Roboverse Club

The Department of Artificial Intelligence and Robotics (AIR) at Dayananda Sagar University proudly inaugurated the Roboverse Club on 15th November 2024, marking a significant step toward fostering innovation and collaboration among students in the fields of AI and robotics. The workshop marked a significant milestone for the department, unveiling the official logo and website of the AIR Department and the new logo for the Roboverse Club, symbolizing a commitment to technological progress and creative exploration.

The event was graced by esteemed guests and faculty members. Dr. Mahesh Babu, delivering the presidential address, emphasized the importance of hosting AI-focused events under the leadership of the Roboverse office bearers. He proposed the creation of a well-structured calendar to outline upcoming activities, ensuring sustained engagement and skill development among students.

Interactive sessions and keynote talks were a cornerstone of the workshop, enriching the participants' experience. Dr. Abhra Roy Chowdhury, PhD, SMIEEE, from IISc Bengaluru, shared his profound knowledge in product design and robotics manufacturing, inspiring the audience with insights into innovation and cutting-edge advancements in these fields. This was followed by a talk from Dr. Pramod Kumar Naik, Head of the Department of AIR, who highlighted the significance of skill development in AI and robotics. He provided valuable insights into the growing market demand for professionals in these domains, encouraging students to take an active role in honing their expertise.

The event also featured an engaging presentation by Dr. Rupam Bhaduri, who outlined the strategic plans for the AIR Department, including future initiatives and goals. His address underscored the department's vision to be a leader in AI and robotics education and research. Dr. Bhaduri concluded the event with a heartfelt vote of thanks, expressing gratitude to the distinguished guests, faculty, students, and organizers who contributed to making the inauguration a memorable success.

The unveiling of the logos was a proud moment, symbolizing the mission and aspirations of the AIR Department and the Roboverse Club. The event also showcased the department's dedication to fostering an ecosystem of creativity and technological

innovation. Students engaged enthusiastically in discussions and interactive sessions, gaining insights from the faculty and industry experts.

This inaugural event sets the stage for Roboverse to be a dynamic hub of innovation and collaboration. With a roadmap of activities and a vibrant community, the AIR Department and Roboverse Club are poised to empower students to excel in the fields of AI and robotics. The event was a true testament to the department's commitment to shaping the future of technology through education, research, and practical engagement.

Figure 5. Dr. Pramod Kumar Naik, Dr. Naveen Babu, Dr. Abhra Roy Chowdhury, and Dr. Rupam Bhaduri during the inauguration of Roboverse Club

Figure 6. Dr. Naveen Babu presented a memento to Dr. Abhra Roy Chowdhury during the event

Figure 7. Dr. Rupam Bhaduri presented a vote of thanks

Figure 8. Group photo of the guests and coordinators of the event

Figure 9. Group photo of the guests and participants of the event

Seminar on "Embedded Systems in Intelligent Industry"


Embedded Systems
in Intelligent Industry
AI
Dayananda Sagar University
GPS Map Camera
Ramanagara, Karnataka, India
Dayananda Sagara Mdc, Karnataka 562112, India,
Ramanagara, Karnataka 562112, India
Lat 12.662652° Long 77.450716°
19/05/2025 02:39 PM GMT +05:30
Google


GPS Map Camera
Ramanagara, Karnataka, India
Dayananda Sagara Mdc, Karnataka 562112, India,
Ramanagara, Karnataka 562112, India
Lat 12.662706° Long 77.450731°
19/05/2025 02:40 PM GMT +05:30
Google

Date: 19th May 2025
Time: 02:00 PM
Venue: Lecture Hall 3, School of Engineering, DSU

The Department of Artificial Intelligence and Robotics, Dayananda Sagar University, in association with **ROBOVERSE**, organized a seminar titled **"Embedded Systems in Intelligent Industry"** on 19th May 2025. The event aimed to enlighten students and faculty on the rapidly evolving role of embedded systems in shaping intelligent industry solutions.

