



SYMBIOSIS INSTITUTE OF TECHNOLOGY (SIT)

Constituent of Symbiosis International (Deemed University), Pune

(Established under Section 3 of the UGC Act of 1956 vide notification number F-9-12/2001-U-3 of the Government of India)

॥वसुधैव कुटुम्बकम्॥ Re-Accredited by NAAC with 'A+ + ' Grade

Robotics and Automation

Robotics and Automation Engineering is a rapidly growing field in areas such as manufacturing, healthcare, transportation, agriculture, and space exploration, driven by the need for increased productivity, quality, and efficiency. The B.Tech in Robotics and Automation at SIT offers a multidisciplinary program combining knowledge and skills in different areas of engineering, with a curriculum designed to meet industry requirements. Students learn about mechanics, sensors, mobile robotics, control theory and algorithms, computer vision, and machine learning. The department has well-equipped industrial-grade labs and experienced research-oriented faculty members, providing innovative teaching-learning pedagogy to impart cutting-edge skills to its students.

SYMBIOSIS INSTITUTE OF TECHNOLOGY



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SYMBIOSIS INTERNATIONAL (DEEMED UNIVERSITY)

(Established under Section 3 of the UGC Act, 1956) | Re-accredited by NAAC with 'A++' grade | Awarded Category - I by UGC

The Department of Robotics and Automation offers programs

B.Tech - 120 | M.Tech -18 | P.hD



Going Beyond Classroom

Flexi Credit Courses

Special Diploma in Business Management

Academic Curricula Benchmarked with International Universities

Industrial Visits, Workshops, Technical Events, Guest Lectures

Best in Class Infrastructural Facilities

Six-month Industry Internships

Value Addition Programmes

True Blend of Cultures

Mentor-Mentee System and Remedial Teaching

Learn Foreign Languages

Service Learning Activities

Tinker Lab

Global Immersion Programmes (Summer School, Winter School) Abroad

Creative Thinking, Critical Thinking, Design Thinking, Entrepreneurship Courses

Active Student's Body

Specialization Programs



Aerial Robotics and Drone Technology (Major)



Artificial Intelligence and Machine Learning (CSE) (Minor)



Data Science (CSE) (Minor)



Smart Cities and Urban Analytics (CE) (Minor)

Major Recruiters & Industry Internships



Internships

100% STUDENTS OF
M.TECH. ROBOTICS AND AUTOMATION
SECURED PAID INTERNSHIPS

Top Recruiters



Highest Stipend

45k per month



Pramoda Meduri

Associate Director - Automotive Software
Verolt Engineering Pvt. Ltd.

Curriculum at Robotics and Automation department is on a trend-setting path to enable next-gen mobility with end-to-end AI, ML, deep learning based solution deployment, simulation, testing and end-to-end integration services.

Project Based Learning



Brain Tumour Detection



Sign Language Recognition using AI



RUL Prediction using AI



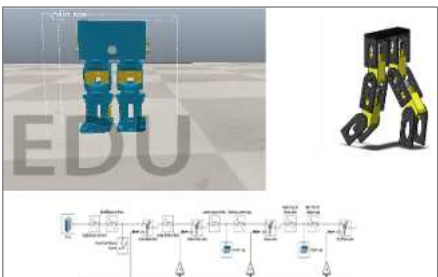
Automatic Writing Machine



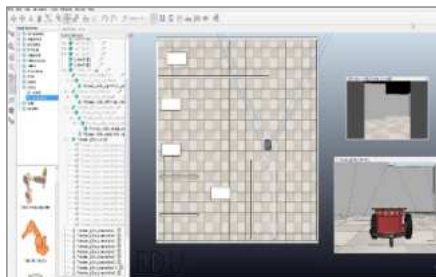
Pneumatic Powered Wall Climbing Robot



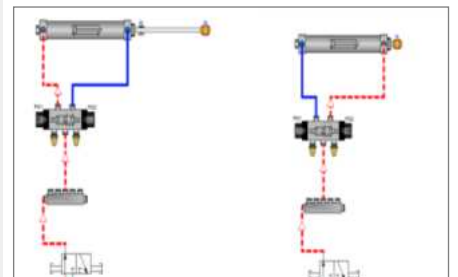
Brain Controlled Robotic Arm



Simulation of Bi-Pedal Walking Robot



Simulation of Mobile Robot



Simulation of Pneumatic Powered Sorting Device



IoT Enabled Automatic Garage Door



Vision Based Colour Sorting Machine



Light Follower Robotic Arm



Atul Raje

Data & Analytics Enterprise
Architect CTO at UXLI Limited UK

SIT has instilled great confidence in my daughter with their industry-ready programs. The Robotics and Automation department has been instrumental in shaping her up as an individual.

