



DAYANANDA SAGAR
UNIVERSITY



SCHOOL OF
ENGINEERING

SOE - "The Weekly Buzz"

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



Week#7 (Feb 10 to 15,2025)

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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

Dr. Tanvir Sardar, Associate Professor, Department of CSE, his Research article with the title “MapReduce-enhanced Fuzzy K-Least Medians for Qualitative Clustering of Document Big data” is accepted for publication in the Wiley, SCIE and Scopus Q2 journal “Concurrency and Computation: Practice and Experience”, with 2.7 impact factor and H index 80 on 12th February 2025.

Dr Rajesh T M. Associate Professor, Department of CSE, has published an Indian patent with the title “Ai Based Framework for Analysing and Optimizing Highway Route Construction Using Satellite Images” Applicant: Dr. Santosh Kumar Jankatti, Name of Inventor: Meenakshi, Research Scholar, Dayananda Sagar University, on 14th February 2025.

Sl. No.	Name of the Applicant	Address of the Applicant	Address of the Inventor
1	Dr. Santosh Kumar Jankatti	Dr. Santosh Kumar Jankatti, Research Scholar, Dayananda Sagar University, Bangalore	Dr. Santosh Kumar Jankatti, Research Scholar, Dayananda Sagar University, Bangalore
2	Dr. Meenakshi	Dr. Meenakshi, Research Scholar, Dayananda Sagar University, Bangalore	Dr. Meenakshi, Research Scholar, Dayananda Sagar University, Bangalore

Office of the Controller General of Patents, Designs & Trade Marks
Department for Protection of Invention and Novelty
Government of India

(<http://ipindia.nic.in/index.htm>)

Application Details

APPLICATION NUMBER	2524190001
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	05/02/2025
APPLICANT NAME	1. Santosh Kumar jankatti 2. Meenakshi Sagar University
TITLE OR INVENTION	AI BASED FRAMEWORK FOR ANALYSING AND OPTIMIZING HIGHWAY ROUTE CONSTRUCTION USING SATELLITE IMAGES
FIELD OF INVENTION	COMPUTER SCIENCE
2 INVA. No. Per Se Inventor	meenakshik@dsu.ac.in
2 INVA. No. Per Se Applicant	meenakshik@dsu.ac.in
3 INVA. No. Per Se Applicant	
INVENTOR DATE	
REQUEST FOR EXAMINATION DATE	
PUBLICATION DATE (S) THIS	14/02/2025

Dr. Sivananda L Reddy, Associate Professor, Department of CSE, has successfully participated in IP Awareness/Training program under National Intellectual Property Awareness Mission on 15th January 2025.



Department Of CSE(Cyber Security)

Dr. Dilip Kumar Jang Bahadur Saini and Dr. Devi Priya V S has successfully participated in the One Week Faculty Development Program on “AI for Healthcare: Innovations, Applications, and Future Trends” organized by the Department of CSE-DS & CSE-IoT CSBT, Vishwakarma Institute of Information Technology (VIIT), Pune from February 10th to 14th, 2025.

This program provided valuable insights into cutting-edge applications of Artificial Intelligence in healthcare, focusing on innovations, research trends, and future possibilities in the field. With expert guidance and interactive sessions, participants explored how AI is revolutionizing patient care, diagnostics, and medical research.



Dr. Prajwalasimha S N has been recognized for his contribution as a Session Chair at the International Conference on Futuristic Aspects in Science & Engineering (ICFAiSE-2025), held on February 6-7, 2025, at ICFai University, Jaipur. This prestigious conference brought together researchers, academicians, and industry experts to explore emerging trends in science and engineering. As a Session Chair, he played a crucial role in facilitating discussions, evaluating research presentations, and contributing to the success of the event.



Department Of Electronics and Communication Engineering

Dr. Divyashree H B, Assistant Professor, Department of ECE, along with co-authors, Department of ECE presented a research paper titled “Heart disease detection using fundus imaging and ML algorithm” at the International Conference on Innovative Computing & Communication (Scopus Indexed, Springer - ICICC 2025). The conference was organized by university of Delhi, New Delhi in association with National Institute of Technology, Patna on February 14-15,2025.

The research, a significant contribution from the Department of Electronics and Communication Engineering, Dayananda Sagar University, highlights innovative combination of fundus imaging and machine learning being used for early screening, monitoring cardiovascular health, and predicting long-term outcomes for individuals at risk of heart disease. This work underscores the department commitment to advanced machine learning algorithms and artificial intelligence for improving the accuracy and efficiency of medical diagnostics. Congratulations to Dr. Divyashree H B for this accomplishment.



