



Suresh Angadi Education Foundation's
**ANGADI INSTITUTE OF TECHNOLOGY AND
MANAGEMENT**

Savagaon Road, Belagavi – 590 009.

(Approved by AICTE, New Delhi & Affiliated to Visvesvaraya Technological University, Belagavi)

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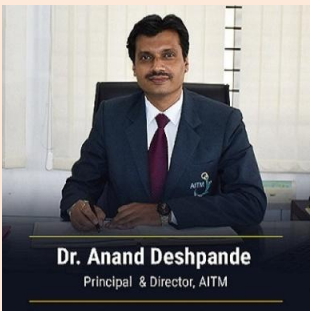
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E- Newsletter



Department of Robotics and Automation Engineering

E – Newsletter | June – December 2024

ANGADI INSTITUTE OF TECHNOLOGY AND MANAGEMENT BELAGAVI - 09		AITM
Head of the Institute	Message	
 <p>Dr. Anand Deshpande Principal & Director, AITM</p>	<p>An Institute is assessed on the basis of the academic ambiance and outcome of the system in terms of performance and achievements of the students and staff in teaching-learning, research, innovation, placements, and results. AITM has been known for its academic credentials coupled with holistic growth in all directions. The new generation of competent minds must imbibe knowledge and practically comprehend the art of balancing brilliant technical, managerial, communication, and interpersonal skills. The Institute has achieved a series of milestones with the help of brilliant students, dedicated staff, and encouraging Management. We promise a wonderful experience of rich academic and excellent facilities coupled with professional practices and blended with an affectionate concern for our students.</p>	
Head of the Department	Message	
 <p>Dr. Pooja V. Anagolkar HOD</p>	<p>Robotics & Automation Engineering is an interdisciplinary program that includes Electrical, Electronics, Computer Science (Artificial Intelligence and Machine Learning), Control and Instrumentation. It opens a door of opportunities for students in the domains of design, construction, application and operation of robots and automation applications. As a robotics engineer, the job role involves designing models, assembling, testing and maintaining robots and the software which controls them. Robotics engineers carry the responsibility of planning, testing and building robots that are sustainable, safe and profitable. The course will enable students to attain expertise in next-generation robotics and automation systems by taking advantage of a comprehensive educational environment, and will prepare a skilled industry workforce as well as expert researchers who can provide significant leadership in a world increasingly dependent on next-generation robots and technology.</p>	

Institute Vision and Mission

Vision:

To become a premier institute committed to academic excellence and global competence for the holistic development of students.

Mission:

- M1: Develop competent human resources, adopt outcome-based education (OBE) and implement cognitive assessment of students.
- M2: Inculcate the traits of global competencies (such as domain expertise, accountability, ethics, problem solving ability, communication skills, leadership qualities and life-long learning) amongst the students.
- M3: Nurture and train our students to have domain knowledge, develop the qualities of global professionals and to have social consciousness for holistic development.

Department Vision and Mission

Vision:

To provide quality education in Robotics and Automation, enabling students to acquire strong technical knowledge, practical skills, and innovative thinking necessary for their overall growth and professional success.

Mission:

- M1: Provide quality education in Robotics and Automation with strong domain knowledge and hands-on skills, delivered by qualified faculty in line with the latest technological advancements.
- M2: Adopt innovative, student-centered teaching methods to nurture analytical thinking, creativity, and problem-solving abilities.
- M3: Create a supportive learning environment that helps students develop professional competence, leadership qualities, ethical values, and a spirit of lifelong learning.

Faculty	Designation	Qualification
Dr. Pooja V. Anagolkar	Professor & HoD	B.E., M.Tech., Ph.D., Postdoc
Dr. Aravind B. Muddebihal	Associate Professor	B.E., M.Tech., Ph.D.
Mr. Suneel K. Nagavi	Assistant Professor	B.E., M.Tech.
Mrs. Shweta Kalkundri	Assistant Professor	B.E., M.Tech.

Highlights: June – December 2024**ROBO Race Technical Event*****Technical Event | 1 June 2024***

The Department of Robotics and Automation conducted the ROBO Race technical event on 1 June 2024, giving students a hands-on platform to apply their robotics knowledge in a competitive setting.

Highlights

- Conducted by the Department of Robotics and Automation
- Date: 1 June 2024



Symposium on Robotics & Automation – Revolutionizing Tomorrow

*Symposium | 28–29 June 2024 · with the
Department of Electronics & Communication*

The Departments of Robotics and Automation and Electronics and Communication jointly organised the symposium “Revolutionizing Tomorrow” on 28–29 June 2024. The keynote was delivered by Dr. Aditya Abhyankar of SPU Pune. Technical sessions were delivered by Mr. Santosh (Horiba India), Mr. Koppaka Ganesh Sai Apuroop (SUTD / WeFaa Robotics), Mr. Kiran Joshi (Skandish), Dr. C. Pavan Kumar (IIIT Dharwad) and Dr. Deepak K. T. (IIIT Dharwad). The event also offered participants valuable networking opportunities.

