



DAYANANDA SAGAR
UNIVERSITY



SCHOOL OF
ENGINEERING

SOE - "The Weekly Buzz"

The Official Weekly Newsletter of **School of Engineering**



Week#4 (Jan 20 to 25th,2025)

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SCHOOL OF ENGINEERING

VISION

- Transform lives through excellence in engineering education, research and innovation with an emphasis on sustainability, inclusive technologies and global needs.

MISSION

- Design and deliver contemporary engineering curricula to address regional and global needs while emphasizing ethics, values, integrity and regional relevance.
- Carryout high impact academic research, industry projects and innovation activities with active student engagement to advance science and engineering knowledge and state-of-the art industry practices.
- Develop regional and national leaders to advance the society and economy.

Faculty Contributions

Department Of Computer Science and Engineering

- Prof. Sasikala, Assistant Professor, Department of CSE has successfully served as a reviewer for 1 manuscript in the Springer Journal Discover Artificial Intelligence on 20th January 2025 and also served as a peer reviewer for IETE Journal Education for Taylor and Francis group during January 2025.



- Prof. Muthu Bala, Assistant Professor, Department of CSE has successfully completed the course on "Advanced Power BI Training" on Thursday, January 23, 2025 through online Infosys Springboard Platform.



- Prof. Sasikala N, Assistant Professor, Department of CSE has successfully completed online course in the Kaggle with the title "Introduction to Machine Learning" on 25th January 2025.



- Dr. T Gayathri, Assistant Professor, Department of CSE has successfully attended the Five-day Virtual Faculty Development Program on “Blockchain and AI: Transforming the Future with Decentralized Intelligence” organized by Department of Information Technology, Kamaraj College of Engineering and Technology from 20.01.2025 to 24.01.2025.



- Dr. Basavaraj N Hiremath, Professor and Dr. Savitha Hiremath, Associate Professor, Department of CSE successfully Presented a paper in the Springer conference with the title, “Distractor Analytics on Multiple Choice Questions Using Large Language Models”, in the International Conference on Information Technology and Artificial Intelligence (ITAI-2025) Organized by Soft Computing Research Society and Gurugram University, Gurgon, Haryana, India, held during January 24-25 2025.



- Dr. Savitha Hiremath, Associate Professor, and Mrs. Kulkarni Manjusha Manikaro Research Scholar, Department of CSE successfully Presented a paper in the IEEE conference with the title, “Graph Representation Learning for Recommender Systems”, in the IEEE International Students Conference SCEES’25 Organized by MANIT Bhopal, India, held during January 18-19 2025.



- Prof. Bharath B and Prof. Sushma, Assistant Professors Department of CSE has successfully participated & completed AICTE Training and Learning (ATAL) Academy Faculty Development Program on “Cyber Security and Intrusion Detection Forensics” at DON BOSCO INSTITUTE OF TECHNOLOGY from 20/01/2025 to 25/01/2025.



Department Of CSE (Data Science)

- Dr. Shaila S G has participated a two-day workshop on "How to Improve Your Research Skills" by Prof. N. Sundararajan (Retd.), School of Electrical & Electronics Engineering, Nanyang Technological University, Singapore, during 24 & 25th January 2025 Gallery Hall 1, A Block City Campus.



- Prof. Monish L, Assistant Professor and Dr. Shaila S G, Chairperson Dep of CSE (Data Science), has presented the Paper titled Electrocardiogram Signal Based Analysis and Predictions of Emotions using Deep Networks in the 5th International Conference on Paradigms of Communication, Computing and Data Analytics (PCCDA 2025) held during January 18-19, 2025.



Dr. U. Pavan Kumar & Prof. T. Godhandaraman, Assistant Professor, CSE (Data Science) has participated Six days Online Faculty Development Program on “IoT in Focus Emerging Trends and Real -World Challenges” held from 20.01.2025 to 25.01.2025 hosted by Sri Sai Ram Engineering College.



Department Of Computer Science & Technology

- Dr. Santosh Kumar J published a patent on "AI-Driven Multi-Modal Framework for Enhanced Diagnosis and Personalized Treatment of Rheumatoid Arthritis" (Application Number: 202541002351 A).

