-world challenges. What sets us apart is our hands-on, innovation-driven approach, coupled with a strong emphasis on ethical AI development. With industry collaborations and research opportunities, students gain practical experience and stay ahead in the rapidly evolving tech landscape. This holistic, future-focused program ensures graduates are not just skilled but also responsible pioneers in intelligent systems.

# **Career Opportunities**

After completing a B.E. Robotics & AI program, graduates can pursue a variety of career paths. Some of the popular career options for engineers are:

- Robotics Engineer Design, build, and maintain robots for industries like manufacturing, healthcare, and logistics.
- Industrial Automation Engineer Implement AI-driven automation in factories and production lines.
- Al/ML Engineer Develop machine learning models and Al systems for automation, data analysis, and decision-making.
- Computer Vision Engineer Create systems for object detection, facial recognition, and augmented reality.
- Robotics Software Engineer Develop control algorithms and software for robotic systems.
- ✤ AI Research Scientist Conduct cutting-edge research in deep learning, reinforcement learning, and neural networks.
- Human-Robot Interaction Specialist Improve how robots interact with humans in assistive, medical, or service roles.
- ✤ Entrepreneur / Robotics Startup Founder Create your own AI or robotics startup. For example, in delivery robots, agricultural automation, or service robots.



# Program Curriculum

B.E. in Robotics and Artificial Intelligence make engineers to design, develop, and deploy AI for robotics applications in the era of future automation. This program will provide ample opportunities to graduates with a portfolio of real-world projects to take into their chosen careers.