Department Of CSE (AIML)

Dr. Joshuva Arockia Dhanraj, Associate Professor, Dept. of CSE (AI&ML), has recently published a book titled “Fundamentals of Robotics and Artificial Intelligence.” The details of the publication are as follows: Title: Fundamentals of Robotics and Artificial Intelligence ISBN: 978-93-6674-190-1 Publisher: Scientific International Publishers Link: <https://tinyurl.com/yd3ebhbb>.

Dr. Mude Nagarjuna Naik, Dr. Lakshmanan M & Dr. Shreyas Rajendra Hole Assistant Professor, Dept. of CSE (AI&ML), has Participated in the AICTE Recognized Faculty Development Programme on Applications of IOT- Project Based Conducted by Information Management and Emerging Engineering Department from 10/02/2025 to 14/02/2025 (One Week) at NITTTR, Chandigarh.



Departmental Activities

Department Of Aerospace Engineering

The Value-Added Course on Flight System Dynamics, jointly organized by the International Affairs,DSU and Department of Aerospace Engineering, DSU from 11 feb - 14 Feb 2025 for III year and IV year students which provided students with an in-depth understanding of flight dynamics and control. Conducted by Dr.-Ing. Florian Holzapfel from TUM, the course covered key topics such as equations of motion, stability analysis, dynamic modes, and flight control systems. Through engaging lectures and hands-on simulations, students gained practical insights into real-world aerospace applications, including emerging technologies like eVTOL and Alternate Air Mobility. The course significantly enhanced participants' technical knowledge and analytical skills, making it a transformative learning experience in modern aerospace engineering.



Students from DSU's Aerospace Engineering department—TANUSHREE S (ENG23AS0020), RIDHIMA JAIN (ENG23AS0014),GAHANA V (ENG23AS0047), Mithun P (ENG22AS0034)—participated in Aero India 2025 on February 13-14 at Yelahanka Air Force Station, Bengaluru. The event, themed "The Runway to a Billion Opportunities," showcased global aerospace innovations and fostered industry partnerships. Inaugurated by Defence Minister Rajnath Singh, it featured cutting-edge advancements in aviation. The show concluded with thrilling aerial displays, reaffirming its global significance.



Department Of Mechanical Engineering

The Department of Mechanical Engineering has inaugurated the 5th OJT – On the Job Training for employees of Strides Pharma Science Limited, Bengaluru. On 13th February, 2025. Dr. Vinayak B Hemadri – Chairman, Dept. of Mechanical Engineering, Dr. Seema Tharannum – Professor of Biological sciences – SOE, DSU & Mr. Vijay Kumar Director - Training & Corporate Relations, DSU addressed the employees about the program. The program is organized for 26 employees/trainees of Strides Pharma for 30 days and are oriented in different subjects like Pharmacy, Mechanical Engineering, Management and Soft Skills.



We are delighted to share that the Department of Mechanical Engineering has received a CSR fund of ₹5 lakh from BETA Simulation System for the fourth consecutive time, bringing the total contribution to ₹20 lakh.

We extend our sincere gratitude to BETA Simulation System for their continued support and generosity. This funding will be instrumental in enhancing student-centric activities, fostering innovation, and creating valuable learning opportunities.

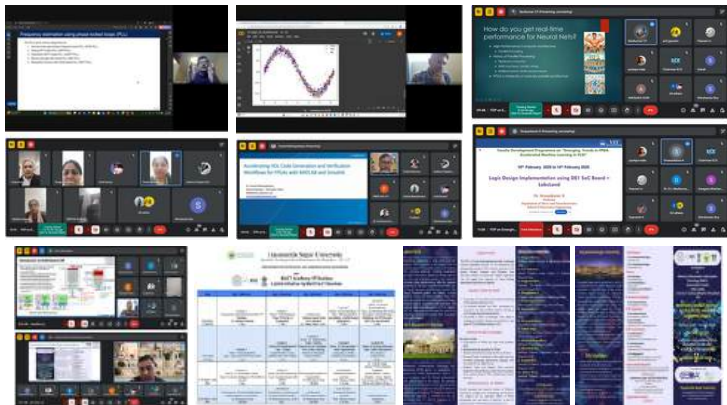
Department Of Computer Science and Engineering

