



SCHOOL OF ENGINEERING

Dayananda Sagar
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Legacy**

in Education & Healthcare

SOE-BULLETIN

The Official Newsletter of **School of Engineering**



AUGUST 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

1. Design and deliver contemporary engineering curricula to address regional and global needs while emphasizing ethics, values, integrity and regional relevance.
2. 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.
3. Develop regional and national leaders to advance the society and economy.

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INTERNATIONAL ACTIVITIES

“Lecture on Introduction to Product Design by Dr Ashok Kaushal, Concordia University”

Dr. Ashok Kaushal, Scholar in Residence and Chair of the Capstone Design Committee, Department of Mechanical, Industrial and Aerospace Engineering, Concordia University, Montreal, Canada, visited the Department of Mechanical and Aerospace Engineering, Dayananda Sagar University, Harohalli, from August 18–27, 2025. During his visit, Dr. Kaushal engaged with B.Tech fifth-semester students through regular classes on Finite Element Method and Design of Machine Elements, and interacted with final-year students on capstone projects and product design development. He also delivered an expert lecture on “Product Design and Development” for Aerospace Engineering students, providing valuable insights into conceptual design, prototyping, testing, and the integration of advanced tools. The session highlighted creativity, sustainability, and industry-oriented practices in aerospace product development. Additionally, joint discussions on proposals and publications were held with faculty members of Mechanical and Aerospace Engineering, strengthening academic collaboration.





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WORKSHOPS / SKILL DEVELOPMENT PROGRAMS

The Department of Computer Science and Engineering, Dayananda Sagar University, organized a Five-Day Faculty Development Program (FDP) on Data Analytics and Visualization from August 7th to 9th and 22nd to 23rd, 2025. The program, attended by 35 faculty members from the CSE cluster, focused on data preprocessing, statistical analysis, exploratory data analysis, machine learning, and practical exposure to tools such as Python (Pandas, Matplotlib, Seaborn, Plotly) and Tableau. The sessions aimed to strengthen conceptual knowledge and hands-on expertise, enabling faculty to integrate analytics and visualization into teaching, research, and consultancy. The inaugural function was graced by Mr. Pradyoth Prashanth and Mr. Subramanya Navada K R from JP Morgan Chase & Co. as Chief Guests, while expert sessions were delivered by Mr. Anand Mannikeri (Publicis Sapient), Mr. K. V. Subbaiah Setty (DTC Infotech Pvt. Ltd.), and Dr. Soumen Ray (Coca Cola India), who shared valuable insights on advancements and applications in the field.



DAYANANDA SAGAR UNIVERSITY
 Yogyakarta, Indonesia, Kalayandurg Road, Bangalore
 South India-562102, Karnataka, India

Department of Computer Science and Engineering



5Days Faculty Development Program (FDP)
 on
Data Analytics and Visualization
 Dates: 09th - 06th 08th 20th - 22nd - 29th August 2023

ABOUT DAYANANDA SAGAR UNIVERSITY

Dayananda Sagar Institutions is accredited by NAAC 'A' Grade, ISO 9001:2015, and ISO 27001:2013. It is the first Government Sagar Institute to take leadership for the people. Dayananda Institute stands responsible for the professional growth of its students. Dayananda Sagar University created by an act of the Government of Karnataka in 1983. It is a Government Institute and is ranked in the top 100 universities in the world. It is a Government Institute, offering the highest quality higher education in the part of the health, health care technology, Research laboratory and laboratory. Since 1983, over 1,50,000 students have been employed by the Institute.

By not only giving the FDPs but also the on-the-job training, Dayananda Sagar Institute, to enhance the professional growth of many young leaders and global citizens, thereby making the world better. In the active support of industry leaders, industry bodies are dedicated to all young leaders to help them prosper in the future.

ABOUT FDP

This FDP is an online Faculty members with leadership and professional growth in analytics and visualization technology. The program covers key topics such as data mining, statistical analysis, exploratory data analysis (EDA), machine learning, the importance of data science tools and platforms such as Python, R, Tableau, Microsoft, Jupyter Notebook for writing and analyzing data, Power BI and Tableau for interactive dashboards and advanced intelligent analysis.

TARGET AUDIENCE

Faculty Members, Research Scholars and Students

CHIEF PATRONS

Dr. O. Vennardhan Raju, Director, DSGU
 Dr. O. Venkateshwar Reddy, Pro-Chancellor, DSGU

PATRONS

Shri. Channarayana, Secretary, DSGU
 Dr. S. Sampayya, Vice-Chancellor, DSGU
 Dr. R. Jayaraman, Pro Vice-Chancellor, DSGU
 Dr. S. Venkateshwar Reddy, Pro Vice-Chancellor, DSGU
 Dr. P. Ramesh Babu, In-charge, DSGU
 Dr. Udaya Kumar, Director, KJ Somaiya, DSGU

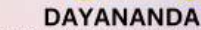
CONVENOR

Dr. Girish G. G. Chaitanya - CSE

CO - CONVENORS

Dr. Jeyanthi V. Anandhi Chaitanya - CSE
 Dr. Rajan Kumar Reddy, Associate Chaitanya - CSE

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DAYANANDA SAGAR UNIVERSITY

Devarakaggalahalli, Harohalli, Kanakapura Road, Bengaluru South District - 562112, Karnataka, India

School of Engineering

Innovation

We Cordially invite you to be a part of the inauguration of
A five day Faculty Development Program on

“Data Analytics and Visualization”

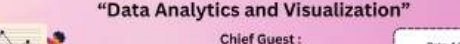


Chief Guest:
Mr. Subramanya Navada K R,
Assoc., iPMorganChase,
Bengaluru

Date & Venue
07-09 Aug & 02-23 Aug 2020
Lecture Hall B,
A-Block, S01

Timeing: 9:30 AM

Organised by :
Department of Computer Science and Engineering



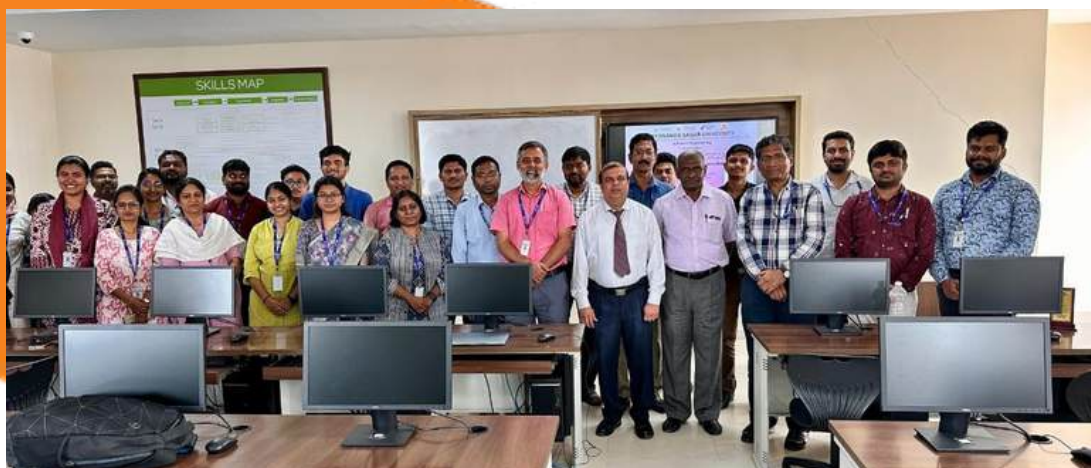




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Dayananda Sagar Mdc, Karnataka 562112, India
Ramanagara, Karnataka 562112, India
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23/08/25 12:08 PM GMT +05:30



Ramanagara, Karnataka, India
Dayananda Sagar Mdc, Karnataka 562112, India
Ramanagara, Karnataka 562112, India
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23/08/25 11:43 AM GMT +05:30



Five-Day FDP titled “Entangle 25: A Hands-on Workshop on Quantum Computing and Its Emerging Paradigms”

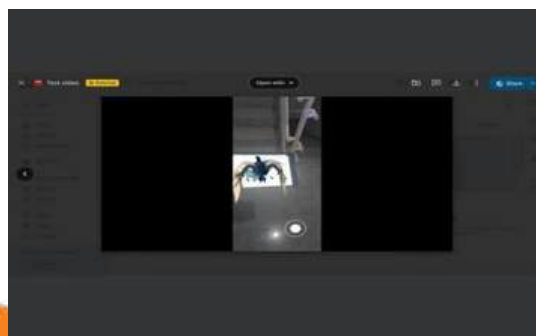
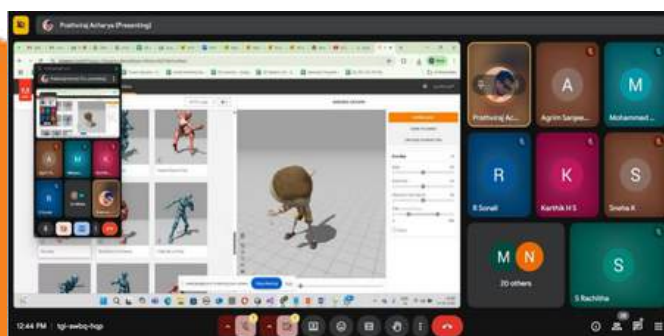
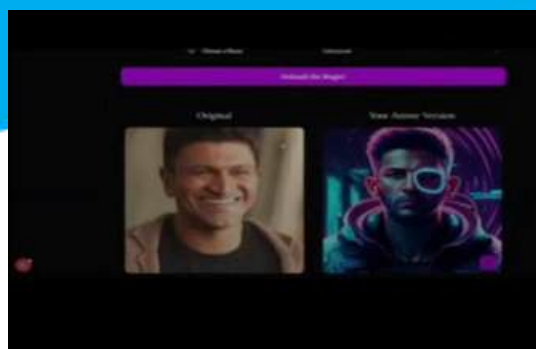
The Department of Computer Science & Technology, Dayananda Sagar University, organized a Five-Day Faculty Development Program titled “Entangle 25: A Hands-on Workshop on Quantum Computing and Its Emerging Paradigms” from 6th to 10th August 2025. The inaugural function was graced by Ms. Anjani Priyadarshini, Quantum Lead – AWS, India, as the Chief Guest, who shared valuable insights on advancements and future directions in quantum technologies. The program aimed to strengthen faculty expertise in quantum computing by covering foundational concepts in quantum mechanics, quantum gates, circuits, algorithms, and advanced topics like quantum cryptography, machine learning, and cloud-based quantum simulations. Renowned experts from QUPIAI, C-DAC, QRACE, SP4 Ameya Innovation Labs Private Limited, and KwantumG Research Labs led engaging sessions, complemented by hands-on training using Qiskit and IBM Quantum Lab, Quniverse, and Julia. The FDP fostered knowledge sharing, encouraged integration of quantum concepts into curricula, and inspired interdisciplinary research, equipping faculty to guide innovative student projects in this transformative technology.





30-hour Value Added Course titled “Step into Augmented Reality with Unity – A Beginner’s Guide”

The Department of Computer Science & Technology, under the School of Engineering, organized a 30-hour Value Added Course titled “Step into Augmented Reality with Unity – A Beginner’s Guide”, held from 26th June 2025 to 16th July 2025. The sessions were conducted by Mr. Prathviraj, Program Manager, Moonpreneur, who provided comprehensive hands-on training in Augmented Reality (AR) development using Unity, sharing in-depth knowledge about AR technology, its real-world applications, and its growing impact on various industries. A total of 60 students from the 5th semester of Computer Science & Technology actively participated in the course. The sessions were highly engaging, sparking interactive discussions and offering practical exposure to cutting-edge advancements in AR technology.



Bridge Course on "Python and C for Problem-Solving"

Dayananda Sagar University, School of Engineering, Department of CSE (Data Science), in collaboration with IEEE ITS Society and DataScience@DSU Club, successfully conducted a two-day Bridge Course on Python and C for Problem-Solving on 18th and 19th August 2025 at CDSIMER Lecture Hall 1, G Block. What made this event unique was its student-driven approach. The sessions were conceived, organized, and delivered by 3rd-year CSE (DS) students for their juniors in the 2nd year. This peer-to-peer knowledge-sharing initiative aimed to strengthen foundational coding skills and create a collaborative culture of learning. The event directly contributes to SDG 4: Quality Education by enhancing technological competencies and fostering skill-based learning among students.



Value-Added Course on “Digital System Design using FPGA for AI/ML”

The Department of ECE, DSU, organized a 30-hour value-added course on “Digital System Design using FPGA for AI/ML Algorithms” from 5th to 9th August 2025. The program focused on Verilog modeling, FPGA development, Vivado HLS, ASIC implementation, STA, CDC, interfacing protocols, and FPGA-friendly AI/ML algorithms. Students gained hands-on experience with industry-standard tools like Xilinx Vivado and Cadence Genus, enhancing their technical expertise in building energy-efficient, high-performance digital systems. The sessions were enriched by contributions from industry expert Mr. Chandan Jha (DSP & System Architecture, IC+ Corporation, Taiwan) and distinguished speakers from DSU’s ECE faculty including Dr. Sneha Sharma, Dr. Supraja Eduru, Dr. Shirshendu Roy, Prof. Srinivas, Prof. Abhinav Karan, Dr. Arun Balodi, and Prof. Sudharshan V. Alumni Mr. Sainath Reddy and Ms. Medha Satheesh also shared valuable industry insights on FPGA design and emerging hardware trends. The course benefited 3rd and 4th-year B.Tech ECE students, equipping them with practical skills, industry exposure, and awareness of cutting-edge technologies such as FPGA, ASIC, and Network-on-Chip (NoC) architectures. This initiative also aligned with the UN Sustainable Development Goals (SDG 4 – Quality Education & SDG 9 – Industry, Innovation, and Infrastructure) by fostering innovation, sustainability, and advanced digital design practices.



DAYANANDA SAGAR UNIVERSITY
SCHOOL OF ENGINEERING
DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Presents Value Added Course on

Digital System Design Using FPGA for AI-ML Algorithms

Date: 05/08/2025 to 09/08/2025

Industry Experts:


Mr. Chandan Jha
DSP & System Architecture, IC+ Corporation Taiwan


Mr. Sourya Sambit Rath
Senior Lead Engineer, Cadence


Ms. Medha Satheesh
Design System Engineer at Infineon Technologies

Chief Patrons:
Dr. D Hemachandra Sagar, Chancellor, DSU
Dr. D Premchandra Sagar, Pro Chancellor, DSU

Convener:
Dr. Arun Balodi,
Professor & Chairman, ECE Dept., DSU

Patrons:
Dr. B. S. Satyanarayana, Vice Chancellor, DSU
Dr. Puttamadappa C, Registrar, DSU
Dr. Udaya Kumar Reddy KR, Dean-SOE, DSU

Faculty Coordinators:
Dr. Sneha Sharma, DSU
Dr. Shirshendu Roy, DSU
Dr. Supraja Eduru, DSU

Schedule:

Time	Day 1 (05/08/2025)	Day 2 (06/08/2025)	Day 3 (07/08/2025)	Day 4 (08/08/2025)	Day 5 (09/08/2025)
9.00 AM to 11.00 AM	Registration and Session by Industry Experts (Dr. Chandan Jha)	Lecture on Memory Reduction using Verilog (Dr. Shirshendu Roy)	Lecture on Vivado HLS based FPGA Implementation (Mr. Sourya Rath)	Industry Expert session: On Static Timing Analysis (STA) (Mr. Sainath Reddy)	Lecture on Interfacing Protocols and Their Importance (Prof. Abhinav Karan)
11.00 AM to 1.00 PM	Lecture on Verilog Basics (Combinational Circuit) (Dr. Sneha Sharma)	Lecture on Verilog Functions and Tasks (Dr. Shirshendu Roy)	Hands on Vivado HLS based FPGA Implementation (Mr. Sourya Rath)	Industry Expert session on Clock Domain Crossing (Mr. Sainath Reddy)	Lecture on Acceleration of AI-ML algorithms on FPGA (Dr. Arun Balodi)
2.00 to 4.00 PM	Hands on Verilog Basics (Sequential Circuit) (Dr. Supraja Eduru)	Lecture on Simulation on Fixed Point Blocks (Dr. Shirshendu Roy)	Industry Expert session on Network-on-Chip (NoC) (Mr. Sourya Sambit Rath)	Industry Expert session on Genus Implementation of Digital Systems (Ms. Medha Satheesh)	Lecture on Hardware Efficient ML Algorithms (Prof. Sudharshan V & Industry session)

Course Objectives:

1. To learn about modelling of basic digital systems using Verilog.
2. To learn about generalized Verilog code for Fixed point digital blocks.
3. To learn about Verilog tasks and functions.
4. To get familiar with Vivado based Block design and use of IPs.
5. To learn about Vivado HLS for implementing digital systems.
6. To learn about static timing analysis (STA) and clock domain crossing (CDC).
7. To learn about ASIC implementation using Cadence, Genus tool.
8. To get insights of FPGA industry and recants trends in network-on-chip (NoC) from industry experts.
9. To learn about different interfacing protocols and their implementation using C.
10. To get familiar with different efficient FPGA friendly AI-ML algorithms.

Scan to Register:



Registration Link:
<https://tinyurl.com/system-design-using-fpga>

Soumya Sambit Rath (Presenting)

The rise of chiplet architectures: Divide and Conquer

Chiplet architecture is a modern approach to semiconductor design where a large, complex chip is broken down into smaller, specialized modules called **chiplets**.

- Improved Manufacturing Yield:** Chiplets help in reducing the size of the Die, hence lower PVT variations.
- Cost-Effectiveness:** Different chiplets can be built on different manufacturing processes.
- Design Flexibility:** Chiplets allow designers to reuse components across different products. A company can create a family of products (e.g., Intel Core 3, 5, 7 series).
- Interconnected Complexity:** The performance of a chiplet-based system heavily depends on the speed and efficiency of the connections between chiplets.

Source: [10] 27th Nov 2023

People

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- ENG23EC0020_F
- ENG23EC0021 Ph
- ENG23EC0027_S
- ENG23EC0045_Y
- ENG23EC0062 L

Medha (Presenting)

What is Digital Verification?

Design Verification verifies that the RTL design's functionality, logic, and quality meet the design specifications.

Why is Design Verification essential?

- Verifies the code is syntactically correct.
- Ensures the design functionality and logical behavior are as intended.
- Verifies timing violations and power issues.
- Improves performance, efficiency and reliability.
- Minimizes design failures and bugs.
- Saves time and resources by reusing verified design components and modules.

People

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Chandan Jha (Presenting)

What is an Ethernet PHY ?

Increase of PHY speed grades

Year of standard publication	Speed (Gbps)
1980	10
1990	100
2000	1000
2010	10000
2015	40000
2020	100000

An Ethernet PHY (Physical Layer Transceiver) is responsible for converting digital data (bits) from the MAC layer into signals suitable for transmission over a physical medium (copper wire, fiber, etc.), and vice versa.

Common Use Cases

- Network servers at home and office (10/100BASE-T).
- Backbone of LAN networks in enterprises.

Modern & Specialized Use Cases

- Industrial Ethernet (e.g., PROFINET, EtherCAT) For automation, robotics, secure connectivity.
- Automotive Ethernet (e.g., IEEE 802.3T) Replacing CAN/LIN for high bandwidth and deterministic communication.
- Data Centers: Fiber based high-speed PHYs for switching and cloud infrastructure.
- IoT and Edge Devices: Low-power, long-range PHYs for smart nodes.

9:23 AM | shi-work-toy

People

- Arghya Choudhury
- Chandan Jha
- Sneha Sharma
- Shikhar K
- 29 others

Value Added Course: “Business Intelligence Essentials: Predict, Analyze, and Visualize with RapidMiner & Power BI”

The Department of Computer Science and Engineering, Dayananda Sagar University, organized a 5-Day Value Added Course on “Business Intelligence Essentials: Predict, Analyze, and Visualize with RapidMiner & Power BI” from 4th to 8th August 2025. The program was conducted under the Data Analytics and Visualization Club and aimed to provide participants with practical knowledge of BI tools, data analytics, and AI/ML integration. The course covered topics such as data lifecycle, data visualization, DAX, AI visuals, report design, dashboard creation, semantic modeling, and data security in Power BI. RapidMiner sessions focused on building, training, and evaluating ML models for classification, prediction, and sentiment analysis. Hands-on training enabled participants to prepare and clean datasets, apply data modeling techniques, and create insightful dashboards. Case studies on business reporting and sentiment analysis provided real-world problem-solving exposure. The course outcomes included applying BI concepts, creating dashboards with DAX functions, and developing ML models in RapidMiner. Quizzes were conducted to assess the participants’ understanding. The event successfully bridged academic learning with industry-relevant skills, enhancing participants’ ability to work on data-driven decision-making projects. The resource persons were Dr. Basavaraj N Hiremath (Professor, CSE), Dr. Savitha Hiremath (Associate Professor, CSE), and Omshree R Hiremath (Associate Data Engineer, Shell Markets Pvt. Ltd.).



