



ROBOTECH

MONTHLY NEWSLETTER

ROBOTICS AND AUTOMATION



CONTENTS

**EXODIA TECHNOLOGIES PVT. LTD.
INAUGURATED**

**OFFICIAL LAUNCH OF HUMYNEX
ROBOTICS PRIVATE LIMITED**

**CAREER GUIDANCE TALK ON
INDUSTRY-ORIENTED ROBOTICS
WITH Q MARK TECHNOLABS**

**AI TOOL RESEARCH CLASSES FOR S7
STUDENTS**

**CONGRATULATIONS TO ISA ASIET
EXCOM 2026**

ACADEMIC ACHIVEMENT

SPORTS ACHIVEMENT

TECH INSIGHTS

VISION

Progress through quality education and evolve into a center for academic excellence in the field of Robotics and Automation.

MISSION

To provide a supportive academic environment for value-added education and continuous improvement to become the leaders in robotic research and education. To develop socially responsible engineers with technical competence, leadership skills and team spirit.

EXODIA TECHNOLOGIES PVT. LTD. INAUGURATED



The Department of Robotics and Automation, Adi Shankara Institute of Engineering and Technology (ASIET), proudly celebrates the inauguration of EXODIA TECHNOLOGIES PVT. LTD., a robotics startup founded by Dino Davis, a distinguished alumnus of the 2022–2026 batch.

The startup was formally inaugurated by Dr. Ciza Thomas and attended by the Principal, Heads of Departments, faculty members, staff making the occasion a memorable celebration of innovation, entrepreneurship, and technological excellence. EXODIA TECHNOLOGIES PVT. LTD. specializes in the design and development of advanced robotic systems, including Underwater Remotely Operated Vehicles (ROVs), Unmanned Aerial Systems (UAS), and Long-Range Vertical Take-Off and Landing (VTOL) drones. These technologies are developed for applications such as surveying, mapping, inspection, and surveillance, contributing to the advancement of intelligent engineering solutions.

The launch of EXODIA TECHNOLOGIES stands as an inspiring example of how ASIET alumni are transforming innovative ideas into successful ventures. The Department of Robotics and Automation extends its heartfelt congratulations to Dino Davis and the entire EXODIA TECHNOLOGIES team and wishes them continued success in shaping the future of robotics and autonomous technologies.

OFFICIAL LAUNCH OF HUMYNEX ROBOTICS PRIVATE LIMITED



The Department of Robotics and Automation, Adi Shankara Institute of Engineering and Technology (ASIET), proudly celebrates the inauguration of HUMYNEX Robotics Private Limited, a pioneering startup co-founded by Mr. Pranav S. Pillai, faculty member of the Department of Robotics and Automation, who serves as the CEO & Co-Founder of the company.

The inauguration ceremony was held at Adi Shankara Institute of Engineering and Technology, Kalady, in the presence of the Principal, Heads of Departments, faculty members, staff, students, and invited guests, marking a significant milestone in fostering innovation and entrepreneurship within the institution.

HUMYNEX Robotics Private Limited is committed to developing innovative solutions in the fields of Robotics, Artificial Intelligence, and Automation. The company aims to transform cutting-edge ideas into practical technologies that address real-world challenges while contributing to the advancement of intelligent automation.

The Department of Robotics and Automation extends its heartfelt congratulations to Mr. Pranav S. Pillai and the entire HUMYNEX Robotics team, wishing them continued success and many milestones in their journey of technological innovation and excellence.



Career Guidance Talk on Industry-Oriented Robotics with Q Mark Technolabs

The Department of Robotics and Automation, ASIET, Kalady, organized a Career Guidance Talk on Industry-Oriented Robotics in association with Q Mark Technolabs Pvt. Ltd. on 15 July 2026 at the Programming and Simulation Laboratory. The session, held from 11:00 AM to 12:00 PM, focused on “ROS 2 for Autonomous Mobile Robot Development” and aimed to prepare final-year students for careers in robotics and automation.

The session was led by Mr. Hafiz Shafeek, CEO, Q Mark Technolabs, and Mr. Sachin S. Nair, Director, Q Mark Technolabs, who shared valuable insights into current industry trends, emerging technologies, and the practical skills expected from future robotics engineers. Around 40 final-year students actively participated in the interactive programme.

