DAYANANDA SAGAR UNIVERSITY



"Inauguration Ceremony of two IEEE chapters"

SCHOOL OF ENGINEERING

Department of Computer Science & Engineering (Artificial Intelligence and Machine Learning)

Date of Event (3rd June 2024)

Staff Co-ordinators:

Prof. SUBHASH MONDAL, Faculty advisor of CIS and RAS IEEE-DSU and Assistant Professor, Department of CSE (AI & ML)

Student co-ordinators:

Ms Soundarya Jois, Student, Department of CSE (AI & ML)
Mr Utpal Kumar, Student, Department of CSE (AI & ML)



Figure 1: Poster

Dayananda Sagar University

Devarakaggalahalli, Harohalli Kanakapura Road, Ramanagara, Karnataka 562112

SCHOOL OF ENGINEERING

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
(Artificial Intelligence & Machine Learning)

REPORT ON

"INAUGRATION OF CEREMONY OF IEEE RAS and CIS"

Organized by

DEPARTMENT OF COMPUTER SCIENCE ENGINEERING
(ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING)

3rd JUNE 2024

Resource person:

Dr. SUMANA ASHOK, IEEE CIS - Chair (Bangalore section)
Dr. MANGALA GOWRI S G, IEEE RAS - Secretary (Bangalore section)

Convener:

Dr. D HEMACHANDRA SAGAR, Chancellor, DSU
Dr. D PREMACHANDRA SAGAR, Pro-Chancellor, DSU
Dr. AMITH BHATT, Pro- Vice Chancellor, DSU
Dr. PUTTAMADAPPA C, Registrar, DSU
Dr. UDAYA KUMAR REDDY K R, Dean SoE
Dr. RAMESH R GALIGEKERE, Dean (Acad), Science & technology
Dr. JAYAVRINDA VRINDAVANAM, Chairperson and Professor, Department of CSE (AI & ML)

REPORT

DATE:03/06/2024

The Department of Computer Science Engineering (AI-ML) at Dayananda Sagar University proudly hosted the inaugural event for the IEEE Robotics and Automation Society (RAS) and the Computational Intelligence Society (CIS). This landmark occasion marked the beginning of a new chapter in our commitment to advancing cutting-edge research and innovation in robotics, automation, and artificial intelligence. The event brought together esteemed faculty, industry experts, and enthusiastic students to celebrate and foster collaboration in these dynamic fields. It underscored our dedication to providing a platform for knowledge exchange, professional growth, and the development of transformative technologies that will shape the future. This landmark occasion was divided into two significant parts: the inaugural ceremony and a technical talk by the esteemed Guest of Honour. The event commenced with a formal inauguration, setting the stage for a vibrant future of research and innovation in robotics, automation, and artificial intelligence. Following the inauguration, the Guest of Honour delivered an insightful technical talk, enriching attendees with cutting-edge knowledge.



Figure 2: Students from various branch at the event.

The event commenced with a warm welcome from Utpal Kumar and Soundarya Jois, both students from the 4th semester AI-ML department, who set an enthusiastic tone for the proceedings. Following this, Sai Prasad enlightened everyone with a heartfelt prayer, seeking blessings for the success and prosperity of the newly inaugurated societies. This moment of reflection and inspiration set a solemn and hopeful tone for the event, emphasizing the importance of guidance and wisdom in our pursuit of knowledge and innovation.



Figure 3: Mr Utpal Kumar and Ms Soundarya Jois hosting event.



Figure 4: Sai prasad spreading positivity by his prayer.

Following this, Prof. Subhash Mondal officially welcomed the guests and the gathering, highlighting the significance of the event and the crucial role of interdisciplinary collaboration in driving progress. This was followed by a formal inauguration ceremony, marking the commencement of the proceedings. Guests were then warmly welcomed by Dean Udaya Kumar Reddy, who presented them with flowers, symbolizing the institution's hospitality and appreciation. The ceremony set a positive tone for the event, emphasizing the importance of research and innovation in robotics, automation, and artificial intelligence.



Figure 5: Prof Subhash Mondal welcoming the gathering.

After the welcome speech, Dr. Jayavrinda Vrindavanam, Chairperson of Computer Science Engineering (AI-ML), delivered an inspiring inaugural address. She emphasized the event's significance, highlighting the exciting future of research and innovation in robotics, automation, and artificial intelligence. Her vision and insights captivated the audience, encouraging them to pursue advancements in these dynamic fields with renewed enthusiasm and dedication.



Figure 6: Dr Jayavrinda Vrindavanam delivering inaugral speech.

The radiant glow of the lamp set the stage for an atmosphere charged with anticipation and possibility. Prof. Subhash Mondal's welcome resonated with the collective energy of the gathering, underscoring the transformative potential of collaborative endeavors in shaping the future. As the guests settled into the event, the spirit of unity and purpose permeated the room, laying a strong foundation for the discussions and insights that were yet to unfold.