DAYANANDA SAGAR UNIVERSITY
 Harohalli, Kanakapura Road, Bengaluru South Dist - 562112
 SCHOOL OF ENGINEERING

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
5 DAYS VALUE ADDED COURSE

Business Intelligence Essentials: Predict, Analyze, and Visualize with RapidMiner & Power BI

Resource Persons:
 Dr. Basavaraj N Hiremath, Professor, CSE
 Dr. Savitha Hiremath, Asso. Professor, CSE

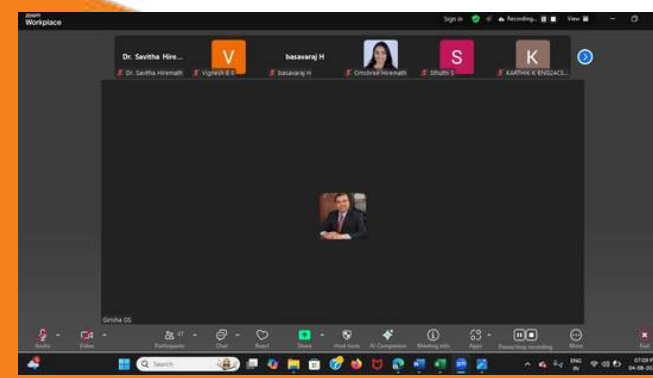
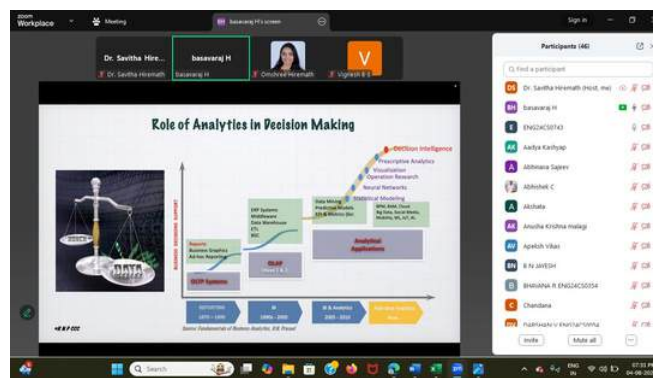
Resource Person from Industry:
 Omshree R Hiremath
 Associate Data Engineer
 SHELL MARKETS PRIVATE LIMITED

Module 1	Module 2	Module 3	Module 4	Module 5	Course Outcomes
Introduction to Business Intelligence, Why, How, What about data, Data lifecycle, Data visualization, Decision Intelligence, BI tools with ML and AI.	Introduction to Power BI & PL, DAX, Data Preparation, Data Modeling, Introduction to DAX, AI Visuals & Insights.	Case Study: Report Design & Visualization Best Practices, User Experience & Performance Optimization, Publishing & Workspace Management, Semantic Model & Dashboard Creation, Data Security in Power BI.	Introduction to RapidMiner, Installing, Building a First Process, Data Import and Pre-processing, Operators for data transformation and modeling, Model Training and Testing.	Case Study: Prediction and Sentiment analysis using decision trees, classifiers and evaluation by comparison.	CO1: Understand and apply BI concepts, data visualization, and decision intelligence. CO2: Create dashboards in Power BI tool using data preparation, modeling, and DAX functions. CO3: Build and evaluate ML models in RapidMiner tool for classification, prediction, and sentiment analysis.

Convenors:
 Dr. Udaya Kumar Reddy K R.,
 Dean, SOE, DSU.
 Dr. Girisha G S, Chairperson, CSE

Date : 4th Aug to 8th Aug 2025
Time : 6 PM to 8 PM (Mon, Tue, Wed)
 10 AM to 12 PM (Thur, Fri)
Venue : Online mode

Faculty Co-ordinators:
 Dr. Basavaraj N Hiremath, CSE
 Dr. Savitha Hiremath, CSE
 Prof. Kavyashree I Pattan, CSE



Workshop on “Essential Computing Skills for Research Methodology”

The Department of Computer Science and Engineering, in association with the College of Physiotherapy, organized a One-Day Workshop on “Essential Computing Skills for Research Methodology” on 9th August 2025 at Lecture Hall 4. The program was designed to equip participants with essential digital skills required for producing high-quality research outputs. The sessions provided in-depth, hands-on training on professional document preparation in MS Word, including advanced formatting, automated table of contents, insertion of citations and references, and the integration of figures, tables, and captions to meet academic publishing standards. Participants also explored the powerful features of Excel for research data management, learning techniques for organizing datasets, applying formulas and functions for analysis, creating pivot tables for summarizing results, and performing basic statistical operations. Special emphasis was placed on designing visually compelling charts and graphs to communicate research findings effectively. The workshop attracted active participation from students of the College of Physiotherapy and the School of Health Sciences, as well as lab instructors from the Department of CSE. By the conclusion of the workshop, attendees demonstrated improved proficiency in creating well-structured research documents, managing and analyzing data with accuracy, and presenting results in a clear, professional manner using effective visualizations. The resource persons were Dr. Seema Tharannum, Professor, Dept. of Biological Sciences, and Dr. Savitha Hiremath, Associate Professor, Dept of CSE.



DAYANANDA SAGAR UNIVERSITY
DEVARAKAGGALAHALLI, HAROHALLI, KANAKAPURA ROAD, BENGALURU SOUTH DISTRICT - 562112, KARNATAKA, INDIA

Department of Computer Science & Engineering
In association with
College of Physiotherapy
Organizing
One Day Workshop on
“Essential Computing Skills for Research Methodology”

Date & Time : 9th August 2025, 9:00 AM to 4 PM
Venue : Lecture Hall 4 (A Block)

Patrons:	Convenors:	Resource Persons:
Dr. B S Satyanarayana , Vice Chancellor, DSU Dr. Prakash S , Pro Vice Chancellor, DSU Dr. Puttamadappa , Registrar, DSU Dr. Udaya Kumar Reddy K R , Dean, SOE, DSU Dr. Pushpa Sarkar , Dean, School of Health Sciences, DSU	Dr. Girisha G S , Chairperson, CSE Dr. Satyaguru Prasad , Principal, College of Physiotherapy, DSU	Dr. Seema Tharannum , Professor, Dept of Biological Sciences Dr. Savitha Hiremath , Associate Professor, Dept of CSE
Student Coordinator: Pavan Kumar GR, 5th Sem CSE, DSU	Target Audience: - Students from College of Physiotherapy, School of Health Sciences. - Lab Instructors, Department of CSE, SoE.	Resource Persons: Hands-on Session Prof. Mayank Kumar , Assistant Professor, CSE Prof. Vishnu Shankar , Assistant Professor, CSE Prof. Soumadip Mondal , Assistant Professor, CSE Prof. Sweta Chopdar , Assistant Professor, CSE Prof. Sruthi , Assistant Professor, CSE



Bridge Course on "C Basics for Data Structures"

The Department of Computer Science & Engineering at Dayananda Sagar University organized a 4-day Bridge Course on “C Basics for Data Structures” from 6th to 9th August 2025. Designed primarily for first-year and lateral entry students, the course aimed to strengthen foundational programming skills in C and prepare participants for core data structure concepts. Through a mix of theory and hands-on practice, students gained essential skills in C syntax, control structures, functions, pointers, and memory management. This initiative supports SDG 4 (Quality Education) and SDG 9 (Industry, Innovation, and Infrastructure) by promoting inclusive learning and future-ready technical skills. The sessions were conducted by faculty members from the Department of CSE, DSU: Dr. Shreekanth Salotagi, Prof. Prolay Biswas, Prof. Pavithra D, and Prof. Arpita Paria.

SCHOOL OF ENGINEERING
DAYANANDA SAGAR UNIVERSITY
Deventhal, Hosur, Karnataka Road, Bengaluru South 56 - 562 112
Department of Computer Science & Engineering

Bridge course on C Basics for Data Structures
Date: 6th - 9th Aug 2025

Course Objectives

- Basics Functionalities of C Programming
- To Bring Basic Concepts of Data Structure

Conveners:

- Dr. Udaya Kumar Roddy, Dean, SOE-DSU
- Dr. Girisha G S, Chairman, CSE-DSU

Organizers & Resource Person :

- Dr. Shreekanth Salotagi, Assistant Professor, CSE-DSU
- Prof. Prolay Biswas, Assistant Professor, CSE-DSU
- Prof. Pavithra D, Assistant Professor, CSE-DSU
- Prof. Arpita Paria, Assistant Professor, CSE-DSU

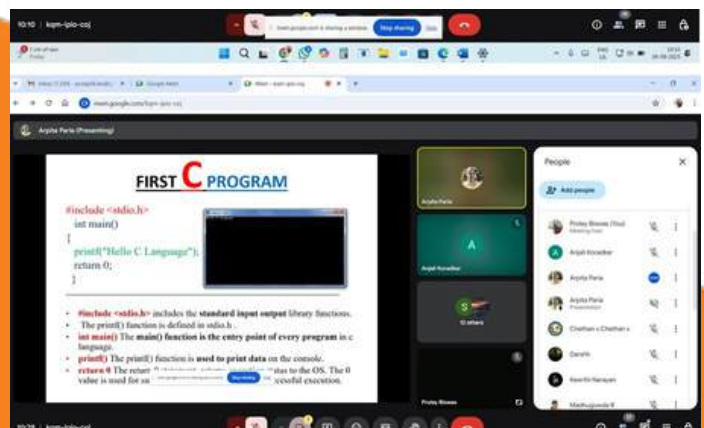
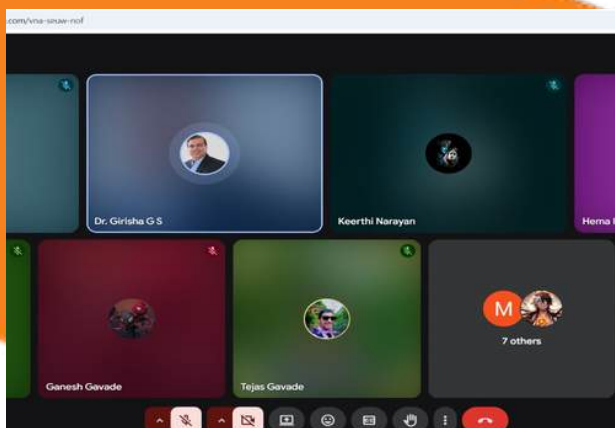
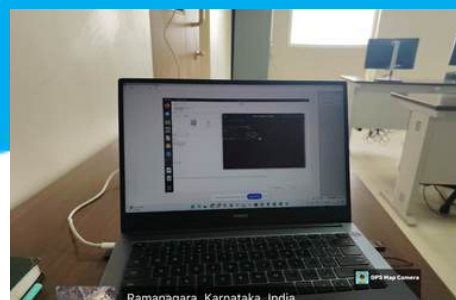
Topics

- Day 1: Basics of C
- Day 2: Library Functions, Selection Function & Memory Allocation
- Day 3: Functions, Arrays & Strings
- Day 4: Pointers, Structures and Unions

Mode: Online
Time: 10:00 am
Platform: Zoom Meeting

Note: E-Certificates will be issued for the participants

Registration Link: <https://forms.gle/9m8d8d8d8d8d8d8d>



“Campus 2 corporate (C2C) workshop from Nokia Team”

The Department of Computer Science and Engineering, Dayananda Sagar University, organized the Campus to Corporate (C2C) Workshop by Nokia, hosted on 29th August 2025, successfully bridging the gap between academic learning and the professional world. The full-day program engaged students in insightful sessions on Effective Communication, Collaborative Leadership, Project Management, Time Management, Self-Awareness, Critical Thinking, and Design Thinking. These were delivered by experienced Nokia professionals – Adarsh R (Product Owner), Neetha A S (Project Manager), and Alen S Thomas (NBUC SPOC for Nokia) – who brought real-world perspectives, interactive activities, and practical guidance that enriched the learning experience for all participants. The collaboration between Nokia and DSU proved highly impactful, aligning global industry expertise with academic excellence. Coordinated by Dr. Sivananda Reddy (NBUC SPOC for DSU) and Santhosh M (Faculty Coordinator), the workshop provided immense value by equipping students with the right mindset and skillset to transition confidently from campus life to corporate careers. The initiative not only enhanced their professional readiness but also strengthened the spirit of industry-academia partnership, preparing students to emerge as innovative, resilient, and future-ready leaders. We sincerely thank the Dean of the School of Engineering and the Chairperson of the CSE Department for their encouragement and support in organizing such impactful events, which play a vital role in shaping students' future career journeys.

The poster is for a "Campus 2 Corporate (C2C) Workshop" presented by Nokia at Dayananda Sagar University. It features logos for the university, school of engineering, and Nokia. The event is organized by the Department of Computer Science and Engineering. It lists three resource persons: Mr. Adarsh R (Product Owner), Ms. Neetha AS (PMP® SAFe® Agilist), and Mr. Alen S Thomas (Software Engineer). It also lists chief patrons, patrons, a convener, and faculty coordinators. The date and time are 29 Aug 2025, from 9:30 AM to 4:00 PM. The venue is SOE 'A' Block, 531 (5th Floor). The workshop highlights include Morning Sessions (Effective Communication, Collaborative Leadership, Time Management, Self-Awareness) and Afternoon Sessions (Building Trust, Critical Thinking, Innovation & Design Thinking, Motivation).

DAYANANDA SAGAR UNIVERSITY
Devarakaggalahalli, Harohalli, Kanakapura Road, Bengaluru South District - 562112, Karnataka
SCHOOL OF ENGINEERING
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
NOKIA PRESENTS
♦ **CAMPUS 2 CORPORATE (C2C) WORKSHOP** ♦

Resource Persons

Mr. ADARSH R
Product Owner
Small Cells, Mobile Networks

Ms. Neetha AS
PMP® SAFe® Agilist,
SAFe® RTE

Mr. Alen S Thomas
Software Engineer
(MN S&D Eng)

Date & Time
29 Aug 2025
Morning : 9:30 AM - 12:30 PM
Afternoon : 1:30 PM - 4:00 PM

Workshop Highlights
Morning Sessions
• Effective Communication
• Collaborative Leadership
• Time Management
• Self-Awareness
Afternoon Sessions
• Building Trust
• Critical Thinking
• Innovation & Design Thinking
• Motivation

Chief Patrons
Dr. D. Hemachandra Sagar, Chancellor, DSU
Dr. D. Premachandra Sagar, Pro Chancellor, DSU

Patrons
Shri. Golliswamy, Secretary, DSU
Dr. B. S. Satyanarayana, Vice Chancellor, DSU
Prof. R. Janardhan, Pro-Vice Chancellor, DSU
Dr. Prakash S, Pro-Vice Chancellor, DSU
Dr. C. Puttamadappa, Registrar, DSU
Dr. Udaya Kumar Reddy K R, Dean- SOE, DSU

Convener
Dr. Girisha G.S, Chairperson CSE, SOE, DSU

Faculty Coordinators
Dr. Sivananda Lahari Reddy, Associate Prof. CSE, SOE
Prof. Santhosh M, CSE, SOE

Venue
SOE 'A' Block
531 (5th Floor)



“Industry Hydraulics Training Program”

The Bosch Rexroth Innovation Lab at Dayananda Sagar University successfully conducted the Industry Hydraulics Training Program on “Hydraulic Oil Selection & Contamination” from August 11–13, 2025. The program was attended by industry professionals from ExxonMobil Services & Technology Pvt. Ltd., Bangalore. Dr. K. Sudha Deepthi, Manager – Bosch Rexroth Lab, along with the Bosch Rexroth team, facilitated hands-on sessions covering the core principles of hydraulics. The training emphasized systematic troubleshooting of hydraulic circuits, application and maintenance of pumps, valves, and actuators, and designing and analyzing hydraulic systems for real-world applications.





SCHOOL OF ENGINEERING



WEBINARS / SEMINARS / TECHNICAL TALKS

Alumni talk titled “Tech Stacks & Career Tracks: What to Learn and Why”

The Department of Computer Science & Technology conducted an alumni talk titled “Tech Stacks & Career Tracks: What to Learn and Why” on August 11, 2025, for 5th-semester CST students. The session was led by Mr. Mohith B Acharya, Co-founder of Typeflo.io, who shared valuable career guidance and insights into the diverse opportunities available after graduation. He discussed three major career pathways, such as Placements, Higher Studies, and Entrepreneurship, and highlighted the importance of identifying one’s chosen path early to enable focused and effective preparation.



“Industrial Expert Talk”

The Department of Mechanical Engineering organized an Industrial Expert Talk on “The CNC Panel Simulator with Machine Simulation” on August 18, 2025. The session was delivered by Mr. Saravana Kumar & Team from Edsolab, Dubai, and Mr. Chandrasekhar from BEMAX Solutions, Bangalore, and was coordinated by Dr. Vinay M. S. The talk covered key aspects such as automation and product development, CNC simulation and programming, advanced capabilities of CNC systems, and their applications in industry and education. The speakers also highlighted opportunities for students through internships and mini projects, providing valuable insights into practical and industry-relevant applications of CNC and automation technologies.





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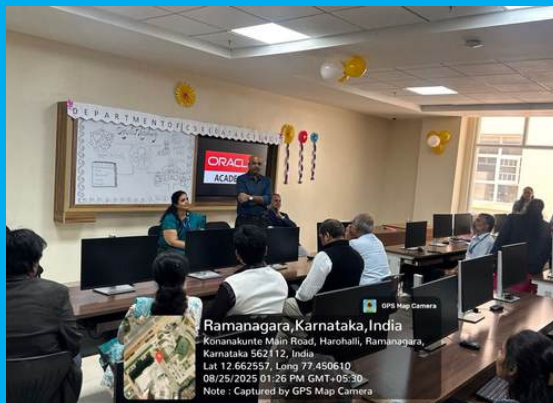


EVENTS: PROFESSIONAL SOCIETIES / CLUB ACTIVITIES

“Oracle Academy Inauguration”

The Department of CSE (Data Science), School of Engineering, Dayananda Sagar University, organized the Oracle Academy Inauguration on 25th August 2025 at A-411, SOE, marking the launch of a strategic collaboration with Oracle Academy to enhance education and skill development in advanced technologies. The event, coordinated by Dr. Suresh Arumugam, Prof. Godhandaraman T, and Prof. Sindhu A, aimed to introduce students and faculty to Oracle’s resources, certifications, and industry-relevant tools in database management, cloud computing, AI, and data analytics. Graced by Chief Guest Mr. Ashutosh Naik (Director of Software Development, Oracle), alongside Dr. Udaya Kumar Reddy K. R. (Dean, SOE) and Dr. Shaila S. G. (Chairperson, CSE-DS), the program featured a TechTalk on NoSQL Databases, highlighting concepts, architecture, real-world applications, and cloud adoption strategies, followed by the formal inauguration ceremony. With its strong focus on bridging academia and industry, the Oracle Academy at DSU is set to empower students with career-ready skills, provide faculty with teaching resources, and strengthen the university’s global recognition and industry linkage.