Guest Speaker:

The keynote speaker for the event was **Mr. Deepak K. C.**, CEO at **SiliVal**, and an alumnus of **IIM Bangalore** and **TBS, France**. With vast experience in innovation and leadership in the tech domain, Mr. Deepak shared valuable insights into the practical applications and future potential of embedded systems.

Key Highlights:

- Mr. Deepak emphasized the growing relevance of **embedded systems** in industries such as **robotics**, **automation**, and **smart manufacturing**.
- Real-world case studies and trends in intelligent technologies were presented.
- He discussed the **integration of AI and IoT** in embedded systems and how these are transforming conventional industrial processes.
- The session included an interactive Q&A, allowing students to engage and clarify their doubts.

Outcome:

The seminar was highly informative and beneficial, particularly for students pursuing interests in **electronics**, **computer science**, **automation**, and **industrial systems**. It provided a broader perspective on how embedded systems are pivotal to the ongoing industrial revolution and the scope for innovation in this field.

Organizing Team:

- **Chief Coordinators:**
  - Dr. Gangadhar T. G.
  - Dr. Rupam Bhaduri
  - Dr. Bharath Kumar S.
- **Chairperson:**
  - Dr. Pramod Kumar Naik

The department extends its heartfelt thanks to Mr. Deepak K. C. for sharing his expertise and inspiring the students. Special appreciation goes to the coordinators and supporting faculty for making this seminar a grand success.

Report For Tech Talk on "Connected AI in Trucks & Buses"

Date: 29/04/2025 **Time:** 02:00 pm to 04:00 pm

Mode of Conduction: offline: LH-3

Target Audience: 2nd Sem, 4th Sem Students - Dept of AIR, Students of AIML

Resource Person
Name: Mr. Jayaprakash Govindaraju
Current Position: Deputy General Manager – Senior Technical Manager
Company Name: Daimler Truck Innovation Centre, India

Faculty Coordinators
Dr Gangadhar T G, Associate Professor, Department of AI&R,
Dr. Rupam Bhaduri, Professor, Department of AI&R,
Dr. Bharath Kumar S, Assistant Professor, Department of AI&R

Dignitaries Present during session
Dr. Pramod Kumar Naik, Chairman, Department of AIR

On April 29, 2025, the Department of Artificial Intelligence and Robotics (AIR) at Dayananda Sagar University hosted a seminar-tech talk on **" Connected AI in Trucks & Buses,"** aimed to provide students with a vision of how Artificial Intelligence is transforming the future of transportation. Opening remarks of the session was given by the Dr. Pramod Kumar Naik, Chairman of AIR, who highlighted the details of **ADAS in vehicles these days**. Followed by the technical talk by Mr. Jayaprakash Govindaraju. The seminar featured prominent industry leader from Daimler Truck Innovation Centre, India**,** he shared their invaluable expertise on the emerging trends, challenges, and career prospects for AI in transportation. The event was meticulously organized **by** Dr. Gangadhar T G**,** Dr. Rupam Bhaduri**,** Dr. Bharath Kumar S**,** AIR Department at DSU. Their efforts facilitated engaging discussions between the students

and industry professionals. Resource person highlighted the importance of innovation, practical skills, and continuous learning to stay competitive in the global tech industry.

Figure 1: Poster of the Event

As per the speaker, Highlights of the Session:

The transportation sector is experiencing a profound transformation with the advent of Connected Artificial Intelligence (AI) in trucks and buses. This advanced technology is driving significant improvements in operational efficiency, safety, and environmental sustainability, heralding a new era of intelligent mobility. From enabling real-time diagnostics and predictive maintenance to supporting autonomous driving and optimizing energy usage, AI is playing a pivotal role in reshaping commercial transportation systems on a global scale.

