



DAYANANDA SAGAR
UNIVERSITY



SCHOOL OF
ENGINEERING

SOE - "The Weekly Buzz"

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



Week#17 (April 21 to 26th, 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 Aerospace Engineering

The Department of Aerospace Engineering at Ramaiah University of Applied Sciences hosted a symposium on Advances and Frontiers in Fluid Mechanics on April 25, 2025. The event brought together researchers, academicians, and practitioners from diverse fields to discuss recent developments in fluid mechanics. The symposium featured technical talks by experts from reputed institutions such as CSIR-NAL, Ramaiah Medical College, and Dayananda Sagar University. Dr. G. K. Suryanarayana, Professor, Department of Aerospace Engineering, SOE, DSU, delivered a talk on Transonic Shock-wave Boundary Layer Interactions, offering deep insights into high-speed flow phenomena. Other topics covered included aerodynamics of combat aircraft, biomedical flows, and robust CFD validation techniques. The event successfully facilitated interdisciplinary knowledge exchange and fostered collaboration in this vital area of engineering science.

RAMAIAH UNIVERSITY
OF APPLIED SCIENCES

CSIR-NAL **IAIA** **SRIINIDHI**

**SYMPOSIUM ON
ADVANCES AND
FRONTIERS IN FLUID
MECHANICS**

25 APRIL 2025

The Symposium on Advances and Frontiers in Fluid Mechanics aims to bring together researchers, practitioners, and academicians to meet and share knowledge and discuss recent developments in the broad and diverse landscape of fluid mechanics. Fluid dynamics is at the heart of almost every modern scientific and engineering endeavor today. The subjects range widely from aerospace and automotive engineering to environmental science, biomedical flows, and energy systems. The symposium will serve as a platform for the exchange of knowledge and ideas between leading experts from academia and research laboratories and students. The symposium will feature expert talks in aerodynamics, computational fluid dynamics, experimental techniques, and biomedical mechanics. By bringing together specialists from various disciplines, the symposium aims to provide a comprehensive perspective on both fundamental and applied aspects of fluid mechanics. We hope that the symposium will stimulate thought-provoking discussions, inspire new research projects, and enrich the collective understanding of fluid dynamics.

Schedule

TECHNICAL TALKS - SESSION 1	
Workshop and Cocktail Reception Prof. V. S. Narasimha, Faculty of E, Ramaiah University of Applied Sciences	05:00 PM to 05:30 PM
Transonic Shock-wave Boundary Layer Interactions Prof. G. K. Suryanarayana, Dayananda Sagar University	05:35 PM to 05:55 PM
Workshop Exhibitions in Fluid Mechanics Using 3D Methods Inauguration of 3D Models of 3D Printed Aerospace Components	05:55 PM to 06:45 PM
TEA/COFFEE BREAK	
TECHNICAL TALKS - SESSION 2	
Flow Control Applications to Airfoil Profiles: A Fluid Dynamic Journey Prof. J. S. Prasad, Ramaiah Medical College	06:50 PM to 07:10 PM
Verification and Validation of CFD Code: Robust Test Cases Spanning Multi-Regimes Dr. Venkat Ganeshaiah, Ramaiah University of Applied Sciences	07:15 PM to 07:35 PM
CLOSING REMARKS	07:40 PM to 08:10 PM

REGISTRATION IS FREE, BUT MANDATORY

Venue: A-106, Ramaiah Technology Campus,
1st Floor of 4th Phase, Ramaiah Medical College,
Peenya Industrial Area, Peenya-4th Phase,
Bangalore - 560056

Co-Chairman:
Prof. M. Srinivasan
m.srinivasan@ramu.edu.in
+91 986027717

Department Of CSE (Data Science)

Dr. Suresh Arumugam, Associate Professor, Department of Computer Science and Engineering (Data Science), Dayananda Sagar University, was recently honored with a Certificate of Completion and Appreciation by NexusIQ Solutions LLP. The recognition highlights his outstanding contribution as a mentor for the corporate training program titled “Training Program for Fractal Analytics: on Azure Data & AI Foundations”, conducted from 10th to 19th March 2025. Spanning 14 hours, the program focused on enhancing practical skills in Azure technologies. Dr. Suresh’s valuable mentorship, technical expertise, and dedicated guidance were instrumental in enriching the participants’ learning experience. He also received exceptional feedback from attendees, underscoring his impact in the fields of Data Engineering and Artificial Intelligence.