“Inauguration of the IET DSU” On-Campus Student Chapter

The inauguration of the IET (Institution of Engineering and Technology) DSU On-Campus Student Chapter, hosted by the Department of AI and Robotics Engineering, SOE-DSU, was a grand and inspiring event that united dignitaries, academic leaders, industry experts, faculty, and students in celebrating the start of a new era of learning and collaboration. The ceremony began with symbolic acts of sustainability, including watering a plant and presenting saplings, followed by impactful speeches from esteemed university leaders and motivational talks emphasizing innovation, industry-academia partnerships, and the role of IET in shaping globally competitive engineers. The post-recess sessions featured keynote addresses, interactive discussions, and engaging panel talks that provided deep insights into career pathways, professional development, and the global exposure that IET offers. The recognition of the IET BLN Student Committee through badge distribution, along with student-led engagements, reflected the spirit of leadership and community building. The event concluded with a networking lunch, creating meaningful interactions between students and industry professionals. Overall, the inauguration was not only a celebration of tradition and innovation but also a launchpad for empowering DSU students with knowledge, opportunities, and a vision for excellence in engineering and technology.





“National Space Day Celebrations 2025”

The School of Engineering and the Centre for Space Science & Technology (CSST), Dayananda Sagar University, proudly celebrated National Space Day 2025 with great enthusiasm, bringing together dignitaries, ISRO scientists, faculty, researchers, and students to honor India's achievements in space science and inspire future innovators. The program began with the digital lamp lighting, followed by a welcome address from Dr. Nagaraja (Chairman, Aerospace Engineering) and insights on the significance of the day by Prof. G. N. V. Prasad (CSST). The Dean, SOE, and the Pro-Vice Chancellor/Vice Chancellor of DSU motivated students with their opening remarks. Eminent ISRO scientists, including Guest of Honour Mr. M. Venkata Rao, Former Group Director, IRS Programme, ISRO, and Chief Guest Mr. M. S. Srinivasan, Former Group Director, Power Systems Group, URSC, ISRO, inspired students with their experiences and vision for the future of space technologies. The event concluded with a vote of thanks by Dr. Arun Balodi (Chairman, ECE) and the National Anthem, evoking patriotic fervor. As part of the celebrations, DSU also hosted the Bhartiya Antriksh Hackathon on 30th August 2025 at the Harohalli campus, where students across disciplines showcased innovative ideas, with the winning team set to earn the unique opportunity to fly their idea to space in upcoming DSU Space Missions, making the celebration both inspirational and futuristic.







DAYANANDA SAGAR
UNIVERSITY



SCHOOL OF
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BHARTIYA ANTRIKSH HACKATHON 2025

**ORGANIZED AS PART OF
NATIONAL SPACE DAY
CELEBRATIONS**



REGISTRATION



Date: 30 August 2025
Venue: LH-2, Dayananda Sagar University, Harohalli, Bangalore



Who Can Participate?
 Open to all disciplines. Innovative thinkers, problem solvers, and future space leaders



Awards and Recognition
 The winning team of the Bhartiya Antriksh Hackathon will get a chance to fly your idea to space in upcoming Dayananda Sagar University Space Missions

DR. DIVYASHREE H B, ASST. PROF., ECE, DSU
 9945180357

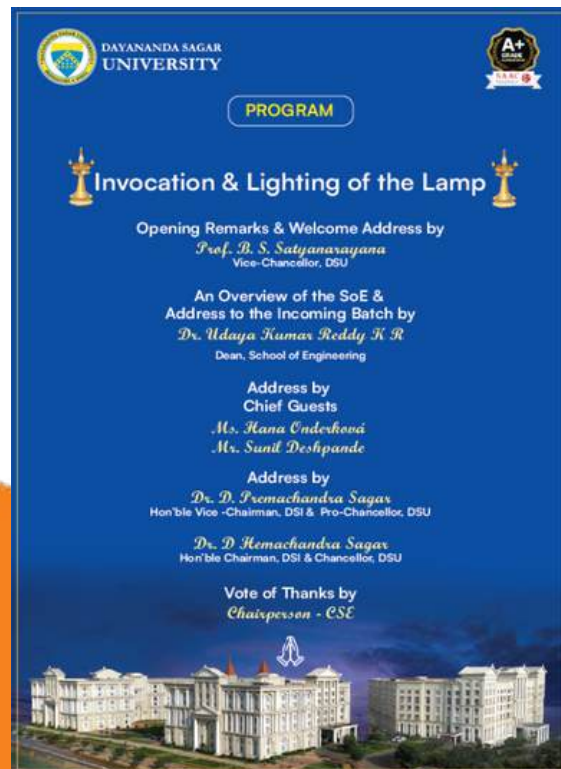
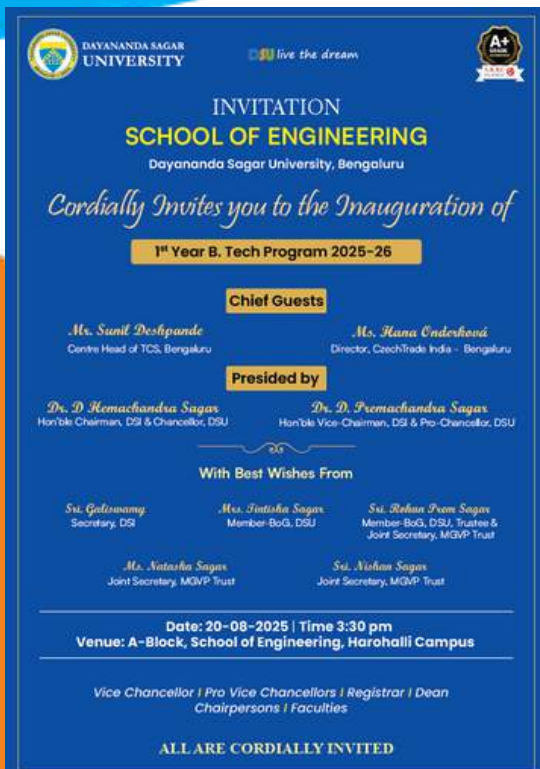


www.dsu.edu.in



“Inauguration of 1st Year B.Tech Program 2025-26”

The First-Year Induction Program 2025 at the School of Engineering, Dayananda Sagar University, held on 20th August 2025 at the Harohalli campus, marked the beginning of an exciting academic journey for new students and their parents. The program featured a warm cultural welcome, leadership addresses by university dignitaries, including Dr. D. Premachandra Sagar (Pro-Chancellor, DSU), Dr. B. S. Satyanarayana (Vice-Chancellor, DSU), and Dr. Udaya Kumar Reddy (Dean, SoE), along with an inspiring keynote by Chief Guest Mr. Sunil Deshpande, Regional Head, TCS Bengaluru. Highlights included motivational speeches emphasizing innovation, adaptability, and holistic development, a campus overview showcasing DSU's world-class infrastructure, student testimonials, an academic orientation on curriculum and mentoring systems, and an oath-taking ceremony led by Dr. Reddy, where students pledged commitment to knowledge, integrity, and responsibility. The event also underscored DSU's focus on sustainability, inclusivity, and global readiness, concluding with a vote of thanks by Dr. Girisha G. S. (Chairman, CSE) and the National Anthem, setting a transformative tone for the students' journey ahead.





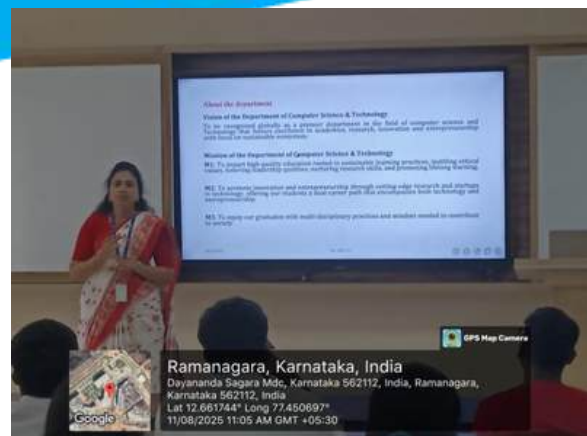
“Strategic partnership with the Wadhvani Foundation”

On 07/08/2025, the Department of Computer Science and Engineering (AI & ML) at Dayananda Sagar University (DSU), Bengaluru, entered into a strategic partnership with the Wadhvani Foundation. This collaboration aims to foster innovation and excellence in the field of Artificial Intelligence (AI) and Machine Learning (ML) through joint initiatives, research, and development projects. The Wadhvani Foundation, known for its commitment to advancing technology and entrepreneurship, will work closely with DSU to enhance the academic and practical aspects of AI and ML education. The partnership is expected to lead to the development of cutting-edge solutions and contribute significantly to the technological landscape. This MoU marks a significant step towards bridging the gap between academia and industry, providing students and faculty with opportunities to engage in impactful research and real-world applications of AI and ML.



“5th Semester Orientation” - CST

The Department of Computer Science & Technology conducted orientation sessions for 5th-semester students on 11th August 2025. The session was addressed by the chairperson, Dr. M Shahina Parveen, and Class advisor Prof. Vinayaka V M. They gave complete insight into the academics, placements, research projects, start-ups, technical and non-technical events. The involvement of students in the departmental activities, the importance of the curriculum, and the importance of attendance, university regulations, discipline, mentoring, DO'S and DON'TS were discussed. Insights on well-being, gender Equality, and Sustainable initiatives taken by the University were given by the Chairperson. She said students must develop the courage to face challenges. She said if any student has any difficulty, may it be in the subject or on campus, they should get help from their respective mentors, class advisor, and herself.



“3rd Semester Orientation” - CST

The Department of Computer Science & Technology conducted orientation sessions for 3rd-semester students on 12th August 2025. The session was addressed by the chairperson, Dr. M Shahina Parveen, and Class advisor Prof. M. Chithambarathanu. They gave complete insight into the academics, placements, research projects, start-ups, technical, and non-technical events. The involvement of students in the departmental activities, the importance of the curriculum, the importance of attendance, university regulations, discipline, and mentoring were discussed. Insights on well-being, gender Equality, and Sustainable initiatives taken by the University were given by the Chairperson. She said students must develop the courage to face challenges. She said if any student has any difficulty, may it be in the subject or on campus, they should get help from their respective mentors, class advisor, and herself.



“3rd Semester Orientation Program” - CSE(DS)

The Department of CSE (Data Science) organized an Orientation event held on 11th August 2025 by Prof. Chandrakala L, Assistant Professor, Prof. Prapti Bhattacharjee, Assistant Professor, Dr. Santhosh Kumar, Associate Professor, Dept. of CSE (Data Science). The targeted audience was the 3rd sem, B.Tech students. The Orientation consisted of a multitude of topics supported by doubt-clearing sessions, handled by faculty experts from the Department of CSE (Data Science) and student coordinators. The main highlight of the event was an insight into the courses offered in the upcoming semester. The introductory session was handled by Dr.Shaila S.G., Chairperson, Dept of Data Science. The event started with an introduction to core courses and Special topic projects. Focus was given on placement activities followed by insight into career development. Detailed information on CIA components for each course was imparted by the respective course handling faculties. Selection of CR and Class Committee members for the 3rd sem was carried out at the end of the session. The session has proven to be informative for the students. Session Objectives were to give insight into the courses offered in the 3rd Sem and to know in brief about placement activities.



“5th Semester Orientation Program” - CSE(DS)

The Department of CSE (Data Science), Dayananda Sagar University, organized the 5th Semester Orientation Program (2023–2027 batch) on 11th August 2025, conducted by Prof. Godhandaraman T and Prof. Sindhu A, with an introductory address by Dr. Shaila S. G, Chairperson of the department. The session provided detailed insights into the courses offered in the semester, placement activities, academic policies, evaluation schemes (CIE: SEE – 60:40), and departmental guidelines. Students were briefed on attendance requirements (minimum 85%), class discipline, mentoring activities, and safety awareness, including cautions against fake social media groups. Placement preparedness was emphasized through training, coding contests, and the NeoPAT platform, offering Neo Codeathons, competitions, and boot camps tailored to student performance levels. Official communication protocols and professional behavior expectations were reinforced to ensure discipline and smooth conduct of academics. Overall, the orientation served as a comprehensive platform to familiarize students with academic, disciplinary, and professional expectations, motivating them to actively engage in both learning and placement opportunities for a successful semester ahead.





SCHOOL OF ENGINEERING



INDUSTRIAL VISITS

“Infosys Springboard Summit 2025”

The Department of Computer Science & Engineering and the Department of Data Science participated in the Infosys Springboard Summit 2025 at Mysuru on the theme of Learning to Livelihood held on 21st August 2025, as part of their industry visit. The summit was a truly enriching experience, offering our students valuable exposure to the intersection of learning, technology, and employability. The sessions highlighted how digital skills, innovation, and industry readiness are key enablers in shaping future career opportunities. Students also gained insights into how academia and industry can come together to create pathways from classrooms to careers. We extend our heartfelt gratitude to Dr. Basavaraj N. Hiremath, Professor & SPOC – Infosys Springboard, for facilitating this wonderful opportunity, and to the Infosys Springboard team for their warm hospitality and support. We also thank our Dean, Chairpersons, and Placement Team for their constant encouragement.



Visit to “Scaler School of Technology”

On 1st August 2025, Dr. Pramod Kumar Naik, Chairperson of the Department of Artificial Intelligence and Robotics, School of Engineering, Dayananda Sagar University (DSU), visited the Scaler School of Technology to explore collaboration opportunities in robotics and intelligent systems. During the visit, Dr. Naik engaged with faculty members, students, and technical teams at the Scaler Robotics Lab, gaining insights into their ongoing research and development activities through live demonstrations of robotic platforms and AI-integrated projects. The discussions highlighted potential partnerships in areas such as joint research on autonomous systems, student internships, and hackathons or innovation challenges on AI and robotics. This visit marked the beginning of a promising academic-industry collaboration aimed at fostering AI-driven robotics innovation, experiential learning, and joint technological advancement.



Visit to “Maridi Bio Industries Pvt. Ltd.”

On 2nd August 2025, Dr. Pramod Kumar Naik, Chairperson of the Department of Artificial Intelligence and Robotics, School of Engineering, Dayananda Sagar University (DSU), visited Maridi Bio Industries Private Limited at Harohalli Industrial Area, Ramanagar District, Karnataka, to explore avenues for research and industrial collaboration in bio-waste management, automation, AI-driven process optimization, and sustainable smart solutions. During the visit, Dr. Naik interacted with on-site personnel and toured the facility, gaining insights into the company's advanced systems for biohazard waste collection, treatment, and disposal. The discussions emphasized the potential integration of robotics and AI for process automation, safety monitoring, and real-time environmental analytics. This visit marked an important step toward strengthening academia-industry partnerships aimed at developing innovative, AI-enabled solutions for sustainable waste management and public health safety.



Industrial Visit

“Virya Automation (Maini Group) Centre Hub Visit”

A delegation from DSU, including Vice Chancellor Prof. Dr. B.S. Satyanarayana, Pro-Vice Chancellor Prof. Dr. Prakash S., CoE Director Sri Pradeep Desai, Dr. Rupam Bhaduri (Domain Expert, AI & Robotics), and Dr. Vishwanath (Sub-Domain Expert, Mechanical), visited Virya Automation for discussions on establishing a DSU-Centre of Excellence on Smart Mobility. The team reviewed autonomous mobility platforms and explored collaborative R&D opportunities.



Visit to “Unitree-Xboom Facility Centre”

A delegation from Dayananda Sagar University, comprising Sri Pradeep Desai, Director, Centre of Excellence, and Dr. Rupam Bhaduri, Domain Expert & Professor (Research & Academic), AI & Robotics Engineering, visited the UNITREE–Xboom Facility to explore advanced collaboration opportunities. The visit focused on evaluating humanoid and quadruped robotic platforms for integration into high-tech joint projects involving DSU and Government agencies. Discussions covered potential applications in research, defence, disaster management, and smart mobility initiatives under the DSU Centre of Excellence. The interaction marked a significant step towards building cutting-edge capabilities and advancing innovation in robotics through academic–industry–government partnerships.



Visit to the “Central Research Instrumentation Facility”

An official visit to the Central Research Instrumentation Facility (CRIF), Sri Sathya Sai Institute of Higher Learning (SSSIHL), Puttaparti on 19th and 20th August 2025 by Dr. Pradeep Kumar Badiya, Assistant Professor, Department of Chemistry along with his PhD students Mr. R Subramanya [ENG24PPBS03], Mr. Nagarjun S [ENG24PFBS01], and Mr. Kishan B S [ENG24PFBS08]. The purpose of the visit was to receive training on Surface Plasmon Coupled Emission (SPCE) and to learn about material characterization techniques at the STAR Lab. The team attended sessions on the basics of SPCE, followed by demonstrations on sample preparation and experimental setup, and also had the opportunity to observe and gain hands-on training on various characterization techniques, including UV-Vis, photoluminescence, DLS, zeta potential, and SEM. The training was practical and interactive, very useful for the ongoing research and to understand how to work with advanced instruments. The team sincerely thanks CRIF, SSSIHL, and Dr. Naga Sai Visweswar and his research scholars for their kind support, guidance, and hospitality, which made the visit a valuable and memorable experience





SCHOOL OF ENGINEERING



FACULTY ACHIEVEMENTS



Dr. Santhosh Kumar J
Associate Professor
Department of CST

- Dr. Santosh Kumar J published a patent on "Smart Pen for Word and Sentence Tracking, Error Correction, and Brain Activity Analysis" (Application Number: 202541071486A).

(1) PATENT APPLICATION PUBLICATION		(7) Application No. 202541071486 A
(18) INDIA		
(2) Date of Filing of Application : 28/07/2025		(19) Publication Date : 01/08/2025
(34) Title of the invention : Smart Pen for Word and Sentence Tracking, Error Correction, and Brain Activity Analysis		
(31) International Classification : G06F0003030400, A61B0005000000, A61B0005100000, A61B0005200000, G06F0043020000 (36) International Application No : NA (37) International Filing Date : NA (38) International Publication No : NA (41) Patent of Addition to Application Number : NA (42) Divisional in Application Number : NA		(71) Name of Applicant : Phanesh Kumar Jankant Address of Applicant : Phanesh Kumar Jankant Dr. Santhosh Kumar J Dr. Ravi Kumar H C Dr. KALPATIC Y Name of Applicant : NA Address of Applicant : NA (72) Name of Inventor : Dr. Santhosh Kumar J Address of Applicant : Associate Professor Computer Science and Technology Department Dr. Santhosh Kumar J Sagor University Innovation Campus Administration & Main Admission Office, Kofu Gate, Holar Road, Bangalore - 560 068 Bangalore Dr. Santhosh Kumar J Address of Applicant : Associate Professor CST Department Dr. Santhosh Kumar J Sagor University Holar Hall Ramangaswami Bangalore Karnataka Bangalore South Dr. Ravi Kumar H C Address of Applicant : Mahadevi S Assistant Professor, ECE Department, Dr. Santhosh Kumar J Sagor Academy of Technology and Management MGR 93412 84227 Email id: mahadevi.s@satish.com in Bangalore Dr. Ravi Kumar H C Address of Applicant : Dr. Ravi Kumar H C Assistant Professor, ECE Department, Dr. Santhosh Kumar J Sagor Academy of Technology and Management MGR 93412 84227 Email id: ravi@satish.com in Bangalore Dr. KALPATIC Y Address of Applicant : Dr. KALPATIC Y Assistant Professor, ECE Department, Dr. Santhosh Kumar J Sagor Academy of Technology and Management MGR 93412 84227 Email id: kalpatic.y@satish.com in Bangalore
(32) Abstract : The Smart Pen system is an innovative writing enhancement tool that integrates real-time writing analysis with cognitive monitoring. Designed for students, professionals, and writers, the pen captures handwritten data using embedded pressure-sensitive or optical sensors and converts it into digital text. Simultaneously, it identifies grammar and spelling errors through a built-in correction engine, providing immediate feedback via an onboard display or companion application. What sets this system apart is its integration of lightweight biosensors (EEG) sensors that track cognitive states such as focus, stress, and fatigue during writing tasks. These insights, combined with data from natural language processing (NLP) algorithms, help generate feedback and support cognitive growth. The Smart Pen seamlessly syncs with a mobile or desktop app that analyzes writing metrics and mental states, offering detailed reports and visualizations. All data is securely stored in a cloud.		

- Dr. Santosh Kumar J published a patent on "An Adaptive Real Time Seizure Warning System using CNN, Fuzzy Logic and Reinforcement Learning Optimised for Edge Development" (Application Number: 202541071731A).