Highlights

- Keynote: Dr. Aditya Abhyankar, SPU Pune
- Sessions by Horiba India, SUTD / WeFaa Robotics, Skandish and IIIT Dharwad
- Networking opportunities for participants



‘Give priority to research in Robotics’

EXPRESS NEWS SERVICE

By Sangeeta

THE Departments of Robotics and Automation, and Electronics and Communication Engineering of Angadi Institute of Technology and Management (AITM) conducted a symposium on Robotics & Automation ‘Revolutionizing Tomorrow’ here on June 28 and 29.

Chief guest Dr. Aditya Abhyankar, Director, School of Technology, Savitribai Phule Pune University, briefed the importance of research and innovation in robotics, emphasising how cutting-edge developments in these fields can drive future technological progress and address global

challenges. He also discussed the role of interdisciplinary collaboration in fostering innovation, the impact of emerging technologies on society, and the need for a strong foundation in STEM education to support future advancements. In her presidential remarks, Dr. Sangeeta R. Patil, Director, SAEF, motivated all participants to seize this opportunity to learn, collaborate, and innovate. She emphasized the importance of active participation, the potential to gain valuable insights from experts, and the benefits of networking with peers and professionals to drive personal and professional growth.

Raju Joshi, Administrator

of SAEF, Dr. Anand Deshpande, Principal and Director of AITM, Dr. Dhanashree Kulkarni, Dean Academics, AITM, Dr. Pooja Angolkar, HOD, Department of Robotics and Automation engineering, AITM, Mr. Ravindra Chougale, HOD, Department of Electronics and Communication Engineering, AITM, HODs from various departments and many participants across various engineering colleges in Belagavi participated in the symposium.

This symposium helped participants to gain insights into cutting-edge research, practical applications, and future trends in robotics and automation.



National Level ROBOTHON

Competition | 5–6 July 2024 · Jyothy Institute of Technology, Bengaluru

Students of the department took part in the National Level ROBOTHON held at Jyothy Institute of Technology, Bengaluru, on 5–6 July 2024.

Highlights

- Participants: Ms. Sanjana Desai, Ms. Shraddha Pawar, Ms. Tejashwini Yaragatti, Mr. Ayush Patil, Mr. Jay Patil, Mr. Aadesh Patil and Mr. Smartha Lohar
- Venue: Jyothy Institute of Technology, Bengaluru



Paper Presentations at ICNFMS-2024

Student Achievement | 26–27 July 2024 · Ballari Institute of Technology and Management with Kishkinda University

Students of the department presented papers at the International Conference on New Frontiers in Materials Science (ICNFMS-2024), organised by Ballari Institute of Technology and Management jointly with Kishkinda University on 26–27 July 2024. The department thanks AITM Belagavi and the Principal & Director, Dr. Anand Deshpande, for their support.

Highlights

- “Green Materials for Robots” – Tejashwini Yaragatti, Sanjana Desai, Shraddha Pawar
- “Wireless Robot” – Vaishnavi Patil, Srushti Bellad, Bhavani Revankar



Faculty Development Program: “Research Publication and Ethics”

Research Activity | 23 September 2024 · Seminar Hall-01

The Departments of CSE and Robotics and Automation, in association with the AITM ACM Chapter, organised a Faculty Development Program on “Research Publication and Ethics” on 23 September 2024 in Seminar Hall-01. The resource person, Dr. T. Ram Prabhu, Joint Director and Scientist, DRDO Bengaluru, covered the significance of research publications, ethical practices in research and the schemes available for securing research funding. The program was graced by Dr. Dhanashree Kulkarni (HoD CSE and Dean Academics), Dr. Kiran Potadar (HoD Mathematics), Dr. Pooja Angolkar (HoD Robotics and Automation), Deans, Heads of Departments, faculty and students, and coordinated by Prof. Priyanka Pujari. A second FDP session on research publications and ethics featured Dr. D. H. Rao on research ethics and plagiarism, and Dr. Pooja Angolkar on journal paper writing strategies for faculty.

Highlights

- Resource person: Dr. T. Ram Prabhu, DRDO Bengaluru
- Topics: research publication, ethics and funding schemes
- Follow-up session: Dr. D. H. Rao and Dr. Pooja Angolkar



FDP on “Research” by Dr. Anand Deshpande

Research Activity | 2024 · AITM ACM Chapter

The Departments of CSE and Robotics and Automation, in collaboration with the AITM ACM Chapter, organised a Faculty Development Program on “Research”. The session was led by Dr. Anand Deshpande, Principal and Director of AITM, who shared valuable perspectives on research methodologies and the importance of ethical research practices.

Highlights

- Led by Dr. Anand Deshpande, Principal & Director
- Focus: research methodology and research ethics



Vruddhi 2K24 – Association Inauguration

Association | 2024

The department association Vruddhi 2K24 was inaugurated with a lamp-lighting ceremony in the presence of distinguished guests, faculty and students. The speakers stressed collaboration, continuous learning and innovation, setting the tone for the association's technical events for the year.