(12) PATENT APPLICATION PUBLICATION

(19) INDIA

(22) Date of Filing of Application: 10/01/2025

(24) Title of the Invention: AI-Driven Multi-Modal Framework for Enhanced Diagnosis and Personalized Treatment of Rheumatoid Arthritis

(31) International Classification: G06N20/00, G06F40/00, G06F16/00, G06F18/00, G06F19/00

(32) International Classification: N/A

(33) International Classification: N/A

(34) International Classification: N/A

(35) Patent of Addition to Application Number: N/A

(36) Divided into Application Number: N/A

(37) Filing Date: N/A

(71) Applicant No: 202541002351 A

(61) Publication Date: 24/01/2025

(71) Name of Applicant :

Tajayashree I. K.

Address of Applicant: Tajayashree I. K. Research Scholar, Datananda Nagar University and Associate professor, CSE & DEPARTMENT KANNIA Bangalore Research scholar at Datananda Nagar University, Haveralli

(72) Name of Invention :

Santosh Kumar J

Name of Applicant : N/A

Address of Applicant : N/A

Address of Applicant: Santosh Kumar J Associate professor Computer science and Technology Datananda Nagar University santoshkumar.j@dsn.edu.in

(13) Abstract:

Abstract: The invention presents an AI-driven multi-modal framework for enhanced diagnosis and personalized treatment of rheumatoid arthritis. By integrating imaging, genomic, and clinical data, the system improves diagnostic accuracy, predicts disease progression, and tailors treatment plans using advanced deep learning techniques. Key innovations include the use of GANs for data augmentation, RNNs for time-series analysis, and DRL for personalized diagnostic optimization. Exploitable AI tools ensure transparency and foster clinical trust. Scalable and accessible, this framework bridges the gap between advanced AI research and real-world clinical applications, revolutionizing RA management.

No. of Pages: 22 No. of Claims: 8

- Dr. Vegi Fernando A, Associate Professor, Dept. of CSE (AI&ML), Presented the paper titled “Artificial Intelligence: Unlocking the Future of Technology” in the International Conference on Next Generation Communication & Information Processing (INCIP-2025) held on 23rd-24th January 2025 at Manipal Institute of Technology Bengaluru, in association with Manipal Institute of Technology, Manipal, and Manipal University Jaipur.



- Dr. Shreyas Rajendra Hole, Assistant Professor, Dept. of CSE (AI&ML) has published a research paper titled “Empirical analysis of control models for different converter topologies from a statistical perspective” in the Journal Science and Technology for Energy Transition 80, 19(2025) (Q2,IF=1.8).<https://doi.org/10.2516/stet/2024110>



- Dr. Joshuva Arockia Dhanraj, Associate Professor, Dept. of CSE (AI&ML), Participated in the AICTE Recognized Faculty Development Programme on Effective Curriculum Implementation using FOSS Conducted by Curriculum Development Centre Department from 20/01/2025 to 24/01/2025 (One Week) at NITTR, Chandigarh.



Departmental Activities

Department Of CSE (AIML)

- Dr. Sugandha Saxena, Assistant Professor in the Department of CSE (AI & ML) at Dayananda Sagar University, participated in the AI for Future Workforce Symposium on January 29th and 30th, 2025, organized by Intel Digital Readiness in Intel office, Bellandur, Bangalore. This event was a truly enriching experience, bringing together experts, educators, and industry professionals from across India to discuss AI's evolving role in shaping the workforce of tomorrow. The sessions were incredibly insightful, covering a diverse range of topics from ethical AI to the implementation of agentic AI. Through numerous hands-on activities led by Intel experts, I learned about valuable generative AI tools. One of the highlights was the engaging balloon debate session among all participants.

Meeting and interacting with Mr. Gokul V Subramaniam, President of Intel India, Vice President of Client Computing, and General Manager of Client Platform and System at Intel, as well as Mr. Santhosh Viswanathan, Vice President and Managing Director of Intel India Region, provided us with true motivation and inspiration.

The engaging discussions and thought-provoking presentations offered valuable perspectives on leveraging AI for skill development and workforce transformation. It was a fantastic opportunity to witness education and industry leaders come together, emphasizing the critical need for collaboration in preparing our future workforce for AI-driven roles. Attached are a few glimpses from the event.



