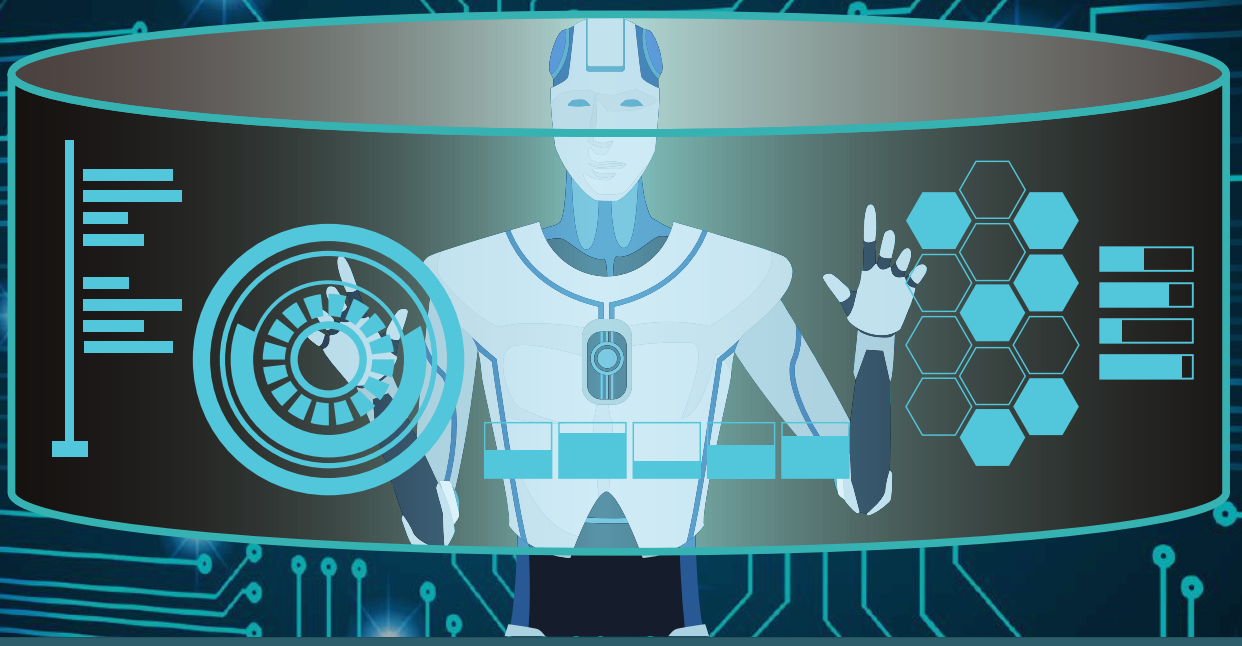
APRIL-JUNE 2025 VOLUME 04 ISSUE 04



CSE EDUINSIDE

Department Newsletter

Department of Computer Science and Engineering, SOE, DSU, Harohalli

DAYANANDA SAGAR UNIVERSITY

VISION AND MISSION OF THE INSTITUTE

VISION

To be a centre of excellence in education, research & training, innovation & entrepreneurship and to produce citizens with exceptional leadership qualities to serve national and global needs.

MISSION

To achieve our objectives in an environment that enhances creativity, innovation and scholarly pursuits while adhering to our vision.

VISION AND MISSION OF THE SCHOOL

VISION

To transform life through Excellence and Innovation in Engineering Education and Research with an emphasis on Sustainable, Inclusive Technology and Global needs.

MISSION

To Develop School of Engineering at Dayananda Sagar University, as Center of Excellence by imparting Quality Education and Research to generate highly Competent,Skilled and Humane manpower to face emerging Technological, Scientific and Social challenges with Ethics, Integrity, Credibility and Social concern.

VISION AND MISSION OF THE DEPARTMENT

VISION

To be recognized as a department of eminence in Computer Science and Engineering focusing on sustainability, inclusive technologies and societal needs.

MISSION

The Department of Computer Science and Engineering is committed to:

M1: Impart quality technical education by designing and delivering contemporary Computer Science Engineering curricula while emphasizing leadership, ethics, values and integrity.

M2: Transform professionals into technically competent through industry-academia collaboration and innovation ecosystem.

M3: Prepare Computer Science and Engineering graduates to meet ever-growing societal needs.

ABOUT THE DEPARTMENT

The Department of Computer Science & Engineering was started in the year 2015. It offers Undergraduate Programme, B. Tech Computer Science & Engineering, which prepares students for the current and future demands of industry and the research world.

The Department offers a Master's Programme namely, M. Tech in Computer Science & Engineering. This programme prepares students to become leaders in knowledge driven professions. In order to provide ample opportunity for innovation and research, the department offers Doctoral Programme (PhD) in Computer Science & Engineering and allied areas.

The Department has collaborated with NTTF to offer Two Vocational Degree Programmes namely, B.Voc in Information Technology (Data Analytics), and B.Voc in Computer Engineering & IT Infrastructure. B.Voc is a three-year duration undergraduate programme. This program builds specific job skills in students so that they can serve the industries better.

The Department of Computer Science and Engineering (CSE) has thirty one faculty members with the doctorate degree and twenty six pursuing the doctoral studies Programs offered by the Department include all sub disciplines and intellectual enterprises of Computer Science and Engineering Discipline.

The faculty members in the Department are active in the Research Areas of Artificial Intelligence, Machine Learning, Data Science, Network Security, Networks & IoT. Wireless Networks, Block Chain Technologies, Big Data, Data Mining, Data Analytics, Cloud Computing, Image Processing, Computer Vison and Video Analytics, Information Retrieval, etc. Apart from core courses, the Department also offers Liberal Studies Courses (as per NEP- 2020). Liberal studies focuses on creating synergy between Humanities, Social Sciences, Performing arts, Law, Management, Fine Arts, Yoga, Painting, Music etc.

Department has well equipped and state-of-the-art Laboratories to train students in various technologies. The Department also makes use of the Innovation Laboratories such as NVidia's High Performance Computing Lab & Analog Devices Lab to train its UG and PG students in the respective technology areas and research.

The Department also conducts value added courses on emerging technologies and industry specific domains. These courses are conducted beyond college hours/summer semester by the faculty of the department. The Department has MoU's with IT Industries like NVIDIA, Analog Devices, UiPath and CodeChef. Department also has several MOU's with academia such as Nokia University, Purdue Indiana University. The Department encourages students to take up MOOC based online courses in NPTEL, Coursera, Udacity and edX. The Department organizes Symposia, Exhibitions, Conferences, Seminars, Hackathons, and Workshops for both students and Faculty.

The Department has many Adjunct Professors/Professor of Practice who typically have positions at Industry or other institutions to bring in the industry expertise and research regour in our programmes. provide specialized supervision of student projects.

The students of CSE Department are placed in various top MNCs like IBM, Accenture, Capgemini, Cognizant, Wipro, Infosys, Mindtree, Intel, Mercedes Benz, Sap Labs etc. with an emolument in the range of 4.78 Lakhs to 27 Lakhs per annum.

DEAN'S MESSAGE

DR. UDAYA KUMAR REDDY K R
DEAN, SCHOOL OF ENGINEERING,
DSU

BE YOU
BE THE DIFFERENCE!!!

Welcome to the new way of learning at School of Engineering (SoE) of Dayananda Sagar University (DSU). At SoE, we are committed to helping you to make a positive difference in the world.

We at SoE are immensely proud to provide all of our students with an outstanding education that equips them with the skills, experience, and confidence required to stand out from the crowd. The School promotes Culture of Excellence including the culture of Interdisciplinary, Research, Creativity, Innovations, and Entrepreneurship on various Cutting-Edge Technologies. We at SoE, provide the World-Class Education that is Student-centric, Research-centric, and Educational space where all of our students will have a transformative education, learn to be independent critical thinkers, be societally and ethically responsible, and to have a broad understanding of the world. We value ability, not background, and we support all of our students to achieve their potential. We want you to enjoy your time here, confident that, upon completion of Engineering degree program under SoE, you will have the knowledge, expertise, and employability skills to set you on your chosen career path. The decision you make about where to study is an extremely important one. I am pleased you are considering the School of Engineering at DSU, and hope that you choose to continue your education with us.

BEST WISHES !

CHAIRMAN'S MESSAGE

DR. GIRISHA G S
PROFESSOR AND CHAIRMAN

Welcome to the Department of Computer Science & Engineering, School of Engineering at Dayananda Sagar University!

It is a matter of pride for me to present Issue 4, Volume 4 of the CSE Newsletter for the academic year 2024-25.

We are publishing this newsletter four times a year, providing you with regular updates about student and faculty achievements, as well as academic and research activities in the department.

In this issue, we are delighted to showcase the achievements and highlights of the department from the past three months.

I sincerely thank the editorial board, staff, and students for their wholehearted support in the preparation of this newsletter. I also invite you to share your comments and suggestions with us on how we can make this newsletter more meaningful to you.

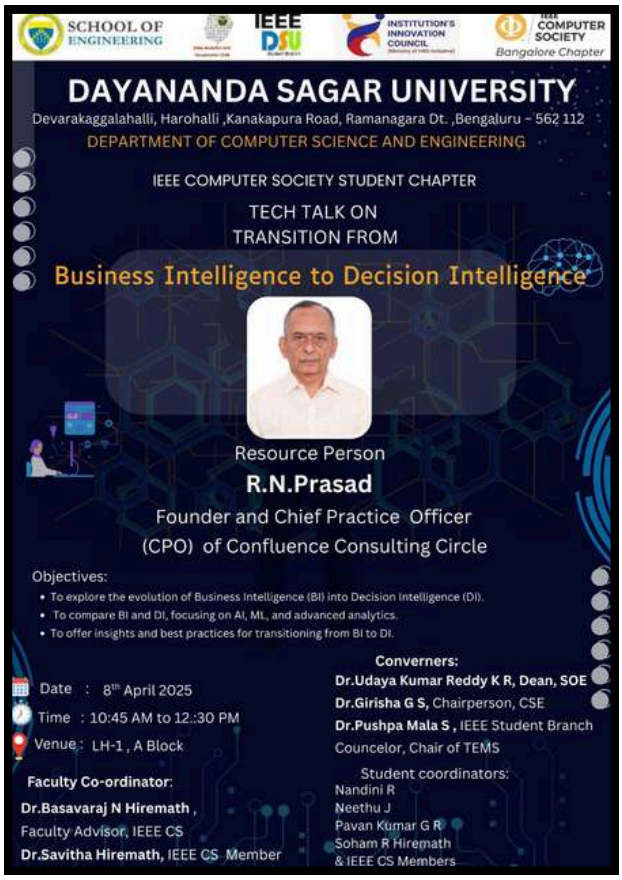
BEST WISHES !

INDEX

DAYANANDA SAGAR UNIVERSITY

SEMINARS/WEBINARS /TECHNICAL TALKS

TECH TALK ON " TRANSITION FROM BUSINESS INTELLIGENCE TO DECISION INTELLIGENCE"



The tech talk on "Transition from Business Intelligence to Decision Intelligence" organized by the Department of Computer Science and Engineering held on 08/04/2025. Explores the evolution of data-driven decision-making, highlighting how organizations can move beyond traditional analytics to smarter, AI-powered insights. This event aligns with the UN Sustainable Development Goal 9 (Industry, Innovation, and Infrastructure) by promoting innovation in data technologies and fostering intelligent infrastructure that supports sustainable economic growth and informed decision-making across industries.

The Tech Talk on "Transition from Business Intelligence to Decision Intelligence" offered an insightful exploration into how Artificial Intelligence (AI) and Decision Intelligence (DI) are transforming modern workplaces and decision-making processes. Delivered by Mr. R N Prasad, a seasoned expert in the field, the session shed light on the growing significance of data in shaping the future of work.

Mr. Prasad emphasized that although the workplace continues to evolve—especially in the wake of the COVID-19 pandemic—the role of data remains central and unchanging. He discussed how IT and software companies are increasingly adopting flexible, efficient work models, driven by the need for adaptability and speed. A major focus of the talk was the shift from intuition-based decisions to data-driven strategies, underlining the value of integrating AI with human judgment to enable smarter, evidence-based leadership.

A highlight of the session was a compelling video presentation that showcased real-world applications of Decision Intelligence. The video demonstrated how DI helps minimize human errors, streamline organizational workflows, and facilitate agile, real-time decisions. Mr. Prasad illustrated how this technology not only enhances operational efficiency but also empowers leaders to make informed choices in complex and dynamic environments.

By addressing the growing need for intelligent systems in decision-making, the event aligns with the United Nations Sustainable Development Goal 9—promoting industry, innovation, and infrastructure. It inspired attendees to embrace innovative approaches that foster long-term sustainability, competitiveness, and growth in an increasingly data-driven world.

Faculty Coordinators:

Dr. Basavaraj N. Hiremath, Faculty Advisor of the IEEE Computer Society,

Dr. Savitha Hiremath, an IEEE CS member.

Guests

Mr. R. N. Prasad, Founder and Chief Practice Officer (CPO) of Confluence Consulting Circle

"AWARENESS ON IPR: PROTECTING INNOVATION"

An insightful session on "Awareness on IPR: Protecting Innovation" was successfully organized by the Department of Computer Science and Engineering in collaboration with the Department of Aerospace Engineering, in celebration of Intellectual Property Rights Day on 22nd May 2025.

Mr. Vineeth Kumar S. R., Project Engineer at KSCST, delivered an engaging and informative talk emphasizing the significance of intellectual property and the vital role it plays in protecting innovations in today's rapidly evolving technological world.

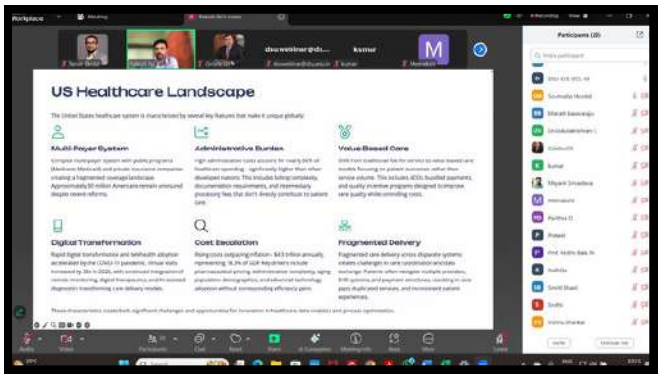
The event was graced by Dr. Girisha G. S., Chairperson of the Department of Computer Science and Engineering; Dr. Nagaraj S. R., Chairperson of the Department of Aerospace Engineering; and Dr. Basavaraj N. Hiremath, Professor in the Department of Computer Science and Engineering, who addressed the students and underscored the relevance of IPR in academia and research.

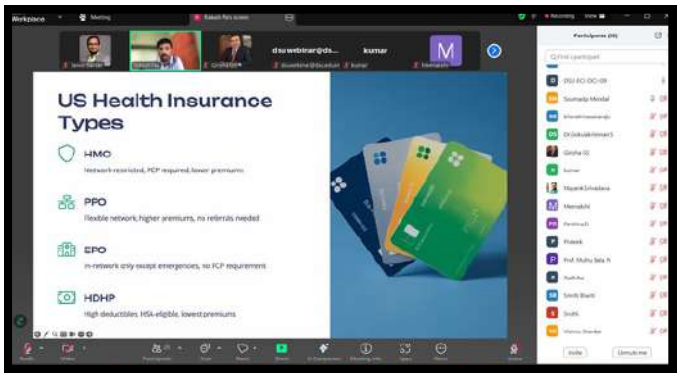
The session, held in Lecture Hall 1 (LH1) from 9:15 AM to 10:30 AM, saw enthusiastic participation from students and faculty members alike. The event was well-coordinated by Dr. Savitha Hiremath, Prof. Nandini K., Prof. Sripad Kulkarni S., and a dedicated group of students.