Students were introduced to the fundamentals of Robot Operating System 2 (ROS 2) and its applications in autonomous mobile robot development. The resource persons demonstrated how modern robotic systems are designed and tested using industry-standard tools such as ROS 2 Jazzy, Gazebo Harmonic, Nav2 Stack, MoveIt 2, SLAM Toolbox, Fusion 360, and Python (rcipy).

The speakers explained the role of these technologies in mapping, localization, navigation, motion planning, and autonomous decision-making, providing students with a clear understanding of real-world robotics applications.





AI TOOL

CLASSES

FOR

S7

21 JULY 2026



“AI Tool For Technical Writing” sessions for S7 Robotics & Automation Students

The Department of Robotics and Automation organized a technical session on “AI Tools for Technical Writing” for S7 Robotics and Automation (S7RA) students on 21st July 2026. The session was led by Dr. Binju Sanju from the Department of Artificial Intelligence.

With documentation and research becoming a core part of an engineer’s role, the session focused on how AI can make technical writing faster, clearer, and more professional. Dr. Binju Sanju introduced students to various AI-powered tools that assist in report and research paper preparation, technical documentation, proofreading, grammar checking, content organization and structuring, and citation management. Through live demonstrations, students observed how these tools can enhance writing quality, reduce errors, improve productivity, and streamline the entire documentation workflow from lab reports to research publications.

The Department extends its sincere gratitude to Dr. Binju Sanju and all S7RA students for their active participation and engagement, which made the session insightful and practical.

CONGRATULATIONS TO ISA ASIET EXCOM 2026

We extend our warmest congratulations to the newly elected Executive Committee of ISA ASIET Student Chapter for the term 2026.

Your commitment, vision, and enthusiasm for the field of automation and instrumentation are truly inspiring. We are confident that under your leadership, the chapter will continue to grow, innovate, and create meaningful opportunities for learning, collaboration, and industry engagement.

May this tenure bring new ideas, successful events, and lasting impact to the student community.

Wishing you all a very successful and rewarding journey ahead!

**International Society of Automation**
Setting the Standard for Automation

**Adi Shankar**
INSTITUTE OF ENGINEERING AND TECHNOLOGY

ISA ASIET EXCOM Members 2026



Athira M
Chapter Advisor



Adharsh V S
President



Adwaith Prasanth
Vice President



Rijo Tom Varghese
Secretary



Madhav J Niravath
Treasurer

**International Society of Automation**
Setting the Standard for Automation

**Adi Shankar**
INSTITUTE OF ENGINEERING AND TECHNOLOGY



Namitha Nandakumar
Program Coordinator



Dhissa Megha P S
Membership
Coordinator



Arjun Baiju
Technical Lead



Akshay R
Design Team



Congratulations!

Department of Robotics & Automation
KTU BTECH S4 RESULT-RA



9.29

NAMITHA NANDAKUMAR **RIJO TOMVARGHESE**



9.25

AGNES THOMAS



8.79

SUKALPO GHOSH



8.49

ANIRUDH GUGNU



8.1

GIMNA GIMMY



8.06

ROHINI SANTOSH



8.06

SIVANEYS S



8.04

**GAUTHAM
KRISHNA A M**



7.98

ARSHA PONNU NK



7.92

PARVATHY KRISHNA



7.71

MALAVIKA M



7.65

FATHIMA ISMAIL



7.6

ANANDHU KRISHNA P S



7.58

AINA K S



7.54

DENCIL SEBASTIAN



7.5

BINTO P B



Career Success: Jithin Secures Opportunity Through IIT Madras



The Department of Robotics and Automation proudly congratulates Jithin on securing an appointment with Sunlux for a Defence Drone Project. Following the successful completion of his internship on 10 August, he will be employed through IIT Madras.

This achievement reflects Jithin's technical competence and dedication, while highlighting the department's commitment to nurturing industry-ready professionals.

We extend our heartfelt congratulations to Jithin and wish him continued success in his professional journey.

BALENZA 2026 JERSEY DAY

THE DEPARTMENT OF ROBOTICS AND AUTOMATION CELEBRATED BALENZA 2026 – JERSEY DAY ON 18TH JULY 2026 BRINGING TOGETHER STUDENTS IN A VIBRANT DISPLAY OF SPORTSMANSHIP AND TEAM SPIRIT.