- Enhanced Fleet Management and Predictive Maintenance
- Autonomous and Semi-Autonomous Driving
- Route Optimization and Traffic Management
- Environmental Sustainability
- Improved Safety and Driver Assistance

Figure 2: Resource Person with Dr. Pramod Kumar Naik, Dr. Rupam Bhaduri and Dr. Gangadhar T G

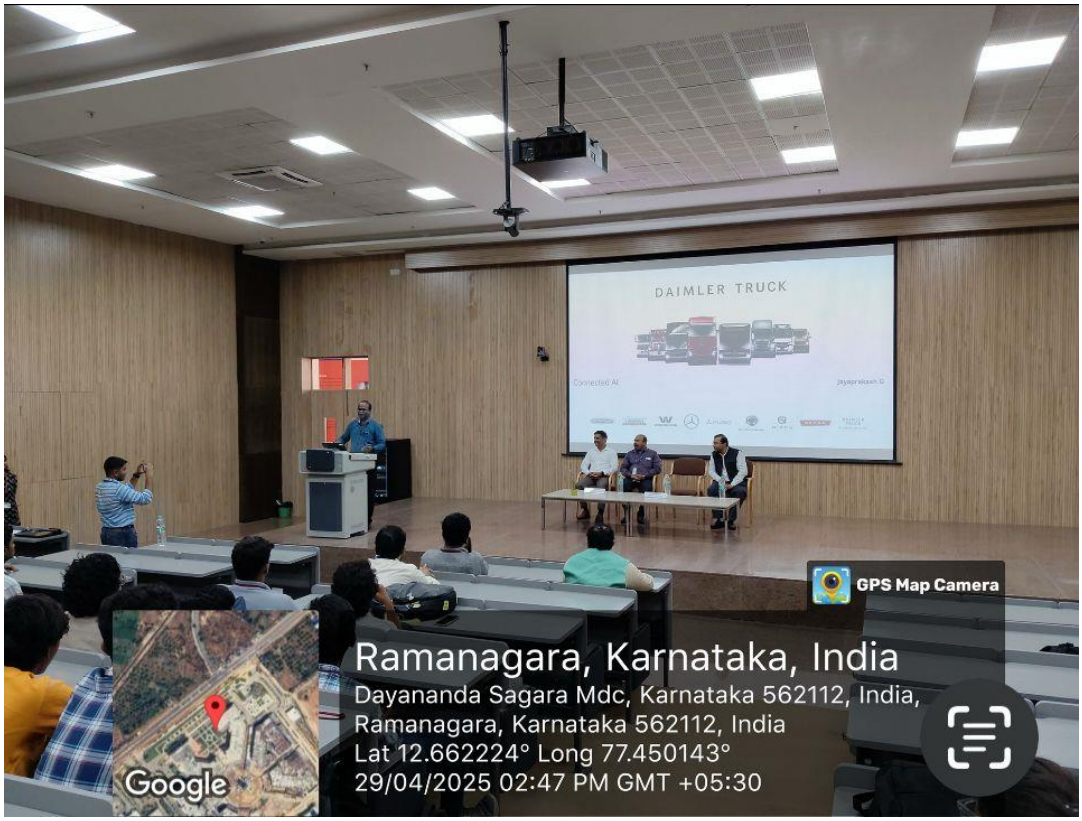

Figure 3: Opening remarks of the session given by Chairperson of AIR

Figure 4: Felicitation ceremony of the Resource person

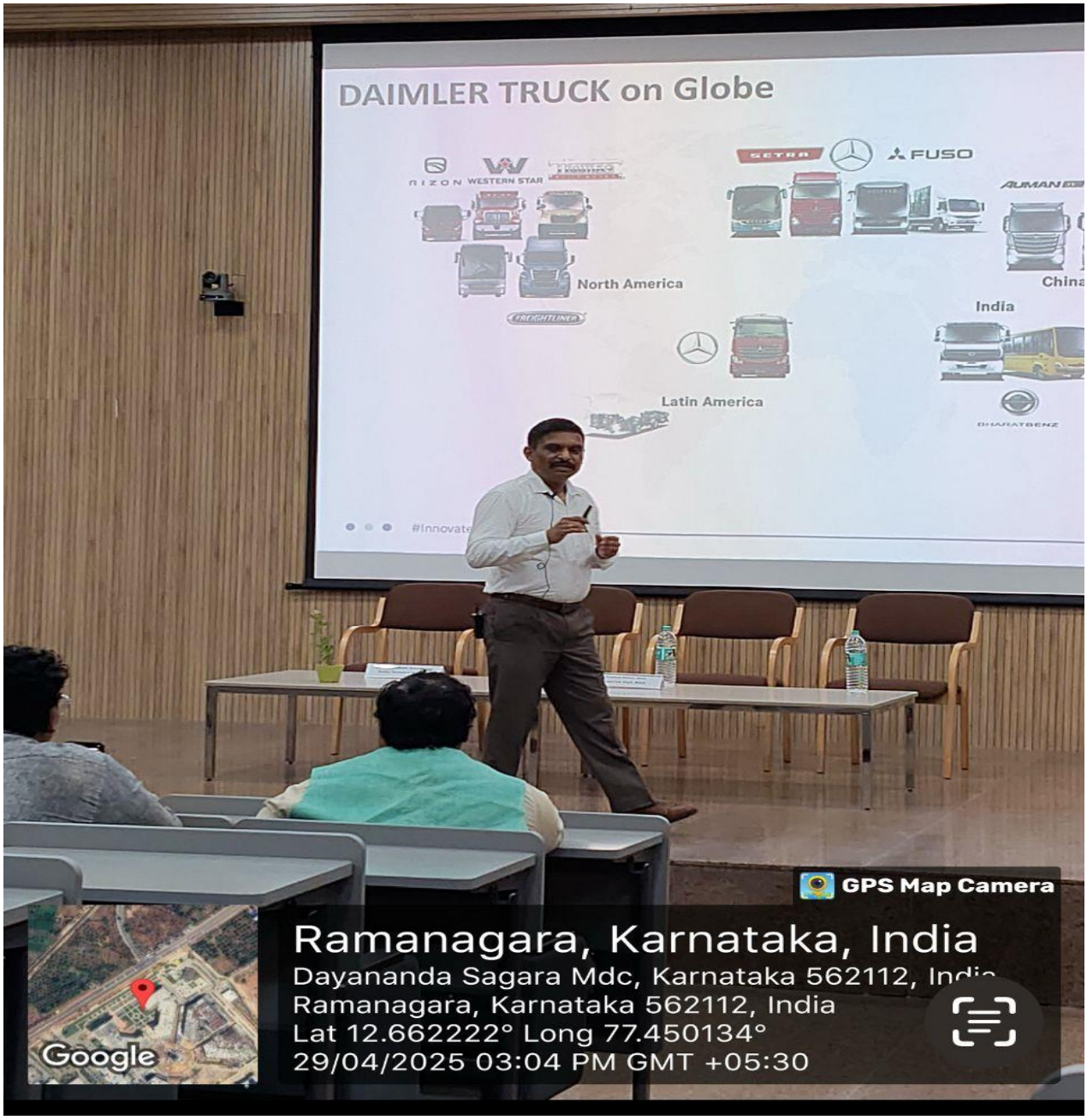

Figure 5: Presentation

Figure 6: Audience of the Event

Figure 7: Resource Person, faculty members and Student's coordinators

IET (UK) Establishment Seminar
Organized by: RoboVerse Club
Institution: Dayananda Sagar University, School of Engineering
Location: Devarakaggalahalli, Harohalli, Kanakapura Road, Ramanagara District, Karnataka, 562112
Date: 13th December 2024
Venue: Lecture Hall LH-02

Overview
The IET (UK) Establishment Seminar, organized by the RoboVerse Club under the Department of Artificial Intelligence and Robotics, marked the official initiation of the IET UK – Indian Division Society Chapter at Dayananda Sagar University. The seminar served as a pivotal platform to connect students and faculty with international engineering communities, offering exposure to global innovation trends and professional development opportunities.

