



DAYANANDA SAGAR
UNIVERSITY



SCHOOL OF
ENGINEERING

SOE - "The Weekly Buzz"

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



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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 & Engineering

- Dr. Rajesh T.M, Dr. Praveen Kulkarni, Associate Professors, and Dr. Renuka Devi M.N, Assistant professor, Department of CSE a DSU team, along with SPMIL Company, visited Bharat Earth Movers Ltd (BEML) in Mysore on Tuesday, October 22, 2024, to gain further insights and exposure to the funded consultancy projects.



- Dr. Arunkumar Gopu, Associate Professor, Department of CSE has published a South Africa patent and granted in accordance with section 44 (1) of the Patents Act, No. 57 of 1978 with the title “A Robotic Glove System for Healing using Mudra Therapy” during October 2024.



- Dr. Girisha G S and Dr Basavaraj Hiremath, Professors, Department of CSE has published a South Africa patent and granted in accordance with section 44 (1) of the Patents Act, No. 57 of 1978 with the title “A system for detecting diseases in plants and a method thereof” during October 2024.



- Dr Basavaraj Hiremath, Professor, Department of CSE has published an Indian patent with the title “Prediction of Drug-Drug Interaction, Drug-Disease Interaction Induced Hypokalaemia” Applicant: Dayananda Sagar University other Inventor(s) are Dr. Shiva Murthy, Ms. Aishwarya G, Ms. Manjari, Ms. Deeksha and Ms Meghana during October 2024.



- Prof. Sasikala N & Prof. Benka Santhosa S, Assistant Professor, Department of CSE has participated and certified as a Facilitator of AI for Future Workforce Program in India on October 18 2024 by DELL Technologies.



- Mr. Subbareddy Meruva (ENG17PPCS20), Research Scholar, Department of Computer Science and Engineering, under the guidance of Dr. Bondu Venkateswarlu Associate Professor completed her Ph.D. Defence VIVA-VOCE entitled “Improving the Performance of Association Mining Techniques for High Utility Itemsets,” on 21st October 2024 in Room No A-507, A Block, SOE, DSU, Harohalli, Bangalore-562112.
- Ms. Savita Vijay, Research Scholar, Department of Computer Science and Engineering, under the guidance of Dr. M.K Banga, Professor, completed her Ph.D. Defence VIVA-VOCE entitled, “Efficient Network Management for IoT” on 21st October, 2024 in Room No A-504, A Block, SOE, DSU, Harohalli, Bangalore-562112.
- Ms. Sailaja M (ENG19PPCS08), Research Scholar, Department of Computer Science and Engineering, under the guidance of Dr. Girisha G S, Professor, completed her Ph.D. Defence VIVA-VOCE entitled “Interactive tool for prognosis of specific learning disabilities in primary school children using machine learning” on 23/10/2024 Room No 506, A Block, SOE, DSU, Harohalli, Bangalore-562112.
- 4. Mr. C Jayaramulu (ENG17PPCS09), Research Scholar, Department of Computer Science and Engineering, under the guidance of Dr. Bondu Venkateswarlu Associate Professor completed his Ph.D. Defence VIVA-VOCE entitled “A Novel Machine Learning Framework for Outlier Detection in High Dimensional Data” on 25st October 2024 in Room No A-507, A Block, SOE, DSU, Harohalli, Bangalore-562112.



- Dr. Sivananda Reddy L, Associate Professor and Dr. Naresh P, Assistant Professor, Department of CSE are successfully participated in the Ten-day Workshop series on “From Scratch to Deployment: Hands-on Model Building with Keras and TensorFlow” a Neural network Workshop organized by the Department of CSE Sri Venkateshwara College of Engineering from 14th October to 25th October 2024.



Department of Computer Science & Technology

- Ms. Khushi Shah (ENG21CT0015), Mr. Krutharth YG (ENG21CT0016), Dr. Sudha & Dr. Santosh Kumar J, Associate Professor, Dept of CST published a research article titled “Predictive Analytics for Diabetes and Diabetic Retinopathy using Deep Learning on Fundus Images” at the International Conference on Electrical, Electronics, Information and Communication Technologies (ICEEICT-2024 on 24-26, July 2024).