Figure 7: Dignitories lighting the lamp.

Program started with an introductory talk by Dr. Mangala Gowri S G highlighted several key points about the importance of joining IEEE, particularly focusing on its relevance in the field of robotics and automation as she serves as the Secretary of the IEEE Robotics and Automation Society (RAS) in the Bangalore section. Here are some potential points she might have emphasized:

1. **Professional Networking:** Joining IEEE provides access to a vast network of professionals, researchers, and experts in the field of robotics and automation. This network can be invaluable for collaboration, mentorship, and career advancement.

2. **Knowledge Sharing and Resources:** IEEE offers numerous resources such as journals, conferences, and technical publications that provide the latest research, developments, and best practices in robotics and automation.

3. **Career Opportunities**: Membership in IEEE can enhance career opportunities by providing access to job boards, career development resources, and networking events. Many employers in the field value IEEE membership, considering it a mark of dedication to the profession.



Figure 8: Dr. Mangala Gowri S G spreading importance of IEEE membership.

Dr. Sumana Ashok, serving as the Chair of the IEEE Computational Intelligence Society (CIS) in the Bangalore section, likely emphasized that joining IEEE, particularly within the Computational Intelligence Society, offers numerous benefits beyond just membership. It provides a platform for professionals to engage with a dynamic community, access resources and opportunities for growth, and contribute to the advancement of computational intelligence and its applications.

1. **Professional Development:** IEEE offers various opportunities for professional development, including workshops, webinars, and training programs. These resources help members stay abreast of emerging technologies, acquire new skills, and advance their careers.

2. **Standards and Ethics**: IEEE is instrumental in establishing and maintaining standards and ethics in the field of robotics and automation. Being part of IEEE allows members to contribute to the development of these standards and ensures adherence to ethical practices in research and innovation.

3. **Global Community**: IEEE is a global organization, providing members with opportunities to connect with professionals from around the world. This global perspective is crucial in understanding diverse perspectives, collaborating on international projects, and addressing global challenges in robotics and automation.

4. **Leadership Opportunities**: Through involvement in IEEE chapters, committees, and leadership roles, members can develop leadership skills, expand their professional network, and contribute to the growth and advancement of the field.



Figure 9:Dr. Sumana Ashok addressing the gathering.

Dean Dr. Udaya Kumar Reddy and Dr. Arun Balodi, Chairperson of the ECE department at Dayananda Sagar University, recently highlighted the significance of joining IEEE and the strides made in establishing a strong IEEE platform at the university. They underscored that IEEE membership offers substantial benefits, including professional development through access to technical journals, conferences, and continuing education, as well as extensive networking opportunities with professionals and researchers globally. Additionally, IEEE provides access to cutting-edge research and skill enhancement via workshops, webinars, and competitions. At Dayananda Sagar University, a vibrant IEEE student branch has been formed, hosting regular events, workshops, and seminars.



Figure 10 :Dr. Udaya Kumar Reddy addressing the gathering.



Figure 11 :Dr. Arun Balodi addressing the gathering.

The introduction of Executive Committee (ExCom) members for the IEEE Robotics and Automation Society (RAS) and the IEEE Computational Intelligence Society (CIS) involves the appointment or election of key individuals who will lead and manage the activities and initiatives within these societies.



Figure 12 :ExCOM menbers of IEEE CIS along with guest of honour.



Figure 13 :ExCOM members of IEEE RAS along with guest of honor.

TECHNICAL TALK- By Dr Mangala Gowri

Dr. Mangala Gowri provided a comprehensive introduction to robotics, covering various fundamental aspects of the field. She began by defining a robot as a mechanical device designed to perform tasks that are typically carried out by humans, either autonomously or through remote control. To illustrate the practical side of robotics, she described the construction of a robotic car, highlighting the importance of its chassis, circuit system, electrical components, and software integration. Examples of robots, such as line-tracing robots and obstacle avoidance robots, were used to explain basic robotic functionalities. A line-tracing robot uses infrared sensors that can differentiate between colors, like red and black, to follow a specific path, while an obstacle avoidance robot employs ultrasonic sensors to detect and navigate around obstacles.

Dr. Gowri emphasized that robotics is an interdisciplinary field that merges electrical and mechanical engineering. She explained that automation involves the use of technology, including robots, to perform tasks that would otherwise require human intervention. This automation can encompass both physical and virtual tasks. The rationale behind the use of robotics includes performing dangerous tasks in hazardous environments, executing repetitive tasks, and achieving high precision.

She further discussed the diverse applications of robots in various domains such as industry, military, government, space exploration, home services, healthcare, and laboratory settings. For instance, industrial robots undertake jobs that are difficult, dangerous, or monotonous. She also mentioned different types of robots, including industrial robots, mobile robots, educational robots, and domestic robots, each serving specific purposes.