The NSS student volunteers of Dayananda Sagar University organized an awareness program on Elephantiasis (Lymphatic Filariasis) at T. Hosahalli village, Karnataka, on 14th February 2025. The initiative aimed to educate the community on the disease's causes, symptoms, prevention, and treatment. Volunteers conducted informative sessions on transmission through mosquito bites, early symptoms, preventive measures, and government initiatives like Mass Drug Administration (MDA). A free health check-up camp was also organized in collaboration with healthcare professionals. Villagers actively participated, engaging in discussions and learning practical steps to prevent the disease. The program successfully raised awareness, making a meaningful impact on the community.



Department Of Electronics and Communication Engineering

The Department of Electronics and Communication Engineering, SOE, DSU in collaboration with ECIT IIT Roorkee, successfully conducted a five-day Faculty Development Programme (FDP) on "Emerging Trends in FPGA-Machine Learning in VLSI" from February 10-14, 2025, in hybrid mode. With 93 enthusiastic participants, the FDP covered cutting-edge topics like AI acceleration using FPGA, convolutional neural networks, deep learning model implementation, and hardware optimization techniques. Hands-on training sessions featured industry-standard tools such as Xilinx Vivado, Intel FPGA, MATLAB-Simulink, and Google Colab. The program brought together renowned academicians and industry experts from IIT Roorkee, IIT Madras, VIT, MathWorks, Lekha, and Sperry Marine, who shared valuable insights on AI-driven VLSI advancements. A special pedagogy session by Prof. Sanjeev Manhas (IIT Roorkee) emphasized modern teaching methodologies for AI and VLSI education. Coordinated by Dr. Sneha Sharma and Dr. Shirshendu Roy, with the support of Dr. Arun Balodi, Chairman, ECE DSU, the FDP empowered faculty members with essential skills to integrate AI-ML techniques into FPGA-based research and applications. This initiative highlights DSU's commitment to fostering innovation and interdisciplinary learning in the rapidly evolving field of AI and VLSI design.



Club Activities

On 13th February 2025, DSU Model United Nations and ORG (Optimized Resilient Foundation) signed a Memorandum of Understanding to collaborate on DSUMUN Edition II: Beyond Borders. This partnership aims to create a platform where young minds can engage in meaningful discussions, develop diplomatic skills, and broaden their perspectives by connecting with peers from different cultures.

The MoU was signed by the Registrar of Dayananda Sagar University, Dr. Puttamadappa C., along with Dean Dr. Udaya Kumar Reddy K. R., Dr. Seema Tharannum, Dr. Sai Prasad Nayak, Aditya N., Uddhav N. Bhat, Akash A. Nair, Clifford Thiyam, and Purab Mohit Jha. ORG Foundation was represented by Miss Arpita Menaria, Founder & Chairman, along with Mr. Saket, CEO, Miss. Devyani, Co-Founder, Miss Niharika, CSMO, and Mr. Rohit Choudhary. This event promises to be a grand gathering, featuring delegates from within and outside India. With thought-provoking debates, interactive sessions, and extensive networking opportunities, the event will encourage delegates to explore diverse perspectives and think beyond conventional boundaries. It aims to inspire future leaders to collaborate and contribute positively to the global community.

DSUMUN Edition II is expected to draw influential speakers and experienced diplomats, making it a unique learning opportunity. This collaboration reflects a shared vision of empowering the next generation of leaders to make a positive impact on the world stage.



Student Activities

The Dassault systems La foundation organised an Engineering DESIGN Internship 'Technical Swym Post Writeup Contest', in this contest "Dayananda Sagar University" were announced the runners on the topic "converting multirole multimission drone to 3D Digital twin" this project was carried out by the Students namely Deepa (ENG21AS0011) Deeksha (ENG21AS0010) MG Sai lohith (ENG21AS0021),Puttana Pujar (ENG21AS033) under the guidance of Dr Avinash.



Mr. Tenzin Kalden (ENG22CS0485), 5th semester CSE student, successfully participated in the Day2-15th February 2025 in the Management: February Series Organized by the Unstop.



ULUKHANOV ANDREY (USN: INTENGAM001) and VORONIN DMITRIL (USN: INTENGAM002), two students from Moscow, Russia, have joined the CSE (AI & ML) department at Dayananda Sagar University as part of the international student exchange program in their 6th semester.





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