We extend our heartfelt gratitude to Mr. Vineeth Kumar for his valuable insights and to all those who contributed to making the event a resounding success!

Faculty coordinators:
Dr. Savitha Hiremath
Prof. Nandini K
Prof Sripad Kulkarni S

EXPERT LECTURE ON - "FROM RAW DATA TO REAL IMPACT: SECURING AND SCALING HEALTHCARE DATA PIPELINES FOR U.S. HEALTHCARE INSURANCE"





The Department of Computer Science and Engineering, School of Engineering, Dayananda Sagar University, organized a highly insightful industry expert lecture on Friday, 20th June 2025, at 10:00 AM. The session was delivered by Mr. Rakesh Pai, an accomplished Data Engineering Manager at eviCore Healthcare (Cigna Group), USA. The lecture was part of the department's ongoing initiative to expose students and faculty to real-world applications of data engineering in critical domains like healthcare.

Mr. Rakesh Pai began the session by offering a comprehensive overview of the U.S. healthcare ecosystem, emphasizing its complexity and the regulatory environment. He contextualized the role of data engineering in this sector and explained how scalable and secure data pipelines are essential for delivering value-based care.

Mr. Pai also provided live architectural diagrams and referenced current tools and platforms used in production-grade systems. His insights into advances in healthcare analytics and AI-driven diagnostic models provided a rich learning experience for the audience.

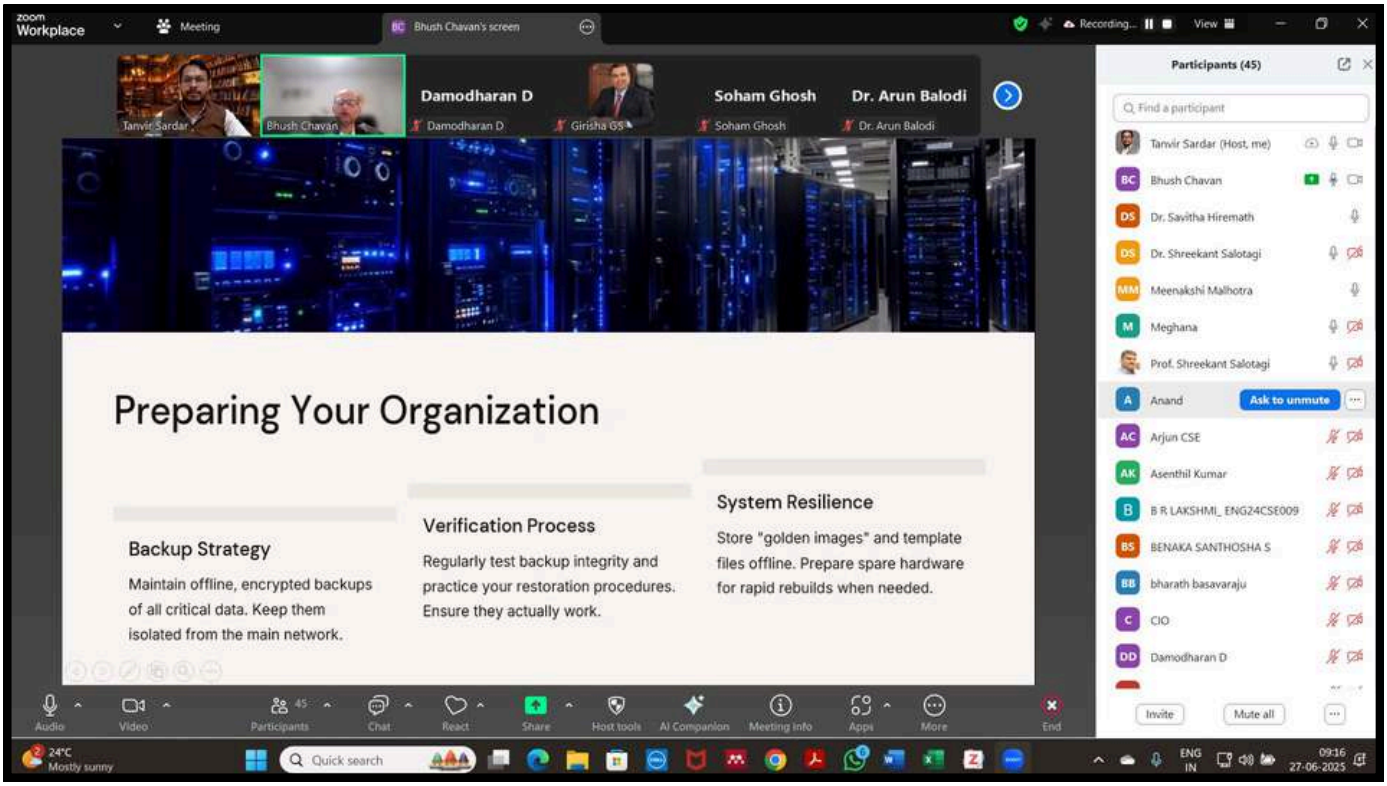
The audience are Undergraduate (UG) and Postgraduate (PG) students and faculty members of the Department of Computer Science and Engineering.

The lecture successfully bridged the gap between academic learning and industry practices in the evolving domain of healthcare data systems. The department extends its heartfelt gratitude to Mr. Rakesh Pai for his valuable time and impactful session. His deep technical insights and real-world examples served as a strong motivator for the audience and provided practical exposure to global industry standards.

Faculty Coordinators:

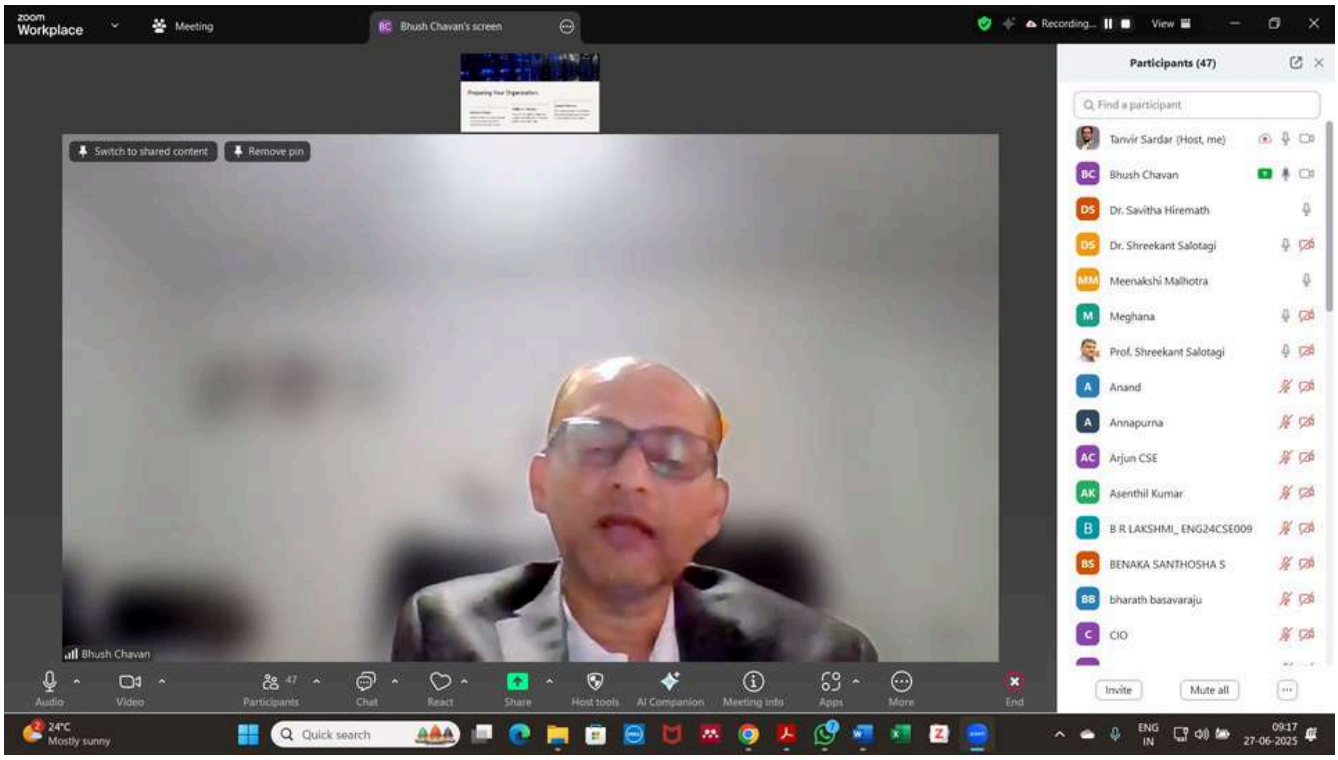
Dr. Tanvir H Sardar and Prof. Bharath M B

EXPERT LECTURE ON - DEFENDING RANSOMWARE ATTACKS



The Department of Computer Science and Engineering, School of Engineering, Dayananda Sagar University, Bengaluru, organized an insightful industry expert lecture on "Defending Ransomware Attacks" on Friday, 27th June 2025. The session was conducted in the morning hours via Zoom and was attended by undergraduate and postgraduate students, faculty members, and cybersecurity enthusiasts from the university.

The guest speaker for the session was Mr. Bhushan Chavan, a seasoned cybersecurity professional and Director – Technical Architect at MGM Resorts International, USA. With over 20 years of rich experience in Identity and Access Management (IAM), Risk Governance, Compliance, and Cybersecurity, Mr. Chavan holds multiple prestigious certifications including CISM, CISA, and CEH. His impressive global experience spans across major organizations like Ernst & Young, JPMorgan Chase, and Cognizant.



Mr. Chavan provided a detailed overview of ransomware as one of the most dangerous cybersecurity threats facing enterprises today. He addressed:

- The evolution and anatomy of ransomware attacks.
- Real-world case studies on post-breach IAM restructuring.
- Best practices in prevention, detection, and response strategies.
- Architecture-level safeguards, focusing on privileged access management (CyberArk) and segregation of duties.
- Techniques for building secure IAM pipelines and automating revocations and certifications.
- Importance of SOX controls, audit readiness, and cloud-based threat modeling.

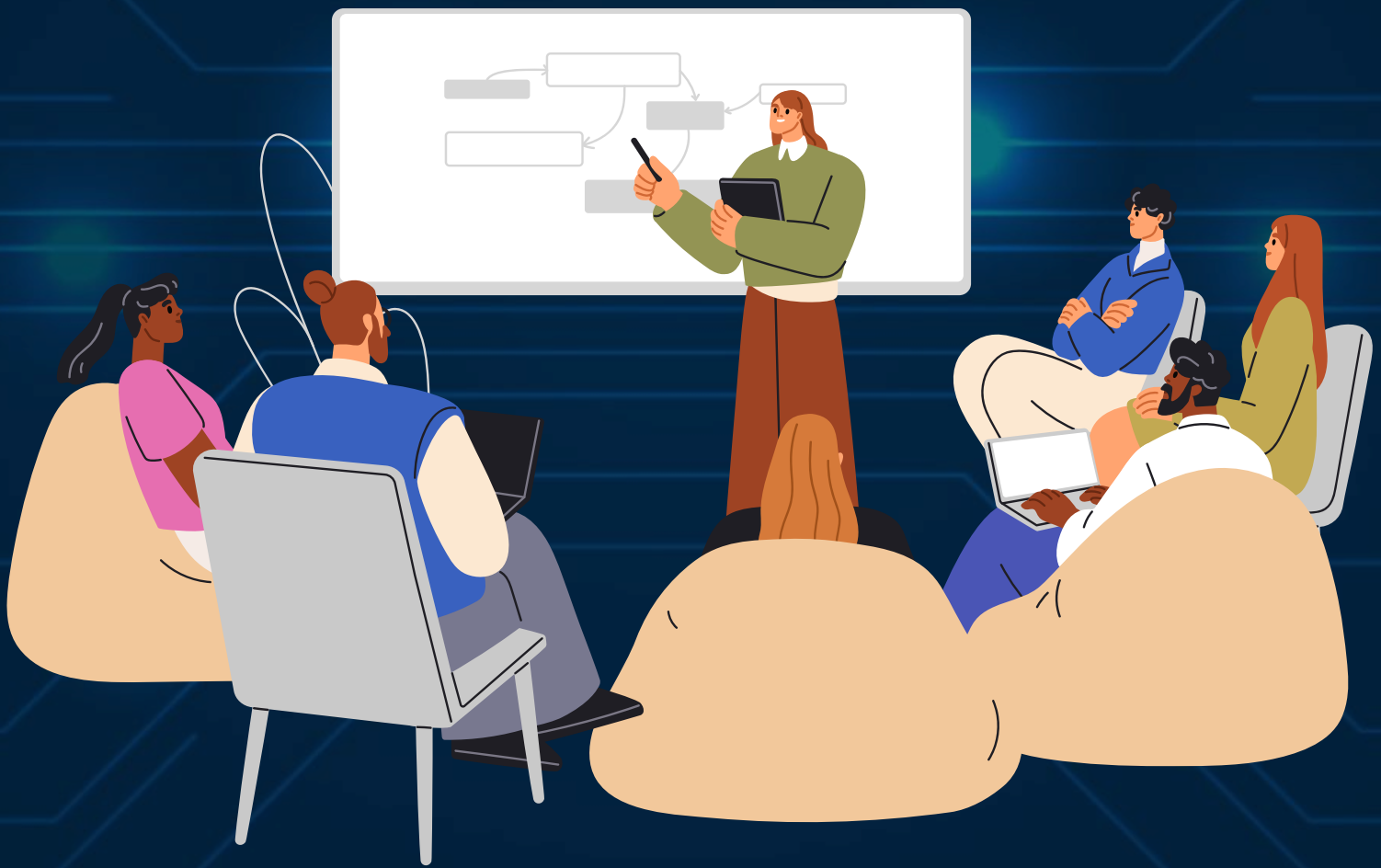
The session also covered practical implementation insights drawn from Mr. Chavan's post-attack work at MGM Resorts, especially involving Yubikey-based secure access, RBAC enforcement, and cloud-native IAM frameworks using SailPoint and Azure.

Faculty Coordinators:

Dr. Tanvir H Sardar and Prof. Bharath M B

DAYANANDA SAGAR UNIVERSITY

WORKSHOPS/SKILL DEVELOPMENT PROGRAMS



WORKSHOP ON "LATEX - FUNDAMENTALS : CRAFTING RESEARCH ARTICLES"

The 3 - days workshop titled "LaTeX - Fundamentals: Crafting Research Articles, Presentations, and Reports" was organized by the Department of Computer Science and Engineering from 07-04-2025 to 09-04-2025. The workshop was led by Dr. Savitha Hiremath, LaTeX expert, who brought valuable insights into the art of scientific writing and technical documentation.

The event was inaugurated by Dr. Rajesh T.M., who emphasized the significance of LaTeX in academic and research communication, encouraging students to embrace such tools for enhancing the quality of their work.

Throughout the workshop, Dr. Savitha Hiremath provided hands-on training on LaTeX essentials covering document structuring, typesetting mathematical equations, managing references, and designing professional presentations using Beamer. She also guided participants through the creation of well-formatted research papers and reports.

The workshop concluded with an address by Dr. Girisha G.S., Chairperson of the CSE Department, who appreciated Dr. Savitha Hiremath's contribution and noted how the workshop empowered students with a vital research skill. He encouraged students to incorporate LaTeX into their academic workflows, reinforcing the department's commitment to fostering research-oriented learning.