THE HIGHLIGHT OF THE EVENT WAS THE FOOTBALL SHOOT-OUT, WHERE TEAM DOMINUS SHOWCASED EXCELLENT COORDINATION AND DETERMINATION, SECURING THE SECOND RUNNER-UP POSITION.

THE EVENT CELEBRATED TEAMWORK, FRIENDSHIP, AND THE VIBRANT CAMPUS SPIRIT BEYOND ACADEMICS.

CONGRATULATIONS TO TEAM DOMINUS FOR PROUDLY REPRESENTING THE DEPARTMENT OF ROBOTICS AND AUTOMATION.



TECH INSIGHTS

PHYSICAL AI DRIVES THE HUMANOID SHIFT

Robots move from scripted factory arms to general-purpose machines that perceive, reason, and act in the real world.

Robotics in 2026 is defined by **Physical AI** — foundation models trained not just on text, but on how the physical world behaves. Instead of hand-coding a robot for one task, engineers now train a general "robot brain" that adapts across environments, the same way a language model adapts across topics.

This shift is what's letting humanoid robots move out of demo videos and onto real production floors, and it's forcing a rethink of what actually limits a robot's usefulness.

PHYSICAL AI



ROBOTICS & AUTOMATION
TECH INSIGHTS

PHYSICAL AI DRIVES THE HUMANOID SHIFT

Robots move from scripted factory arms to general-purpose machines that perceive, reason, and act in the real world.

-  **PHYSICAL AI**
Foundation models that learn from the physical world.
-  **DEXTEROUS HANDS**
Advanced actuators enabling precision and adaptability.
-  **REAL-WORLD IMPACT**
From factories to services—humanoids are going mainstream.

SYSTEM STATUS

- ENVIRONMENT MAP
- TASK: ASSEMBLY
- ✓ IN PROGRESS

AI MODEL ACTIVE

- SENSORS
 - Vision
 - Force
 - Depth
 - IMU
- SAFETY ACTIVE

1

Humanoids on the Floor

Full humanoid robots deployed for real industrial work, not just research.

STRENGTHS

- Atlas (Boston Dynamics) now runs with 56 degrees of freedom at Hyundai's Metaplant
- Figure 03 expanding inside BMW's Spartanburg plant

LIMITS

- Still task-specific despite general hardware
- High cost limits scale outside large manufacturers

2

Dexterous Hands

The bottleneck has shifted from the "brain" to the hand.

STRENGTHS

- New actuators enable fine motor tasks, from live piano playing to precise assembly
- Reaction times as fast as 0.02 seconds

LIMITS

- Mechanically complex and expensive to mass produce
- Durability under repetitive use still developing

3

Why It Matters

Affordable, compact humanoids are pulling robotics into service industries, not just factories.

SIGNAL

- Unitree's G1 targets service and research at low cost
- Market projected to grow nearly 4x by 2035

WATCH

- Safety certification still catching up to capability

"The core question every robotics team is answering right now: can this robot go from watching a task once to doing it reliably — without being reprogrammed?"

THE CONVERGENCE: PERCEPTION + ACTION

PERCEPTION LAYER

Computer vision and sensor fusion let the robot build a live model of its surroundings — identifying objects, people, and hazards in real time.

- Camera and depth sensing
- Real-time environment mapping
- Safety-aware navigation (e.g. RealSense + LimX Dynamics)

ACTION LAYER

Foundation models translate that perception directly into motor commands, closing the loop between "seeing" and "doing."

- Vision-language-action models
- Adaptive grip and force control
- Continuous learning from operation data

QUICK TAKEAWAY

Think of it like learning to ride a bike: robotics spent years solving balance and decision-making — the "brain." Now that robots can think reasonably well, the challenge has moved to the "hands" — fine control and dexterity, the last mile between intelligence and usefulness.

STAFF EDITORS

Dr Sreedeeep Krishnan (HOD)

Dr. Julia.T.J

STUDENT EDITORS

GIMNA GIMMY S5RA

HAYA NAVAS S3RA

AINA NAFEESA S3RA