Department Of Electronics and Communications Engineering

- Dr. Arun Balodi, Chairman & Professor , Dr. Arun Ananthanarayan, Associate Professor & Prof. Mr. V Sudharsan, Department of ECE, attended Five Days Faculty Development Programme on “Intel AI for future Workforce” organized by Computer Science & Technology and Department of CSE -Artificial Intelligence -Machine Learning in collaboration with Intel & Dell Technologies during August, 13-22 2024 at SOE in DSU.
- Dayananda Sagar University (DSU) made a remarkable impact at the 5th International Conference on Biomedical Engineering (iBioMed 2024) held in Bali, Indonesia, in October 2024. Representing DSU, students Asmita Saha and Bhoomika Sridhar showcased their groundbreaking research at this prestigious event organized by Universitas Gadjah Mada (UGM), Yogyakarta. Asmita presented her study on "Multi-ligand Simultaneous Docking Analysis of Moringa oleifera Phytochemicals," which revealed enhanced BCL-2 inhibition through synergistic interactions, a promising advancement in cancer therapy. Her project, supported by a DSU seed grant, was supervised by Dr. B.M. Ashwin Desai, Associate Professor, Dept. ECE, SOE and Dr. Pronama Biswas. Meanwhile, Bhoomika’s research, titled "Enhancing Protein Recovery from Peanut Meal: High-Voltage Electrical Discharge as an Efficient and Green Pretreatment Method," explored a sustainable approach to protein recovery and was funded by the Anusandhan National Research Foundation (ANRF). This work was also guided by Dr. Desai and supported by Dr. Biswas’s expertise in protein dynamics.



Department of CSE (Cyber Security)

- Dr. Dilip Kumar Jung Bahadur Saini has published an IEEE paper titled “Innovative Real Estate Management System: Artificial Intelligence-based Segregation” at 5th International Conference on Smart Electronics and Communication (ICOSEC) 2024. The paper explores the rapid advancements in information technology and their transformative impact on the property industry. The research focuses on the development and implementation of an advanced Real Estate Management System, which incorporates robust data management functions and enhanced security measures.

Publication Link: <https://ieeexplore.ieee.org/document/10722189>

- Prof.K.Deepthika and Dr. [Prajwalasimha S N](#) has published an IEEE paper titled “AI-Enabled DDoS Detection and Mitigation in the Software Defined Network” at [5th International Conference on Electronics and Sustainable Communication Systems \(ICESC\) 2024](#). This research introduces an OpenFlow-based detection approach specifically designed for the SDN control plane, addressing the growing concern of Distributed Denial of Service (DDoS) attacks. This innovative approach aims to significantly improve the resilience of SDNs against DDoS threats, paving the way for more robust network security solutions.

Publication Link: <https://ieeexplore.ieee.org/document/10689743>

- Dr. Dilip Kumar Jung Bahadur Saini has participated in the “International Conference on Computing and Communication Networks(ICCCNet-2024)” as a Session Chair organized by Manchester Metropolitan University, Manchester, United Kingdom on 17th-18th October 2024.
- Dr Dilipkumar Jang Bahadur Saini has participated in two days national online Faculty Development Programme (FDP) on "AI Tools for Teaching and Research Efficiency" organized by Institutional Biotech Hub (Sponsored by DBT, Govt. of India) in collaboration with Internal Quality Assurance Cell (IQAC) of Namrup College during 21st and 22nd October 2024.