The session concluded with an interactive Q&A segment, where participants engaged with the resource persons, clarifying doubts and exploring the diverse applications of LaTeX in academic and professional contexts. The workshop left a lasting impression, inspiring attendees to embrace document preparation with precision, creativity, and a structured approach.

Overall, the "LaTeX - Fundamentals: Crafting Research Articles, Presentations, and Reports " proved to be a highly informative and empowering experience. It highlighted the significance of mastering professional documentation tools, not only for academic excellence and research dissemination but also for enhancing personal productivity and technical skill sets.

Resource Person
Name: Dr. Savitha Hiremath
Current Position: Associate Professor at DSU
Faculty Coordinators
Dr. Rajesh T M, Associate Professor, Department of CSE
Prof. Pavithra D, Assistant Professor, Department of CSE

INDUSTRY PARTNERED COMPETITIVE PROGRAMMING TRAINING ON "VERANDA | SIX PHRASE | TALENTELY - COMPETITIVE PROGRAMMING TRAINING & PRODUCT PLACEMENTS SUPPORT"

Veranda, in association with Six Phrase and Talentely, successfully conducted a week-long from 21st April 2025 to 26th April 2025 "Industry Partnered Competitive Programming Training" at Dayananda Sagar University by Department of Placement and Training with Department of CSE. The event was tailored specifically for 3rd-year B.Tech students, aiming to equip them with advanced problem-solving techniques, algorithmic thinking, and exposure to industry practices in software product development.

Objectives:

- To enhance students' proficiency in competitive programming.
- To bridge the gap between academic learning and real-world coding standards.
- To prepare students for product-based company placements with support from experienced industry professionals.

The training program received highly positive feedback from students and faculty alike. Participants left the event with boosted confidence, enhanced technical skills, and a clearer path toward a successful tech career. The collaboration between Veranda, Six Phrase, Talentely, and Dayananda Sagar University stands as a strong example of industry-academia synergy aimed at talent development.

WORKSHOP ON "GAME DEVELOPMENT AND ANIMATION VFX"

The Department of Computer Science and Engineering, SoE, Dayananda Sagar University successfully conducted a three-day hands-on workshop on "Game Development and Animation VFX" from 5th to 7th May 2025.

The workshop was initiated to equip both 6th semester B. Tech CSE students and faculties with relevant knowledge and practical skills in the game development and Animation courses introduced in the curriculum. There are 60 participants actively registered and engaged in the sessions.

This workshop offered a comprehensive introduction to game development, covering key topics such as:

- Unity interface
- C# scripting
- Game physics
- Fundamentals of 2D and 3D game development
- Introduction to animation and VFX implementation

The sessions were highly interactive, enabling students to participate in hands-on activities, build simple game prototypes, and experiment with VFX techniques.

The sessions were conducted by expert resource persons from the Asian Institute of Design, Bengaluru:

- Mr. Bhaskar Jyoti Bora
- Mr. Ahamed Abdullah

Thanks to their expertise and the well-structured content, the workshop was executed smoothly and received excellent feedback from the participants.

Workshop coordinators:

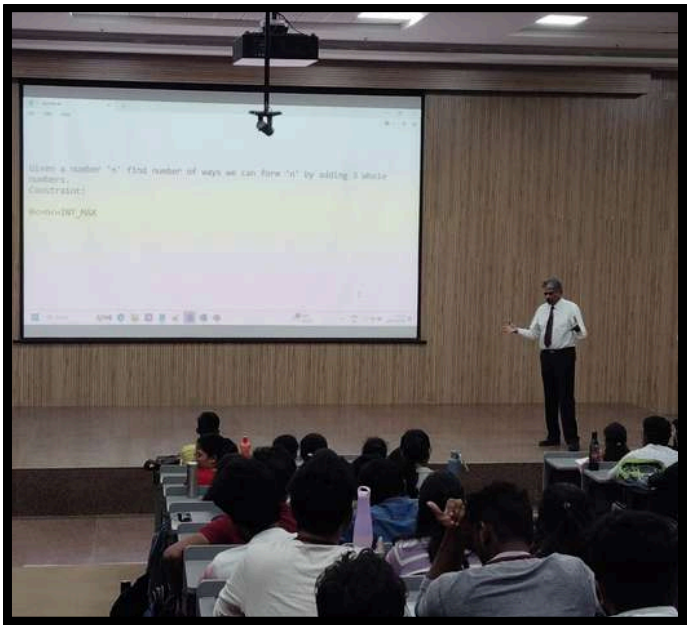
-Dr. Praveen Kulkarni

Prof. Shilpa Sudheendaran

Prof. Bharath B

Prof. Prolay Biswas

INDUSTRY PARTNERED COMPETITIVE PROGRAMMING TRAINING (BOOTCAMP 2.0)



The Department of Computer Science and Engineering, School of Engineering, Dayananda Sagar University, conducted Bootcamp 2.0 to 3rd Year B.Tech Students from 19th May 2025 to 23rd May 2025. Veranda, in association with Six Phrase and Talentely, successfully conducted a week-long Industry Partnered Competitive Programming Training at Dayananda Sagar University. The event was tailored specifically for 3rd-year B.Tech students, aiming to equip them with advanced problem-solving techniques, algorithmic thinking, and exposure to industry practices in software product development.

The objective is to enhance students' proficiency in competitive programming. To bridge the gap between academic learning and real-world coding standards. To prepare students for product-based company placements with support from experienced industry professionals.

The training program received highly positive feedback from students and faculty alike. Participants left the event with boosted confidence, enhanced technical skills, and a clearer path toward a successful tech career. The collaboration between Veranda, Six Phrase, Talentely, and Dayananda Sagar University stands as a strong example of industry-academia synergy aimed at talent development.

Faculty coordinator:

Dr. Revathi V

DAYANANDA SAGAR UNIVERSITY

EVENTS/PROFESSIONAL SOCIETIES/CLUB ACTIVITIES

WORLD HEALTH DAY 2025
AWARENESS SESSION ON
"HEALTHY BEGINNINGS, HOPEFUL FUTURES"

The session on "Healthy Beginnings, Hopeful Futures," on World Health Day 2025, organized by the Department of Computer Science and Engineering held on 07/04/2025. focused on guiding students to maintain good health, especially during the summer months. The event highlighted practical wellness tips, hydration, nutrition, and mental well-being. It supports the UN Sustainable Development Goal (Good Health and Well-being) by promoting healthy lifestyles among youth and fostering awareness for long-term physical and mental health resilience.

The World Health Day 2025 session, titled "Healthy Beginnings, Hopeful Futures," was organized to raise awareness among students about the importance of maintaining good health, particularly during the summer season. The session was led by Dr. Raghu R V, Assistant Professor of Internal Medicine at CDSIMER, who served as the resource person for the event.

Dr. Raghu delivered an engaging and informative talk focused on practical approaches to maintaining physical and mental well-being. He emphasized the importance of hydration, balanced nutrition, and proper sleep, especially during the hot months when students are more vulnerable to dehydration, heat exhaustion, and fatigue. He also addressed the impact of seasonal changes on health and suggested easy lifestyle adjustments to prevent common summer-related illnesses.
In addition to physical health, the session also touched on the significance of mental well-being. Dr. Raghu highlighted how stress, anxiety, and academic pressures can affect students and shared coping mechanisms to manage emotional health. The session included an interactive Q&A where students actively participated, sharing their concerns and gaining clarity on various health-related topics.

By focusing on preventive care and healthy habits, the event directly supported the United Nations Sustainable Development Goal 3 (Good Health and Well-being). It aimed to empower students with knowledge and practices that encourage lifelong wellness. The session successfully created a space for open dialogue, awareness, and motivation, ensuring that the young audience left with a renewed commitment to prioritizing their health in both daily life and future endeavours.

Faculty Coordinators:

Dr. Basavaraj N. Hiremath, Faculty Advisor of the IEEE Computer Society,

Dr. Savitha Hiremath, an IEEE CS member.

Guests

Dr. Raghu R V, Assistant Professor, Internal Medicine | CDSIMER.

WORLD EARTH DAY CELEBRATION

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

As part of the celebrations, a Poster Exhibition was conducted, showcasing the creativity and concern of our students for environmental issues. The exhibition served as a powerful medium to communicate vital messages about protecting nature, conserving resources, and adopting eco-friendly lifestyles.

We extend our heartfelt thanks to the management of Dayananda Sagar University for their unwavering support and encouragement in organizing such impactful events.

Faculty Coordinators
Manoj Kumar N I

DSU TECHFLIX "WILD CANVAS: DIGITAL ART COMPETITION"

Wild Canvas is an exciting Digital Art Competition organized under TechFlix 2025 by Department of Computer Science and Engineering, Dayananda Sagar University, designed to ignite the creative spark in students passionate about digital art and design on 25th April 2025. The event brings together college and university students from diverse backgrounds to engage in a vibrant, competitive environment where art meets technology. Participants will embark on a creative journey that encourages them to think innovatively and express their ideas visually in unique and impactful ways.

The competition unfolds over three progressive rounds – Logo Design, Logo Animation, and Poster Design – each crafted to test different facets of digital artistry. A surprise theme revealed at the event adds an exciting twist, compelling participants to think on their feet and align their creations with the central idea. This dynamic format ensures fresh, original submissions while offering students the opportunity to hone their skills in multiple disciplines, from static design to motion graphics and visual storytelling. Attractive prizes, including a total cash reward of ₹10,000, add to the thrill, making it a must-attend event for students eager to test their creative limits and gain recognition for their talents

In alignment with the Sustainable Development Goal (SDG) 4: Quality Education, Wild Canvas serves as a platform that promotes inclusive, skill-based, and creative learning opportunities for students. By encouraging digital literacy, design thinking, and ethical creative practices, the event contributes to nurturing lifelong learning and preparing students for future-ready careers in the digital and creative industries. With attractive prizes and a chance to feature on TechFlix's digital platforms, Wild Canvas is a perfect opportunity for students to showcase their talents and celebrate innovation.

Faculty Coordinator:
Dr. Meenakshi Malhotra, Associate Professor, Dept. of CSE
Prof. Mala B A, Assistant professor, Dept. of CSE
Dr. V. Sreemathy, Assistant Professor - Department of English SoE
Student Coordinator:
Ms. Shanvi Mishra, 6th semester Student, Dept. of CSE

DSU TECHFLIX "THE GREAT HOLMES HUNT(TREASURE HUNT) COMPETITION"

The Great Holmes Hunt was an exhilarating Treasure Hunt Competition organized under TechFlix 2025 by the Department of Computer Science and Engineering, Dayananda Sagar University, held on 25th April 2025. Inspired by the legendary detective Sherlock Holmes, the event challenged participants to put their detective instincts to the test in a thrilling, fast-paced, team-based adventure. Over 120+ students from different departments enthusiastically took part, bringing energy, excitement, and a spirit of friendly rivalry across the campus.

The competition was structured into six intense rounds, each uniquely crafted as Case 1, Case 2, and so on, with mystery-themed puzzles and deduction challenges that progressively increased in difficulty. Teams of 3–5 members competed fiercely, with eliminations starting from Round 3, and decreasing time limits adding urgency and thrill to the hunt. Participants were judged based on their accuracy and speed, with all answers carefully reviewed by a panel of organizers.

The atmosphere on campus was electric, with students running around, solving clues, facing moments of joy, confusion, and determination at every turn. To commemorate the event, Sherlock Holmes-themed keychains and TechFlix wristbands were distributed to all participants, adding a memorable touch to their adventure.

Choosing the winners proved to be a tough challenge, as competition was intense and teams performed neck-to-neck until the very end. Ultimately, only two teams could claim victory, with ₹12,000 awarded to the Winner and ₹3,000 awarded to the Runner-up.

Aligning with Sustainable Development Goal (SDG) 4: Quality Education, The Great Holmes Hunt promoted skill-based learning, critical thinking, teamwork, and ethical problem-solving among students. By encouraging analytical reasoning and collaboration under pressure, the event successfully offered a real-world simulation of creative and strategic thinking – making it an unforgettable highlight of TechFlix 2025.

Faculty Coordinator:
Dr. Meenakshi Malhotra
Prof. Priyanka S Marellavar
Prof. Pooja Shree H R
Student Coordinator:
Mr. Vishal, 6th semester Student, Dept. of CSE

DSU TECHFLIX - HACK' IN BAD - 24-HOURS NATIONAL LEVEL HACKATHON

TECHFLIX - Hack' in Bad, a 24-hour National Level Hackathon Competition organized by DSU-ACM Student chapter under TechFlix 2025 by the Department of Computer Science and Engineering, Dayananda Sagar University, from 25th April 2025 to 26th April 2025. Hack' in Bad, a 24-hour National Level Hackathon, bringing together some of the brightest and most creative minds from across the country. This event is designed to ignite innovation, inspire problem-solving, and foster collaboration among budding tech enthusiasts.

Hack' in Bad is not just a hackathon—it's a marathon of creativity, coding, and collaboration. Over the span of 24 intense hours, participants will work in teams to design, develop, and deploy innovative tech solutions to real-world challenges across various domains.

This event encourages original thinking, rapid prototyping, and a passion for building technology that makes an impact.

A multi-round hackathon competition designed to test participants' skills through progressively challenging stages. Each round eliminated contestants, leading to an intense semi-final and final showdown where the best compete for the grand prize.

Rounds Breakdown

Round 1- Preliminary Screening-add this also "50 teams were shortlisted from 130 registered teams"

Round 2-qualifiers: shortlisted participants face tougher challenges in the offline Round.

Semi-finals & finals: In semi finals Judges selected 12 teams for the final round.

Faculty Coordinators:
Dr. Meenakshi Malhotra
Dr. Revati V
Dr. Senthil Kumar
Dr. Arunkumar Gopu
Dr. Praveen Kuikami
Dr. Chetan V Sagarnal
Prof Nandini K
Prof Yashaswini H C

Student Coordinators:
Sameer S Katte
Arjit Kulkami
Shujay Ravi

DSU TECHFLIX -THE TRIWIZARD CTF

The Triwizard CTF Competition organized by DSU-ACM Student chapter under TechFlix 2025 by the Department of Computer Science and Engineering, Dayananda Sagar University on 24 April 2025.

A jeopardy-style capture the flag (CTF) competition where teams tackle progressively harder cybersecurity challenges, only the sharpest minds will claim victory.

Prepare for a thrilling cybersecurity challenge that will push your skills, strategy, and teamwork to the limit.Challenge - five beginner-friendly tasks

Journey begins with The Dragon's testing your core cybersecurity skills like encryption and vulnerability detection. Next, dive into The Lake of Secrets-10 intermediate puzzles involving reverse engineering, cryptography, and network security.

Finally, face The Maze of Mayhem-a real-world attack simulation requiring penetration testing, malware analysis, and incident response.

Round 1-the qualifiers (90 min)

- challenges: 7 easy (5 pts), 5 medium (10 pts), 3 hard (20 pts)
- time limits: 20 min (easy), 30 min (medium), 45 min (hard)
- advancement: top 5 teams move to the finals.

Round 2-the final showdown (1 hr)

The top 5 teams face two ultimate challenges:

1 security exploit challenge (30 pts)

2 real-world security CTF

Fastest team to complete the final challenge wins!

Faculty coordinator:

Dr. Meenakshi Malhotra

Dr. Bipin Kumar Rai

Student coordinator:

Sai Jadhav and Samrdhe

INTERDISCIPLINARY SYMPOSIUM : AI IN NEUROSCIENCE

The Department of Computer Science, SoE in collaboration with CDSIMER, successfully organized an interdisciplinary symposium focused on the intersection of Artificial Intelligence (AI) and Neuroscience. The event, held at Dayananda Sagar University on 15th May 2025, brought together experts from both fields to explore AI's transformative potential in neurophysiological research, neurosurgery, and neuropsychiatric disorders.