Highlights

- Lamp-lighting ceremony
- Themes: collaboration, continuous learning, innovation



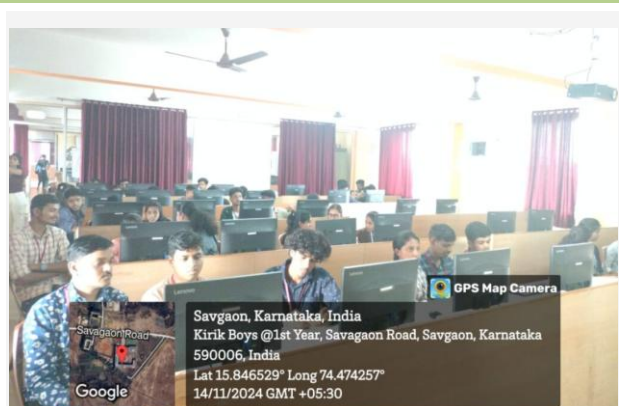
Robotics International Hackathon

Hackathon | 14 November 2024 · with WeFaa Robotics, Singapore

The Departments of Robotics & Automation and Computer Science & Engineering, in collaboration with WeFaa Robotics, Singapore, hosted the Robotics International Hackathon on 14 November 2024. The event began with an inaugural ceremony graced by dignitaries and faculty, and drew enthusiastic participants from various disciplines, who showcased ideas and worked in teams to push the boundaries of robotics and automation.

Highlights

- International collaboration with WeFaa Robotics, Singapore
- Certificates of participation for all attendees
- Prizes for the winning teams



Industrial Visit to GTTC, Belagavi

Industrial Visit | 22 November 2024

The Department organised an industrial visit to the Government Tool Room and Training Centre (GTTC), Belagavi, on 22 November 2024. Students observed advanced industrial equipment, modern automation systems and robotics technologies. The visit gave hands-on exposure to industry practices, bridged the gap between theory and application, and helped students understand industry standards and real-world engineering challenges.

Highlights

- Advanced industrial equipment and automation systems
- Insight into industry standards and real-world challenges



Visit to Shri Maulidevi Ammana Temple, Kanakumbi

Social Activity | 30 November 2024

Students visited Shri Maulidevi Ammana Temple, Kanakumbi, on 30 November 2024 under the AICTE Activity Points Programme and the institute's Social Connect Responsibility initiative. The visit aimed to build cultural awareness and community engagement among students.

Highlights

- AICTE Activity Points Programme
- Social Connect Responsibility initiative



Expert Lecture at ESCI, Hyderabad

Faculty Achievement | 26 December 2024

Dr. Pooja V. Anagolkar delivered a guest lecture titled “Introduction to Advanced Machine Tools, Additive Manufacturing & Artificial Intelligence” at the Engineering Staff College of India (ESCI), Hyderabad, on 26 December 2024, as part of a training program for newly recruited Group ‘A’ Military Engineer Services officers.

Highlights

- Venue: ESCI, Hyderabad
- Audience: newly recruited Group ‘A’ Military Engineer Services officers



AMTECH Expo 2024 and Best Ph.D. Thesis Award

Faculty Achievement | 2024 · Bengaluru

Students Ashish K., Hari N., Sridhar, Gouri Naik and Tejeshwini Yaragatti presented a research poster at AMTECH Expo 2024, Bengaluru, titled “Machine Learning-Based Triboinformatic Modeling and Wear Behavior Analysis of AlSi10Mg Alloy Printed Using Laser Powder Bed Fusion”, guided by Dr. Pooja V. Anagolkar, Dr. Anand Deshpande and Dr. Dhanashree Kulkarni. At the same expo, Dr. Pooja V. Anagolkar received the Best Ph.D. Thesis Award in the field of additive manufacturing.

Highlights

- Poster on ML-based wear behaviour analysis of AlSi10Mg
- Best Ph.D. Thesis Award – Dr. Pooja V. Anagolkar



Research Activities

- **Journal:** Dr. Aravind Muddebihal – Review of techniques for creating in-plane fiber waviness. *Engineering Research Express* (SCI, Scopus), 2024.
- **Journal:** Dr. Aravind Muddebihal – Carbon-glass veil interleaving for mode-I fracture toughness. *Fracture and Structural Integrity* (Scopus Q2), 2024.
- **Conference:** Dr. Pooja Angolkar – Triboinformatics modeling of additively manufactured AlSi10Mg. IEOM Hyderabad, 2024.
- **Conference:** Dr. Aravind Muddebihal – Microcapsule size optimization for FRP composite 3D printing. ICMMSSE 2024.
- **Patent applications:** 202441008428 A (lab-scale industrial waste shredding machine) and 202441002474 A (eco-friendly nonwoven natural fiber veil process) – under process.
- **Research proposals:** FDP/ATAL (29 May 2024, ₹3,50,000) and K-FIST/VGST (19 June 2024) – establishing an AI-based robot laboratory.

Newsletter Editors

Dr. Pooja V. Anagolkar, HoD, Department of Robotics & Automation Engineering.

Faculty: Dr. Aravind B. Muddebihal, Mr. Suneel K. Nagavi and Mrs. Shweta Kalkundri,
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