Departmental Activities

Department of CSE (Data Science)

- The DataScience@DSU Club and the Department of CSE (Data Science) organized an awareness program on "Plantation of Plants for Good Health" on 25th October 2024 at DSU campus, led by Dr. Shaila S G, Dr. Santhosh Kumar G, Prof. Mahendra M K and Prof. Chandrakala L, with support from Physical Education Teacher Bhagyajyothi. This initiative aimed to highlight the crucial role of planting in promoting ecological balance, mitigating climate change, and fostering community well-being. Participants discussed how plants improve air quality, conserve soil, and contribute to mental health, while also providing economic benefits like resource provision and job creation. The event underscored the importance of community involvement and effective planting practices to enhance ecosystems and ensure a sustainable future for upcoming generations.
- The DataScience@DSU Club and the Department of CSE (Data Science) organized an awareness program on "E-waste and Wet Waste Management" on 25th October 2024, held in the villages of Cheeluru and Paduvanagere. Led by Dr. Shaila S G, Dr. Santhosh Kumar G, Prof. Mahendra M K and Prof. Chandrakala L, with support from Bhagyajyothi, Physical Education Teacher, this program highlighted the critical need for sustainable waste management practices. Participants discussed the environmental and health risks posed by e-waste, which contains toxic materials like lead and mercury, and the challenges of wet waste, which contributes to landfill overflow and greenhouse gas emissions. The session emphasized recycling e-waste to conserve valuable resources and responsibly handling wet waste to reduce water contamination and pest attraction. By adopting effective waste management practices and raising community awareness, we can protect public health and promote environmental sustainability.

- The DataScience@DSU Club and the Department of CSE (Data Science) organized an awareness program on "E-waste and Wet Waste Management" on 25th October 2024, held in the villages of Cheeluru and Paduvanagere. Led by Dr. Shaila S G, Dr. Santhosh Kumar G, Prof. Mahendra M K and Prof. Chandrakala L, with support from Bhagyajyothi, Physical Education Teacher, this program highlighted the critical need for sustainable waste management practices. Participants discussed the environmental and health risks posed by e-waste, which contains toxic materials like lead and mercury, and the challenges of wet waste, which contributes to landfill overflow and greenhouse gas emissions. The session emphasized recycling e-waste to conserve valuable resources and responsibly handling wet waste to reduce water contamination and pest attraction. By adopting effective waste management practices and raising community awareness, we can protect public health and promote environmental sustainability.



Department of Electronics and Communications Engineering

- Dayananda Sagar University's Electroblitz Club, in collaboration with the Department of Electronics and Communication Engineering, organized an industry visit on 26th October 2024. The event, guided by Dr. Divyashree HB and Prof. Kokila and hosted by Electroblitz Club Vice President Mr. Pramath Gopal Bhat, provided students with hands-on insights into advanced technology and innovation practices at Gill Instruments Pvt Ltd and ELCIA Clusters. At Gill Instruments, students learned about Internet of Things (IoT) applications, the manufacturing process of IoT devices, and the features of their Gateway device. The visit to ELCIA Cluster's Tech Hub introduced students to precision machinery, electronics assembly, and prototyping facilities, along with a NABL-certified environmental testing area and an electronics testing and certification centre. This industry exposure gave students a comprehensive understanding of IoT systems, electronics manufacturing and the resources supporting tech innovation and entrepreneurship.



Department of CSE

- Dr Basavaraj Hiremath, Professor and Prof. Deepak H G, Assistant Professor, Department of CSE has presented a lecture an “Computer Skills of medical Students”, as a part of foundation course for the MBBS students of CDSIMER on LH1, G block on 23rd October 2024.



- The Department of Computer Science and Engineering at Dayananda Sagar University, in association with the Ganakanveshana Club, hosted an online hands-on workshop titled "Data Analytics with RapidMiner for Real-World Applications by Industry Expert" on October 24, 2024. The event, led by Mr. Abhishek Mattihalli, a Data Scientist and Solution Engineer at Altair, focused on data science fundamentals and practical applications using RapidMiner. Coordinated by Dr. Basavaraj N Hiremath, Dr. Savitha Hiremath, and Prof. Muthu Bala N, the workshop introduced participants to data preprocessing, model building, and evaluation techniques in RapidMiner. The session saw active participation from 200 attendees, including fifth-semester students and faculty, who provided excellent feedback.