The symposium attracted Faculties, Researchers, Masters and Bachelors students from CDSIMER and SoE. About 200 attendees joined the event . The diversity of audience consisted of about 50 medical students and the rest from the engineering domain, who benefited from the presentations and discussions, gaining valuable insights into AI's application in Neuroscience.

Chief Guest and Guest of Honor:

Dr. T.N. Sathyaprabha (Chief Guest), Associate Dean and Professor at NIMHANS, emphasized the importance of collaborative research and partnerships between medical and engineering fields to drive advancements in Medicine.

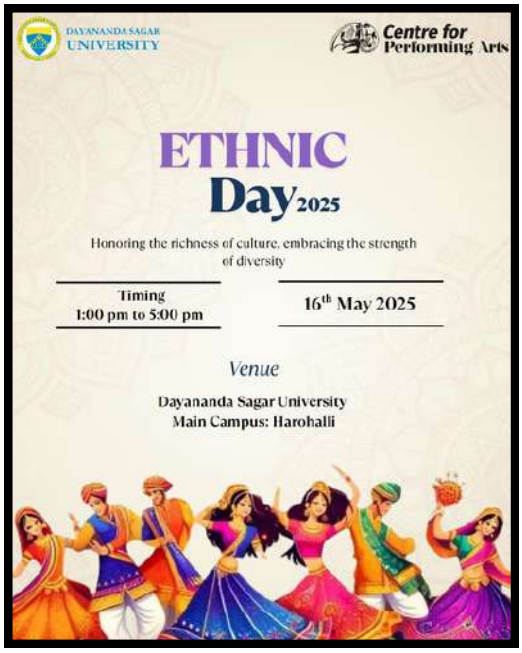
Dr. A.C. Ashok (Guest of Honor), Director of CDSIMER, highlighted the significance of interdisciplinary collaboration for tackling complex healthcare challenges.

Faculty coordinators:

Prof. Arjun Krishnamurthy

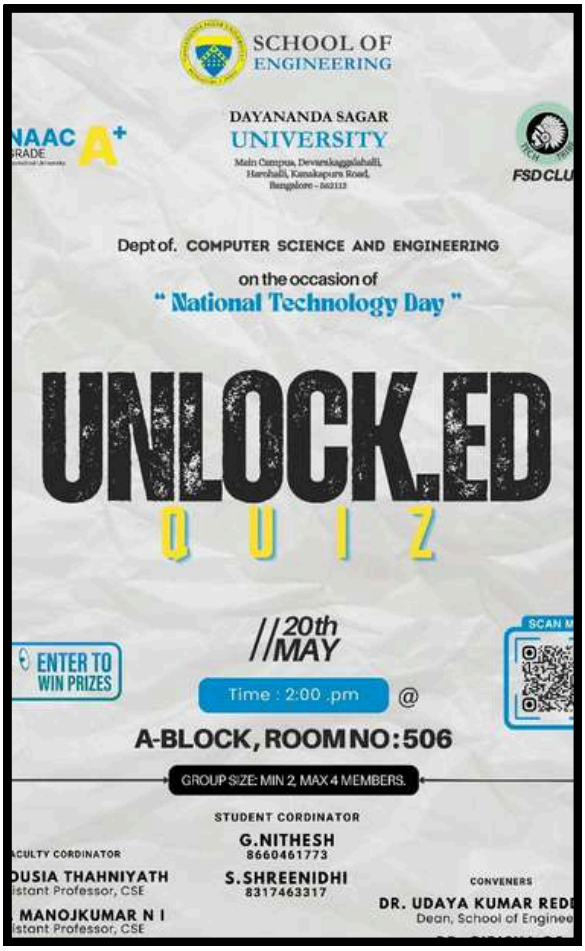
Dr. Renuka Devi

“ETHNIC DAY 2K25”



The Department of Computer Science and Engineering, School of Engineering, Dayananda Sagar University, celebrated Ethnic day on 16/05/2025. Ethnic Day is a cultural celebration that highlights the beauty and diversity of traditional customs, attire, and practices. It provides a platform for individuals to express their cultural roots with pride by wearing ethnic outfits and participating in various traditional activities such as music, dance, and food festivals. The event fosters unity in diversity, encouraging respect and appreciation for different cultures within the community. It is a joyful occasion that blends learning with celebration, bringing people together in the spirit of heritage and harmony.

FSD CLUB ACTIVITY-UNLOCK. ED QUIZ



The Department of Computer Science and Engineering, School of Engineering, Dayananda Sagar University.The event Unlock.Ed was conducted on 20th May 2025 at 1:45 PM as part of the National Technology Day celebrations by FSD Club. It was structured as a multi-round quiz competition focusing on general technology knowledge, coding logic, and current trends. The inauguration was graced by faculty members and invited guests, who motivated participants with their presence.

The quiz consisted of multiple rounds with escalating difficulty, covering topics such as recent tech advancements, programming outputs, company innovations, binary arithmetic, and tricky logic-based questions. Participants were grouped into teams and competed through elimination-based rounds.

A unique clue hunt round was introduced to blend physical engagement with analytical thinking, where participants followed a trail of tech-related riddles to progress to the next stage. The use of creative question formats, multimedia elements, and live scoring added energy and excitement to the event.

The final round saw top teams battle it out in a rapid-fire format. The event concluded with the announcement of winners.

Faculty Coordinators:

Dr Gousia Thahniyath

Assistant professor, CSE

Dr Manoj Kumar N I

Assistant professor, CSE

INDUSTRY CONCLAVE ON CURRICULUM DEVELOPMENT

Veranda, in association with Six Phrase and Talentely, successfully conducted on 23rd May 2025 by the Department of Placement and Training with the Department of CSE. , provided a detailed overview of the 2024-25 first-year B.Tech syllabus, 2025-26 first-year B.Tech program, the 2024-28 second, third, and fourth-year syllabi and M.Tech curriculum and the core CSE syllabus.

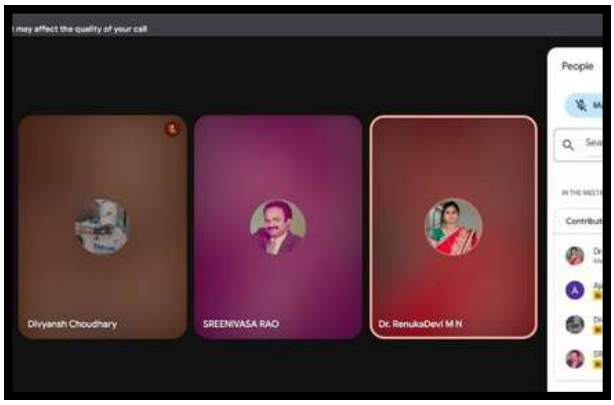
Discussed about BVoc Courses. Briefed about current year BoS Members on the board. In the first year the core engineering subjects which drive through general engg irrespective of Discipline like Mechanical engg to be revisited. It was briefed to the conclave members how IoT hardware concepts prepare students to participate in hackathons. Interested students will focus on problem statements related to IoT and mobile devices, actively engaging in and developing projects based on these challenges. The review panel has expressed to take feedback and evaluation criteria by the CTS team in delivering the course of CTS for all semesters. The panel has suggested introducing real world applications for every programming language : for example, a Linked list can be implemented to which case study. On the lines of AI utilisation as horizontal to all the other courses: a framework to be built to introduce the AI concepts OR automation possibilities in all the courses like AI flavours in CDSS and Embedded.

The panel has suggested implementing trend oriented Secure software development lifecycle, and discussed Cloud technology courses. In learning it is good to have Mind mapping and practical examples in theoretical subjects. Gave good feedback about LINUX programming syllabus. Expressed about the Django course: it's a framework tool is necessary as SEC: Updated to the panel about Students intent and their interest created and registered for the course. Walk through with details about the syllabus of Details of Digital Image Processing.

The chairperson emphasized the substantial syllabus revision, and the inclusion of practical components related to Embedded Systems. The panel inquired about the integration of ARM architecture and the use of ARM boards in experiments, aiming to enhance students' understanding of both the hardware and software aspects of computer organization, in line with the advancements in global semiconductor technology. The nomenclature of B E and BTech, it is discussed that DSU will award B.Tech for Undergrad and M.Tech for Post Grad. Discussed about CIE components elaborated and justified about the dimensions of learning in Open book test and the weightage as 60:40.

Faculty coordinator:
Dr. Revathi V

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING
PARENT TEACHER MEETING FOR 4TH & 6TH SEMESTER STUDENTS



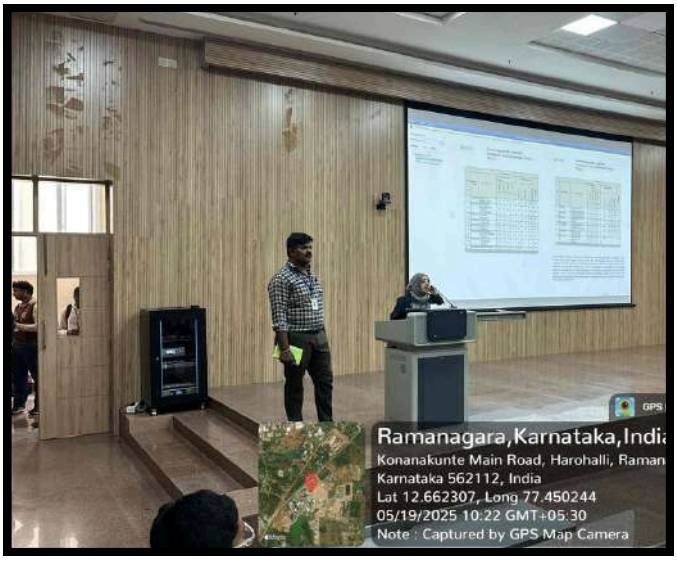
Parents – Teachers Meeting was conducted by the Department. of Computer Science and Engineering for the parents of 4th and 6th semester students on May 30th, 2025 through online mode. The meeting began with a welcome address by the Chairman, followed by a highlighting the department's curriculum, department achievements, including academic results, workshops, and industry collaborations. The placement coordinator along with HR discussed placement activities happening in college campus along with current placement status. Class advisors send separate google-meet to their respective classes and discuss students' academic performance, attendance, and the importance of skill development. The detailed insights into the academic performances of students, highlighting both strengths and areas needing improvement. Parents were provided with individualized reports and feedback on their wards academic standing and were encouraged to actively participate in their wards educational journey. Parents were informed about the various clubs, sports teams, and cultural activities available at the college, emphasizing the role of these activities in shaping an all-rounded individual. Dr. Girisha G S, Professor and Chairman, shared observations regarding students' behaviour, social interactions, and overall attitude in and outside the classroom. He gave a short introduction of department activities, College website, important web pages, Curriculum and the important links in the website. Also, explained about the curriculum design methodology and sought inputs from parents about the curriculum.

DEPARTMENTAL ELECTIVES AWARENESS FOR ODD 7TH SEM
2025-26 BATCH

The following designated faculties addressed the 6th sem CSE students on 21st May 2025 (Wednesday) and gave information/awareness about the elective courses to be offered in the 7th semester.

- About the essence of the subject proposed to be offered
- Why the subject to be studied
- A summary to be explained about how this will help future scope and career perspective.
- Any general prerequisite to be explained and the applications to be used in the current trend.
- Informed that elective registration will be done through ERP

DEPARTMENTAL PROFESSIONAL ELECTIVE -1 AWARENESS FOR ODD 5TH SEM 2025-26 BATCH

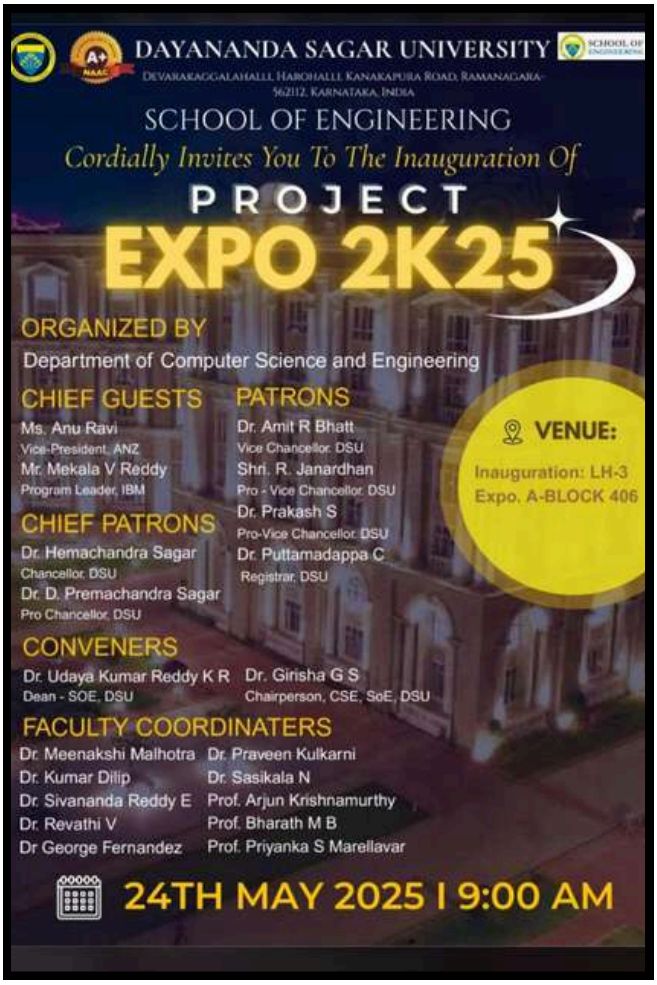


A Professional Elective-1 awareness session was conducted by Computer Science and Engineering regarding the upcoming professional electives for the 5th semester students scheduled on 19th May 2025 (Monday) in the academic year 2025-26. To create awareness among students and guide them in making informed elective choices. Each faculty member had explained the core topics, practical significance, and scope. Emphasis was placed on how each course connects with industry needs and future technologies.

Designated faculty members provided insights on:

- The essence and importance of each elective subject.
- Relevance and benefits for academic and career prospects.
- Basic prerequisites and real-world applications aligned with current trends.
- Elective registration process (to be completed via ERP system).

PROJECT EXPO 2K25



The Department of Computer Science and Engineering conducted ProjectExpo 2K25, an event organized for 8th semester CSE students to showcase their major projects on 24th may 2025. The main purpose of the event was to provide students a platform to demonstrate their technical skills,creativity, and innovative thinking developed over the course of their academic journey.

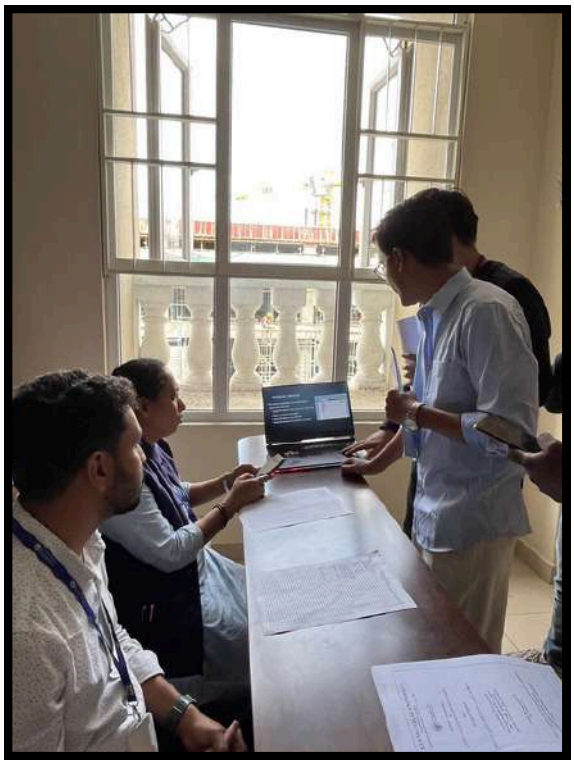
Out of 136 participating teams, 24 were shortlisted based on predefined evaluation criteria by the review panel members. These teams presented their projects to a panel of industry and academic experts, who assessed the projects on parameters such as problem identification, technical depth, innovation, implementation, and presentation.