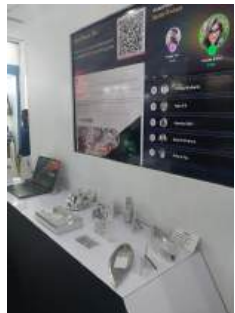
The International Rover Challenge (IRC) is one of the most prestigious competitions in space robotics, attracting teams from educational institutions worldwide to showcase their expertise and innovative solutions in rover technology. Organized by the Space Robotics Society, the IRC Finals 2025 took place from January 28 to February 2, 2025, and were hosted by Birla Institute of Technology and Science (BITS), Pilani. The competition featured top teams engaging in challenging space exploration simulations.

Out of 100 initial registrations from esteemed institutions, only the top 25 teams advanced to the finals. We are proud to announce that our student team, Trixanth, secured a place among these finalists, marking a significant achievement for Dayananda Sagar University. At the IRC 2025 Finals, Team Trixanth demonstrated exceptional skill, innovation, and teamwork. They tackled complex challenges, including navigation, autonomous operations, and communication tasks in a simulated Martian terrain. Their participation highlighted their technical proficiency and unwavering commitment to excellence in space robotics. While the official rankings are yet to be announced, the team delivered a remarkable performance, successfully executing various technical challenges despite fierce competition from teams across the globe.



Student Activities

- IMTEX 2025 is a premier international exhibition organized by the Indian Machine Tool Manufacturers' Association (IMTMA), showcasing the latest advancements in manufacturing technologies. Scheduled from January 23 to 29, 2025, at the Bangalore International Exhibition Centre (BIEC), Bengaluru, the event spans 90,000 square meters and features over 1,100 exhibitors from 23 countries. With concurrent shows like Tooltech 2025 and Digital Manufacturing 2025, IMTEX highlights innovations in CNC machining, tooling, robotics, additive manufacturing, and Industry 4.0. The event also hosts seminars, academic collaborations, buyer-seller meets, and youth programs, bridging industry and innovation for a transformative manufacturing future.
- At IMTEX 2025, Autodesk is showcasing its advanced CAM solutions, featuring components from Avishkar Hyperloop—an innovative project designed entirely in Fusion 360. This collaboration highlights Autodesk's role in enabling cutting-edge design and manufacturing workflows, empowering teams like Avishkar Hyperloop to push the boundaries of engineering and technology. Attendees can explore how Fusion 360's integrated CAD/CAM capabilities streamline the creation of precision components, driving innovation in futuristic transportation systems. Mr Vatsal (ENG22AS0023) autodesk fusion catalyst actively participated in this event



- Mr. Pranav Bawgikar (ENG21CS1015), Mr. K. J. Devaiah (ENG20CS0136), Mr. G. Yogdeep(ENG20CS0418), Students of CSE published a paper under the Guidance of Dr. V. Revathi, Associate Professor, with the title “Decentralized Healthcare Ledger System on Hedera with Deep Learning Analytics”, in the Springer book series Lecture Notes in Networks and Systems ((LNNS,volume 1144), with DOI https://doi.org/10.1007/978-981-97-7839-3_12, during 24th January 2025.



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Overview

Editors: Jagdish Chand Bansal, Samarjeet Borah, Shahid Hussain, Said Salhi

- Presents recent research in computing and machine learning
- Discusses the outcomes of CML 2024, held in Sikkim, India during March 2024
- Serves as a reference resource for researchers and practitioners in academia and industry

Part of the book series: [Lecture Notes in Networks and Systems \(LNNS, volume 1144\)](#)

Included in the following conference series:
[CML: International Conference on Computing and Machine Learning](#)

- Mr. Sameer S Katte (ENG22CS0148), Mr. Sai Shravan V (ENG22CS0144), Mr. Sriram Ravindra (ENG22CS0185) and Mr. Harshith GR (ENG22AM0021) has a team Papz participated and represented Dayananda Sagar University in a National level offline hackathon "Hack-A-League" conducted in Global Academy of Technology Bangalore conducted on 1st and 2nd February 2025. The team has secured 2nd place with a cash prize of rupees 15000 and also achieved the highest reward for a team from Karnataka.





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**Edited by :
Office of Dean SOE,
Dayananda Sagar University
Deverakaggalahalli, Kanakapura Road Ramanagara Dt.,
Karnataka - 562 112**