DAYANANDA SAGAR UNIVERSITY
School of Engineering
DivyaSangamathi, Hosur, Karnataka Road, Ramnagar, Dist - 562 113

Department of Computer Science and Engineering

Hands-on Workshop

on
"Data Analytics with RapidMiner for Real-World Applications" by Industry Expert

ALTAIR

Objectives

- Understand core concepts of data science, AI, ML, and DL.
- Implement AI, ML, and DL, with applications in predictive modeling.
- Gain hands-on experience with RapidMiner by creating data analytics for predictive maintenance and financial modeling.

Coordinators

Dr. Basavaraj Hiremath & Dr. Savitha Hiremath

Dr. Muthu Bala N

Dr. Jagannath Bhandari

Session 1

Resource Person



Mr. Abhishek Mattihalli
Data Scientist and Solution Engineer, Altair

Faculty Coordinator

Dr. Basavaraj Hiremath
Dr. Savitha Hiremath
Dr. Muthu Bala N
Dr. Jagannath Bhandari

Date: 24th October 2024
Time: 2:30 PM - 6:30 PM
Venue: Lecture Hall 4
Target audience: 1st year CSE students



- On October 21, 2024, industry experts from Funai Soken, Tokyo, Japan, visited the Department of Computer Science and Engineering. During their visit, they engaged in discussions on the undergraduate academic curriculum, research programs, and toured the department's laboratories. The delegates from Funai Soken included Mr. Kohe Vamane, Managing Director; Mr. Ryuji Ueda, Leader of the Work Engagement Support Department; and Mr. Vemula Maneesh, Senior Expert in the DX Consulting Department. The visit was coordinated by the DSU International Affairs Team.
- They visited the AI Skills Lab, where students and faculty work on advanced artificial intelligence projects, gaining hands-on experience with machine learning models, data analysis, and AI-driven. They visited the Digital Logic Design Lab, where students learn about digital circuits and design using FPGA (Field-Programmable Gate Arrays) kits. This lab is equipped with state-of-the-art tools for teaching and implementing digital logic design, allowing students to build and test their own hardware designs and experiment with real-world applications in embedded systems. The experts expressed their appreciation for the state-of-the-art facilities provided for both the AI Skills Lab and the Digital Logic Design Lab, recognizing the advanced resources available for hands-on learning and research.



Department of Training & Placement

EdgeVerve Systems, a subsidiary of Infosys, left a memorable mark as the first company to visit and deliver a “Pre-Placement Talk” at Dayananda Sagar University’s (DSU) Harohalli campus for the 2026 batch placement drive on October 24, 2024 from 11:30 am to 02.00 pm. The EdgeVerve team provided valuable insights into the company’s vision, broad career pathways and diverse roles, along with an in- depth overview of their recruitment process for both internships and full-time positions, sparking strong enthusiasm among students.

Experts Mr. Rajeshwar Rao (Head of Talent Acquisition), Mr. Karthik V R (Business Manager, Learning), and Mr. Arun Kumar (Talent Acquisition) dedicated their time to engage directly with students. The session drew over 1,000 enthusiastic 5th-semester students from DSU’s School of Engineering, including more than 50 students from the Department of CSE (Data Science), creating an atmosphere brimming with curiosity and ambition. Through interactive discussions and a Q&A session, students gained a comprehensive understanding of EdgeVerve’s culture, innovation-driven projects, and growth opportunities.

This impactful event was meticulously organized by Mr. Vijay Kumar S, Director and Ms. Roopa Priya, Placement Officer, Dept. Training & Placement of Prof. Shivamma D, Assistant Professor and Dr. Shaila S G, Professor and Chairperson of the Department of CSE (Data Science). Their efforts ensured a seamless, engaging experience, setting an inspiring tone for the placement season. EdgeVerve’s visit, coupled with DSU students enthusiastic participation, underscores the university’s commitment to preparing top-tier talent for careers in technology and innovation.