ProjectExpo 2K25 successfully fostered a spirit of innovation and collaboration, marking a memorable culmination of the student's academic project efforts.

Expert Panel
Ms. Anu Ravi - Vice-President - ANZ
Mr. Mekala V Reddy - Program Leader - IBM

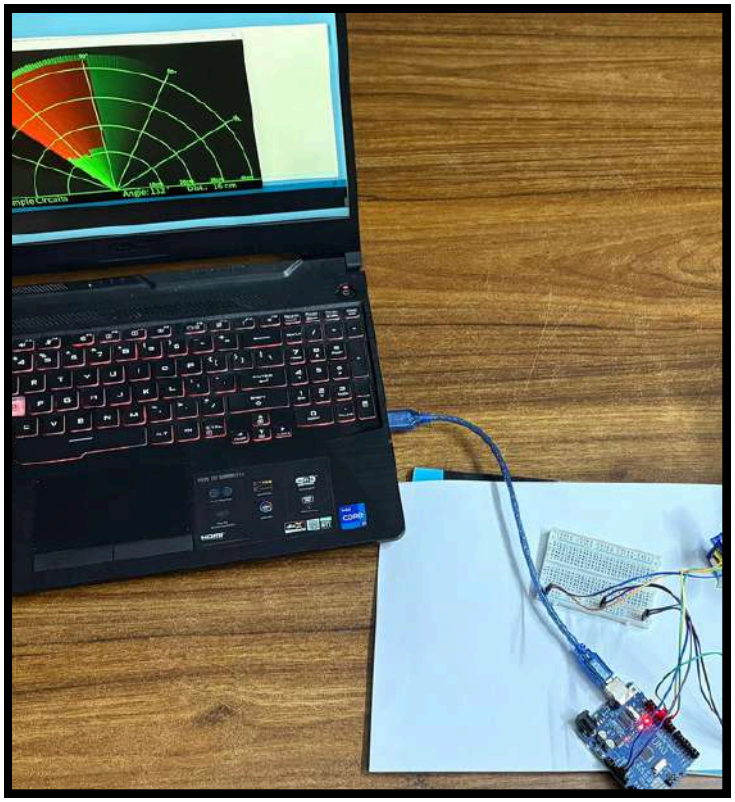
Faculty Coordinators
Dr. Meenakshi Malhotra
Dr. Kumar Dilip
Dr. Sivananda Reddy E
Dr.Revathi V
Dr George Fernandez
Dr. Praveen kulkarni
Dr. Sasikala N
Prof.Arjun Krishnamurthy
Prof. Bharath M B
Prof.Priyanka S Marellavar

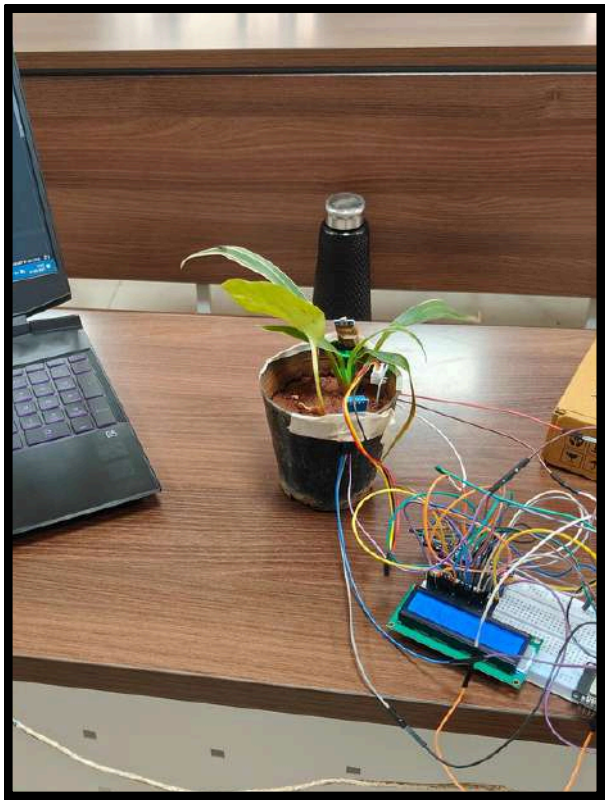
MINI PROJECT EXPO - IOT AUTOMATION 2024-25



The Department of Computer Science and Engineering, School of Engineering, successfully organized a Mini Project Expo on 26th May 2025 as part of the curriculum for the Skill Enhancement Course titled IoT Automation. The event showcased the creative and technical capabilities of 4th semester students, who demonstrated a wide range of innovative projects applying Internet of Things (IoT) technologies to real-world automation scenarios. The expo aimed to provide students with a platform to practically implement the concepts learned in class and to enhance their hands-on skills in designing and developing IoT-based solutions.

A total of 2 faculty reviewers were assigned to evaluate the projects, assessing them on parameters such as innovation, functionality, presentation, and technical implementation. The review process also included constructive feedback to help students refine their ideas further. The projects demonstrated a good grasp of IoT principles, with students integrating sensors, microcontrollers, and cloud platforms in areas like smart home systems, automated irrigation, health monitoring, and industrial automation.





The department Chairperson visited the expo and interacted with students, appreciating their enthusiasm and encouraging them to further develop their prototypes and also shared valuable insights on the importance of interdisciplinary knowledge and real-world applicability in engineering education. The event concluded on a positive note, with students gaining motivation and confidence to continue exploring the field of IoT and its vast potential in automation.

Expert Panel
Prof. Mala B A, Assistant Professor, Dept. of CSE
Prof. Pradeep Kumar K, Assistant Professor, Dept. of AI & ML

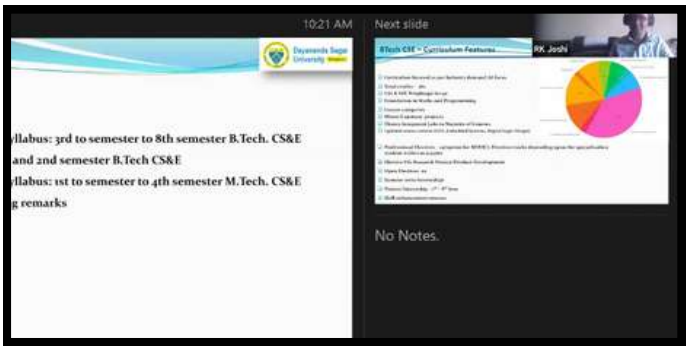
Faculty Coordinators
Prof. Vishwas D B, Assistant Professor, Dept. of CSE
Prof. Dharmendra D P, Assistant Professor, Dept. of CSE

BOARD OF STUDIES MEETING-DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

The Department of Computer Science & Engineering, Dayananda Sagar University conducted its Board of Studies (BoS) meeting on 31st June 2025 in a hybrid mode. The meeting brought together distinguished academic and industry experts to deliberate on curriculum development and academic planning.

Agenda Discussed:

1. Approval of Scheme and Syllabus (2024-2028 Batch):
   - Detailed discussion was held regarding the structure and content of the scheme and syllabus for the batch admitted during the academic year 2024-2028.
   - Feedback and suggestions were incorporated from academic and industry experts to enhance relevance, employability, and interdisciplinary learning.
   - Emphasis was laid on integrating emerging technologies, project-based learning, and value-added courses.
2. Approval of First Year Scheme and Syllabus (2025-2026):
   - The scheme and syllabus for first-year students admitted in the academic year 2025-2026 were reviewed and approved.
   - Changes and updates were made in foundational subjects to align with NEP 2020 and university guidelines.
   - Focus was placed on introducing fundamental programming, communication skills, and multidisciplinary electives in the first year.



Key Decisions and Recommendations:

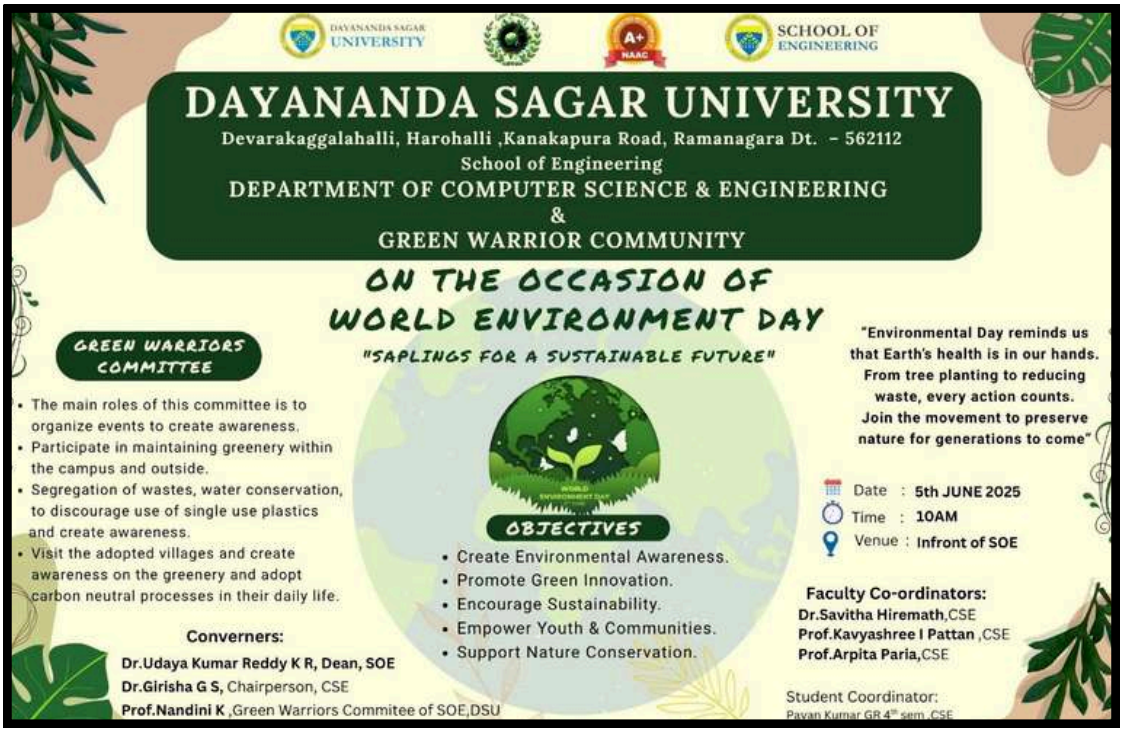
- Adopt outcome-based education (OBE) framework across all semesters.
- Strengthen industry-academia linkage through internships and live projects.
- Inclusion of skill-based labs, audit courses, and domain-specific electives in the curriculum.
- Encourage faculty to undergo FDPs to align teaching with the revised curriculum.

Members Present:

The following panel members were present for the meeting:

SL No.	Name	Designation & Affiliation
1	Dr.Girisha G S	Professor & Chairman, Dept of CS&E, Dayananda Sagar University
2	Dr. Rishikesh k Joshi	Professor Department of Computer Science & Engineering, Indian Institute of Technology Bombay Powai, Mumbai-400076
3	Ms. Soumya Prasada	Sr. Solution Architect-watsonx, IBM
4	Mr. Mekala V Reddy	Program Manager, IBM Technology Expert Labs
6	Dr. Basavaraj Hiremath	Professor, Dept of CS&E Dayananda sagar University
7	Dr. Chetan V Sagarnal	Assistant Professor Dept. of CS&E DSU

"SAPLINGS FOR A SUSTAINABLE FUTURE"



An enlightening session on "SAPLINGS FOR A SUSTAINABLE FUTURE" was conducted by the Department of Computer Science and Engineering ON THE OCCASION OF WORLD ENVIRONMENT DAY on 5th June 2025.

The program began with a warm welcome to all faculty members, staff, and students, followed by an inspiring address by our respected Chairperson, who emphasized the need for collective action to protect our environment. As a symbolic gesture, the Chairperson planted a sapling, setting the tone for the day's activities. All students, faculty members, and staff actively participated in the event, demonstrating great enthusiasm and a strong sense of responsibility toward the environment.

The event featured a series of awareness activities, including posters and highlighting the importance of clean air, green spaces, and sustainable living. A campus-wide tree-planting drive was carried out, during which students and teachers together planted numerous saplings in designated areas. These efforts not only contribute to increasing the green cover and improving air quality but also promote a deeper understanding of the importance of biodiversity and conservation among students.

Such initiatives play a crucial role in instilling environmental values, encouraging eco-friendly habits, and fostering a culture of sustainability within the academic community. The event concluded with a pledge to continue supporting green practices in our daily lives. Students gain awareness of key environmental issues and develop practical skills through hands-on activities like tree planting and clean-up drives. Overall, the celebration of World Environment Day served as an inspiring and educational experience, reinforcing the message that small steps taken today can lead to a healthier and greener planet tomorrow.

Converners:
Dr.Udaya Kumar Reddy K R, Dean, SOE
Dr.Girisha G S, Chairperson, CSE
Prof.Nandini K Green Warriors Commitee of SOE,DSU

Faculty Co-ordinators:
Dr.Savitha Hiremath, CSE
Prof.Kavyashree I Pattan, CSE
Prof. Arpita Paria, CSE

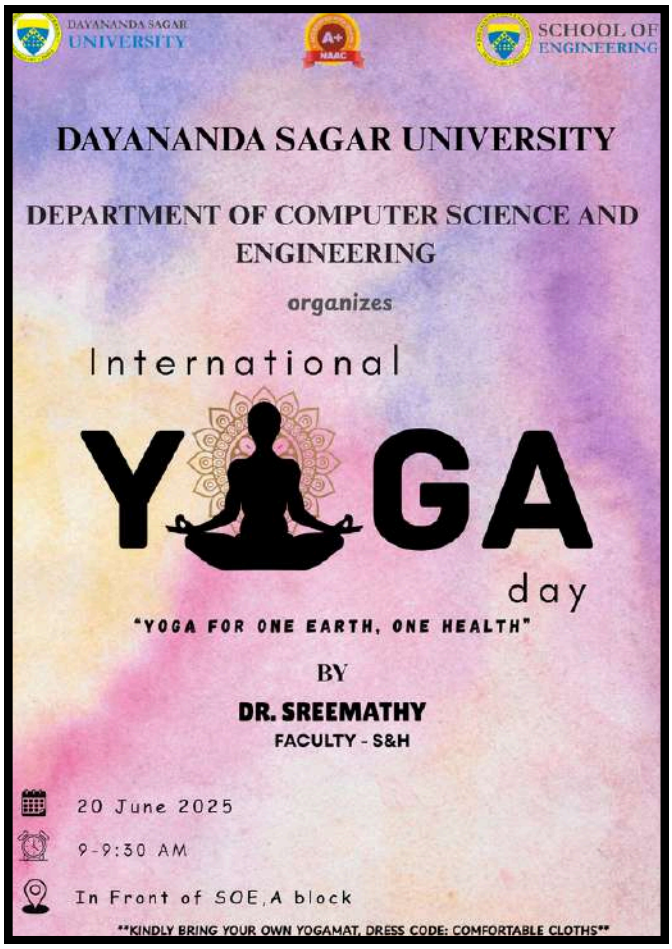
Student Coordinator:
Pavan Kumar GR 4 sem CSE

NEO LAB EVALUATIONS TOOL

The Department of Computer Science and Engineering, SoE, Dayananda Sagar University successfully conducted Short - Duration Lecture on Neo Lab Evaluations Tool was conducted in Lab No. A406 K.Chidananda Gowda Common Computer Centre 2, at 11.00 pm on 12.06.2025. Arun KK and his Team from IamNeo Private Ltd gave demonstration on NEO Lab Evaluation Tool . The Team demonstrated Course content customization, Conduct of Assessment / Quiz and related Analytics, and Programming to our faculty and Staff.