Student Activities



Hands-on Workshops



PLC Workshop



PLC Hands-on at Mastretech Innovation



3D Printing Hands-on at Philips



Arduino Workshop



Drone Workshop



Yogesh Kumar Khatri

CEO, Net Soft Solutions -
Software / Web Development Delhi, India

SIT exceeded expectations with experienced faculty, state-of-the-art infrastructure, and personalized attention. Teachers' individualized guidance keeps students on track and shapes their future. Choosing SIT was a proud decision.

Labs and Infrastructure

Labs powered by various industries, which includes

Janatics
India
Private
Limited

B&R
Industrial
Automation

Mitsubishi
Automation

Siemens

UiPath

Allen-
Bradley

Drona
Aviation

Math Works

Famic
Technolo-
gies

CoppeliaSim

Best in Lab Infrastructural Facilities in R&A Department

Applied Artificial
Intelligence Lab

Sensor and
Microcontrollers
Lab

PLC and
Automation Lab

Mechatronics
and IOT Lab

Hydraulics and
Pneumatics Lab

Aerial Robotics and
Drone Technology
Lab

Smart Manufacturing
Technology Lab

Industrial Robotics
Lab

Mobile Robotics
Lab



Mentors in Departmental Development



Mr. Chaitanya Patel
Senior Control Engineer at
Tokamak Energy Ltd. England,
United Kingdom



Mr. Yashodhan upadhyay
Maestrotek Innovations
Pvt. Ltd. Pune, Maharashtra



Dr. Debanik Roy
Scientist at Bhabha
Atomic Research Centre



Mr. Jhankar Dutta
Regional Managing Director -
Southern & Eastern Asia
B&R Industrial Automation
(ABB group)



Mr. Ganapathy Subramaniam K
Head - Applications & Training,
at Janatics India Pvt. Ltd.



Dr. Santhakumar Mohan
Associate Professor at
Indian Institute of Technology,
Palakkad



Dr. Pradeep Chatterjee
Head - Digital Business &
Experience Management,
TML Business Services Ltd.



Mr. Rajesh Siraskar
Lead Data Scientist
and Practice
Director, Birlasoft

Industry Connect

MOUs with Top Companies



Nisag Kadam

Senior Technology Manager
@WonderBotz | 3X UiPath Community MVP

With a high demand for skilled professionals, RPA training and certification programs can provide students with in-demand skills to excel in their careers. SIT's academic alliance with UiPath Academy for RPA has been a huge bonus to the student fraternity at SIT.

Industry Visit



Industrial Visit to Mapro Foods Pvt. Ltd.



Industrial Visit to Analogic Automation Pvt. Ltd.



Robotics in Real-World Scenarios

Internationalization

Internationalization at SIT is driven by the belief that education and research are global phenomena. The Global Immersion programme (GIP) accords students an opportunity to study abroad for a semester, attend summer school, internships with international partners. International MoUs are signed with the prestigious universities.