The talk highlighted the importance of robotic engineering applications in the context of Industry 4.0, linking it to the historical evolution of industrial revolutions. Dr. Gowri concluded by mentioning the IEEE Robotics and Automation Society (RAS) Bangalore Chapter and the student chapters, which foster the development and collaboration of robotics enthusiasts and professionals. In summary, the introduction provided by Dr. Mangala Gowri encapsulated the essence of robotics, its interdisciplinary nature, various types and applications of robots, and the role of robotics in advancing technology for practical and beneficial uses.



Figure 14 : Students clarifying doubts during technical talk.

TECHNICAL TALK- By Dr Sumana

Dr. Sumana delivered a compelling technical talk on the advances, challenges, and future prospects of computational intelligence, highlighting its significance in various technological advancements. She began by defining computational intelligence as a set of nature-inspired computational methodologies and approaches to address complex real-world problems. These methodologies include neural networks, fuzzy systems, and evolutionary algorithms. Dr. Sumana emphasized how these techniques have revolutionized diverse fields, from data analysis and pattern recognition to robotics and artificial intelligence, by providing robust solutions that traditional algorithms often struggle to achieve.

In discussing the advances in computational intelligence, Dr. Sumana highlighted several key breakthroughs. Neural networks, particularly deep learning models, have seen significant progress, enabling remarkable improvements in image and speech recognition. Fuzzy logic systems have become essential in developing systems that can handle uncertainty and imprecision, crucial for applications like control systems and decision-making processes. Dr. Sumana also highlighted the importance of interdisciplinary research and collaboration to address the existing challenges and drive innovation. She concluded by encouraging the next generation of researchers and practitioners to explore the vast opportunities in computational intelligence, which holds the promise of solving some of the most pressing problems in society.



Figure 15 : TECHNICAL TALK- By Dr Sumana .

The inaugural event concluded with a heartfelt vote of thanks delivered by Siddharth. He expressed deep appreciation to all the speakers, participants, and organizers for their contributions to the event's success. Siddharth highlighted the invaluable insights shared by Dr. Mangala Gowri on robotics and Dr. Sumana on computational intelligence, noting how their talks had enriched the attendees' understanding and sparked great interest in these cutting-edge fields. He also extended gratitude to the esteemed guests for their presence and support, acknowledging that their involvement significantly elevated the event's stature and impact.

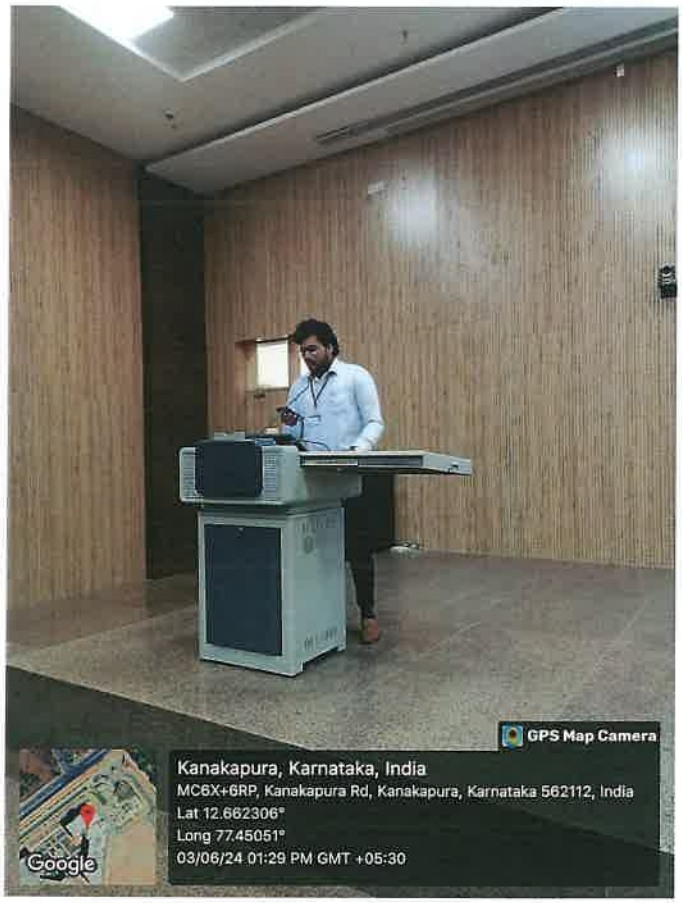


Figure 16: Mr. Sidharth delivering vote of thanks.

In a gesture of appreciation, the guests were honored with tokens of gratitude, symbolizing the organizers' sincere thanks and recognition of their valuable contributions. Siddharth's vote of thanks underscored the collaborative spirit and enthusiasm that characterized the event, fostering a sense of community and shared purpose among all attendees. The ceremony concluded on a positive note, with everyone looking forward to future engagements and continued advancements in robotics and computational intelligence.



Figure 17: Guests being honoured with token of gratitude.

Prof. Subhashmondal

03/06/2024

Dr. Jayavrinda Vrindavanam V
Chairperson & HOD
Dept. of CSE (AI & ML)