Event Co-ordinated by
Dr Girish.G.S (Chairperson, CS)
Dr Shashikiran.V (Assoc.Prof,CS).

INTERNATIONAL YOGA DAY



The Department of Computer Science and Engineering, SoE, Dayananda Sagar University successfully conducted "International Yoga Day" - Yoga for one earth, one health on June 20th to spread awareness about the importance and benefits of yoga in our daily lives.

Dr. Sreemathy, Faculty-S&H took a lead in guiding yoga(Guru) to all faculties of CSE department.

Yoga is an ancient Indian practice that promotes physical, mental, and spiritual well-being. It helps improve flexibility, strength, and concentration, while also reducing stress and anxiety.

On this special day, HOD and a few faculties come together to perform yoga and embrace a healthier lifestyle. Let us celebrate this day by making yoga a part of our routine and working towards a balanced and peaceful life.

INTERNATIONAL YOGA DAY

A heartfelt thank you to everyone who participated in today's yoga session. Your presence, energy, and commitment made the day truly special.

Special thanks to Dr. Girisha sir for encouraging us to do the yoga event and Dr. Sreemathy ma'am thank you for guiding us with wisdom, patience, and grace.Your teachings have inspired us to find strength, peace, and balance within.

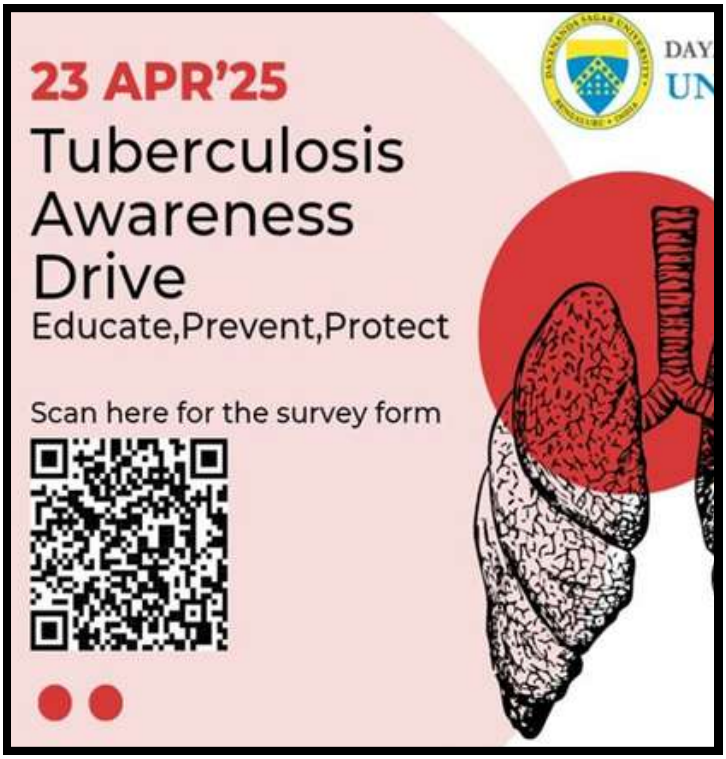
All the facilities and teams who supported and took part in this beautiful journey of mindfulness and well-being.

Together, we celebrated balance, peace, and unity through yoga. Let's carry this spirit forward every day.

DAYANANDA SAGAR UNIVERSITY

INDUSTRIAL VISITS/ EXTENSION ACTIVITIES

EXTENSION ACTIVITY-PUBLIC AWARENESS ON TB "WORLD TUBERCULOSIS (TB) DAY"



The public awareness on "World tuberculosis (TB) Day" organized by the Department of Computer Science and Engineering held on 23/04/2025.
The Tuberculosis (TB) Awareness Event is a public health initiative designed to educate, inform, and engage the community in the global effort to combat TB. Despite being preventable and curable, tuberculosis remains one of the top infectious disease killers worldwide. This event serves as a platform to highlight the importance of early detection, proper treatment, and sustained community support in eradicating TB.

The event brings together healthcare professionals, public health officials, educators, students, community leaders, and local residents to participate in a variety of activities. These include educational seminars, expert talks, awareness rallies, interactive workshops, poster presentations, and free TB screening or consultation services (if available). Participants are given insights into the causes, symptoms, risk factors, and transmission of TB, along with practical guidance on prevention methods and treatment options.

A significant focus of the event is also on breaking the stigma associated with TB. Many people delay diagnosis or hide their illness due to fear of social judgment. By openly discussing TB in a supportive environment, the event helps reduce this stigma and encourages affected individuals to seek timely medical help without fear.

In addition to raising awareness, the event supports national and international public health goals, such as those set by the World Health Organization's End TB Strategy, which aims to eliminate TB as a public health threat. The involvement of various stakeholders ensures a collaborative approach and helps in building a more resilient, informed, and proactive community.

Ultimately, this TB Awareness Event is not just about education—it's about empowerment. It is a call to action for everyone to take responsibility, spread knowledge, and stand united in the fight against tuberculosis. By coming together, we strengthen our community's capacity to detect, prevent, and eliminate TB, moving closer to a healthier and TB-free future.

Guests
Dr. Snehaa J, Assistant Professor,
Department of Community Medicine

Faculty coordinator:
Prof Mr. Manojkumar N I

DAYANANDA SAGAR UNIVERSITY

GUEST LECTURE

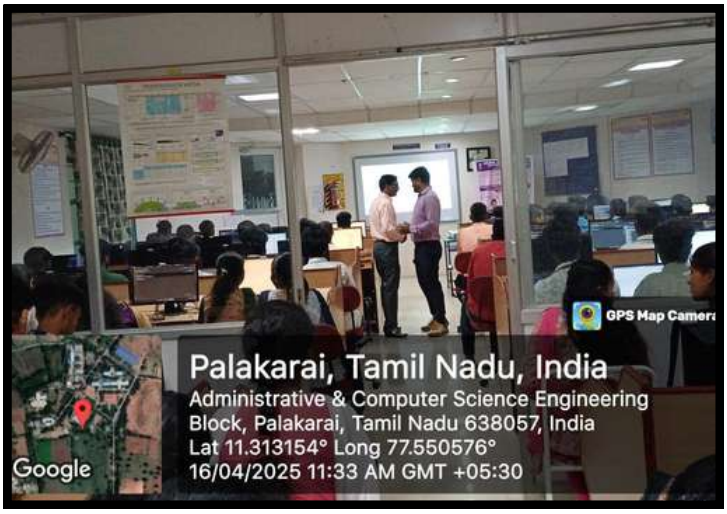
GUEST LECTURE - "ENHANCING CYBERSECURITY WITH BLOCK CHAIN" AT BRINDAVAN COLLEGE OF ENGINEERING

Prof Mala B A, Assistant Professor, Department of CSE Served as a resource person for one day workshop on "Enhancing cybersecurity with Block chain Technology" for the 6th semester students at Department of CSE, Brindavan College of Engineering, Bengaluru during 7th April 2025. In her expert talk, she provided a comprehensive overview of how blockchain technology can revolutionize cybersecurity practices by introducing decentralized, tamper-proof systems. She explained core blockchain principles such as distributed ledger technology, cryptographic security, and consensus mechanisms, highlighting their potential to mitigate common cyber threats like data breaches, identity theft, and unauthorized access.

The session also delved into current innovations and real-world implementations of blockchain in cybersecurity, including secure digital identity management, transparent data sharing, and fraud detection. Prof. Mala further discussed the technical and practical challenges in blockchain adoption, such as scalability, regulatory concerns, and interoperability. Concluding her talk, she emphasized emerging trends and future directions in the convergence of blockchain and cybersecurity, inspiring students and faculty to explore research and development opportunities in this dynamic field. The session was interactive, thought-provoking, and well-received by the participants.

Department of CSE would like to express sincere gratitude to the promptness and friendly manner shown in accepting our invitation and dealing with our request even amidst your busy schedule

GUEST LECTURE-"ADVANCED AUTOMOTIVE TECHNOLOGY (AAT) FOR E-MOBILITY IN XEVS: INNOVATION AND FUTURE TRENDS"



Prof Bharath M B, Assistant Professor, Department of CSE Served as a resource person for 3-days National Workshop on "Advanced Automotive Technology (AAT) for E-Mobility in xEVs: Innovation and Future Trends" held from 15th to 17th April 2025 for the 6th semester students at Department of CSE, Erode Sengunthar Engineering College, Erode, TamilNadu. Supported by Anusandhan National Research Foundation (ANRF) under the SERB Seminar/Symposia Scheme. The primary objective of this three-day national workshop was to provide an in-depth understanding of the latest advancements, challenges, and future trends in electric mobility and advanced automotive technology. The workshop aimed to create a platform for academicians, research scholars, industry professionals, and students to engage with experts and explore innovative solutions for sustainable e-mobility and xEV (Electric and Hybrid Vehicles) systems.

During his session the Fundamentals of Electric and Hybrid Vehicle Powertrains – covering electric propulsion systems, battery management, and power electronics are taught. Practical demonstrations on electric powertrain simulators and battery management system modules were conducted for participants. Outcomes of the workshop are Enhanced awareness and technical knowledge on emerging trends in automotive and e-mobility technology. Opportunities for collaborative research and industry-institute interactions. Hands-on exposure to key components and systems used in electric and hybrid vehicles. A compiled resource kit with session recordings, presentation slides, and research materials shared with all participants

GUEST LECTURE DELIVERED AT THE FDP ON "GENERATIVE AI AND FUTURE COMPUTING"

Dr. Natarajan Venkateswaran, Professor of Practice, Department of Computer Science and Engineering, SOE, DSU delivered Guest Lecture at the FDP on "Generative AI and Future Computing" which was held from June 16th to June 20th, 2025 at JD College of Engineering and Management, Nagpur. The FDP was organized by the E&ICT Academy, IIT Guwahati, in association with the Department of Information Technology and Computer Science & Engineering (Data Science), JD College of Engineering and Management, Nagpur. Techvictus Consultancy Services Private Limited also provided us with support.

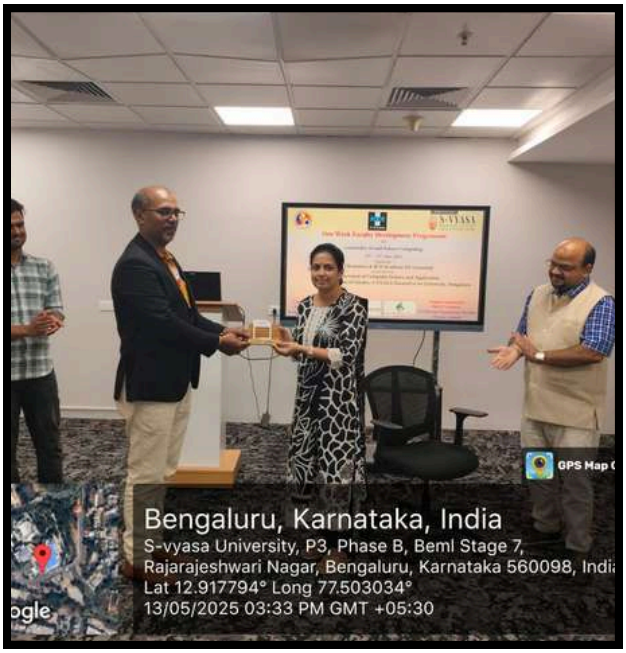
During day 1 (June 16, 2025) Dr. Natarajan Venkateswaran delivered Overview of NLP and its applications, basics of NLP operations for text processing, word embedding models, introduction to sequential data and its applications, sequential data modeling (RNNs), Introduction to Language Modeling and Large Language Models with applications. Hands-on session using Python, Pandas, Numpy, NLTK/SpaCy. Introduction to Generative AI (examples, model types, working, applications).

During day 2 (June 17, 2025) Dr. Natarajan Venkateswaran delivered Prompt Engineering (introduction, prompt elements, examples of prompts, prompting techniques), GenAI Agents, Agentic AI vs. GenAI. Hands-on session on Prompt Engineering and Agents.

GUEST LECTURE AT THE ONE WEEK FDP ON GENERATIVE AI AND FUTURE COMPUTING

Dr. Natarajan Venkateswaran, Professor of Practice and Dr. Poongodi, Professor, Department of Computer Science and Engineering, SOE, DSU delivered Expert Talks in the One-week Faculty Development Programme (FDP) on "Generative AI and Future Computing" held at School of Advanced Studies, S-VYASA Deemed-to-be-University in Bengaluru from May 12th to May 17th, 2025.

During Day 1 (May 12, 2025) Dr. Poongodi has delivered an overview of NLP and its applications, introduction to sequential data and its applications, sequential data modeling (RNNs, LSTM, GRU), and applications like question answering/text summarization.



Day 2 (May 13, 2025): Hands-on session on sequential data modeling using Python, Pandas, Numpy, NLTK/SpaCy. Introduction to Transformers (Word Embedding, Attention Mechanisms, Evolution of Large Language Models), real-world use cases, and an introduction to Generative AI (examples, model types, working, applications, Gen AI vs. LLMs, challenges). Hands-on session on LLM from scratch and fine-tuning pre-trained language models.

During Day 3 (May 14, 2025) Dr. Natarajan Venkateswaran has delivered on GenAI Agent, Agentic AI vs. GenAI, Prompt Engineering (introduction, prompt elements, examples of prompts, prompting techniques). Hands-on session on Prompt Engineering and Agents.

DAYANANDA SAGAR UNIVERSITY

FACULTY ACHIEVEMENTS

FACULTY ACHIEVEMENTS

Dr. Senthil Kumar A, Professor, Dr. Gokulakrishnan S, Assistant Professor, Department of CSE presented a paper titled "A Comprehensive Deep Learning Framework for Physical Vehicle Fitness testing and Document Validation" in the Springer Nature 9th International Conference on Information and Communication Technology for Intelligent Systems (ICTIS), Thailand 2025 during 4th to 6th April 2025.

Dr. Senthil Kumar A, Professor and Dr. Gokulakrishnan S, Assistant Professor, Department of Computer Science and Engineering published an Indian patent with the title "Adaptive AI-IoT Architecture for Early Detection of Health Abnormalities" with the application no .202541050135 A and the name of the applicant Dayananda Sagar University during 30th May 2025.

Dr. Gokulakrishnan S, Assistant Professor, and Dr. Senthil Kumar A, Professor, Department of CSE has successfully presented the paper entitled "An Efficient Elderly Fall Monitoring and Detection System using Machine Learning and Computer Vision" at 6th International Conference on Inventive Research in Computing Applications (ICIRCA 2025) organised by Department of Electrical and Electronics Engineering, RVS College of Engineering and Technology, Coimbatore, India on 25-27, June 2025.

