# **ROBOTICS CLUB OF SVEC**





## SREE VIDYANIKETHAN ENGINEERING COLLEGE

Sree Sainath Nagar, A.Rangampet, Tirupati

#### Vision:

To facilitate students to understand, design and learn robotics and provide with opportunities to express their skills, knowledge and creativity through conceptualizing, designing and programming robots.

#### Mission:

To provide a unique, challenging learning environment that inspires young minds to apply and sharpen their science, technology, engineering, and math skills.

#### **Robotics club of SVEC:**

Robotics is the branch of technology that deals with the design, construction, operation, structural disposition, manufacture and application of robots.

The Robotics club of SVEC at Sree Vidyanikethan Engineering College provides students with the resources to develop robots. The Club offers indispensable guidance, workshops and tutorials along with tools, equipment's, components and workspace. The club is managed by students with the faculty assistance.

The Club involves the student community who derive pleasure in creating robots that may even be potent to work without human intervention. The club develops interest in the field of robotics among the student community and provides workspace, tools, and guidance to interested students apart from taking up specific projects.

#### **Objectives of the Robotics club:**

- Facilitate students to understand, design and learn robotics.
- Enhance enthusiasm and knowledge towards robotics by providing a hands-on and multi-disciplinary collaborative experience in designing, building, and robots programming.
- Inculcate student-to-student interaction to transfer and share knowledge, and for brainstorming of new ideas and projects.
- Provide systematic, step-by-step approach to familiarize new members and beginners with robotic and embedded systems.
- Provide interested students with opportunities to express their skills, knowledge and creativity through conceptualizing, designing and programming robots.
- Encourage students to participate in open source software development competitions.
- Enable students to participate at International and National level events.
- To liaise with external Robotics clubs.



Igus Robots available in ARC Lab of SVEC

#### **Outcomes of Robotics club of SVEC:**

The Robotics club of SVEC intends to focus on research, design and build new robots that serve various practical purposes including domestic, commercial and industrial needs. The Club strives to stimulate interest in robotics among the students of the institute.

The club firmly believes in working in a planned, organized and disciplined manner that helps us in risk free management. The proceedings of the clubs are all pre-planned and run smoothly. Well defined goals, an organized and disciplined work structure and motivated members are the strengths of the club. The club is an active platform for students to display and develop their practical machine building skills and knowledge.

The students in the club will be able to:

 Obtain knowledge, interest, and connection to engineering and science concepts and careers through a hands-on learning atmosphere.

- Inculcate habit of "thinking technologically" by getting an opportunity to apply knowledge creatively, to see how systems interact, both with each other and with the environment.
- Build and compete with a robot of their own design.
- Learn and use sophisticated software and hardware related to the field of robotics.
- Compete and cooperate in robots alliances and tournaments.
- Engage in exciting, mentor-based programs that build engineering skills, inspire innovation, and foster wellrounded life capabilities including self-confidence, communication, team work and leadership.

### Activities of the club:

- Robotics awareness programs
- Developing of robotic models/kits
- Classroom Training Programs
- Summer Training Programs
- Engineering Mini Projects
- Final Year Engineering Projects
- Organizing Competitions
- Conducting workshops
- Certification programs



Project models developed by the Students using robotics principle



Walking robot developed by the students



Drone designed and developed by the students



**Object sensing robot designed and developed by the students** 

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