Objectives
To establish the IET UK Chapter within the university.

To educate students and faculty on the value of international professional memberships.

To introduce global opportunities in engineering, particularly in Europe.

To promote knowledge sharing in artificial intelligence and robotics.

To foster innovation and collaborative learning through expert insights.

Key Highlights
Inaugural Talk: Introduction to IET (Institution of Engineering and Technology), its global significance, and benefits for engineering professionals and students.

Insights from Experts: Presentations on trends in AI, robotics, and automation.

Career Opportunities Abroad: Discussions about career prospects and research collaborations in Europe and other IET-affiliated regions.

Organizing Team
Chairperson: Dr. Pramod Kumar Naik

Chief Coordinator: Dr. R. Bhaduri

Associate Advisers:

Dr. Gangadhar T.G.

Dr. Bharath Kumar S

Prof. K. Sudha Deepthi

Student Coordinators:

Shubhkarma S

Mohammad Gheetha

Krishna Siddharth

Umar Bin Muzzafar

Impact and Outcomes
Successful establishment of the IET UK Chapter at DSU.

High student engagement and active participation in technical discussions.

Inspiration for students to pursue research and professional certification through IET.

Strengthened collaboration between faculty and global professional bodies.

MATLAB Workshop Report

Report on Three-Day Hands-On Workshop on MATLAB and Simulink

The Department of Artificial Intelligence and Robotics (AIR) at Dayananda Sagar University (DSU) organized a three-day hands-on workshop from 08 November 2024 on MATLAB and Simulink for its students. The workshop, conducted by Dr. Pramod Kumar Naik, Head of the AIR Department, focused on equipping students with practical knowledge and technical expertise in MATLAB and Simulink, two widely used tools for engineering simulations, modeling, and analysis. The workshop provided students with valuable skills and practical insights into MATLAB, and Simulink, and their applications

in audio processing, spectrum analysis, and machine learning. Dr. Pramod Kumar Naik's expertise and interactive teaching methods were instrumental in the success of the workshop. The event reflects the AIR Department's commitment to empowering students with cutting-edge tools and knowledge, preparing them to excel in their academic and professional endeavors.

Event Overview

The workshop spanned three days, offering an immersive learning experience for the participants. The sessions were meticulously designed to provide a balance of theoretical knowledge and practical application. The primary objective was to enable students to harness the capabilities of MATLAB and Simulink for solving real-world engineering problems.

Day 1 covered the fundamentals of MATLAB, including its interface, basic operations, and data visualization techniques. Students were introduced to MATLAB programming and were given exercises to build confidence in scripting and debugging. Dr. Pramod emphasized the importance of MATLAB in various engineering domains and shared insights into its role in modern-day problem-solving.

Day 2 focused on Simulink, where participants explored the platform's simulation and modeling capabilities. They learned to create dynamic system models and analyze system behaviors. The hands-on exercises included building block diagrams, running simulations, and interpreting results. Dr. Pramod also highlighted the integration of MATLAB and Simulink for advanced applications.

Day 3 was dedicated to advanced topics and applications. Students worked on real-world case studies, applying the skills acquired during the first two days. The session included projects on control systems, signal processing, and data analysis. Dr. Pramod guided students through these projects, sharing valuable tips and best practices to enhance their efficiency and problem-solving abilities.

Key Outcomes

- Students gained a strong foundational understanding of MATLAB and Simulink.
- Participants developed practical skills in simulation, modeling, and data analysis.
- The workshop provided exposure to real-world engineering applications, bridging

the gap between theory and practice.

Feedback and Impact

The workshop was well-received by the students, who appreciated the structured approach and hands-on experience. Many participants highlighted the clarity of Dr. Pramod's teaching and the relevance of the topics covered. The interactive nature of the sessions ensured active engagement and fostered a deeper understanding of the tools.