FACULTY ACHIEVEMENTS

Dr. Gokulakrishnan S, Assistant Professor, Department of CSE presented a paper titled "Designing a Custom Linux Distribution for Improved Accessibility" in the Springer Nature International Conference on Web Intelligence and Human Machine Interaction (ICWIHI 2025) organized by R P Sarathy Institute of Technology, Salem, Tamil nadu, India on 8th to 9th April 2025.

Dr. Gokulakrishnan S, Assistant Professor, Department of CSE presented a paper titled "An Optimized Deep Learning based Framework for Cognitive State Classification using Brain-Computer Interface Technologies" in the Springer 9th International Conference on Inventive Communication and Computational Technologies (ICICCT-2025) organized by Sri Ramakrishna College of Engineering, Perambalur, India during 5-6 June 2025.

FACULTY ACHIEVEMENTS

Dr. Gokulakrishnan S, Assistant Professor, Department of CSE has completed the FDP on AI Mastery for Educators from 15th May to 7th June 2025 organized by Vishlesan i-HUB IIT patna.

Dr. Gokulakrishnan S, Assistant Professor, has successfully participated in the National Level online workshop on "Application development with AI and Essential skills" Organized by ARMY INSTITUTE OF TECHNOLOGY In association with BRAIN VISION SOLUTIONS INDIA PVT. LTD. in collaboration with AICTE (All India Council for Technical Education), held from June 23 to June 27, 2025.

Prof. Dharmendra D.P, Assistant Professor, Department of CSE has presented a paper titled "Investigation on Advances in canines and premolars width estimation in the given Dental Panoramic Radiographic Images" in the Second International Conference on Emerging
Technologies in Science and Engineering, Akshaya Institute of Technology,
Tumkur, Karnataka during June 19-20, 2025.

FACULTY ACHIEVEMENTS

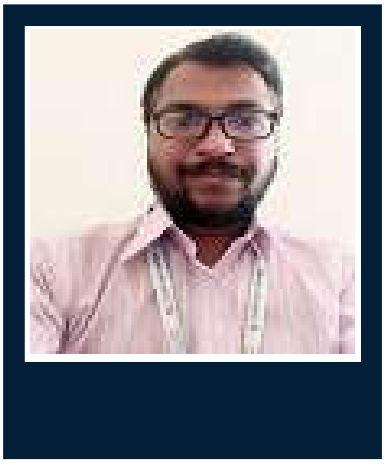
Dr. Bipin Kumar Rai, Professor, Department of CSE served as a Session Chair at the 2025 Seventh International Conference on Computational Intelligence and Communication Technologies (CCICT), 11-12 April, 2025 organized by BM Institute of Engineering & Technology, Sonipat, Haryana.

Dr. Bipin Kumar Rai, Professor, Department of CSE contributed as reviewer in the 3rd International Conference on Automation and Computation (IEEE: AUTOCOM-2025) organized by GRAPHIC ERA HILL UNIVERSITY , Deharadun during May 2025.

Dr. Bipin Kumar Rai, Professor, Department CSE contributed as reviewer in the 3rd IEEE International Conference on Computer, Electronics and Electrical Engineering and their Applications (IC2E3-2025), held from 15th - 16th May, 2025 at National Institute of Technology Uttarakhand, India.

FACULTY ACHIEVEMENTS

Dr. Bipin Kumar Rai, Professor CSE department has successfully organized a special session on the topic "AI-Recent trends on Blockchain, Cloud Computing, Machine Learning for real life problem-solving " for the First International Conference on Artificial Intelligence, Computation, Communication and Network Security (AICCoNS 2025) held in the University of Wollongong in Dubai, 5-6 June 2025.



Prof. Naitik ST, Assistant Professor, Department of CSE has successfully defended his Final Ph.D Viva Voice on the research work titled "Enhancing User Authentication Process by Multimodal Biometric System Using Deep Learning Techniques" under the guidance of Dr. J V Gorabal, Professor, Department of CSE, ATME College of Engineering, Mysore, affiliated to Visvesvaraya Technological University, Belagavi, during 25th June 2025.

FACULTY ACHIEVEMENTS

Dr. Shreekant Salotagi, Assistant Professor, Department of CSE has successfully participated in the 1st One Week International EDP (ONLINE) on "How to Publish Research Papers in High-Impact Factor Journals and Research Ethics to Prevent Retraction". The EDP is organized by the School of Electronics Engineering at VIT-AP University, Amaravati, during 17th -24th April 2025.

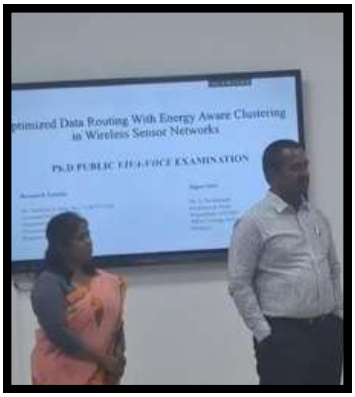

Hybrid Approach of TabNet and Transformer-XGBoost for Predicting Traffic Flow Smart Cities

Dr. Shreekant Salotagi, Assistant Professor, Department of CSE has successfully published a research paper in the IEEE with the title "Hybrid Approach of TabNet and Transformer-XGBoost for Predicting Traffic Flow in Smart Cities" presented in the 2025 IEEE 1st International Conference on Smart and Sustainable Developments in Electrical Engineering (SSDEE) during 25th April 2025.DOI:10.1109/SSDEE64538.2025.10968571


frontiers

Dr. Shreekant Salotagi, Assistant Professor, Department of CSE acted as a reviewer for the article Smart Agriculture Resource Allocation and Energy Optimization Using Bi Long Short-term Memory with Ant colony Optimization Algorithm (Bi-LSTM-ACO), within the section IoT and Sensor Networks in Frontiers in Communications and Networks a Q2 Journal during 13th May 2025.

FACULTY ACHIEVEMENTS



Prof. Sasikala Nagarajan, Assistant Professor, Department of CSE has successfully defended her viva on the research work titled "Optimized Data Routing with Energy-Aware Clustering in Wireless Sensor Networks", under the guidance of Dr. S Pavalarajan, Professor and Head, CSBS, PSNACET, Dindigul and has received the recommendation for the award of the Ph.D. degree from Anna University, Chennai. The defense panel consists of Dr. E Sivasankar, Associate professor, Dept. CSE, National Institute of Technology, Tiruchirappalli and the Subject Expert Dr. M P Ram Kumar, Associate Professor, Department of CSE, Thiagarajar College of Engineering, Madurai, on 25th April 2025.

SAI VIDYA INSTITUTE OF TECHNOLOGY

IEEE IEEE

International Conference on Advancement in Communication & Computing in Technology (INOACC-2025)

Certificate

This is to certify that Dr./Prof./Mr./Ms. **Nandini K** has presented paper entitled **Multiple Sclerosis Diseases Detection using Machine Learning approaches for Medical Imaging** in 2025 International Conference on Advancement in Communication & Computing in Technology (INOACC), jointly organised by Departments of CSE, ISE, ECE, CSE (AI & ML), CSE (DS) at Sai Vidya Institute of Technology, Bengaluru, India held during 4th – 6th April, 2025.

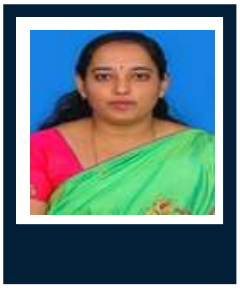
Dr. Shantakumar B Patil
Secretary and Outreach Chair

DR. M S Ganesha Prasad
General Chair

Prof. Nandini K, Assistant Professor, Department of CSE has successfully presented paper entitled “Multiple Sclerosis Diseases Detection using Machine Learning approaches for Medical Imaging” in 2025 International Conference on Advancement in Communication & Computing in Technology (INOACC), jointly organised by Departments of CSE, ISE, ECE, CSE (AI & ML), CSE (DS) at Sai Vidya Institute of Technology, Bengaluru, India held during 4th- 6thApril, 2025.

FACULTY ACHIEVEMENTS

Prof. Mala B A, Assistant Professor, Department of CSE has presented a paper titled "A Decentralized Electronic Health Record System to Enhance Data Security and Accessibility in Healthcare Using Ethereum Blockchain Technology" in the Second International Conference on Emerging Technologies in Science and Engineering, Akshaya Institute of Technology, Tumkur, Karnataka during June 19-20, 2025.



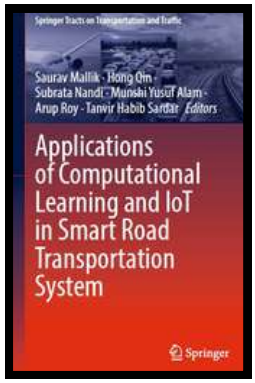
Prof. Mala B A, and Prof. Arpita Paria, Assistant Professors, Department of CSE has presented a paper titled "AVI-Based Assessment of Communication Skills and Personality Characteristics" in the Second International Conference on Emerging Technologies in Science and Engineering, Akshaya Institute of Technology, Tumkur, Karnataka during June 19-20, 2025.

FACULTY ACHIEVEMENTS

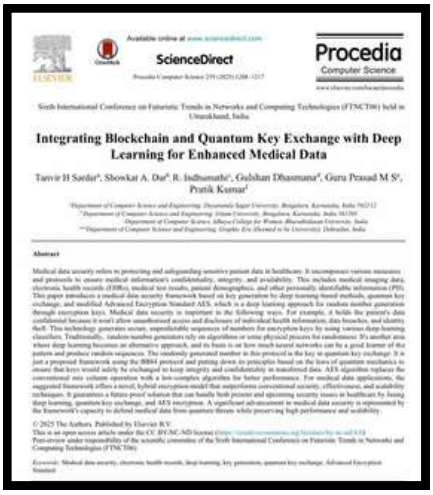
Dr. Tanvir Habib Sardar, Associate Professor and Dr. P Naresh, Assistant Professor, Department CSE has published a research article entitled "Facial Expression Analysis for Efficient Disease Classification in Sheep Using a 3NM-CTA and LIFA-Based Framework" in the SCIE and Scopus index journal named IETE Journal of Research from Taylor and Francis publisher during 07th May 2025. DOI https://doi.org/10.1080/03772063.2025.2498610.

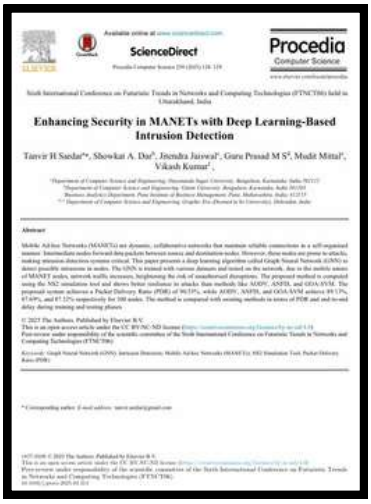
Prof. Bharath M B, Assistant Professor, Department of CSE has presented a paper titled "Cross-Site Scripting Attack Detection: A Comparative Study of Traditional and Deep Learning-Based Solutions", in the Second International Conference on Emerging Technologies in Science and Engineering, Akshaya Institute of Technology, Tumkur, Karnataka during June 19-20, 2025.

FACULTY ACHIEVEMENTS



Dr. Tanvir Habib Sardar, Associate Professor, Department of CSE Published a book titled "Applications of Computational Learning and IoT in Smart Road Transportation System" during May 2025 with publisher "Springer Publications".





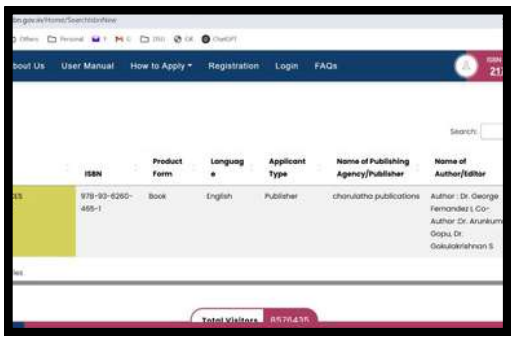
Dr. Tanvir Habib Sardar, Associate Professor, Department of CSE Published 3 ELSEVIER Conference Papers with titles "Integrating Blockchain and Quantum Key Exchange with Deep Learning for Enhanced Medical Data", "Harnessing Deep Learning and Time Series Models for Accurate Global Solar Radiation Prediction" and "Enhancing Security in MANETs with Deep Learning-Based Intrusion Detection" during 14th May 2025, which was presented in the Sixth International Conference on Futuristic Trends in Networks and Computing Technologies (FTNCT06) held in Graphic Era Hill University, Haldwani Campus, India from 23rd to 24th December, 2024

FACULTY ACHIEVEMENTS

Dr. Girisha G S, Professor, Department of CSE has successfully presented the research papers with the titles "Object Recognition and Tracking System for Visually Impaired People", "Face Revive: GAN-Based Restoration for Enhancing Facing Imagery" and "Interactive Autism Support System" in the 16th International Conference on Recent Engineering and Technology held on 16th to 17th May 2025 at East West College of Engineering, Bengaluru, India.

Dr. George Fernandez I, Associate Professor, Department of CSE served as a National advisory and Technical Committee member in the International Conference on Computer, Communication and Informatics (PERI ICCCI'25) organized by Department of Computer Science and Engineering and Department of Computer Technology, PERI Institute of Technology, Chennai, Tamilnadu during 16th April 2025.

FACULTY ACHIEVEMENTS



Dr George Fernandez I, Dr. Arunkumar Gopu, Associate Professors and Dr. Gokulakrishnan S, Assistant Professor, Department of CSE Published a book titled "Cloud Services Management" during 6th May 2025 with publisher "Charulatha Publications" and the ISBN is 978-93-6260-465-1.


Journal of Information Systems Engineering and Management

Research Article

Enhanced Deep Residual Network based Self-Learning framework for Mango leaf disease Classification: Focus on Anthracnose and Grey Blight

ARTICLE INFO

ABSTRACT

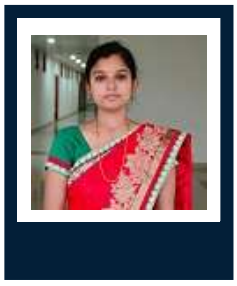
INTRODUCTION

Dr. Girisha G S, Professor and Mr. Rakesh T M, Ph.D. Scholar under Dr. Girisha G S, from the Department of CSE, published a research article entitled "Hybrid CNN-BiLSTM with CTC for Enhanced Text Recognition in Complex Background Images" in the Scopus indexed Q3 Journal named Journal of Information Systems Engineering and Management during May 2025.

FACULTY ACHIEVEMENTS

Dr. Damodharan D, Assistant Professor, Department of CSE, Dayananda Sagar University has successfully completed the 40 hours (3-Credits equivalent) Faculty Development Programme on QT-02 Foundations of Quantum Technologies during April 11- May 03, 2025 jointly organized by various Academies. This programme is funded by MeitY and endorsed by DST NQM / AICTE / UGC .

Dr. Damodharan D, Assistant Professor, Department of CSE, has successfully participated in the National level online Faculty Development Programme on "The Foundations and Future of Quantum Computing" from 5th May to 9th May 2025 organized by Sri Sairam College of Engineering.

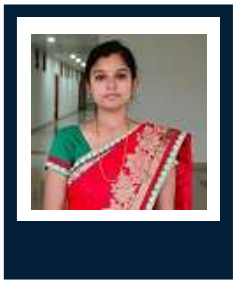


Dr. Renuka Devi M N, Assistant Professor, Department of CSE has received a reviewer certificate from the Q1 journal Multimedia Tools and Applications (MTAP) for reviewing two research papers with titles "Designing Logo with Generative Models" and "Advancements in Person Re-Identification through Artificial Intelligence Techniques" during June 2025.