CERTIFICATE OF COMPLETION AND APPRECIATION

To

Dr. Suresh Arumugam
Associate Professor
Dayananda Sagar University,
Harohalli, Kanakapura Road,
Bengaluru - 562121

This is to certify Dr. Suresh Arumugam has successfully served as a Mentor for the corporate training program titled “Training Program for Fractal Analytics on Azure Data & AI Foundations” and conducted over a duration of one week from 10th March to 19th March 2025 (total-14 hours).

We extend our sincere appreciation for his valuable mentorship, guidance, and dedication throughout the training. His expertise and commitment have significantly contributed to the learning experience of the participants.

Furthermore, he has received outstanding feedback from the participants, reflecting his exceptional mentoring skills and in-depth knowledge in the domain.

We express our gratitude and look forward to his continued contributions in the field of Data Engineering & AI.

Date: 02-04-2025

L.V.S Ravi Kumar
Vice President - Business Development
NexusIQ Solutions LLP.



Dr. Shreyas Rajendra Hole & Dr. Mude Nagarjuna Naik, Assistant Professors from department of CSE(AI&ML) has published a conference paper titled "Hybrid Approach of TabNet and Transformer-XGBoost for Predicting Traffic Flow in Smart Cities," 2025 IEEE 1st International Conference on Smart and Sustainable Developments in Electrical Engineering (SSDEE), Dhanbad, India, 2025, pp. 1-8.
doi: 10.1109/SSDEE64538.2025.10968571.



Dr. Shreyas Rajendra Hole & Dr. Jayavrinda Vrindavanam, professor and Assistant Professor from department of CSE(AI&ML) has published a conference paper titled "Hybrid PCA-Based Machine Learning Models for Predictive Analytics in Urban Health Monitoring Systems" 2025 IEEE 1st International Conference on Smart and Sustainable Developments in Electrical Engineering (SSDEE), Dhanbad, India, 2025, pp. 1-8,
doi: 10.1109/SSDEE64538.2025.10967575.



Departmental Activities

Department Of Computer Science and Engineering

World Earth Day

The Department of Computer Science and Engineering, School of Engineering, Dayananda Sagar University, celebrated World Earth Day on 22nd April 2025 with great enthusiasm and a profound sense of responsibility towards our planet. This meaningful event was organized as an initiative to raise awareness among students and staff about the importance of environmental conservation and sustainable living practices.

As part of the celebrations, a Poster Exhibition was conducted, showcasing the creativity and environmental concern of our students. The exhibition served as a powerful platform to communicate vital messages about protecting nature, conserving resources, and adopting eco-friendly lifestyles. We extend our heartfelt thanks to the management of Dayananda Sagar University for their unwavering support and encouragement in organizing such impactful events, Faculty Coordinator : Mr. Manoj Kumar N. I.



TechFlix 2025

TechFlix 2025, organized by the Department of Computer Science and Engineering at Dayananda Sagar University, featured a series of high-energy events that fostered innovation, technical skills, and collaboration. Among the highlights were the Wild Canvas Digital Art Competition, The Great Holmes Hunt (Treasure Hunt) Competition, and a variety of industry-partnered and student-driven technical competitions.

Wild Canvas, held on 25th April 2025, was a thrilling digital art competition that included rounds on Logo Design, Logo Animation, and Poster Design. Students engaged in the competition demonstrated exceptional creativity while aligning their work with a surprise theme. This event promoted digital literacy and creative learning, reinforcing the importance of skill-based education in line with Sustainable Development Goal (SDG) 4: Quality Education.

The Great Holmes Hunt also took place on 25th April 2025, where over 120 students participated in an intense, Sherlock Holmes-inspired treasure hunt. The event tested participants' deduction, teamwork, and problem-solving skills through a series of themed rounds. The winners took home a cash prize of ₹12,000, with ₹3,000 awarded to the runner-up. The competition was an excellent demonstration of strategic thinking and collaboration, aligned with SDG.

Hack' in Bad, a 24-hour National Level Hackathon organized by the DSU-ACM Student Chapter from 25th to 26th April 2025, was a thrilling contest that brought together teams to design, develop, and deploy tech solutions to real-world challenges. The competition featured a series of progressively challenging rounds, where 50 teams out of 130 registered were shortlisted for the qualifiers, and 12 teams advanced to the final showdown.