(1) PATENT APPLICATION PUBLICATION		(7) Application No. 202541071731 A
(18) INDIA		
(2) Date of Filing of Application : 28/07/2025		(19) Publication Date : 01/08/2025
(34) Title of the invention : An Adaptive Real Time Seizure Warning System Using CNN, Fuzzy Logic and Reinforcement Learning Optimised for Edge Deployment		
(31) International Classification : A61B0005000000, G06F0003030400, G06F0003030400, G06F0003030400 (36) International Application No : NA (37) International Filing Date : NA (38) International Publication No : NA (41) Patent of Addition to Application Number : NA (42) Divisional in Application Number : NA		(71) Name of Applicant : Phanesh Kumar Jankant Address of Applicant : Phanesh Kumar Jankant Dr. Santhosh Kumar J Dr. Ravi Kumar H C Dr. KALPATIC Y Name of Applicant : NA Address of Applicant : NA (72) Name of Inventor : Dr. Santhosh Kumar J Address of Applicant : Associate Professor Computer Science and Technology Department Dr. Santhosh Kumar J Sagor University Innovation Campus Administration & Main Admission Office, Kofu Gate, Holar Road, Bangalore - 560 068 Bangalore Dr. Santhosh Kumar J Address of Applicant : Associate Professor CST Department Dr. Santhosh Kumar J Sagor University Holar Hall Ramangaswami Bangalore Karnataka Bangalore South Dr. Ravi Kumar H C Address of Applicant : Mahadevi S Assistant Professor, ECE Department, Dr. Santhosh Kumar J Sagor Academy of Technology and Management MGR 93412 84227 Email id: mahadevi.s@satish.com in Bangalore Dr. Ravi Kumar H C Address of Applicant : Dr. Ravi Kumar H C Assistant Professor, ECE Department, Dr. Santhosh Kumar J Sagor Academy of Technology and Management MGR 93412 84227 Email id: ravi@satish.com in Bangalore Dr. KALPATIC Y Address of Applicant : Dr. KALPATIC Y Assistant Professor, ECE Department, Dr. Santhosh Kumar J Sagor Academy of Technology and Management MGR 93412 84227 Email id: kalpatic.y@satish.com in Bangalore
(32) Abstract : Abstract: Predicting epileptic seizures accurately and in real-time remains a major challenge, especially when the system needs to work on resource-limited, wearable devices. In this work, we introduce a novel approach called Seizure Warning System (SWS), which combines deep generative models to learn latent states from EEG and processed, it highlights (70) useful features, the likelihood of a seizure from EEG data. Then, a fuzzy logic module integrates this output to assess the confidence level in a more human-understandable way. Finally, a reinforcement learning agent adjusts when and how to trigger alerts based on ongoing user feedback and individual seizure history. This layered design not only improves accuracy but also helps reduce unnecessary alerts. Designed to run efficiently on small devices like Raspberry Pi 4 and Coral Edge TPU, the system was tested on the CHB-MIT EEG dataset and showed strong results: ~95.2% accuracy and a low false alarm rate of 0.01 per hour.		

- Dr. Santosh Kumar J published a patent on "Neuro-Fuzzy Reinforcement Learning for Personalised Seizure Warning System on Edge Devices" (Application Number: 202541073844A).

2024 PAPERID APPLICATION PAPER STATUS	2024 Application No. 20240107000000000000
2024 ID/ID/A	
2024 Date of filing of applications 16/04/2024	2024 Publication Date 16/04/2024
2024 Date of the interview, Thesis Entry Registration/Coaching for International Students Submission on Kijia University	
2024 International research area 2024 International Application No. 2024 Filing Date 2024 International Publication No. 2024 Field of Address 2024 National Address 2024 Filing Date 2024 Director's Application Number 2024 2024 International research area 2024 International Application No. 2024 Filing Date 2024 International Publication No. 2024 Field of Address 2024 National Address 2024 Filing Date 2024 Director's Application Number 2024	
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- Dr. Santosh Kumar J published a patent on "AI-Based Real Time Air Quality Forecasting System Using CNN-Transformer Hybrid Model with Cloud Integration" (Application Number: 202541074449A).

School of Engineering



Dr. M Shahina Parveen
Professor & Chairperson
Department of CST

- Dr. M. Shahina Parveen, Professor & Chairperson participated in a brainstorming and collaboration session on Quantum India, Bengaluru.





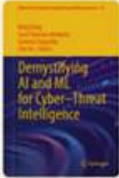
Dr. Ramandeep Kaur
Assistant Professor
Department of CST

- Dr. Ramandeep Kaur, Assistant Professor, published a research article titled “Navigating Security and Privacy in Blockchain: Challenges and Future Directions” in Information Systems Engineering and Management, Vol. 43, Springer.

Home > Demystifying AI and ML for Cyber-Threat Intelligence > Chapter

Navigating Security and Privacy in Blockchain: Challenges and Future Directions

Chapter | First Online: 17 August 2025
pp 253–267 | [Cite this chapter](#)



Demystifying AI and ML for Cyber-Threat Intelligence

Navjot Kaur & Ramandeep Kaur 

 Part of the book series: Information Systems Engineering and Management ((ISEM, volume 43))

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- Dr. Shahina Parveen, Dr. Sudha, Dr. Santosh Kumar J, Dr. Ramandeep Kaur, Prof. Vinayaka, Prof. Yashashwini, Dr. Nur Alom Talukar, Dr. Neha, Prof. Junaid has participated in a five-day Faculty Development Programme (FDP) on “Entangle 25: A Hands-on workshop on Quantum Computing and its Emerging Paradigms” organised by the Department of Computer Science and Technology, Dayananda Sagar University, Bengaluru held from 06th to 10th August, 2025.





Dr. Gangadhar T G
Associate Professor
Department of AI & Robotics

- Dr. Gangadhar T. G, Associate Professor in the Department of Artificial Intelligence and Robotics, has published a high-impact research paper on “Mechanical performance of ABS/CNT nanocomposites developed by Fused Deposition Modeling” in a Q1-ranked journal from Taylor and Francis publishing group.





Dr. Bharath Kumar S
Assistant Professor
Department of AI & Robotics

- Dr. Bharath Kumar S, Assistant Professor in the Department of AI and Robotics at Dayananda Sagar University, has successfully completed a two-week Faculty Development Program (FDP) from 04/08/2025 to 18/08/2025 on Deep Learning, held in August 2025.





Dr. Pramod Kumar Naik
Chairman & Associate Professor
Department of AI & Robotics

- Dr. Pramod Kumar Naik, Chairman, AIR, has published a book chapter in Springer titled “Turkish Raisin Classification through Deep Learning Prediction Models.”

Turkish Raisin Classification Through Deep Learning Prediction Models



Sindhu P. Menon, Pramodkumar Naik, Basavaraj N. Hiremath, D. Shivamma, and George Fernandez

Abstract The primary aim of this work is to classify dry grapes using Machine Learning techniques. The model attempts at classifying two raisin types which is highly famous and used in Turkey namely Kecimen and Besni. This classification is done using various features such as perimeter of the raisin, its major and minor axis, the area of the raisin followed by eccentricity and various other geometrical characteristics. Classifiers like SVM, KNN, Naïve Bayes and Decision tree are being used wherein they have achieved 92, 82.4, 86.6 and 85.6%, respectively. It was observed that SVM yielded the highest accuracy after appropriate, training, testing and cross validation was done.

1 Introduction

Dried grapes are popularly known as raisins. This name is obtained after it undergoes a dehydration process which is done either artificially through dehydrators or naturally

Lecture Notes in Networks and Systems 1389

Soumi Dutta
Abhishek Bhattacharya
Vung Pham
Zdzislaw Polkowski *Editors*

Data Mining and Information Security

Proceedings of ICDMIS 2024, Volume 5

Springer



Dr. N. S. Venkataramanan
Chairman and Associate Professor
Department of Chemistry

- Dr. N.S. Venkataramanan, Associate Professor in the Department of Chemistry has published a paper in a Q3 Scopus-indexed journal titled “Investigating native cyclodextrins as carriers for gefitinib delivery: a DFT analysis,” in the Journal “Monatsefte fur Chemi – Chemical Monthly”. I has reviewed a paper for the Journal “Diamond and Related Materials” and a gave talk for a Webinar titled “Molecular Glue: Decoding Noncovalent interactions in bioinspired systems and Drugs”





Dr. Bhavana Rikhari
Assistant Professor
Department of Chemistry

- Dr Bhavana Rikhari has participated in the SEVEN-Day Faculty Development Program on “Biomaterials & Nanomaterials in Biomedical and Clinical Applications” from 14th -19th July 2025, organized jointly by the Department of Medical Electronics Engineering in association with IEEE EMBS DSCE Student chapter, EMB Bangalore Chapter, Biomedical Engineering Society of India, CDSIMER..



- Dr. Bhavana Rikhari, Dayananda Sagar University, has participated in the SIX DAY FACULTY DEVELOPMENT PROGRAM on “Smart and Sustainable Materials: Advances in Material Chemistry for Global Challenges - 2025” organized by the Department of Chemistry, SRM Institute of Science and Technology, Ramapuram, Chennai, in association with Society for Advancement in Chemical Sciences and Education (SACSE), IGCAR, Kalpakkam, from 21st July, 2025 to 26th July, 2025.



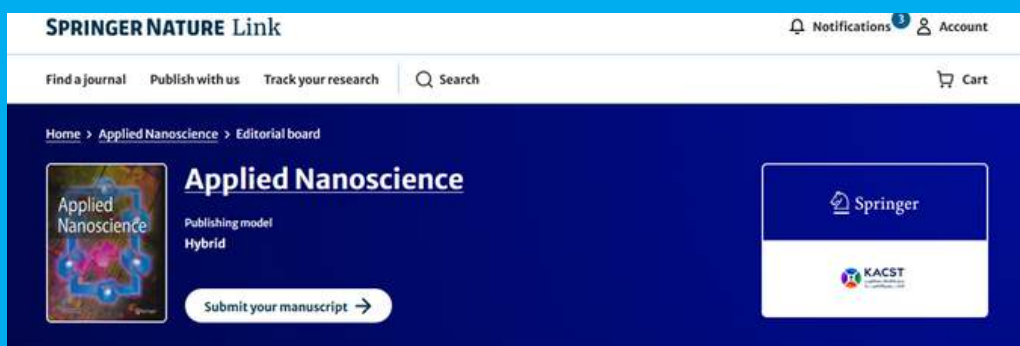
- Dr Bhavana Rikhari has presented the paper titled “PCL and Chitosan-ZrO₂ Bilayer Coated Magnesium Substrate for Orthopedics applications” in the IEEE International Conference on Biomedical Engineering and Sustainable Healthcare (ICBMESH – 2025), organized by Biomedical Engineering, Manipal Institute of Technology, Manipal, during August 08 & 09, 2025.





Dr. A V RAGHU
Professor
Department of Chemistry

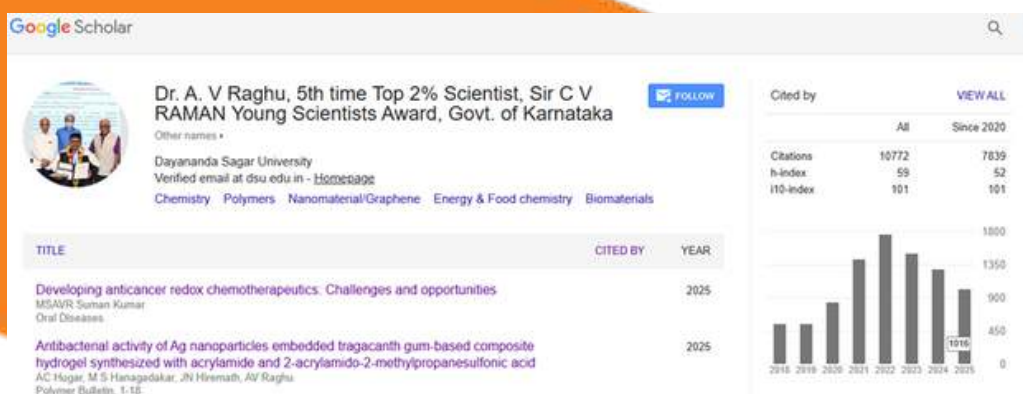
- Dr. A.V. Raghu, Professor at the Department of Chemistry, DSU, serves as an Associate Editor of Applied Nanoscience, published by Springer. The journal has an impact factor of 3.17, a Cite Score of 7.80, and is ranked in Q2. H-Index- 91."



- Dr. A.V. Raghu has reviewed six articles from ELSEVIER Journals.



- Dr. A.V. Raghu has achieved another milestone this year on Google Scholar, surpassing 1000 citations.





Dr. Durbadal Chattaraj
Associate Professor
Department of CSE (CY)



Dr. G. Hemanth Kumar
Associate Professor
Department of CSE (CY)



Dr. Dilip Kumar Jang Bahadur Saini
Associate Professor & Chairperson
Department of CSE (CY)



Prof. Naveen Kulkarni
Assistant Professor
Department of CSE (CY)



Prof. Sharanabasappa Tadkal
Assistant Professor
Department of CSE (CY)



Prof. Ranjima P
Assistant Professor
Department of CSE (CY)

- Dr. Durbadal Chattaraj, Dr. G. Hemanth Kumar, Dr. Dilip Kumar Jang Bahadur Saini, Prof. Naveen Kulkarni, Prof. Sharanabasappa Tadkal, and Prof. Ranjima P have successfully authored and presented a paper titled “SCAM-QUAVs: Side Channel Attacks Mitigation and Countermeasures of Quantum-Safe UAVs” in the 11th International Conference on Electronics, Computing and Communication technologies, IEEE CONECCT(July 10-13,2025) organized by IEEE Bangalore section at Sterling’s Mac Hotel, Bangalore.





Dr. Dilip Kumar Jang Bahadur Saini
Associate Professor & Chairperson
Department of CSE (CY)

- Dr. Dilip Kumar Jang Bahadur Saini has authored and published a book titled “Building Data-Driven Edge Systems for Business Success” Co-authored by Minakshi (King Khalid University, Saudi Arabia), Tarun Kumar (University of Petroleum and Energy Studies, Dehradun, India), Kapil Joshi (Uttaranchal University, India), Akash Saxena (Compucom Institute of Technology and Management, India)



- Dr. Dilip Kumar Jang Bahadur Saini has co-authored and published a conference paper titled “Vulnerabilities and Security Challenges on the Internet of Things Devices” in Springer Nature – Innovations in Data Analytics (ICIDA 2024, Lecture Notes in Networks and Systems, Volume 1408).





Dr. Devipriya V S
Assistant Professor
Department of CSE (CY)

- Dr. Devi Priya V S, along with co-authors P.Naresh Nivetha R, Shreyas Rajendra Hole, Mubeen Ahamed Khan, and Tanvir, presented their research paper titled “File carving for Digital Forensics: Moving Beyond Conventional Methods to AI-Powered Solutions” at the Third International Conference on Networks & Advances in Computational Technologies (NetACT 2025). The conference was held from 7th to 9th August 2025, organized by the Department of Computer Science and Engineering, Mar Baselios College of Engineering and Technology, Thiruvananthapuram, in association with IEEE Kerala Section.





Dr. Mubeen Ahmed Khan
Assistant Professor
Department of CSE (CY)



Prof. Naveen Kulkarni
Assistant Professor
Department of CSE (CY)



Dr. Abdul Haq Nalband
Associate Professor
Department of CSE (AIML)

- Dr. Mubeen Ahmed Khan, Prof. Naveen Kulkarni, and Prof. Abdul Haq Nalband have collaboratively published their research paper titled “Gender Classification Based on Machine Learning Models” at the 2025 4th O.P. Jindal University International Technology Conference on Smart Computing for Innovation and Advancement in Industry 5.0 (OTCON 2025).





Dr. Durbadal Chattaraj
Associate Professor
Department of CSE (CY)

- Dr. Durbadal Chattaraj co-authored and mentored the following students: Mr. Abhishek Paul (ENG21CY0002), Ms. Ananya Kasiraj (ENG22CY3001), Ms. Ananya R (ENG21CY0006), Ms Bindurani K.P (ENG21CY0010), and successfully presented their research paper titled: “Quantum-Safe Protocols Design for IoT Communications: Critical Observation and Analysis” at the XXII Control Instrumentation Systems Conference (CISCON) 2025, technically co-sponsored by IEEE Bangalore Section.



- Dr. Durbadal Chattaraj, along with Mr. Niranjana Hegde and Mr. Shashank B S (ENG21CY0040), has presented a research paper titled: “SEAT-FA: Automated Sub-domain Enumeration Tool for Security Auditing of Fintech Industries” at the XXII Control Instrumentation Systems Conference (CISCON) 2025, technically co-sponsored by IEEE Bangalore Section.



- Dr. Durbadal Chattaraj contributed as a Reviewer for research papers at the XXII Control Instrumentation Systems Conference (CISCON) 2025, technically co-sponsored by the IEEE Bangalore Section. The conference was held in hybrid mode on 1st–2nd August 2025, organized by the Department of Instrumentation and Control Engineering, Manipal Institute of Technology, Manipal, Karnataka, India.





Prof. Sharanabasappa Tadkal
Assistant Professor
Department of CSE (CY)

- Prof. Sharanabasappa Tadkal has successfully participated in a One-Week Faculty Development Programme (FDP) on “Malware Analysis with Data Science”, held from June 23 to June 29, 2025. The FDP was organized by the Electronics and ICT Academy, National Institute of Technology (NIT) Patna, under the aegis of the Ministry of Electronics and Information Technology (MeitY), Government of India.



- Prof. Sharanabasappa Tadkal has successfully participated in a Five-Day Faculty Development Program (FDP) on “GenAI and Prompt Engineering” organized by the Department of Computer Science and Engineering, New Horizon College of Engineering, Bangalore. The FDP was conducted from 28th July to 1st August 2025 and focused on enhancing knowledge and skills in the emerging domains of Generative AI and Prompt Engineering.





Dr. M. Lakshmanan
Assistant Professor
Department of CSE(AIML)



Dr. Joshuva Arockia Dhanraj
Associate Professor
Department of CSE(AIML)



Prof. Sriramkumar R
Assistant Professor
Department of CSE(AIML)



Dr. Mude Nagarjuna Naik
Assistant Professor
Department of CSE(AIML)



Prof. Mitha Guru
Assistant Professor
Department of CSE(AIML)



Prof. Godhandaraman T
Assistant Professor
Department of CSE (DS)

- Mr. Lakshmanan M, Mr. Joshuva Arockia Dhanraj, Mr. Sriramkumar R, Mr. Mude Nagarjuna Naik, Mr. Mithaguru (CSE – AI & ML), and Mr. Godhandaraman T (CSE – Data Science) have published a research article titled “Medical Waste Management System for Enhanced Traceability, Safety and Environmental Protection” in the International Journal of Advances in Soft Computing and its Applications (Q2 – SciVal 2025).

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Blockchain-Enabled Medical Waste Management System for Enhanced Traceability, Safety and Environmental Protection

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Nagarjuna Naik¹, Mithaguru³ and Godhandaraman T⁴

¹ Dayananda Sagar University, Bengaluru, Karnataka, India.

² Lovely Professional University, Phagwara, Punjab, India.

³ Chongqing University, Meitoh, Chengdu, China.

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mudaganur-simil@dsu.edu.in⁵ and gthm84@gmail.com⁶

Abstract

Medical waste management has grave issues concerning traceability, regulation, and the environment. The traditional systems which are centred on manual record-keeping and the usage of controlled databases usually lead to data loss and unauthorised disposal along with inefficiencies. In this paper, the researcher comes up with a blockchain-integrated medical waste management system to support Internet of Things (IoT)-driven technologies and smart contracts to decentralise a safe, autonomous, and anti-tampering system of waste handling. Smart bins enabled with IoT and fitted with GPS, ultrasonic and weight sensors collect live data regarding waste creation and convergence and this information is transferred or relayed through Wi-Fi/LookWish to the edge/cloud gateway. This data is stored in a protected manner, verified on a permissioned blockchain and, most importantly, the most important tasks, such as scheduling a pickup and approving disposal are done with smart contracts. Experiment findings show 100 percent traceability accuracy, a 30 percent less time in disposal, and a 90 percent better regulatory compliance. The proposed framework will have three new contributions as compared to the existing systems, empowering the waste validation algorithm with a live tracking device in the form of GPS to detect and prevent deviation, a neural network-based model to pre-validate transactions and prevent fraud, and an optimisation layer which the users connect that will support the energy cost to ensure scalability of the proposed framework. The said features altogether allow smart, anticipatory, and regulation-conformant waste processing, which makes this work stand out of existing methods.