Report on Veranda Sixphrase-DSU Cognitive Skills and Industrial Training, The industrial training program organized by Veranda Sixphrase aimed to bridge the gap between theoretical knowledge and practical applications, helping DSU students transition smoothly into the workforce. It began on 14th October 2024 and targeted students from the first, second, and pre-final years.

Training Content

- IT Department: Java programming, quantitative aptitude, and reasoning.
- Non-IT Departments: C programming, quantitative aptitude, and reasoning.

Participants, The program included, 1,213 pre-final year students, 1,665 second-year students, 1,825 first-year students Methods of Delivery Training was conducted using smart boards, live coding sessions, PowerPoint presentations, and interactive problem-solving exercises in quantitative aptitude and reasoning.



Student Activities

Department of Computer Science & Technology

- Mr. Swaroop K R (ENG21CT0041) of 7th semester CST got selected in LTI Mindtree Campus Placement Drive organized by Department of Training and Placement on 21st October 2024
- Ms. Swathi S (ENG21CT0043) of 7th semester CST got selected in Hewlett Packard Enterprise (HPE) Campus Placement Drive organized by Department of Training and Placement on 21st October 2024.
- Ms. Priyanka Sharma (ENG21CT0030) of 7th semester CST got selected in Consilio India Pvt. Ltd Campus Placement Drive organized by Department of Training and Placement on 25th October 2024.
- Ms. B. Dhivya (ENG22CT0004) successfully completed the AI and Data course at IBM Z Day 2024.



Department of Electronics and Communications Engineering

- Mr. Swaraj Khan and Mr. Harish Sasikumar, 7th-semester students from the Computer Science and Engineering department, Participated and reached the finals of the Nokia NBUC Ideathon on October 21, 2024, with their innovative idea, "Automated PDF Q&A Chatbot - Harnessing AI for Efficient Information Retrieval". And also, another team of 7th semester CSE students Mr. Chirag Aswal, Mr. Dibyansu Singh, Mr. Kiran Gangoor, and Mr. Akshay H S – For presenting their brilliant project, "Optimized Navigation in 3D Space", in the Nokia NBUC Ideathon. which are guided by Dr. Savita Vijay (Ex.Spoc-DSU), Neeta A S (NBUC), and the present spoc-DSU are Dr. Sivananda Reddy and Dr.Gokul Krishnan are witnessed the event.



M.Tech First Semester Orientation Programme (2024-2025)

- The Department of Computer Science & Engineering at Dayananda Sagar University held an orientation for M.Tech first-semester students, covering key aspects to ensure a smooth academic journey. Here's a summary of the key points discussed during the session:
- Academic Framework: Class Timetable, Scheme, and Syllabus: Students were provided with a detailed timetable and the syllabus for each subject, along with an introduction to faculty members.
- Course and Exam Structure: Marks distribution for courses combining theory and lab sessions was explained (CIA: 60, SEE: 40, with a passing criterion of 40).
- Rules and Regulations Attendance: An 85% attendance rate is mandatory. Students with less attendance will face detention, and attendance is recorded in the ERP system. Students missing exams for legitimate reasons must submit a request within two days.
- Discipline: Students were advised to maintain cleanliness, respect classroom decorum, and handle university property responsibly.
- Dress Code and ID Requirements: Strict dress codes and ID card regulations were enforced to maintain a professional environment.
- Placement Activities Faculty Coordinator: Dr. Vijay Kumar will guide students through placement-related activities.
- Preparation Programs: Initiatives like NeoPAT, monthly Neo Codeathon, and pre-assessment for different skill levels were introduced to enhance students' employability.

- Safety and Behavior Road Safety Awareness: Emphasis was placed on safe commuting practices due to past student accidents, highlighting the importance of following traffic rules.
- Behavioral Expectations: Students were reminded to be punctual, avoid conflicts, and respect peers and staff.
- Clubs and Societies: Students were encouraged to join department clubs that align with their interests, offering avenues for professional growth and networking.
- The orientation emphasized academic success, discipline, safety, and professional development, setting clear expectations for the new students as they embark on their M.Tech journey.





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