Conclusion

The three-day workshop on MATLAB and Simulink was a resounding success, empowering students with essential skills and knowledge to excel in their academic and professional pursuits. Dr. Pramod Kumar Naik's expertise and guidance were instrumental in achieving the workshop's objectives. This initiative reflects the AIR Department's commitment to providing high-quality, practical education to its students, equipping them to meet the challenges of a rapidly evolving technological landscape.

Figure 1. Dr. Pramod Kumar Naik presented a Hands-on session on MATLAB

Figure 2. Dr. Pramod Kumar Naik's discussion with students during the workshop

Figure 3. Dr. Pramod Kumar Naik's discussion with students during the workshop

Figure 4. Students attending workshop

Tech Talk from Industry Experts: TCS Robotics and Bosch Robotics

On November 23, 2024, the Department of Artificial Intelligence and Robotics (AIR) at Dayananda Sagar University hosted a seminar-tech talk on **"Future Opportunities in Robotics and AI,"** aimed to provide students with a vision of the evolving fields of robotics and artificial intelligence. The seminar featured prominent industry leaders from **TCS** and **Bosch Industries,** shared their invaluable expertise on the emerging trends, challenges, and career prospects within the robotics and AI sectors. The event was meticulously organized **by Dr. Pramod Kumar Naik, Head of the AIR Department, and Prof. K. Sudha Deepthi, Manager of the Rexroth Bosch Innovation Lab** at DSU. Their efforts facilitated engaging discussions between the students and industry professionals. Both **TCS** and **Bosch** highlighted the importance of innovation, practical skills, and continuous learning to stay competitive in the global tech industry.

Session : 1: Trends in Robotics and Autonomous Systems

Mr. Nijil George opened the session by presenting the latest trends in robotics and their impact on industries worldwide. He elaborated on how robotics, integrated with advanced AI, is transforming sectors like manufacturing, logistics, healthcare, and defense. The emphasis was placed on autonomous vehicles, drones, and intelligent robotic arms, showcasing their role in improving efficiency and safety.

He shared his perspective on the evolution of robotics, stressing the importance of multi-disciplinary collaboration and Innovation. The session concluded with an engaging Q&A, where Mr. George encouraged students to explore research opportunities in robotics and pursue projects that address real-world challenges.

Session 2: Opportunities in AI and Robotics Product Development

Mr. Rohan Dalmia, the Product Development Lead and Solution Architect for AI & Robotics at Bosch Global Software Technologies, Bangalore. An alumnus of IIT Bombay, Mr. Dalmia shared his invaluable insights on the evolution of AI and robotics in both society and industries. During his session, he highlighted how AI and robotics are revolutionizing sectors such as manufacturing, healthcare, and transportation, and the growing role of these technologies in shaping future job opportunities. He also spoke about the rapid advancements in AI and robotics, emphasizing the skills that students need to cultivate in order to thrive in these fields.

Throughout the seminar, **Mr. Dalmia**, along with experts from **Bosch**, provided a comprehensive understanding of the critical role that robotics and AI play in today's industries. They discussed the wide-ranging applications of these technologies, from **automation to smart systems**, and the increasing demand for skilled professionals who can drive innovation. The session encouraged students to look at **AI and Robotics** as key enablers of future industrial growth and societal progress.

Key Outcomes

- **Industry Connections**: Students will have the chance to network with professionals, mentors, and potential future employers in AI and robotics industries.
- **Collaborative Opportunities**: Students will be able to connect with like-minded peers and industry professionals, fostering collaborations on research, projects, or internships.
- **Cross-Industry Applications**: Students will understand how AI and robotics are used across various sectors, giving them a broader perspective on how these technologies are applied in fields like healthcare, automotive, finance, and logistics.
- **Keeping Up with Industry Changes**: Students will be updated on the future directions of AI and robotics, ensuring they are prepared for upcoming technological trends and disruptions.

Students gained a clearer understanding of the skills and knowledge that industries are looking for in future employees, allowing them to tailor their learning and development efforts accordingly. They found more opportunities to connect with leading industry professionals, opening doors to internships, projects, and career opportunities with top companies like TCS, Bosch, and others. They also learned about the key technical and soft skills needed to succeed in AI and robotics careers, such as programming, problem-solving, creativity, and teamwork.