Keywords: Blockchain, Traceability, Medical Waste, Environmental Protection, GPS-based waste validation.

1 Introduction



Prof. S.V.K.R. Rajeswari
Assistant Professor
Department of CSE(AIML)

- Prof. S.V.K.R. Rajeswari, Professor, Department of Computer Science and Engineering (AI & ML), Dayananda Sagar University, has been awarded a Certificate of Appreciation by the Department of Medical Electronics Engineering, Dayananda Sagar College of Engineering, for her active participation in the six-day Faculty Development Program on “Biomaterials & Nanomaterials in Biomedical and Clinical Applications,” held from July 14–19, 2025.





Prof. Trupthi Rao
Assistant Professor
Department of CSE(AIML)

- Prof. Trupthi Rao, Assistant Professor, Dept. of CSE (AI&ML) has presented a paper titled “A Novel Post-hoc Explainable AI Method to unveil an Ensemble Black-box ML Model for Identification Friend or Foe in Military AI” in the 16th International Conference on Computing, Communication and Networking Technologies (ICCCNT 2025), held at IIT Indore, in association with the IEEE Electronics Packaging Society and the All India Council for Technical Education (AICTE), during July 6th to 11th 2025.



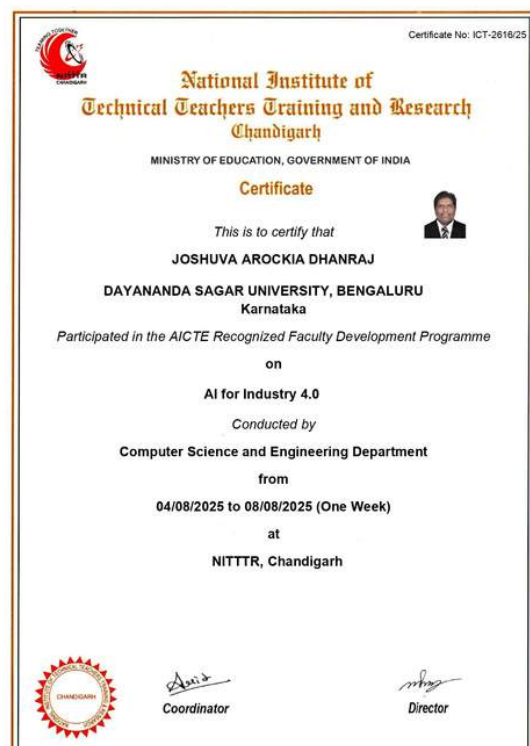
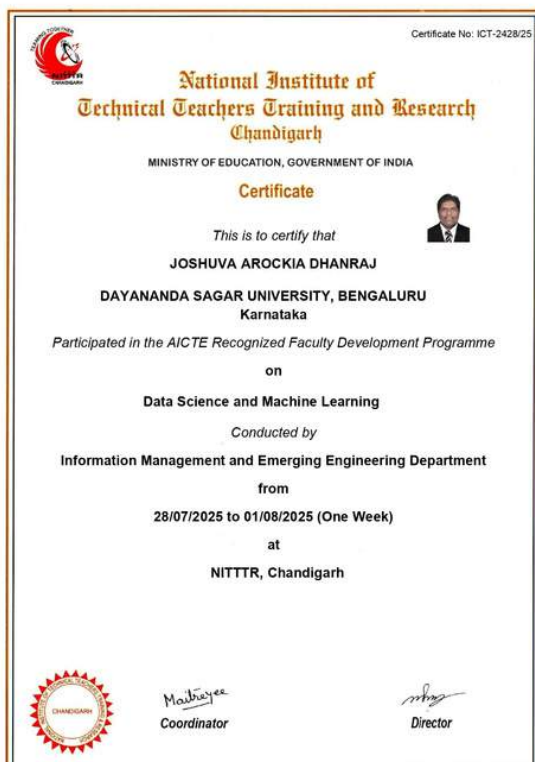
- Prof. Trupthi Rao, Assistant Professor, Dept. of CSE (AI&ML) has presented a paper titled “Investigating the Root Causes of Crime using Fuzzy Logic” and “Smarter Farming: Predicting Crop Viability through Temperature and Humidity Analysis” at the 3rd IEEE International Conference on Networks, Multimedia and Information Technology (NMITCON-2025) during 1st-2nd, August 2025 in Association with IEEE Bangalore Section, Organized by Nitte Meenakshi Institute of Technology, Bengaluru.





Dr. Joshuva Arockia Dhanraj
Associate Professor
Department of CSE(AIML)

- Dr. Joshuva Arockia Dhanraj, Assistant Professor, Dayananda Sagar University, Bengaluru, Karnataka, has participated in the AICTE-recognized Faculty Development Programme on "Data Science and Machine Learning" organized by the National Institute of Technical Teachers Training and Research (NITTTR), Chandigarh, conducted by the Information Management and Emerging Engineering Department from 28th July to 1st August 2025.
- Dr. Joshuva Arockia Dhanraj, Assistant Professor, Dayananda Sagar University, Bengaluru, Karnataka, has participated in the AICTE-recognized Faculty Development Programme on "AI for Industry 4.0" organized by the National Institute of Technical Teachers Training and Research (NITTTR), Chandigarh, conducted by the Computer Science and Engineering Department from 4th to 8th August 2025.



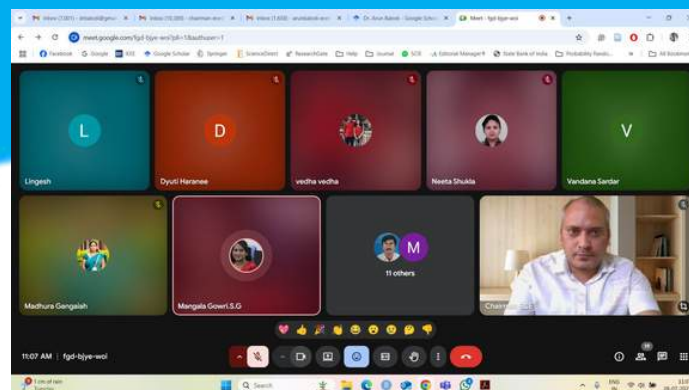
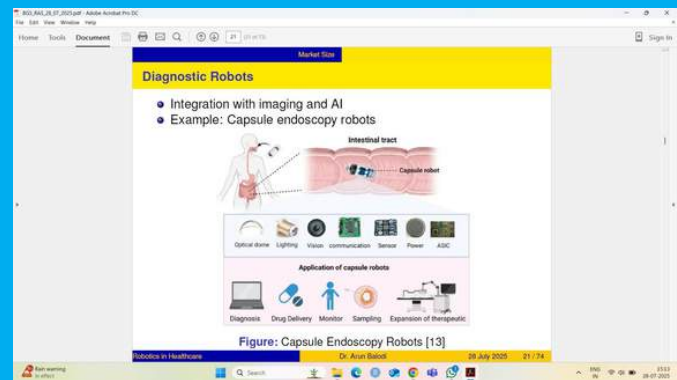
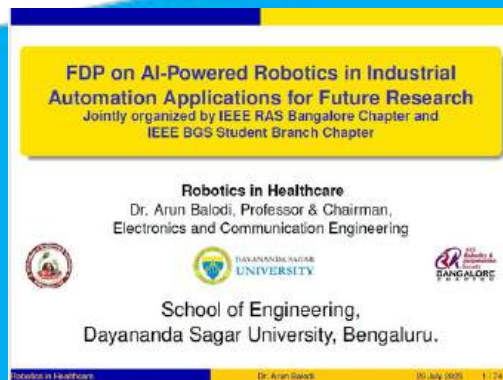


Dr. Arun Balodi
Professor & Chairperson
Department of ECE

- Dr. Arun Balodi, Professor and Chairman, Department of ECE, School of Engineering, Dayananda Sagar University, was awarded “Best Paper Presenter” at the 3rd IEEE International Conference on Networks, Multimedia and Information Technology (NMITCON-2025), held on 1st–2nd August 2025 at NMIT, Bengaluru. His paper, “Dual Mode Robotic Arm Control System: Voice and Gesture Integration,” was recognized for its innovation and impactful presentation, showcasing DSU’s excellence in advancing cutting-edge technologies.



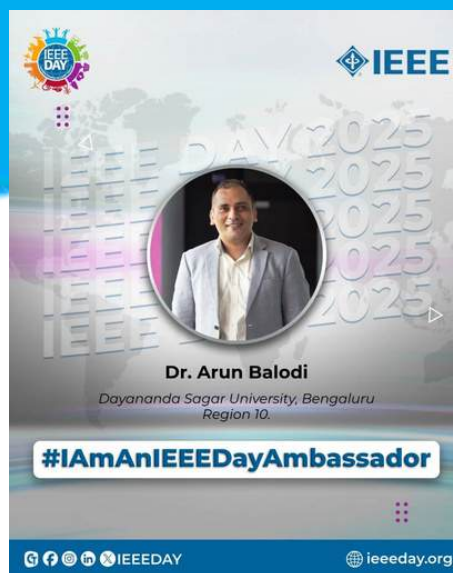
- Dr. Arun Balodi, Professor & Chair (ECE), Dayananda Sagar University, delivered an insightful session titled “Robotics in Healthcare” as part of the Faculty Development Program on AI-Powered Robotics in Industrial Automation Applications for Future Research, held on 28 July 2025. The event was co-organized by the IEEE RAS Bangalore Chapter and the IEEE BGS Student Branch Chapter, fostering a rich dialogue on the future of robotics in medical applications.



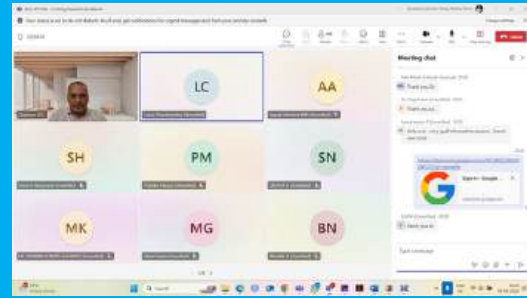
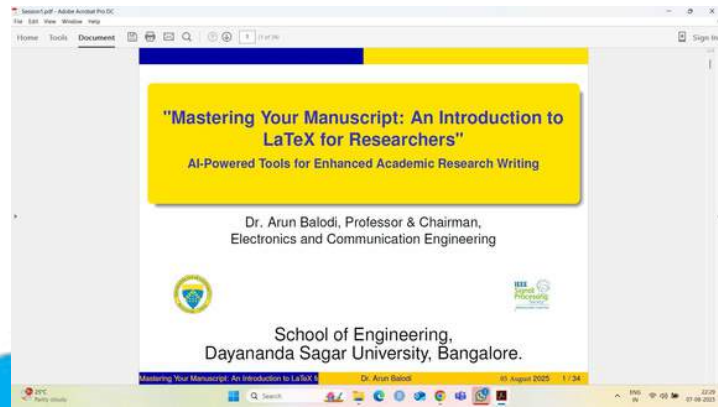
- Dr. Arun Balodi, Professor and Chairman, Department of Electronics and Communication Engineering, School of Engineering, Dayananda Sagar University, Bengaluru, was recognized as an Expert Speaker during the Faculty Development Programme on Intelligent Systems and Emerging Technologies in Computing and Electronics (ISETCE–2025), organized by UPES, Dehradun, in collaboration with NIT Jamshedpur. This honour highlights his valuable contribution to knowledge sharing and academic growth in advanced computing technologies.



- Dr. Arun Balodi, Professor and Chairman, Department of Electronics and Communication Engineering, School of Engineering, Dayananda Sagar University, has been selected as an IEEE Day 2025 Ambassador, representing Dayananda Sagar University, Bengaluru, Region 10. IEEE Day will be celebrated on October 7, 2025, with events spanning from October 5–18, 2025. In this role, Dr. Balodi will promote the spirit of innovation, organize impactful community events, and contribute to the mission of “Advancing Technology for Humanity.”



- Dr. Arun Balodi, Professor and Chairman, Department of ECE, School of Engineering, DSU, has recently delivered expert sessions at multiple prestigious platforms. He was an invited speaker at the FDP on Intelligent Systems and Emerging Technologies in Computing and Electronics (ISETCE–2025), organized by UPES, Dehradun, with NIT Jamshedpur, and was felicitated by the IEEE RAS Bangalore Chapter for his talk in the FDP on AI-Powered Robotics in Industrial Automation at BGSCET. He also served as a key resource person in the workshop “Crafting Research Excellence: Where to Publish, LaTeX & Research Metrics” organized by IEEE SPS Bangalore Chapter and IEEE WIE AG – Bangalore Section. Through these engagements, he continues to integrate emerging technologies with impactful research practices.



- Dr. Arun Balodi, Professor and Chairman, Department of ECE, School of Engineering, DSU, has been awarded “Best Paper Presenter” at the 3rd IEEE International Conference on Networks, Multimedia and Information Technology (NMITCON-2025), organized by NMIT, Bengaluru, in association with IEEE Bangalore Section. His paper, “Dual Mode Robotic Arm Control System: Voice and Gesture Integration,” was highly appreciated for its innovation and research contribution. We congratulate Dr. Balodi on this achievement and wish him continued success.





Dr. Navya R
Assistant Professor
Department of ECE

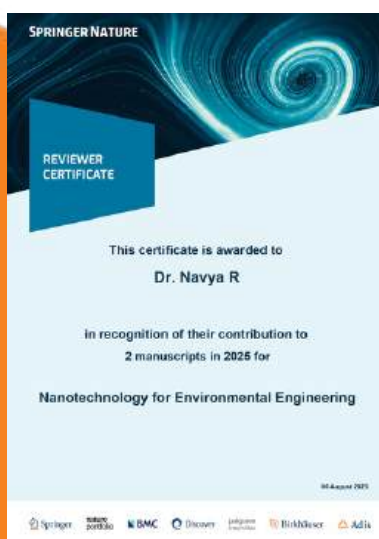
- Dr. Navya R, Assistant Professor of ECE at Dayananda Sagar University, Bengaluru, received a peer-reviewed certificate for her paper titled "Automated Wireless Charging System for Electric Vehicles Using Cloud Control" at the IEEE-sponsored 1st International Conference on Recent Innovation in Science, Engineering, and Technology (ICRISET 2025), held on 1–2 August 2025 at Jeppiaar Institute of Technology, Chennai.



- Dr. Navya R, Assistant Professor, Department of Electronics & Communication Engineering, DSU, SOE, has published a Patent titled "AI-Based Real-Time Air Quality Forecasting System Using CNN-Transformer Hybrid Model with Cloud Integration" (Application no. 202541074449 A) on 22nd August 2025.

(10) PATENT APPLICATION PUBLICATION	(11) Application No. 20251001449 A
(16) INDIAN	(12) Publication Date : 22/06/2025
(22) Date of Filing of Application 05/06/2025	(42) Publication Date : 22/06/2025
(54) Title of the invention: AI Based Real Time Air Quality Forecasting System Using CNN Transformer Hybrid Model with Cloud Integration	
(71) Name of Applicant : Dayananda Sagar University Address of Applicant: Associate Professor Computer Science and Technology Department Dayananda Sagar University Innovation Campus Administration & Main Academic office, Kaddu Cross, Hosur Road, and Devanagadda Halli Handballi Bengaluru - 562112 Bengaluru Name of Applicant : NA Address of Applicant : NA (72) Name of Invention Dayananda Sagar University Address of Applicant: Associate Professor Computer Science and Technology Department Dayananda Sagar University Innovation Campus Administration & Main Academic office, Kaddu Cross, Hosur Road, and Devanagadda Halli Handballi Bengaluru - 562112 Bengaluru Dr. Navya R Address of Applicant: Faculty of Department of Electrical and Electronics Engineering Dayananda Sagar University Devanagadda Halli Handballi Bengaluru South Karnataka India 562112 Bengaluru Dr. Navya R Address of Applicant: Faculty of Department of Computer Science and Engineering Dayananda Sagar University Devanagadda Halli Handballi Bengaluru South Karnataka India 562112 Bengaluru Dr. Navya R Address of Applicant: Associate Professor Organization / Institution: Dayananda Sagar Academy of Technology and Management Email id: navya_r@dsu.edu.in Mobile Number: 9880801887 Bengaluru Dr. Navya R Address of Applicant: Associate Professor Information Science and Engineering Department Dayananda Sagar Academy of Technology and Management Email id: navya_r@dsu.edu.in Mobile Number: 9880801887 Bengaluru Dr. Navya R Address of Applicant: Associate Professor Department of Information Science and Engineering Dayananda Sagar Academy of Technology and Management Email id: navya_r@dsu.edu.in Mobile Number: 9880801887 Bengaluru Dr. Navya R Address of Applicant: Associate Professor, ISE Department, Dayananda Sagar Academy of Technology and Management Email id: navya_r@dsu.edu.in Mobile Number: 9880801887 Bengaluru Dr. Navya R Address of Applicant: Associate Professor ISE Department Dayananda Sagar Academy of Technology and Management Email id: navya_r@dsu.edu.in Mobile Number: 9880801887 Bengaluru Dr. Navya R Address of Applicant: Associate Professor Computer Science and Technology Dayananda Sagar University Bengaluru south 562112 Bengaluru	
(57) Abstract: This invention discloses a real-time air quality forecasting system that uses a hybrid deep learning model integrating Convolutional Neural Networks (CNN) and Transformer architecture with self-attention mechanism. The system processes both spatial and temporal patterns in environmental data to accurately predict the Air Quality Index (AQI). It uses sensor inputs for key parameters like PM2.5, PM10, O3, NO2, SO2, CO, and temperature/humidity. The model is trained on historical data and validated using cross-validation techniques. The system provides real-time AQI forecasts and alerts, enabling proactive air quality management and public health interventions. The system is scalable and can be integrated with existing air quality monitoring networks for comprehensive urban air quality management.	

- Dr. Navya R, Assistant Professor, Department of Electronics and Communication Engineering, Dayananda Sagar University, Bengaluru, has been acknowledged by Springer Nature for her valuable contributions as a peer reviewer in 2025. She reviewed five manuscripts across two reputed journals—three for the Journal of Nanoparticle Research (05 August 2025) and two for Nanotechnology for Environmental Engineering (06 August 2025). This recognition reflects her commitment to advancing scientific research and upholding high standards in scholarly publishing within the domains of nanotechnology and environmental engineering.





Dr Owais Ahmad Shah
Assistant Professor
Department of ECE

- Dr. Owais Ahmad Shah, Assistant Professor from the Department of Electronics and Communication Engineering, Dayananda Sagar University, Bengaluru, has authored the chapter “VLSI and Neural Networks Integration in Industry 4.0: A Comprehensive Approach” in the newly released Springer book Convergence of Artificial Intelligence, Machine Learning, and the Internet of Things in Industry 4.0 Applications. The chapter, published in July 2025.

Home > [Convergence of Artificial Intelligence, Machine Learning, and the Internet of Things in Industry 4.0 Applications](#) > Chapter

VLSI and Neural Networks Integration in Industry 4.0: A Comprehensive Approach

Chapter | First Online: 30 July 2025

Owais Ahmad Shah

Department of Electronics and Communication Engineering, Dayananda Sagar University, Bengaluru, Karnataka, India

[Search all author publications](#) Search author on: [PubMed](#) | [Google Scholar](#)

[Owais Ahmad Shah](#), [Imran Ahmed Khan](#) & [Amrita Rai](#)

Part of the book series: [Transactions on Computer Systems and Networks \(\(TCSN\)\)](#)



Convergence of Artificial Intelligence, Machine Learning, and the Internet of Things in Industry 4.0 Applications

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Prof. Abhinav Karan
Assistant Professor
Department of ECE

- Mr. Abhinav Karan, Assistant Professor from the Department of Electronics and Communication Engineering, Dayananda Sagar University, Bengaluru, presented virtually at the 16th International IEEE Conference on Computing, Communication and Networking Technologies (ICCCNT 2025), held from 6th to 11th July 2025 at IIT Indore, Madhya Pradesh. His research, titled “Efficient Machine Learning Pipeline with Advanced Augmentation Technique to Predict Arc Formation in MIAB Welding” (Paper ID-5996), was featured in the conference that addressed emerging themes like AI, IoT, 6G, cybersecurity, and smart computing.