Finally, The Triwizard CTF (Capture the Flag) competition, held on 24th April 2025, challenged participants' cybersecurity skills through a series of escalating tasks, from basic encryption to real-world security exploit simulations. With a set of thrilling challenges like "The Dragon's" and "The Maze of Mayhem," the event pushed participants to demonstrate both technical prowess and strategic thinking. TechFlix 2025 was further enriched by the Industry Partnered Competitive Programming Training, which took place from 21st to 26th April 2025.

Under the guidance of faculty coordinators such as Dr. Meenakshi Malhotra, Dr. Revati V, Dr. Senthil Kumar, Dr. Bipin Kumar Rai, Dr. Girish G S, and others, TechFlix 2025 showcased a wide range of technical and creative events that contributed to the holistic development of students, blending academic knowledge with real-world applications and industry insights. The event would not have been possible without the collective support of both direct and indirect contributors, including staff members, industry partners, and volunteers, who played crucial roles in ensuring its success. These events epitomized the spirit of innovation, collaboration, and skill enhancement that defines the TechFlix platform.





The Department of Placement and Training, in collaboration with the Department of Computer Science and Engineering at SOE, DSU successfully organized a week-long Industry Partnered Competitive Programming Training from 21st to 26th April 2025. Conducted in association with Veranda, Six Phrase, and Talentely, the program was tailored specifically for 3rd-year B.Tech students.

The training aimed to enhance students' proficiency in competitive programming, bridge the gap between academic learning and real-world coding standards, and prepare them for placements in product-based companies with the guidance of seasoned industry professionals.

The sessions covered advanced problem-solving techniques, algorithmic thinking, and practical insights into software product development. The initiative received overwhelmingly positive feedback from both students and faculty, with participants gaining technical confidence and a clearer direction toward successful tech careers. This collaborative effort stands as a testament to the power of industry-academia partnerships in fostering future-ready talent.



Department Of CSE (AIML)

The Department of CSE (Artificial Intelligence and Machine Learning) successfully hosted its first alumni meet for the 2024 batch on Saturday, 26th April 2025. The heartfelt gathering brought together 13 alumni, who reunited with faculty members and juniors for an evening filled with nostalgia, reflection, and celebration. The event commenced with warm addresses by Dr. Jayavrinda Vrindavanam and Dr. Vinutha, who shared cherished memories and welcomed the alumni back to their academic home. Several alumni took the stage to share their journeys—from academic projects to professional milestones—offering valuable guidance and inspiration to the current students. A key highlight was the presentation of the Distinguished Alumni Award to Mr. Subha Prakash Patnaik, in recognition of his outstanding mentorship, entrepreneurial achievements, and contributions to societal development. The event fostered a spirit of pride, connection, and inspiration, reaffirming the strong and enduring bond between the department and its graduates.



Department Of Mechanical Engineering

Autodesk, in collaboration with Dayananda Sagar University (DSU), successfully conducted the Autodesk Fusion Insider Build Testing event on 25th April 2025 at the DSU Main Campus. The event, held from 9:00 AM to 4:00 PM, welcomed around 30 B.Tech students from the 4th, 6th, and 8th semesters of Mechanical and Aerospace Engineering, all of whom demonstrated intermediate proficiency in Fusion 360 software. The initiative provided students with a unique opportunity to explore new and upcoming features in Autodesk Fusion, refine their design and engineering skills, and engage in hands-on learning. All participants received Autodesk certificates, and prizes were awarded to the top five designs. The event was coordinated by Dr. Shashidhar L C, Manager of the Autodesk Design & Innovation Lab at DSU. Resource persons from Autodesk included Sujay Dsouza (Quality Assurance Manager), Praise Tom (Senior Technical Support Specialist), Vinayaka Kumar (Senior Technical Support Specialist), and Sindhu V T (Technical Support Specialist), whose insights and guidance were invaluable to the participants' learning experience.



AUTODESK FUSION INSIDER BUILD TESTING

25th April 2025
9:00 AM - 4:00 PM
DSU Campus

Eligibility:
30 B.Tech students of Mechanical and Aerospace Engineering with intermediate proficiency in Autodesk Fusion 360 software.

Participants will receive Autodesk certificates, and prizes will be awarded for top 5 best designs.

AUTODESK | **DAYANANDA SAGAR UNIVERSITY**

25/04/2025



DSUMUN II - 2025

Dayananda Sagar University proudly hosted DSUMUN II: Beyond Borders Diplomacy Without Limits, a premier Model United Nations conference from April 19 to 21, 2025, in collaboration with the ORG Foundation and MUNSOC. This three-day event was a confluence of dialogue, diplomacy, and dynamic youth leadership, featuring six dynamic committees including a special G20 Summit, DISEC, UNSC, IPC, UNHRC, AIPPM and 160 delegates participating from different institutes.