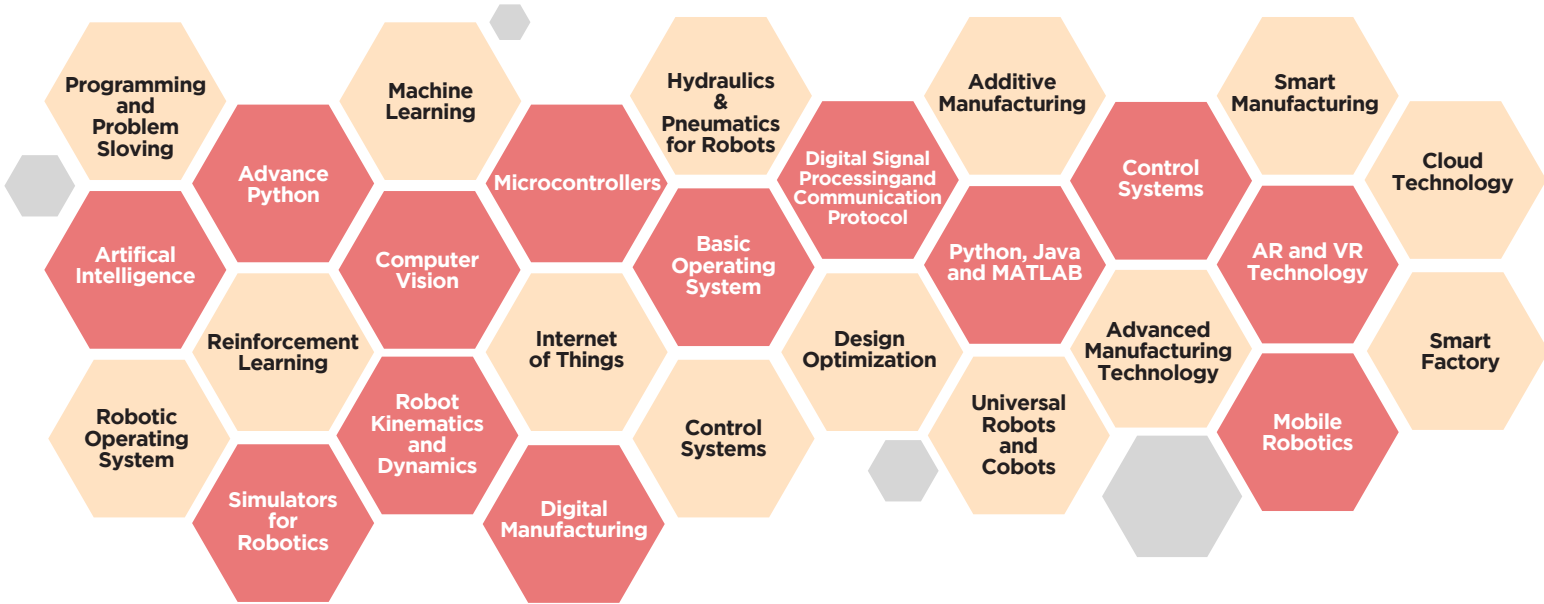


Kusha Shetty

Head, Technology
COE, CBO IA (EGG)

SIT's Robotics and Automation Department impressed me at TechFest'22. The knowledgeable faculty and cutting-edge labs provide students with hands-on experience for future success.

Progressive Multidisciplinary Program Structure



Student Awards & Recognitions



Khushi Kumar, student from Robotics and Automation won the inter-institute TT SIU tournament



Mr. Paranjay N B has represented SIU in All India university volleyball tournament (West zone)



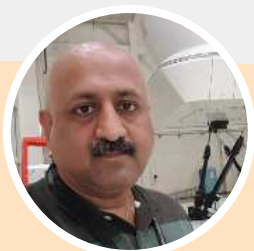
Mr. Shourya Sandeep Sharma has represented Inter Institute Tournament at Flame University, Pune



Students from R&A won 2nd prize in the Symbiosis All India Inter-Institute Chess Championship 2022



M.Tech students won second prize in VOIS Innovation Camp 2022 (National level) organized by Vodafone Intelligent Solutions (VOIS)

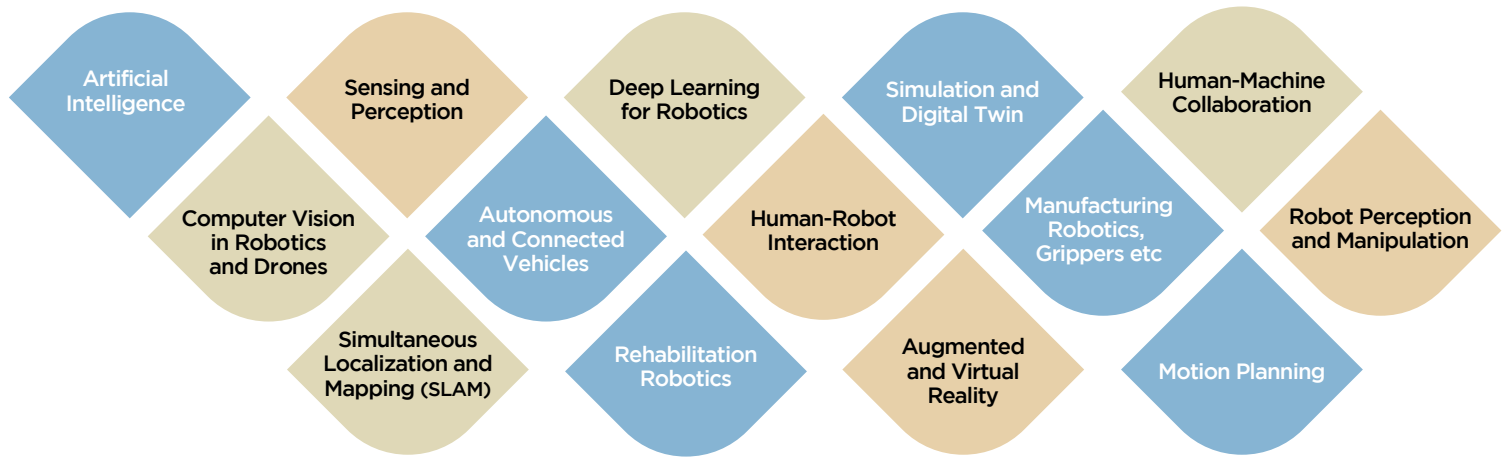


Swanand Puranik

Flight Simulator Technician,
Emirates Airlines

The curriculum at Robotics and Automation department is aligned with the advanced technologies such as Aerial & Drone Technologies, Artificial Intelligence, Sensor-Driven Automation and so on.