Prof. Jisy N K
Assistant Professor
Department of ECE

- Prof. Jisy N. K, Assistant Professor from the Department of Electronics and Communication Engineering, Dayananda Sagar University, Bengaluru and Deepak Saha (ENG21EC0026), student from the Department of Electronics and Communication Engineering, Dayananda Sagar University, Bengaluru presented their award-winning research, titled “Dual-Mode Robotic Arm Control System: Voice and Gesture Integration”, at the 3rd IEEE International Conference on Networks, Multimedia and Information Technology (NMITCON-2025), held from 1–2 August 2025 at Nitte Meenakshi Institute of Technology, Bengaluru.





Dr. Sneha Sharma
Assistant Professor
Department of ECE

- Dr. Sneha Sharma, Assistant Professor from the Department of Electronics and Communication Engineering, Dayananda Sagar University, Bengaluru, attended the 5 Day Faculty Development Program on "Next Generation Semiconductor Technology Advancement, Research and Applications" organized by Electronics and ICT Academy, NIT Patna from 23rd June to 27th June, 2025.



- Dr. Sneha Sharma, Assistant Professor from the Department of Electronics and Communication Engineering, Dayananda Sagar University, Bengaluru, has been honored with a Certificate of Reviewing from Optics & Laser Technology—a prestigious journal published by Elsevier—in recognition of her completion of two peer reviews in July 2025. This acknowledgment exemplifies her valuable contribution to scholarly peer review and advancing rigorous scientific evaluation.





Dr. Supraja Eduru
Assistant Professor
Department of ECE

- Dr. Supraja Eduru, Assistant Professor from the Department of Electronics and Communication Engineering, Dayananda Sagar University, Bengaluru, has received an International Fellowship offer for the Postdoctoral Fellowship in Disruptive Technology at UFSM, Brazil, South America, for the academic year 2025–26. This remarkable achievement reflects her dedication to advancing innovative research and her commitment to impactful scientific contributions on a global scale.





Prof. Puneeth S
Assistant Professor
Department of ECE

- Mr. Puneeth S, Assistant Professor, Department of Electronics & Communication Engineering, School of Engineering, Dayananda Sagar University, has successfully participated and completed the AICTE Training and Learning (ATAL) Academy Faculty Development Program on "SEMI-TECH: Semiconductor Innovation & Technology for Next-Gen Electronics" The program was conducted at SRM Institute of Science and Technology from 18th August 2025 to 23rd August 2025.





Dr. U. Pavan Kumar
Assistant Professor
Department of CSE (DS)

- Dr. U. Pavan Kumar as Reviewer for the 03rd IEEE International Conferences on Network, Multimedia, and Information Technology (NMITCON) 2025, organized by Nitte Meenakshi Institute of Technology, Bengaluru, held on 01st & 02nd August 2025 by IEEE Bangalore Section.



- Dr. U. Pavan Kumar has successfully completed the 2-Weeks online FDP on Artificial Intelligence organized by SkillDzire in collaboration with AICTE on 18th August 2025.





Prof. Shivamma D
Assistant Professor
Department of CSE (DS)

- Prof. Shivamma D has actively participated & completed the One Week Faculty Development Program on “Recent Advancements in Artificial Intelligence (AI) & ML” from 30th June to 04th July 2025. Organized by the Department of ECE, St. Joseph’s College of Engineering, in association with STEP-National Institute of Technology, Surathkal, and Pantech e Learning.



- Prof. Shivamma D has presented the research paper entitled “Automated wireless charging System for Electric Vehicles using Cloud Control” at the 1st IEEE International Conference on Recent Innovation in Science, Engineering and Technology (ICRISET 2025) held on 1st & 2nd August 2025.



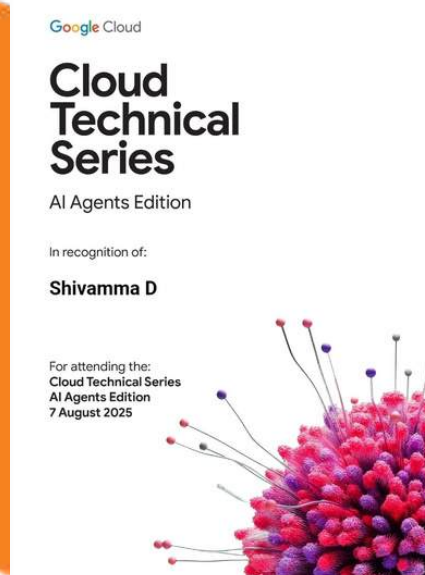
- Prof. Shivamma D as Reviewer for the 03rd IEEE International Conferences on Network, Multimedia, and Information Technology (NMITCON) 2025, organized by Nitte Meenakshi Institute of Technology, Bengaluru, held on 01st & 02nd August 2025 by IEEE Bangalore Section.



- Prof. Shivamma D has been awarded a certificate for AWS SUMMIT India Online on 26th June 2025.



- Prof. Shivamma D has attended the Cloud Technical Series AI Agents Edition, Organized by Google Cloud on 7th August 2025.





Prof. Godhandaraman T
Assistant Professor
Department of CSE (DS)

- Prof. Godhandaraman T published a Q2 Journal title, Blockchain-Enabled Medical Waste Management System for Enhanced Traceability, Safety, and Environmental Protection in the International Journal of Advances in Soft Computing and its Applications. July 2025.

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Blockchain-Enabled Medical Waste Management System for Enhanced Traceability, Safety and Environmental Protection

Lakshmanan M ^{1*}, Joshua Arockia Dhanraj^{1,2,3}, Sriramkumar R¹, Mude
Nagarjuna Naik⁴, Mithaguru¹ and Godhandaraman T¹

¹ Dayananda Sagar University, Bengaluru, Karnataka, India.

² Lovely Professional University, Phagwara, Punjab, India.

³ Chandigarh University, Mohali, Punjab, India.

e-mail: lakshmanan1909@gmail.com ^{1*}, joshuva1991@gmail.com ²,

sriramkumar2686@gmail.com ³, arjunnaik.m6@gmail.com ⁴,

mithaguru-aiml@dsu.edu.in ⁵ and gdraman84@gmail.com ⁶

Abstract

Medical waste management has grave issues concerning traceability, regulatory, and the environment. The traditional systems which are centered on manual record-keeping and the usage of centralized databases usually lead to data loss and unauthorized disposal along with inefficiencies. In this paper, the researcher comes up with a blockchain-integrated medical waste management system to support Internet of Things (IoT)-driven technologies and smart contracts to streamline a safe, autonomous, and anti-tampering system of waste handling. Smart bins enabled with IoT and fitted with GPS, ultrasonic and weight sensors collect live data regarding waste creation and conveyance and this information is transferred or relayed through Wi-Fi/LaRa/WAN to the edge/cloud gateways. This data is stored in a protected manner, verified on a permissioned blockchain and, most importantly, the most important tasks, such as scheduling a pickup and approving disposal are done within smart contracts. Experiment findings show 100 percent traceability accuracy, a 30 percent less time in disposal, and a 90 percent better regulatory compliance. The proposed framework will have three new contributions as compared to the existing systems, augmenting the route validation algorithm with a live tracking device in the form of GPS to detect and prevent deviation, a neural network-based model to pre-validate transactions and prevent fraud, and an optimization layer within the smart contract that will support the energy cost to ensure scalability of the proposed framework. The said features altogether allow smart, anticipatory, and regulation-conformant waste processing, which makes this work stand out of existing methods.

Keywords: Blockchain, Traceability, Medical Waste, Environmental Protection, GPS-based route validation.



Dr. Suresh Arumugam
Associate Professor
Department of CSE (DS)

- Dr. Suresh Arumugam as Reviewer for the 11th International Conference on Electronics, Computing and Communication Technologies, IEEE CONECT (July 10-13, 2025), organized by IEEE Bangalore Section at Sterling's Mac Hotel, Bangalore.





Dr. Shaila S. G
Professor and Chairperson
Department of CSE (DS)

- Dr Shaila S G has participated in the Six Days Faculty Development Program on “Biomaterials & Nanomaterials in Biomedical and Clinical Applications,” Organized by the Department of Medical Electronics Engineering from 14th July to 19th July 2025.





Dr. Santhosh Kumar G
Associate Professor
Department of CSE (DS)

- Dr. Santhosh Kumar G acts as a Resource Person of the 2 Day Workshop on Cyber Security at KLE College in association with Learn Online held on 09th & 10th August 2025.



- Dr. Santhosh Kumar G has successfully completed the 2-Weeks online FDP on Data Science organized by SkillDzire in collaboration with AICTE on 18th August 2025.





Prof. Souramita Bhowmik
Assistant Professor
Department of CSE (DS)

- Prof. Souramita Bhowmik has actively participated in the 5 Day Hands-on Faculty Development Program on “Entangle 25: A Hands-on workshop on Quantum Computing and its Emerging Paradigms,” Organized by the Department of Computer Science & Technology, Dayananda Sagar University, held from 06th to 10th August 2025.





Prof. Manjula M
Assistant Professor
Department of CSE (DS)

- Prof. Manjula M has presented the paper titled Multimodal Machine Learning Approach for Early Detection and Classification of Breast Cancer using Imaging and Genomic Data in the International Conference on Biomedical Engineering and Sustainable Healthcare, organized by the Department of Biomedical Engineering, Manipal Institute of Technology, Manipal Academy of Higher Education, Manipal, August 08 - 09, 2025.





Prof. Kartik S. Tandel
Assistant Professor
Department of ASE

- Prof Kartik S Tandel published a paper titled “Nonlinear Dynamics of Nitinol-Enhanced Carbon-Fiber-Reinforced Polymer Beam-Rod in Subsonic Flow” research article in the Journal of Aircraft.

Full-Length Papers

Nonlinear Dynamics of Nitinol-Enhanced Carbon-Fiber-Reinforced Polymer Beam-Rod in Subsonic Flow

Kartik S. Tandel, B. Rammohan, Kamalbabu Periasamy and P. R. Budarapu
Published Online: 6 Aug 2025 • <https://doi.org/10.2514/1.C038325>

Tools Share

Abstract

This study investigates the nonlinear aeroelastic behavior of carbon-fiber-reinforced polymer (CFRP) laminates embedded with prestressed pseudoelastic nitinol shape memory alloy (SMA) wires under subsonic flow. High-aspect-ratio beam specimens with 4-layer and 10-layer layups were tested in a subsonic wind tunnel across velocities from 10 to 31 m/s. Experimental analyses, including frequency response functions (FRFs), phase portraits, and tip displacement, were supported by numerical flutter simulations via the P-K method in MSC NASTRAN®. CFRP-SMA specimens exhibited superior dynamic performance compared to plain CFRP and aluminum-reinforced counterparts, showing frequency shifts up to 10 Hz and amplitude reductions of 20–40%. The 10-layer SMA specimen achieved peak resonance at 323 Hz, while flutter frequency in the 4-layer specimen dropped from 14.04 to 11.6 Hz. Heating the specimens to 45°C further enhanced damping, reducing amplitudes by an additional 25%. For predictive modeling, LSTM and GRU neural networks were trained on experimental data, achieving real-time displacement predictions with $R^2 > 0.999$, outperforming physics-informed-neural-network-based models. These findings highlight the effectiveness of SMA integration for passive flutter control and validate the use of deep learning in digital twin development for adaptive aerospace structures.

Figures References Related Details

JA
AIRCRAFT

Articles in Advance

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Information

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Dr. George Fernandez I
Associate Professor
Department of CSE



Dr. Revathi V
Associate Professor & Associate Chair
Department of CSE

- Dr. George Fernandez I, and Dr. Revathi V, Associate Professors, Department Computer of Science and Engineering served as a Session Chair for the technical presentations and contributed towards the successful organization of IEEE sponsored 1st International Conference on Recent Innovation in Science, Engineering and Technology (ICRISET 2025) held at Jeppiaar Institute of Technology Chennai, Tamil Nadu, India, on 1st & 2nd, August 2025.





Dr. George Fernandez I
Associate Professor
Department of CSE



Prof. Sowmya H D
Assistant Professor
Department of CSE



Prof. Soumadip Mondal
Assistant Professor
Department of CSE

- Dr George Fernandez I, Associate Professor, Prof. Sowmya H D and Prof. Soumadip Mondal, Assistant Professors, Department of CSE presented the research paper entitled "Intelligent Load Balancing for AI-Enhanced Edge-Cloud Architectures" in the IEEE Technical Sponsored 1st International Conference on Recent Innovation Science, Engineering and Technology (ICRISET 2025) Jeppiaar Institute of Technology Chennai, Tamil Nadu, India, on 1st & 2nd, August 2025.





Dr. George Fernandez I
Associate Professor
Department of CSE

- Dr. George Fernandez I, Associate Professor, Department of CSE, served as a Reviewer for the European Journal of Scientific Research and Reviews for reviewing 1 manuscript in 2025.





Dr. George Fernandez I
Associate Professor
Department of CSE



Prof. Diana George
Assistant Professor
Department of CSE

- Prof. Diana George, Assistant Professor and Dr George Fernandez I, Associate Professor, Department of CSE presented the research paper entitled “AI-Driven Integration of Multimodal Neuroimaging for Vision Defect Detection and Classification” in the IEEE Technical Sponsored 1st International Conference on Recent Innovation Science, Engineering and Technology (ICRISET 2025) Jeppiaar Institute of Technology Chennai, Tamil Nadu, India, on 1st & 2nd, August 2025.



- Dr George Fernandez I, Associate Professor, and Prof. Diana George, Assistant Professor, Department of CSE, published a patent titled “An Explainable AI-Based Multimodal Brain Imaging Framework for Early Detection and Classification of Neurological Vision Defects” by the Indian Patent Office under the application number 202541073666A on 22/08/2025.

The screenshot shows a patent application document with the following details:

- (12) PATENT APPLICATION PUBLICATION**
- (15) INDIA**
- (22) Date of Filing of Application:** 22/08/2025
- (43) Publication Date:** 22/08/2025
- (54) Title of the Invention:** An Explainable AI-Based Multimodal Brain Imaging Framework for Early Detection and Classification of Neurological Vision Defects
- (71) Name of Applicant:**
 - 1) Santosh Kumar Jankatti
 - 2) Diana George
- (72) Name of Inventor:** Diana George
- (73) Name of Applicant:** NA
- (74) Name of Applicant:** NA
- (75) Name of Applicant:** NA
- (51) International Classification:**
 - G01R0000000000, A61B0000000000, G01R0000000000, G01R0000000000, G01R0000000000
- (52) International Application No:** NA
- (53) International Filing Date:** NA
- (54) International Publication No:** NA
- (55) International Patent of Addition to Application Number:** NA
- (56) International Filing Date:** NA
- (57) International Application Number:** NA
- (58) International Filing Date:** NA

(57) Abstract:
The invention relates to an artificial intelligence-based diagnostic and predictive system for neurological vision disorders. It integrates two or more neuroimaging modalities selected from structural magnetic resonance imaging (MRI), functional MRI (fMRI), diffusion tensor imaging (DTI), magnetic resonance angiography (MRA), positron emission tomography (PET), electroencephalography (EEG) or equivalent scans. Each modality is processed using a dedicated neural encoder to extract relevant structural, functional and connectivity features. These features are combined through an attention-based fusion mechanism capable of weighting informative modalities while handling missing or noisy data. The system outputs (i) a classifier that detects and differentiates neurological vision disorders such as

- Prof. Diana George, Assistant Professor and Dr George Fernandez I, Associate Professor, Department of CSE presented the research paper entitled “Automated Wireless Charging System for Electric Vehicles Using Cloud Control” in the IEEE Technical Sponsored 1st International Conference on Recent Innovation Science, Engineering and Technology (ICRISET 2025) Jeppiaar Institute of Technology Chennai, Tamil Nadu, India, on 1st & 2nd, August 2025.





- [illegible]

- 99



Prof. Santhosh M
Assistant Professor
Department of CSE

- Prof. Santosh M, Assistant Professor, Department of CSE, attended a five-day FDP on "5G & Beyond: Bridging Tomorrow" from 28 July to 1 August 2025 in the NOKIA Bengaluru company under NBUC (Nokia Bengaluru University collaboration).





Dr. George Fernandez I
Associate Professor
Department of CSE



Dr. Arunkumar Gopu
Associate Professor
Department of CSE

- Dr. Arunkumar Gopu, Dr. George Fernandez I, Associate Professors, Department of CSE received a Consultancy project funding of Rs. 2lakhs as Co-principal Investigators for the project titled "a)Kinematics Synthesis of pantograph Mechanism using Matlab/Ansys/ Any Cad Software and b) CFD Analysis for Hr Pantograph @0 Degree and 180 Degree at Different Height and Different Field Speeds" from SPM India Limited, Bangalore Mysore Highway Ketaganahalli Village Bidadi Hobli Ramanagar Taluk during August 2025.

Service Order					
Invoice To SPM INDIA LIMITED KT NO 182 GDR TECH VILLE BLOCK A 30TH KM BANGALORE MYSORE HIGHWAY KETAGANAHALLI VILLAGE BIDADI HOBLI RAMANAGAR TALUK GSTIN/UIN: 29AAAC58272N2K State Name : Karnataka, Code : 29 Contact : +91 7829999015 E-Mail : purchase@spmil.com			Voucher No SO No: SO/24-25/243 Dated 24.03.2025 Work Order No : Supplier's Quotation No & Date Verbal discussion		
TERMS AND CONDITIONS 01. Price : Ex works / FOR destination 02. GST : As Applicable at the time of delivery & present GST is 18% 03. Payment Terms : 20% advance against OA against SO, 20% against fresting of specification with acceptance from SPMIL, 20% against 1st trial run at DSC , 40% against final result with handover of all deliverables. 04. Jurisdiction : All Disputes Subject to jurisdiction of Bengaluru / Ramanagara courts only 05. Project uration: 1 Year					
Supplier Dayananda Sagar University, Devarakaggalavalli, Horroahalli, Kamakapura Road, Ramanagara Dist, Karnataka-562112.					
Contact Person Dr. Gangeathar TG - Associate Professor Mobile 9535550222 Other details if any : Email: gangeathar-ar@dsu.edu.in					
Dr. Gangeathar TG Associate Professor Email: gangeathar-ar@dsu.edu.in		Dr. Pramod Kumar Naik Dr. Arun Gopu Dr. George Fernandez	AI & Robotics CSE	QTY 1	UNIT PRICE 2,00,000 PRICE 2,00,000.00
a)Kinematics Synthesis of pantograph Mechanism using Matlab/Ansys/ Any Cad Software: Hr Pantograph. b) CFD Analysis for Hr Pantograph @ 0 Degree and 180 Degree at Different height and Different Field Speeds.					
TOTAL		2,00,000.00			
Total basic amount of purchase order in INR : Rupees Two lakh only					
Prepared By:			Checked By:		
			For SPM INDIA LIMITED Authorised Signatory:		



Dr. Rajesh T. M
Associate Professor
Department of CSE



Dr. Praveen Kulkarni
Associate Professor
Department of CSE



Dr. Pannangi Naresh
Assistant Professor
Department of CSE



Dr. Renuka Devi M.N
Assistant Professor
Department of CSE



Prof. Kavyashree I Pattan
Assistant Professor
Department of CSE

- Dr. Rajesh T M, Dr. Praveen Kulkarni, Associate Professors, Dr. Naresh P, Dr. RenukaDevi M N, Prof. Kavyashree I Pattan, Assistant Professors, Mr. Tejasvi D (ENG22CS0482), final year CSE student presented a conference paper titled “AI-Driven Urine Analysis for Non-Invasive Kidney Stone Detection: A Machine Learning Approach” in the 3rd IEEE International Conference on Networks, Multimedia, and Information Technology (NMITCON-2025) is being organized at Nitte Meenakshi Institute of Technology, Bengaluru, INDIA, from 1st to 2nd August 2025, in association with the IEEE Bangalore Section.