Feedback and Impact on Students

The seminar on **Future Opportunities in Robotics and AI** provided students with an invaluable opportunity to engage with industry leaders and gain practical insights into the rapidly evolving fields of AI and robotics. By learning directly from experts at **TCS and Bosch**, students were able to understand how these technologies are transforming industries and creating new career opportunities. This exposure has equipped them with a clearer vision of

the skills required to succeed in the field, motivating them to develop both technical and soft skills that are crucial for future success.

Overall, the seminar has provided students with a solid foundation for their careers, giving them the confidence and knowledge to pursue opportunities in AI and robotics while also encouraging them to stay adaptable and forward-thinking as the industry continues to evolve.

Conclusion

In conclusion, the seminar on "**Future Opportunities in Robotics and AI**" was a resounding success, showcasing the exceptional efforts of the **Department of Artificial Intelligence and Robotics at Dayananda Sagar University (DSU)**. This event was a great opportunity for students to gain valuable industry insights and explore the exciting career prospects in AI and robotics. We would like to extend our heartfelt thanks to **Dr. Pramod Kumar Naik, Chairperson of the Department, for his visionary leadership, Prof. K. Sudha Deepthi, Manager of Rexroth Bosch Innovation Lab, for her tireless support, and Dr. R. Bhaduri, Chief Advisor**, for their guidance and commitment to making this event a reality at DSU. Their vision for excellence inspires everyone.

We also extend our sincere gratitude to the student coordinators: **Krishna Siddharth, M. Getha, Umar, Riaan Oswal, and Shubhkarman** whose hard work and dedication were instrumental in ensuring the smooth execution of the seminar. Their efforts played a crucial role in the event’s success, and we truly appreciate their contribution. This event reflects the Department's ongoing commitment to providing students with opportunities to learn and grow in the rapidly advancing fields of AI and robotics.