The inaugural ceremony was graced by Dr. C. N. Manjunath, Member of Parliament (Bengaluru Rural) and former Director of the Sri Jayadeva Institute of Cardiovascular Sciences and Research, as the Chief Guest. In his valedictory, the conference also welcomed eminent personalities such as Air Marshal Anil Khosla (Retd.), former Vice Chief of Air Staff; Yashi Dhariwal, Head of the Political and Economic Department at the Honorary Consulate of Cambodia; Dr. Amit Bhatt, Vice Chancellor of Dayananda Sagar University; and Mr. Hritik Singh, Project Manager at the United Nations Development Programme (UNDP)—each contributing to the global and interdisciplinary spirit of the conference.

Under the leadership of Shashwat Saini (Secretary General), Suraj S. (Director General), and Aditya N. (Charge d'Affaires), and mentored by Dr. Seema Tharannum and Dr. Sai Prasad Nayak, DSUMUN II invited students to step into the roles of global policymakers, challenge conventional diplomacy, and embrace the values of borderless cooperation and visionary leadership.



“Happiness Club Community Outreach Programme”

The Happiness Club of the School of Engineering, Dayananda Sagar University, Harohalli Campus, organized a Community Outreach Programme on 22nd April 2025 at the Sri Sai Charitable Trust Old Age Home, Kaggalipura. The event was led by 20 enthusiastic members of the Happiness Club from the Department of English and aimed to promote emotional well-being, joy, and community connection. The programme featured a variety of cultural and wellness activities including music, dance, games, and yoga, all tailored to engage and uplift the residents of the home. The initiative not only brought smiles and warmth to the elderly residents but also provided the students a valuable opportunity to engage in meaningful community service and experience the joy of giving. The event was coordinated by Dr. V. Sreemathy and Dr. Rochna Roy, Assistant Professors, Department of English, and received positive feedback from both participants and organizers for its impact and outreach.



Parents Teacher Meeting-2025

The Parents Teacher Meeting commenced with a warm welcome, followed by an address on the importance of parent-teacher collaboration. Dr. Udaya Kumar, Dean – School of Engineering, greeted the parents along with Dr. Yogesh Kalegowda and Dr. Saravanabavan D., First-Year Coordinators, class advisors, and faculty members, marking the active participation of first-year student parents as well.

The Parent-Teacher Meeting (PTM) for the Department of CST and CSE (Data Science) was held on 26th February 2025. The session was inaugurated by Dr. Shaila S G, Professor and Chairperson, Department of CSE (Data Science), and attended by class advisors including Prof. Shivamma D (4th Sem A), Prof. Godhandaraman T (4th Sem B), Prof. Monish L (6th Sem A), and Prof. Manjula M (8th Sem). From the Department of CST, Dr. Shahina Parveen, Professor and Chairperson, attended the meeting along with class advisors Prof. Nivetha N R P (8th Sem), Prof. Ramandeep Kaur (6th Sem), and Prof. Vinayaka V M (4th Sem), as well as other faculty members.

Class advisors shared essential information about themselves, including their names, designations, contact numbers, and email IDs. Discussions covered the attendance policy, emphasizing the mandatory 85% attendance requirement and its implications—particularly detainment from Semester End Examinations (SEE) for non-compliance. Parents were updated on their ward's attendance records, MSE-1 performance across subjects, the 60:40 evaluation scheme for integrated and non-integrated courses, and the Continuous Internal Assessment (CIA) requirements, including a minimum passing mark of 40% and the necessity to attend the summer term exam if this criterion is not met.

Further points included details about the upcoming MSE-2 examination, remedial classes for slower learners, and enrichment support for advanced learners. Advisors also briefed parents on how to access academic and administrative details through the ERP system—such as the timetable, IA marks, CGPA, and attendance—and encouraged them to visit the DSU CST department website for curriculum and activity updates. Placement activities were discussed, including current placement statistics for 7th-semester students and ongoing CTS special training programs aimed at building programming and soft skills.

Parents responded positively, expressing appreciation for the department's efforts and achievements. They suggested conducting online classes on Saturdays due to accessibility challenges and requested login credentials to independently monitor their ward's progress. The PTM concluded with a productive exchange focused on fostering student development and academic excellence.