Prof. Muthu Bala N
Assistant Professor
Department of CSE

- Prof. N. Muthu Bala, Assistant Professor, Department of Computer Science and Engineering published her research paper in the scopus indexed Q2 journal with the title “Hybrid Deep Learning Model Based Lung Cancer Prediction and Classification with OTSU Segmentation Method” in the journal “Journal of Wireless Mobile Networks, Ubiquitous Computing, and Dependable Applications (JoWUA)”, volume: 16, number: 2, pp. 75-94. during August 2025.

ISSN: 2093-5374 / E-ISSN: 2093-5382

Hybrid Deep Learning Model Based Lung Cancer Prediction and Classification with OTSU Segmentation Method

N. Muthu Bala^{1*}, and Dr.K.S. Kannan²

^{1*}Assistant Professor, Department of Computer Science and Engineering, Dayananda Sagar University, Bengaluru, India. muthubala.pbd@gmail.com, <https://orcid.org/0009-0000-5172-5712>

²Associate Professor, Department of Computer Science and Engineering, Kalasalingam Academy of Research and Education, Krishnankoil, Tamil Nadu, India. saikannan2012@gmail.com, <https://orcid.org/0000-0002-1304-9829>

Received: February 08, 2025; Revised: March 28, 2025; Accepted: May 05, 2025; Published: June 30, 2025

Abstract

The death rate for people diagnosed with Lung Cancer (LC) is rather high. Patients' lives may be saved if this illness is detected early and the stage of lung cancer is correctly identified. To determine whether a patient has lung cancer, traditional approaches use manual CT scans. This study presents a new approach to cancer cell segmentation and classification utilizing a Hybrid Deep Learning Neural Network (HDL) as a means of making an accurate and early diagnosis. What makes an HNN unique is its combination of the OTSU segmentation model with a Convolutional Neural Network (CNN) for feature extraction from CT image datasets and an enhanced LSTM: RNN classification model for improved classification accuracy. Prioritizing good health and well-being is essential for living a fulfilling and balanced life, enabling individuals to thrive both physically and mentally. The proposed method also makes it possible to distinguish between benign and cancerous tumors. We conducted a simulation experiment using the IQ-OTH/NCCD LC dataset and measured outcomes using the various performance metrics. According to the findings, the assessment criteria significantly reduce the classification time by around 50% while maintaining nearly the same classification impact. Based on the results of the simulations, our solution outperforms the classic classification algorithm in terms of convergence speed and time consumption, all while maintaining high classification accuracy. The study provides an attractive tool for quick image classification with great real-time performance.

Keywords: Lung Cancer, Segmentation, Classification, OTSU, Deep Learning, CNN, Good Health and Well-Being

1 Introduction

There is an immediate need to diagnose lung cancers at an initial stage to address disease since the number of cases has increased (Jones & Baylin, 2007; Nayak & Raghatate, 2024) (National Cancer Institute, 2021). Lung cancer survival rates and patient outcomes have improved due to advances in early



Prof. Mala B A
Assistant Professor
Department of CSE

- Prof. Mala B A, Assistant Professor, Department of Computer Science and Engineering, has actively participated in the Online Faculty Development Program (FDP) on “Quantum Computing: Foundations, Algorithms and Applications” conducted from August 4th to August 9th, 2025, organized by Guru Nanak Institutions, Hyderabad.



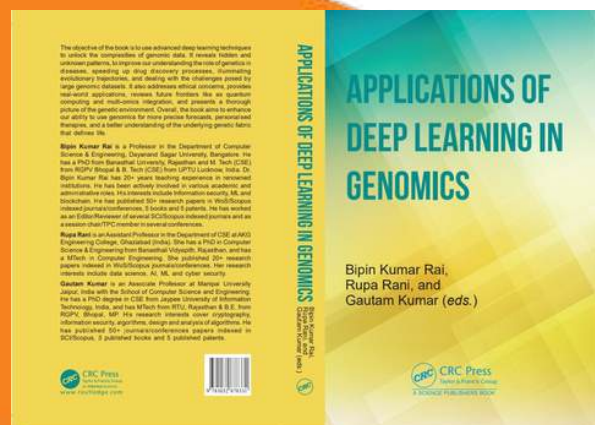


Dr. Bipin Kumar Rai
Professor & Associate Chair
Department of CSE

- Dr. Bipin Kumar Rai, Professor, Department of CSE, have taken a session on "AI and Blockchain for Healthcare" in an International Invited Talk on "GENERATIVE AI IN BUSINESS: Bridging Sustainability, Health and Education" at Holy Cross College (Autonomous), Tiruchirappalli Hosted by the School of Management Studies, Department of Commerce – Computer Applications during 4th August 2025. During his talk, he shared how cutting-edge technologies are transforming patient care, data security, and digital health systems, and also bridging innovation and healthcare through tech-driven solutions.



- Dr. Bipin Kumar Rai, Professor, Department of CSE, has published an edited Book titled "Applications of Deep Learning in Genomics" by the publisher Routledge CRC Press during August 2025 with ISBN 9781032878331





Dr. Rajesh T. M
Associate Professor
Department of CSE



Prof. Bharath M B
Assistant Professor
Department of CSE



Prof. Pooja Shree H R
Assistant Professor
Department of CSE

- Dr. Rajesh T M, Associate Professor, Prof. Bharath M B and Prof. Pooja Shree H R, Assistant Professors, are successfully participated in the Workshop on "Crafting Research Excellence: Where to Publish, LaTeX & Research Metrics", held from 4th to 6th August 2025, organized by the IEEE Signal Processing Society (SPS) Bangalore Chapter and IEEE Women in Engineering (WIE) Affinity Group, Bangalore Section, as a curtain raiser event for ICWITE 2025.





Dr. Shashikiran V
Associate Professor
Department of CSE

- Dr. Shashikiran Venkatesha, Associate Professor, Department of CSE, has successfully presented a paper titled “Voice E-Mailer System with Face Recognition using Machine Learning Techniques” at the 3rd International Conference on Sustainable Computing and Data Communication Systems (ICSCDS-2025) organized by Erode Sengunthar Engineering College, Erode, Tamil Nadu, India, on August 6-8, August 2025.





Dr. Natarajan Venkateswaran
Professor of Practice
Department of CSE



Prof. Naitik S T
Assistant Professor
Department of CSE

- Dr. Natarajan Venkateswaran, Professor of Practice, and Dr. Naitik S T, Assistant Professor, Department of CSE, participated in the Faculty Development Program “Entangle 2025: A Hands-on Workshop on Quantum Computing and its Emerging Paradigms” from 6th to 10th August 2025, organized by the Department of Computer Science & Technology, Dayananda Sagar University, Bengaluru.





Prof. Kavyashree I Pattan
Assistant Professor
Department of CSE



Dr. Renuka Devi M.N
Assistant Professor
Department of CSE



Prof. Pooja Shree H R
Assistant Professor
Department of CSE



Prof. Nandini K
Assistant Professor
Department of CSE



Prof. Arpita Paria
Assistant Professor
Department of CSE



Dr. Revathi V
Associate Professor &
Associate Chair
Department of CSE

- Prof. Kavyashree I Pattan, Dr. Renukadevi M.N, Prof. Pooja Shree H R, Prof. Nandini K, Prof. Arpita Paria, Assistant Professor, Dr. Revathi V, Associate Professor, presented a paper titled “NeuroGaitAssist: Advanced Gait Analysis for Detecting Neurological Disorders and Aiding Paralysis Patients” at the 9th International Conference on Inventive Systems and Control (ICISC-2025) organized by the JCT College of Engineering and Technology, Coimbatore, Tamil Nadu, India 12-13, August 2025.





Dr. Gokulakrishnan S
Assistant Professor
Department of CSE

- Dr. S Gokulakrishnan, Assistant Professor, Department of CSE, has successfully completed the AICTE-evaluated 2-Week Patent Course organized by Turnip Innovations from 4th to 17th August 2025.



- Dr. S Gokulakrishnan, Assistant Professor, Department of CSE, has completed the FDP on “Generative AI” held from 4th to 8th August 2025, organized by Brainovision Solutions India Pvt. Ltd, in Collaboration with AICTE, hosted by the Army Institute of Technology.





Dr. Basavaraj N Hiremath
Professor
Department of CSE



Dr. George Fernandez I
Associate Professor
Department of CSE

- Dr Basavaraj Hiremath, Professor, and Dr George Fernandez I, Associate Professor, Department of CSE, published a research paper titled “Turkish Raisin Classification Through Deep Learning Prediction Models” in the Scopus-indexed Springer LNNS series “Data Mining and Information Security” Proceedings of ICDMIS 2024, Volume 5, ISBN 978-981-96-6065-0.

Turkish Raisin Classification Through Deep Learning Prediction Models



Sindhu P. Menon, Pramodkumar Naik, Basavaraj N. Hiremath, D. Shivamma, and George Fernandez

Abstract The primary aim of this work is to classify dry grapes using Machine Learning techniques. The model attempts at classifying two raisin types which is highly famous and used in Turkey namely Kecimen and Besni. This classification is done using various features such as perimeter of the raisin, its major and minor axis, the area of the raisin followed by eccentricity and various other geometrical characteristics. Classifiers like SVM, KNN, Naïve Bayes and Decision tree are being used wherein they have achieved 92, 82.4, 86.6 and 85.6%, respectively. It was observed that SVM yielded the highest accuracy after appropriate, training, testing and cross validation was done.

1 Introduction

Dried grapes are popularly known as raisins. This name is obtained after it undergoes a dehydration process which is done either artificially through dehydrators or naturally under the sun. Raisins come with numerous health benefits and it is also popular due to its sweet flavour. Raisins are dried grapes that have undergone a dehydration process, either naturally by being sun-dried or through artificial methods like dehydrators.

Machine vision techniques like ANN were used by Bisri et al. in [1] for classifying the Raisins. Hai et al. concentrated on utilising machine learning techniques, partic-



Prof. Sushma D S
Assistant Professor
Department of CSE

- Prof. Sushma D S, Assistant Professor, Department of CSE presented a two papers titled “Brain tumour detection” and “Osteoporosis detection using deep learning” at the third International Conference on Intelligent and Secure Engineering Solutions (CISES-2025) during 11th to 13th August 2025 organized by Department of Master of Computer Applications, G.L. Bajaj Institute of Technology & Management, Greater Noida, U.P, India.





Dr. Sivananda Reddy
Associate Professor
Department of CSE

- Dr. Sivananda Reddy, Associate Professor, Department of CSE published a patent titled “Artificial Intelligence-Based Tool for Automated Analysis of Histopathological Images in Cancer Diagnosis” by the Indian Patent Office under the application number 202541075012A on 22/08/2025.

Application Details	
APPLICATION NUMBER	202541075012
APPLICATION TYPE	ORDINARY APPLICATION
DATE OF FILING	07/08/2025
APPLICANT NAME	1. N.SIVA RAMA KRISHNA PRASAD 2. VJAYASANTHI NARINE 3. DR CHEPURU SAMSON 4. DR PASAM VENKATESHWARRAO 5. DR.A. UGENDHAR 6. K. MANJUSHA 7. DR MOHAMMED ZAHEER AHMED 8. DR. G. NAGA RAMA DEVI 9. DR. SIVANANDA LAHARI REDDY,ELUCHERLA
TITLE OF INVENTION	Artificial Intelligence-Based Tool for Automated Analysis of Histopathological Images in Cancer Diagnosis
FIELD OF INVENTION	COMPUTER SCIENCE
E-MAIL (As Per Record)	patents@pna-ip.com
ADDITIONAL E-MAIL (As Per Record)	
E-MAIL (UPDATED Online)	
PRIORITY DATE	
REQUEST FOR EXAMINATION DATE	--
PUBLICATION DATE (IPS 11A)	22/08/2025



Dr. Rahul Kumar
Assistant Professor
Department of ME

- Dr. Rahul Kumar, Assistant Professor, Department of Mechanical Engineering, has undergone an enriched learning experience by attending a 10-day faculty development program (FDP) on Experimental and Simulation-based approaches in Additive Manufacturing, organized by IIT BHU, Varanasi.



Dr. Ravitej Y P
Assistant Professor
Department of ME

- Dr. Ravitej Yellampalli Prakash, Department of Mechanical Engineering, published his research paper in the Scopus-indexed Q2 journal with the title “Experimental, FEA, and Machine Learning Studies on Wear Behavior of LM13 Aluminum Hybrid Composites Reinforced with Zircon and Graphite” in the journal Materials Today: Proceedings, Volume 97, pp. 387–395. DOI: 10.1016/j.matpr.2024.12.345, during August 2025.

Restricted access | Research article | First published online August 17, 2025 | [Request permissions](#)

Experimental, FEA, and machine learning studies on wear behavior of LM13 aluminum hybrid composites reinforced with zircon and graphite

[Ravitej Yellampalli Prakash](#), [Bommishetty Venkata Naga Ramakumar, I--L](#), and [Adarsha Hiriyannaiah](#) | [View all authors and affiliations](#)

[OnlineFirst](#) | <https://doi.org/10.1177/13506501251367549>

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Abstract

This paper examines applied load and zircon reinforcement influence on LM13 alloy composites' wear behavior. LM13 was reinforced with 3 wt.% graphite with 3, 6, 9, and 12 weight percent of zircon utilizing a stir casting technique with a chill end to achieve unidirectional solidification. Wear tests were conducted on specimen's chill end using a pin-on-disc apparatus under loads of 30 N, to 70 N in steps of 10 N incremental. The results indicated that when the amount of zircon went up, the wear rate dropped, reaching a minimum at 9 wt.% zircon, then slightly increasing at 12 wt.%. Specifically, wear rate reduced from $4.2 \times 10^{-3} \text{ mm}^3/\text{Nm}$ at 3 wt.% zircon to $2.7 \times 10^{-3} \text{ mm}^3/\text{Nm}$ at 9 wt.% zircon, before rising to $3.5 \times 10^{-3} \text{ mm}^3/\text{Nm}$ at 12 wt.%, establishing 9 wt.% zircon as the optimum reinforcement. Finite Element Analysis (FEA) had been used to simulate wear behavior, and its predictions aligned well with experimental data, with deviations under 5%. Both experimental and FEA results confirmed that wear rate increases proportionally with applied load. Additionally, machine learning techniques were employed to validate the observed trends, enhancing the reliability of the findings. Microstructural analysis through Field Emission Scanning Electron Microscopy showed evidence of plastic deformation and delamination at higher stress levels, compromising material integrity. Notably, the composite with 9 wt.% zircon exhibited reduced wear deformation and minimal microstructural damage, confirming its effectiveness in improving wear resistance.



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Dr. Naseem Khayum
Assistant Professor
Department of ME

- Dr. Naseem Khayum, Department of Mechanical Engineering, published his research paper in the Scopus-indexed Q2 journal Journal of Renewable and Sustainable Energy (Volume 17, Issue 4, July 2025) with the title “Hybrid solar-membrane cryogenic CO₂ separation for coal power plants: An energy and sustainability perspective”. The paper presents an innovative approach to carbon capture, addressing global challenges in reducing CO₂ emissions for climate change mitigation.





Dr. K. Sudha Deepthi
Manager - Bosch Rexroth lab
Department of ME

- Dr. K. Sudha Deepthi has successfully completed her Ph.D. on 14th August, 2025, from the Department of Mechanical Engineering, School of Engineering, Dayananda Sagar University under the supervision of Dr. Kamalbabu P, and Dr. Rammohan Bhanumurthy, Professor, RV University, co-supervisor. Her thesis is entitled “ Innovative Aeroservoelasticity Control through Digital Image Correlation and Image Processing in PLC-Driven Digital Twin Models”.





SCHOOL OF ENGINEERING



STUDENT ACHIEVEMENTS

Placement Highlights – 2025 Batch(C.S.T)

- Mr. Lokesh J (ENG22CT0012) is placed at HALMA India with a CTC of 4.8 LPA.
- Ms. Dudi Gnana Prasoon (ENG22CT0028) secured placement in AXA Global Business Services with a package of 6–10 LPA.
- Ms. Srushti S (ENG22CT0019) has been placed at Nokia with a CTC of 8.25 LPA.
- Mr. Danesh H M (ENG22CT0005) got placed in Champion InfoMetric Pvt. Ltd. with a package of 7 LPA.
- Mr. Rishav Aditya (ENG22CT0032) got placed in Elythra Edufyi Tech Solutions with a package of 7 LPA.
- Mr. Nishant Sreekumar, ENG23RA0039, 5th sem AI & Robotics, has successfully completed a two-month internship as a Software Development Engineer (SDE) at Bluestock Fintech from June 1 to July 30, 2025. Nishant contributed to fintech software solutions.



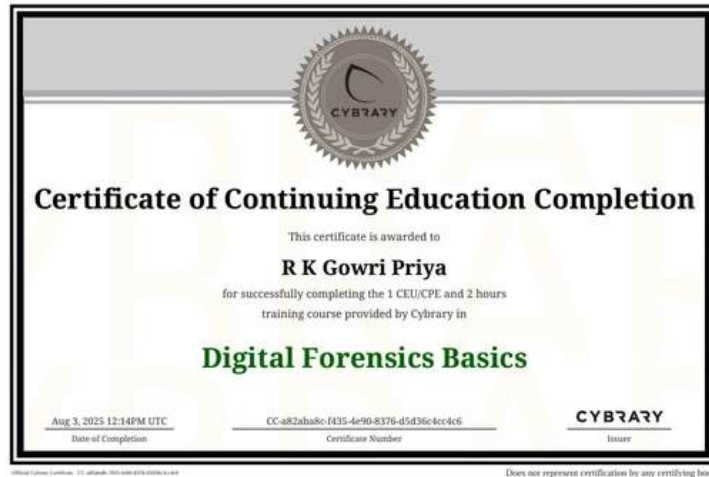
- Mr. Saurav Pandey(ENG22CY0039) has successfully completed the eJPT (eLearn Security Junior Penetration Tester) certification on July 31, 2025, by INE Security. The eJPT certification validates foundational knowledge and hands-on skills in penetration testing, including network security, information gathering, vulnerability assessment, exploitation, and basic post-exploitation techniques.



- Mr. Manav Rathod(ENG23CY0025) has successfully completed the eJPT (eLearn Security Junior Penetration Tester) certification on August 1, 2025, by INE Security. The eJPT certification validates foundational knowledge and hands-on skills in penetration testing, including network security, information gathering, vulnerability assessment, exploitation, and basic post-exploitation techniques.



- Ms. R K Gowri Priya(ENG23CY0034) has successfully completed a continuing education course in Digital Forensics Basics, offered by Cybrary. This certification, awarded on August 3, 2025, recognizes her completion of a 2-hour training program and achievement of 1 CEU/CPE credit. The course focused on foundational principles of digital forensics—an essential discipline for identifying, preserving, analyzing, and presenting digital evidence in cybersecurity and cybercrime investigations.



- Mr. Aman Nayan(ENG23CY0004) has successfully completed the Blue Team Junior Analyst training pathway offered by Security Blue Team on August 6, 2025. This certification validates comprehensive entry-level expertise and practical skills in critical areas of cybersecurity, including: Open-Source Intelligence (OSINT), Digital Forensics, Vulnerability Management, Dark Web Operations, Threat Hunting, and Network Analysis



- Mr. V. Mageshwaran (ENG20EC0112) from the Department of Electronics and Communication Engineering, School of Engineering, Dayananda Sagar University, has achieved remarkable success in the startup ecosystem within just a year of graduation. As a Co-Founding Member, Shareholder, and Head of R&D & Operations at Flofly Technologies Pvt. Ltd., a drone manufacturing startup, he has played a key role in driving innovation and growth. Under his leadership, the company participated in the Startup Governance Conclave and was honored with the DAC – Startup Business Sustainability & Innovation Award 2025 by the Government of Karnataka. We congratulate Mr. Mageshwaran on this outstanding achievement and wish him continued success in his entrepreneurial journey



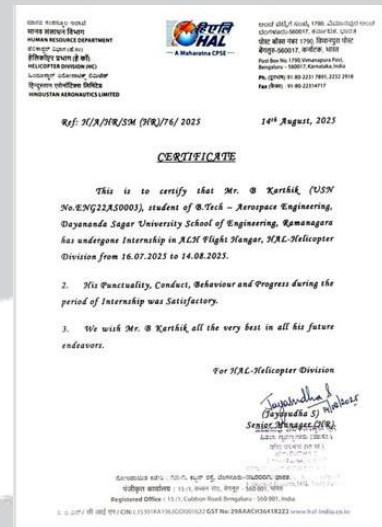
- Mr. Shashi Kumar C - ENG23DS0034 have visited to OLA GIGA FACTORY Pochampalli, Tamil Nadu on 15th August 2025 for the study of new Bharath cell (4680) cells designed and made in India for EV's simultaneously taken part in ola Sankalp event 2025 launch of ola super bikes and the Bhavesh Aggarwal CEO of ola introduced about rare earth metal ferrite motors which will be used in their upcoming ola scooty and super bikes.