Research Areas



Clubs



RPA Club



RPA Sessions



IoT Club



Industry Meetups



Club activities:

- Workshops
- Interactions with Industry Experts
- Participation in Competitions

Professional Bodies



Amit Kumar Soni

Cluster Head Bhopal North

Robotics and Automation engineers are competent and educated professionals that can revolutionize the Industry 4.0 highlights of sustainable and smart manufacturing.

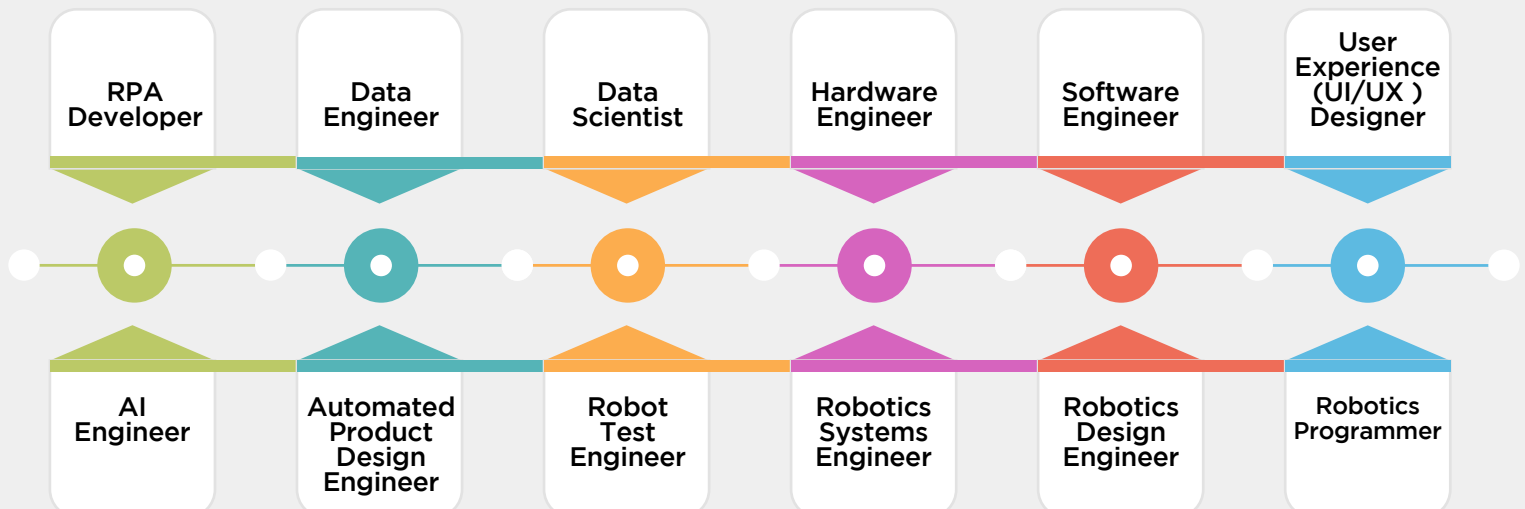
Service Learning



Tech Fest



Career Opportunities in Robotics and Automation



Vision of the Department

To provide quality multidisciplinary technical education in the field of Robotics and Automation with a focus on research to create technically proficient citizens who can accept global need-based challenges with a sense of social responsibility.

Mission of the Department

- ◆ To contribute towards knowledge generation and dissemination in the Robotics and Automation domain.
- ◆ To provide a research-centric ecosystem through industry and international collaborations and to develop global competencies amongst students.
- ◆ To inculcate problem-solving and lifelong learning skills for sustainable solutions through project-based learning, self-learning & collaborative approach.

Program Educational Objectives (PEOs)

- ◆ Will gain the necessary knowledge to deliver innovative and state-of-the-art solutions for complex problems in automation, robotics and cross disciplinary domains.
- ◆ Will be part of diverse and multi-disciplinary teams and possess leadership skills, ethical values, social & environmental awareness.
- ◆ Will be innovative and well equipped with advanced tools & techniques to develop and implement diverse products and services in the field of engineering through strong communication, interpersonal, and entrepreneurial skills.
- ◆ Will have an attitude of life-long learning and pursue professional development opportunities to adapt to the ever-changing global economic and technological scenarios.



Symbiosis Institute of Technology

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