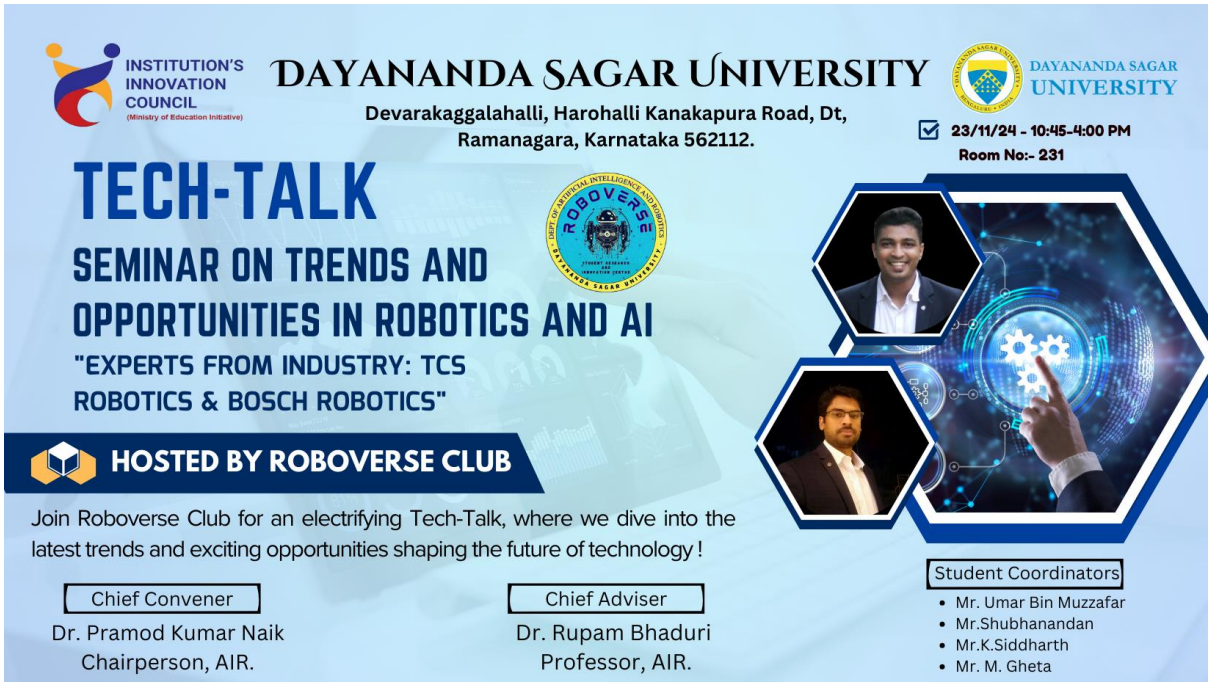

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Figure 12. Roboverse club- Tech talk poster

Figure 13. Mr. Nijil George, TCS Robotics, Bangalore Division

Figure 14. Students attending the Tech Talk

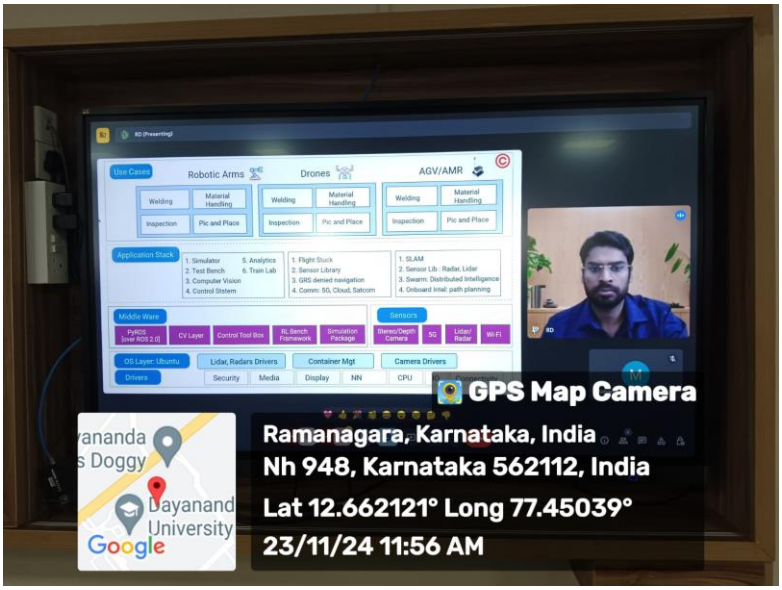

Figure 15. Mr. Rohan Dalmia, Product Development Lead and Solutions Architect for AI and Robotics, Bosch Global Software Technologies, Bangalore Division

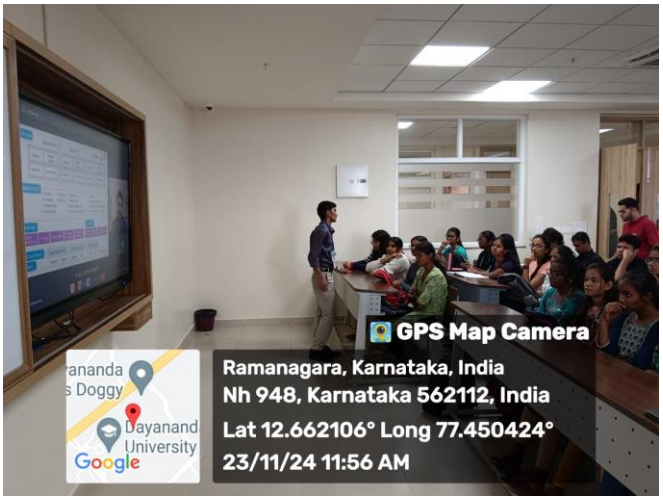

Figure 16. Students attending the Tech Talk

Figure 17. Guest of Honour along with Faculties and Co-ordinators