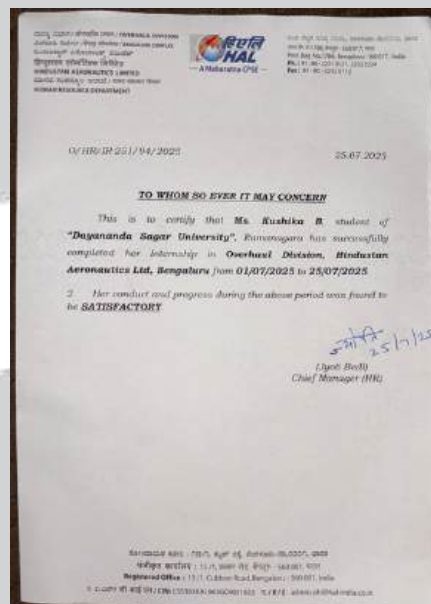
- Mr. Venkat Nivas Reddy - ENG22DS0022 was part of a 31-member DSU MUN delegation that represented SOE-DSU at MAHE MUN 2025 in Udupi from 15th to 17th August, where 4 delegates from the team received special recognition.



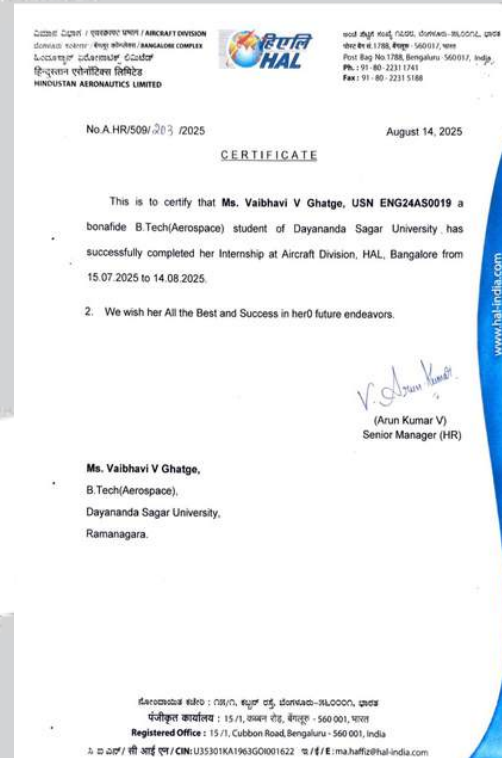
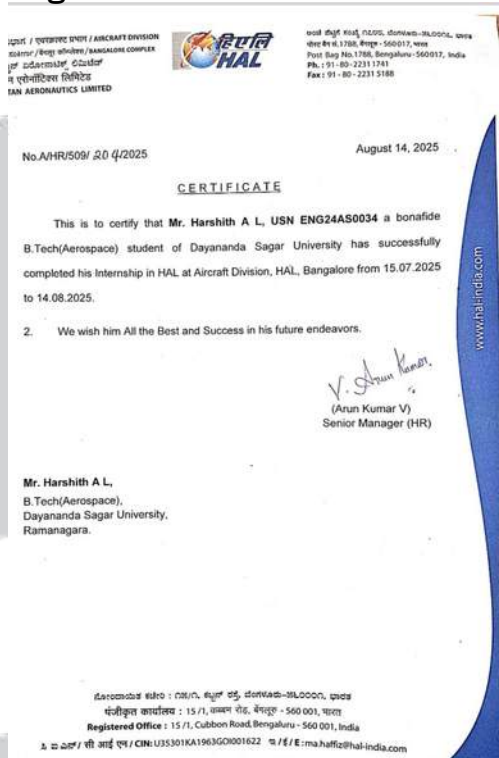
- Mr B Kartik (ENG22AS0003), Mr Nikhil NP (ENG22AS0011), Mr Mithun (ENG22AS0034), students from the Department of Aerospace Engineering completed an internship at HAL Helicopter Division.



- Ms Kushika B (ENG22AS0009) from the Department of Aerospace Engineering completed an internship at Hindustan Aeronautics Limited (HAL), Overhaul Division, Bengaluru.



- Ms. Vaibhavi V Ghatge (ENG24AS0019), Mr Harshith AL (ENG24AS0034), students from the department of Aerospace Engineering completed an internship at the Aircraft Division, HAL, Bangalore.



- Mr. Kalvin Alfred R S (ENG24AS0068) from the Department of Aerospace Engineering, Dayananda Sagar University has successfully completed his internship at GalaxyZ Space Private Limited



- The final-year Aerospace Engineering students of Dayananda Sagar University—Rahul Bhargav (ENG22AS0027), Tejas A. S. (ENG22AS0045), Adnan Likhayat Pathan (ENG22AS0035), Srilaxmi Shenoy (ENG22AS0040), Krish Agrawal (ENG22AS0031), Khyati Choubey (ENG22AS0030), Ashvani Choudary (ENG22AS0024), Jaiman Khandelwal, (ENG22AS0026), Vishesh Soni (ENG23AS5001), and Aagnayee Biswas (ENG22AS0022),—actively participated in the Aerospace Conference hosted by Saranathan College of Engineering, Tamil Nadu, on 28th August 2025. Their participation highlighted the department's strong focus on research-driven learning, technical innovation, and academic excellence, further reinforcing the university's commitment to nurturing future-ready aerospace professionals.



- Mr. Giridhar S T (ENG23CSE004), M. Tech Student, Department of CSE, Dr Meenakshi Malhotra, Associate Professor and Dr. Girisha G S, Professor, Department of CSE presented the research paper entitled “LLM-Based Dysarthric Communication Aid with Text and Voice Output” in the IEEE Technical Sponsored 1st International Conference on Recent Innovation Science, Engineering and Technology (ICRISET 2025) Jeppiaar Institute of Technology Chennai, Tamil Nadu, India, on 1st & 2nd, August 2025.



- Mr. K Sai Harsha Vardhan (ENG23CSE006), M. Tech Student, Department of CSE Dr George Fernandez I, Associate Professor and Dr. Girisha G S, Professor, Department of CSE presented the research paper entitled “Medical Imaging of Automated Diagnosis with Deep Learning Cloud-Based Framework” in the IEEE Technical Sponsored 1st International Conference on Recent Innovation Science, Engineering and Technology (ICRISET 2025) Jeppiaar Institute of Technology Chennai, Tamil Nadu, India, on 1st & 2nd, August 2025.





- Mr. Nandeesh P Math (ENG21CS0263), Mr. Venkatesh P (ENG21CS0471), Mr. Samarth S S (ENG21CS0356), Ms. Sree Vibha G (ENG21CS0412), 2025 passed out Students, Department of CSE under the guidance of Dr. Sasikala N, Assistant Professor, Department of CSE participated and won “Best Project of the year” for the project titled “PAWSCAN: AI-Powered Early Detection of Skin Diseases in Stray Dogs” during 48th Series of the KSCST State-Level Poster Presentation and Exhibition, held at Jawaharlal Nehru New College of Engineering, Shivamogga on 1st and 2nd August 2025.



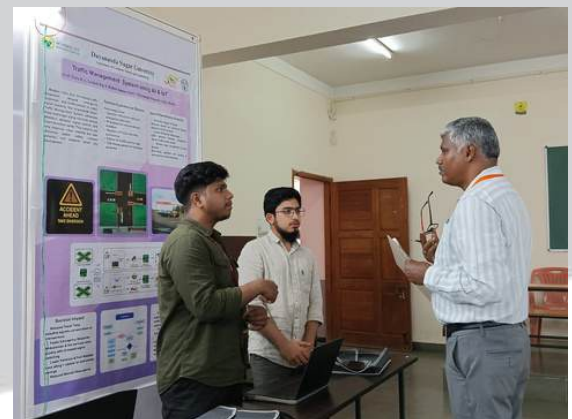


- Ms. Saanchitha D (ENG21CS0350), Mr. Rachit Kumar A(ENG21CS0317), Mr. Savinay Nambiar (ENG21CS0368) and Mr. Srinivas Reddy D (ENG21CS0415) 2025 passed out Students, Department of CSE under the guidance of Dr. Renuka Devi M. N, Assistant Professor, Department of CSE participated and won “Best Project of the year” for the project titled “Cardiac Arrhythmia Detection” during 48th Series of the KSCST State-Level Poster Presentation and Exhibition, held at Jawaharlal Nehru New College of Engineering, Shivamogga on 1st and 2nd August 2025.





- Mr. Shariq (ENG21CS0374), Mr. Yathish Raj S (ENG22CS1044), Mr. Mohammad Mujeeb M Attar (ENG21CS0231), and Mr. Rohan Annaso Patil (ENG21CS0340), 2025 passed out Students, under the guidance of Prof. Mala B A, Assistant Professor, Department of CSE participated in the poster presentation for the project titled “Traffic Management System using AI & IoT” during 48th Series of the KSCST State-Level Poster Presentation and Exhibition, held at Jawaharlal Nehru New College of Engineering, Shivamogga on 1st and 2nd August 2025.



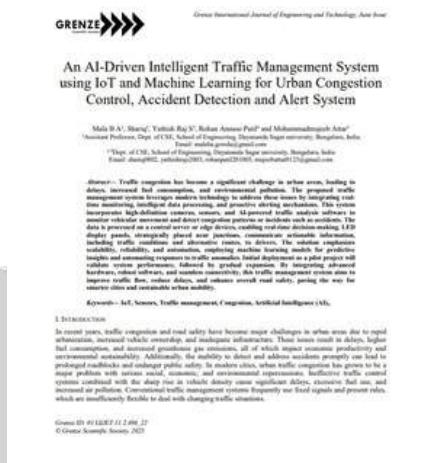
- Mr. Lohith N H (ENG21CS0206), Ms. Raksha R (ENG21CS0321), Ms. Priya Kumari (ENG21CS0308) and Mr. Karthik MC (ENG21CS0207), 2025 passed out Students, under the guidance of Dr. Arunkumar Gopu, Associate Professor, Department of CSE participated in the project exhibition for the project titled “Insight Vision” during 48th Series of the KSCST State-Level Poster Presentation and Exhibition, held at Jawaharlal Nehru New College of Engineering, Shivamogga on 1st and 2nd August 2025.



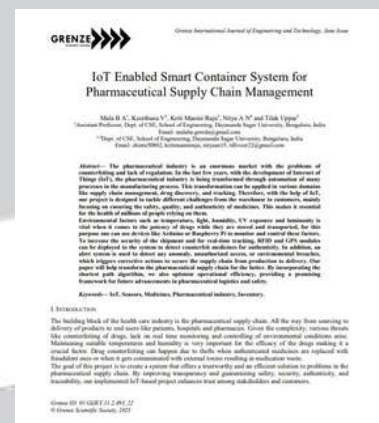
- Ms. Ambika (ENG22CS0016), Ms. Apoorva K R (ENG22CS0022), Ms. Asha Suresh Kodad (ENG22CS0025) and Ms. Tejaswini (ENG22CS0035), final year CSE students under the guidance of Dr. Rajesh T M, Associate Professor, Department of CSE Presented a paper and Awarded the “BEST PAPER PRESENTER” Award for the paper titled “Overcoming illumination challenges in information retrieval for Multifacted background images” in the 3rd IEEE International Conferences on Network, Multimedia, and Information Technology (NMITCON-2025) in association with the IEEE Bangalore Section organized by Nitte Meenakshi Institute Of Technology, Bengaluru during 1st and 2nd August 2025.



- Mr. Mohammad Mujeeb M Attar (ENG21CS0231), Mr. Rohan Annaso Patil (ENG21CS0340), Mr. Shariq (ENG21CS0374) and Mr. Yathish Raj S (ENG22CS1044) 2025 passed out Students, Department of CSE published 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 Grenze International Journal of Engineering and Technology, during August 2025, which was presented in the Scopus indexed Hinweis Third International Conference on Advanced Research in Engineering and Technology (ARET) Kolkata.



- Ms. Keerthana V (ENG21CS0186), Ms. Kriti Manini Raju (ENG21CS0191), Ms. Nitya A N (ENG21CS0274) and Mr. Tilak Uppar (ENG21CS0447) 2025 passed out Students, Department of CSE published 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 Grenze International Journal of Engineering and Technology, during August 2025, which was presented in the Scopus indexed Hinweis Third International Conference on Advanced Research in Engineering and Technology (ARET) Kolkata.



- Mr. Nandeesh P Math (ENG21CS0263), Mr. Samarth S S (ENG21CS0356), Ms. Sree Vibha G (ENG21CS0412) and Mr. Venkatesh P (ENG21CS0471) 2025 passed out Students, Department of CSE published 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 Grenze International Journal of Engineering and Technology, during August 2025, which was presented in the Scopus indexed Hinweis Third International Conference on Advanced Research in Engineering and Technology (ARET) Kolkata.



- Mr. Darshan R (ENG22CS1024), Mr. Dhanush H S (ENG22CS1025), Ms. Usha Shree P (ENG21CS0453), Mr. Sandeep M Sarangamath- (ENG22CS1039) 2025 passed out Students, Department of CSE published 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 Grenze International Journal of Engineering and Technology, during August 2025, which was presented in the Scopus indexed Hinweis Third International Conference on Advanced Research in Engineering and Technology (ARET) Kolkata.



- Mr. Upamanyu Shrishanth M (ENG21CS0452), Mr. Rolwin Menezes (ENG21CS0339), Mr. Rohith Bedre (ENG21CS0338) and Mr. Puneeth M (ENG21CS0311) 2025 passed out Students, Department of CSE published a paper titled “Video event localization and summarization”, under the guidance of Prof. Arpita Paria, Assistant Professor, Department of CSE in the Grenze International Journal of Engineering and Technology, during August 2025, which was presented in the Scopus indexed Hinweis Third International Conference on Advanced Research in Engineering and Technology (ARET) Kolkata.



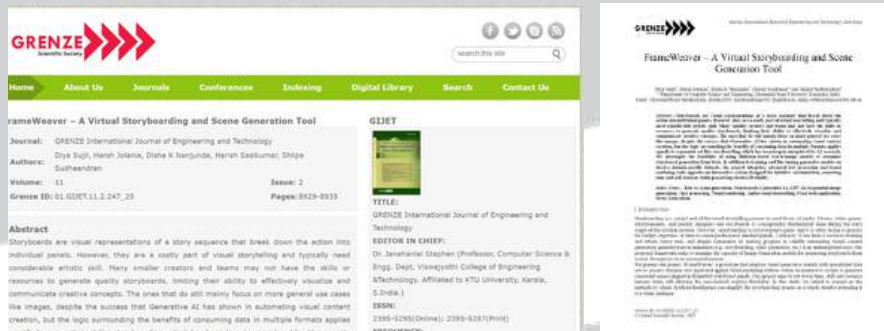
- Mr. Sidmal Madhan (ENG23CS0189), 3rd year CSE student as part of Team Best Shot participated in the “Prompt Builder with Gen AI” event organized by CertifyO during 1st August 2025.



- Ms. Pihu Mittal (ENG22CS0391), Mr. Vaibhav V.B (ENG22CS0491), Mr. Vishal S (ENG22CS0505) final year CSE students under the guidance of Dr Meenakshi Malhotra, Associate Professor presented the research paper entitled “ AI-driven Academic assistance: Fine tuning LLM for ARXIV” in the IEEE Technical Sponsored 1st International Conference on Recent Innovation Science, Engineering and Technology (ICRISET 2025) Jeppiaar Institute of Technology Chennai, Tamil Nadu, India, on 1st & 2nd, August 2025.



- Ms. Disha K Nanjunda (ENG21CS0120), Ms. Diya Sujil (ENG21CS0125), Mr. Harish Sasikumar (ENG21CS0147) and Mr. Harsh Jolania(ENG21CS0148) 2025 passed out CSE Students has published a paper entitled “FrameWeaver - A Virtual Storyboarding and Scene Generation Tool”, under the guidance of Prof. Shilpa Sudheendran, Assistant Professor, in the Grenze International Journal of Engineering and Technology, during August 2025, which was presented in the Scopus indexed the Hinweis Third International Conference on Advances in Information, Telecommunication and Computing (AITC) .



- Mr. Kumar Ayush(ENG22CS0347), Ms. Medha Sree Anand(ENG22CS0562), and Mr. Abhay prakash choubey (ENG22CS0221), final year CSE students under the guidance of Prof. Shilpa Sudheendran, Assistant Professor, has successfully presented a paper entitled Auralens: An Intelligent Hearing Companion for the Hearing Impaired using YOLO and Tensor Flow at the 5th International Conference on Soft Computing for Security Applications (ICSCSA-2025) organised by Dhirajlal Gandhi College of Technology, Salem, Tamilnadu on 4th-6th August 2025.



- Ms. B R Lakshmi (ENG24CSE009) , M Tech 2nd semester Student, Department of CSE, Dr. Rajesh T M, Associate Professor, Dr. Renuka Devi M N,, Prof. Kavyashree I Pattan, Dr P. Naresh, Prof. Yashpal Gupta S, Assistant professors presented a paper titled “Automated Detection of Phishing Website Using Machine Learning Techniques” at the 9th International Conference on Inventive Systems and Control (ICISC-2025) organized by the JCT College of Engineering and Technology, Coimbatore, Tamil Nadu, India 12-13, August 2025.



- Mr. Mohammed Amirul Aman (ENG22CS0104), Mr. Raghavendragoud (ENG22CS0127), Mr. Raja Mohamad(ENG22CS0131) and Mr. Puneeth (ENG22CS0125) Final Year CSE Students under the guidance of Prof. Kavyashree I Pattan, Assistant Professor, presented a paper titled “Multi-Disease Detection Using Hybrid Models and Transfer Learning:Cardiovascular,Pulmonary,Retinal and Renal” at the 9th International Conference on Inventive Systems and Control (ICISC-2025) organized by the JCT College of Engineering and Technology, Coimbatore, Tamil Nadu, India 12-13, August 2025.



- Mr. Chandan N S (ENG22CS0038), Ms. Divya Neelappa Marangappanavar (ENG22CS0053), Mr. Honna Reddy G (ENG22CS0071), Ms. Indira S (ENG22CS0073), Final Year CSE Students under the guidance of Prof. Shilpa Sudheendran, Assistant Professor, presented a paper titled “Deep Learning based Goiter Detection and classification for Automated Severity Assessment” at the 9th International Conference on Inventive Systems and Control (ICISC-2025) organized by the JCT College of Engineering and Technology, Coimbatore, Tamil Nadu, India 12-13, August 2025.



- Mr. Chandan N S (ENG22CS0038), Ms. Divya Neelappa Marangappanavar (ENG22CS0053), Mr. Honna Reddy G (ENG22CS0071), Ms. Indira S (ENG22CS0073), Final Year CSE Students under the guidance of Prof. Mala B A, Assistant Professor, presented a paper titled “Intelligent Failure Detection in Industrial Machines Using Hybrid ML and Anomaly Scores” at the 9th International Conference on Inventive Systems and Control (ICISC-2025) organized by the JCT College of Engineering and Technology, Coimbatore, Tamil Nadu, India 12-13, August 2025.





- Mr. Kumar Ayush(ENG22CS0347), Ms. Medha Sree Anand(ENG22CS0562), Final Year CSE Students presented a paper titled “Scalable Detection of Profile Cloning in Social Networks using MapReduce-based Machine Learning” at the 9th International Conference on Inventive Systems and Control (ICISC-2025) organized by the JCT College of Engineering and Technology, Coimbatore, Tamil Nadu, India 12-13, August 2025.



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