Student Activities

"DSU SOE Conducts TB Awareness Drive in Surrounding Villages"

DSU's School of Engineering Conducts TB Awareness Drive Across Rural Communities organized a comprehensive Tuberculosis (TB) Awareness Drive on 23rd April 2025 across multiple rural locations including Jakkasandra, Gottigehalli, Kiranagere, and M. Maniyambal. Spearheaded by the NSS units and the Department of Student Affairs, the initiative saw enthusiastic participation from students of the Departments of Computer Science and Engineering (Data Science), Computer Science and Technology, AI & Robotics, and Aerospace Engineering.

At Jakkasandra, over 30 NSS volunteers from the CST department designed educational posters, Kannada-language pamphlets, and interactive presentations to engage villagers on TB prevention and treatment. Simultaneously, students from the AI & Robotics department conducted a door-to-door awareness campaign in Gottigehalli, sharing crucial information on TB symptoms and the importance of early detection. Aerospace engineering students led a similar campaign in Kiranagere, visiting households to educate residents about TB and encourage healthy practices.

A central event at M. Maniyambal, supported by SOE Students, Faculty and Staff along with Dr. K.S. Bhagyajyothi (Assistant Director, Physical Education), featured expert talks highlighting TB symptoms, transmission, and the critical importance of completing the full course of medication to prevent drug-resistant strains. The awareness drive effectively improved public understanding of tuberculosis, reduced stigma, encouraged early diagnosis, and promoted available government health services. The initiative was well-received by local communities and stood as a testament to DSU's commitment to social responsibility and the development of health-conscious citizens.



Student Research Paper Presentations at Hinweis ARET 2025

Mr. Nandeesh P Math (ENG21CS0263), Mr. Samarth S S (ENG21CS0356), Ms. Sree Vibha G (ENG21CS0412) and Mr. Venkatesh P (ENG21CS0471), 8th semester Students, Department of CSE presented a paper titled “A comprehensive analysis on AI and ML techniques for Canine Disease Detection”, under the guidance of Dr. Sasikala N, Assistant Professor, Department of CSE in the Scopus indexed Hinweis Third International Conference on Advanced Research in Engineering and Technology (ARET) Kolkata, India online during 26-27-28 April 2025.

Ms. Keerthana V (ENG21CS0186), Ms. Kriti Manini Raju (ENG21CS0191), Ms. Nitya A N (ENG21CS0274) and Mr. Tilak Uppar (ENG21CS0447) 8th semester Students, Department of CSE presented a paper titled “IoT Enabled Smart Container System for Pharmaceutical Supply Chain Management”, under the guidance of Prof. Mala B A, Assistant Professor, Department of CSE in the Scopus indexed Hinweis Third International Conference on Advanced Research in Engineering and Technology (ARET) Kolkata, India online during 26-27-28 April 2025.

Mr. Mohammad Mujeeb M Attar (ENG21CS0231), Mr. Rohan Annaso Patil (ENG21CS0340), Mr. Shariq (ENG21CS0374) and Mr. Yathish Raj S, (ENG22CS1044) 8th semester Students, Department of CSE presented a paper titled “An AI-Driven Intelligent Traffic Management System Using IoT and Machine Learning for Urban Congestion Control, Accident Detection and Alert System”, under the guidance of Prof. Mala B A, Assistant Professor, Department of CSE in the Scopus indexed Hinweis Third International Conference on Advanced Research in Engineering and Technology (ARET) Kolkata, India online during 26-27-28 April 2025.

Mr. Upamanyu Shrishanth M (ENG21CS0452), Mr. Rolwin Menezes (ENG21CS0339), Mr. Rohith Bedre (ENG21CS0338) and Mr. Puneeth M (ENG21CS0311) 8th semester Students, Department of CSE presented a paper titled “Video event localization and summarization”, under the guidance of Prof. Arpita Paria, Assistant Professor, Department of CSE in the Scopus indexed Hinweis Third International Conference on Advanced Research in Engineering and Technology (ARET) Kolkata, India online during 26-27-28 April 2025.

Mr. Darshan R (ENG22CS1024), Mr. Dhanush H S (ENG22CS1025), Ms. Usha Shree P (ENG21CS0453), Mr. Sandeep M Sarangamath- (ENG22CS1039) 8th semester Students, Department of CSE presented a paper titled “Innovations in AI and Assistive Technologies: Empowering the Visually Impaired”, under the guidance of Dr. Sasikala N, Assistant Professor, Department of CSE in the Scopus indexed Hinweis Third International Conference on Advanced Research in Engineering and Technology (ARET) Kolkata, India online during 26-27-28 April 2025.



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