FACULTY ACHIEVEMENTS



Dr Rajesh T M, Associate Professor, Mrs. Lavanya B Koppal research Scholar, Department of CSE and Dr. Vedamurthy K B, Karnataka Veterinary Animal and Fisheries Science University, Bengaluru, published a research article entitled "View of Enhanced Deep Residual Network based Self-Learning framework for Mango leaf disease Classification_ Focus on Anthracnose and Grey Blight" in the Scopus indexed Q3 Journal named Journal of Information Systems Engineering and Management during May 2025.

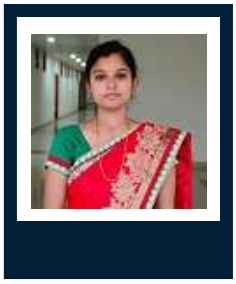
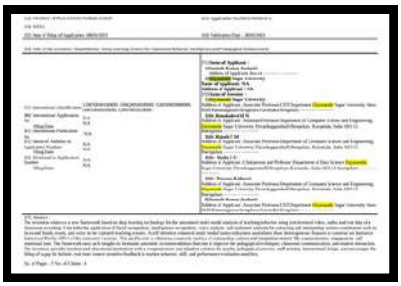




Dr. Renuka Devi M N, Prof kavyashree I Pattan, Assistant Professors, and Dr Rajesh T M, Dr Praveen Kulkarni, Associate Professors, published a paper titled "A Novel Methods for Detecting Normal and Abnormal Crowd Dynamics using Optical Flow and Energy Level Analysis" as a book chapter in the book Advances in Electrical and Computer Technologies published by Taylor & Francis group which was presented in the Sixth International Conference on Advances in Electrical and Computer Technologies 2024 (ICAECT 2024) organized by the Sengunthar Engineering College (Autonomous), Tiruchengode, TamilNadu, India, and Diligentech Solutions, Coimbatore, Tamil Nadu, India, during 26-27 September 2024 with ISBN 9781003515470 and DOI https://doi.org/10.1201/9781003515470

FACULTY ACHIEVEMENTS



Dr. Rajesh T M, Dr. Praveen Kulkarni, Associate Professors, and Dr. Renuka Devi M N, Assistant Professor, Department of CSE published an Indian patent with the title "SmartMentor: Deep Learning System for Classroom Behavior Intelligence and Pedagogical Enhancement" with the application no 202541044612A and the name of the inventor Dayananda Sagar University during 30th May 2025.


Prof. S. Benaka Santhosha, Assistant Professor, Department of CSE has published a paper titled "Robust Partial Image Security Through Chaotic Map and Non-adaptive Techniques" in the Springer Nature Q1 Journal SN computer Science during May 2025.
https://doi.org/10.1007/s42979-025-03991-6

Prof. Benaka Santhosha S, Assistant Professor, Department of CSE has presented a paper titled "Efficient Partial Image Encryption Using Genetic Algorithm for Time Saving Applications" in the Second International Conference on Emerging Technologies in Science and Engineering, Akshaya Institute of Technology, Tumkur, Karnataka during June 19-20, 2025.

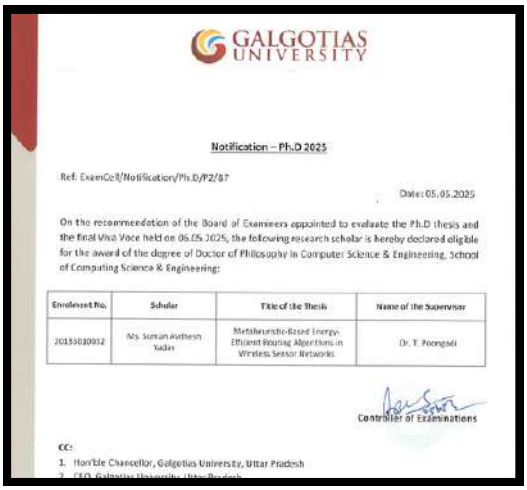
FACULTY ACHIEVEMENTS

Dr. Naresh P, Assistant Professor, Department of CSE presented 3 papers titled " Data Mining for Advanced Anomaly Detection of Speech using One Class SVM (DaMaDS)" , " Machine Learning-Enabled Virtual Hiring Assistant Powered by Unigram Tokenization and Sentiment Analysis" and "Heart Disease Prediction using Machine Learning" in the IEEE 3rd International Conference on Inventive Computing and Informatics (ICICI 2025) held from 4th to 6th June 2025 at S.E.A. College of Engineering and Technology, Bengaluru, Karnataka.

Dr. Naresh P, Assistant Professor, Department of CSE presented a paper titled "Self-Supervised Contrastive Denoising with VIT and U-net: A Hybrid Approach" , in the IEEE International Conference on Intelligent Computing and Knowledge Extraction (ICICKE-2025) organized by School of Engineering and Technology, CMR University, Bengaluru, held from 6th to 7th June 2025.

FACULTY ACHIEVEMENTS

Dr. Poongodi T, published a Scopus indexed conference paper entitled "Investigation of Security Attacks in IoMT Devices and Federated Learning as a Mitigation Strategy", International Conference on Machine Learning and Data Engineering (ICMLDE 2024), Elsevier, ScienceDirect, Procedia Computer Science, 258 (2025) 3426-3435.



GALGOTIAS UNIVERSITY

Notification – Ph.D 2025

Ref: ExamCell/Notification/Ph.D/P2/87

Date: 05.05.2025

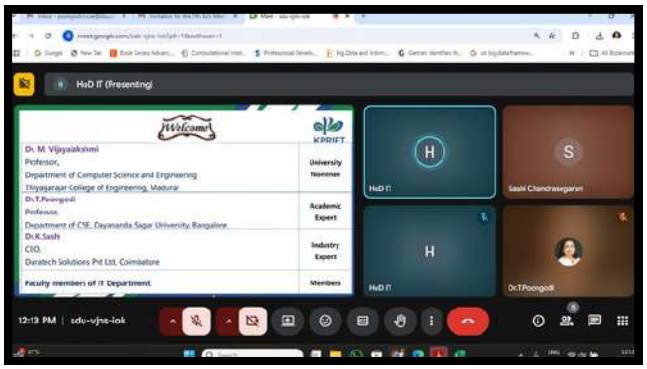
On the recommendation of the Board of Examiners appointed to evaluate the Ph.D thesis and the final Viva Voce held on 06.05.2025, the following research scholar is hereby declared eligible for the award of the degree of Doctor of Philosophy in Computer Science & Engineering, School of Computing Science & Engineering:

Enrolment No.	Scholar	Title of the Thesis	Name of the Supervisor
20133010032	Ms. Suman Avdhesh Yadav	Metaheuristic-Based Energy-Efficient Routing Algorithms in Wireless Sensor Networks	Dr. T. Poongodi

Controller of Examinations

CC:
1. Hon'ble Chancellor, Galgotias University, Uttar Pradesh

Under the guidance of Dr. Poongodi T, Professor, Department of CSE, the research scholar Ms. Suman Avdhesh Yadav (Enrolment No.: 20133010032) was awarded the degree of Doctor of Philosophy (Ph.D.) in Computer Science & Engineering, Galgotias University for her thesis entitled "Metaheuristic-Based Energy-Efficient Routing Algorithms in Wireless Sensor Networks" on 06.05.2025.



Dr. Poongodi T, Professor, Department of CSE contributed as an Academic Expert in the 7th Board of Studies (BoS) meeting, Department of Information Technology, KPR Institute of Engineering and Technology, Coimbatore, scheduled on 31st May 2025 (Saturday) from 11:45 AM to 12:30 PM, provided the valuable input for R2025 in designing the curriculum and syllabi.

FACULTY ACHIEVEMENTS

Dr. T. Poongodi, Professor, Department of CSE has Organized a special session on the topic "Revolutionizing Deep Learning Paradigms with Edge Intelligence and Internet of Things" for the First International Conference on Artificial Intelligence, Computation, Communication and Network Security (AICCoNS 2025) held in the University of Wollongong in Dubai, 5-6 June 2025.

Dr. Revathi V, Associate Professor, Department of CSE contributed as Session Chair in the 6th International Conference of Emerging Technologies (INCET) 2025 is Technically Co-sponsored by IEEE Bangalore section in Jain College of Engineering , Belagavi ,Karnataka , India during 22nd to 24th May 2025.

Dr Revathi V, Associate Professor, Department of CSE has participated as a delegate in the 5th Edition of the Healthcare Summit 2025 held on 13th & 14th June 2025 at IISC, Bangalore.

FACULTY ACHIEVEMENTS

Prof. Diana George, Assistant Professor, Department of CSE presented her research paper titled "Ensemble Stacking of GNNs, Transformers and Reinforcement Learning for Scalable Personalized Book Recommendations" in the 1st International Conference on Networked Computing and Data Analytics (ICNCDA-2025) held during May 23-24 2025 at Poornima Institute of Engineering and Technology, Jaipur, Rajasthan.

Prof. Diana George, Assistant Professor, Department of CSE presented her research paper titled "An Explainable Deep Learning Approach For Diabetic Foot Ulcer Prediction" in the International Conference on Artificial Intelligence and Sustainable Innovation (ICAISI-2025) organized by Suresh Gyan Vihar University, Jaipur held from May 30th to 31st, 2025.

Prof. Sushma. D.S, Assistant Professor, Department of CSE has successfully participated in the Five-Day Online Faculty Development Programme (FDP) on "NextGen Data Science: Transforming Education and Research through Data," held from 23rd June 2025 to 27th June 2025, organized by the Presidency School of CSE & IS, Presidency University, Bengaluru, India.

FACULTY ACHIEVEMENTS

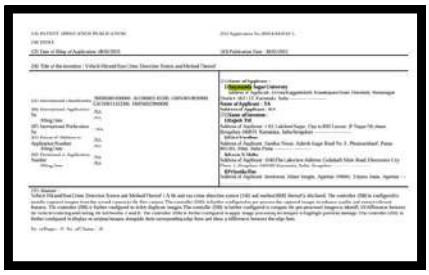
Dr. Sivananda Reddy E, Associate Professor, Department of CSE, presented 2 papers titled "Machine Learning-Enabled Virtual Hiring Assistant Powered by Unigram Tokenization and Sentiment Analysis" and "Wine Quality Prediction Using XGBoost with Polynomial Feature Expansion and SMOTE" in the IEEE 3rd International Conference on Inventive Computing and Informatics (ICICI 2025) held from 4th to 6th June 2025 at S.E.A. College of Engineering and Technology, Bengaluru, Karnataka.

A Proposal To Integrate Interactive Simulations, Symbols & Interface Into Language & Beyond For Teaching Effectively To First-Year Engineering Students In India

Dr. Meenakshi Malhotra, Associate Professor Department of CSE has successfully published a research paper in the Q4 journal titled "A Proposal to Integrate Interactive Simulations, Symbols & Interface into Language & Beyond for Teaching Effectively to First-Year Engineering Students in India" in the International Journal of Environmental Sciences (Indexed in Scopus and Web of Science) during June 2025.

FACULTY ACHIEVEMENTS

Dr. Rajesh T M, Associate Professor, Mr. Kirti Vardhan(ENG22CS0342), Mr. Kevin V Shibu (ENG22CS0081), Ms. Priyanka Das(ENG22CS0397), 6th semester students, Department of CSE published a Indian patent with the title "Vehicle Hit and Run Crime Detection System and Method Thereof" with the application no 202541044742A and the name of the applicant Dayananda Sagar University during 30th May 2025.




ScienceDirect

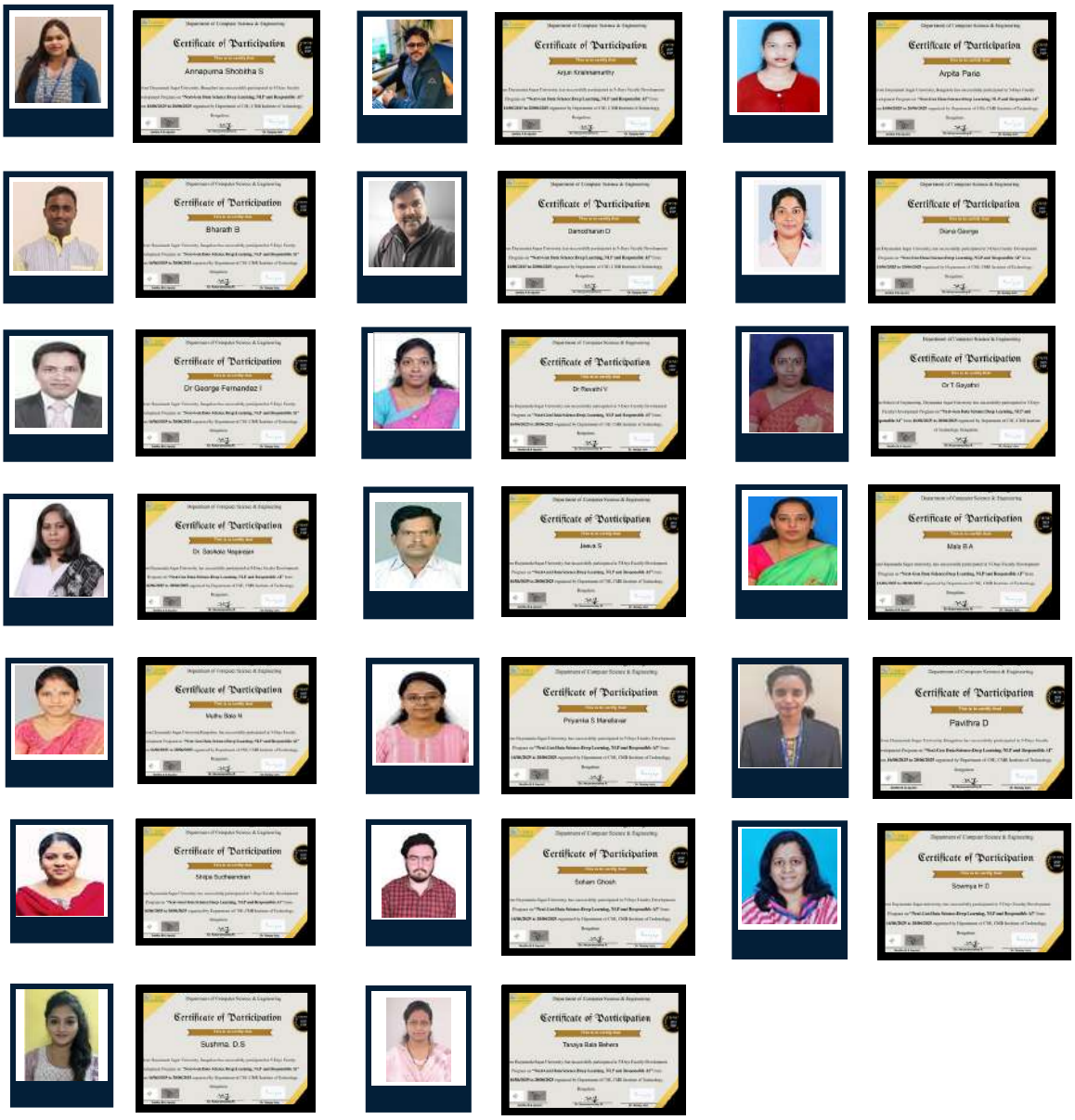
Procedia Computer Science

International Conference on Machine Learning and Data Engineering

Secure Data Embedding in Digital Images: Enhancing Covert Communication with LSB-Based Techniques

Dr. Rajesh T M, Associate Professor, Department of CSE, published a Scopus indexed conference paper entitled "Secure Data Embedding in Digital Images : Enhancing Covert Communication with LSB-Based Techniques" in Elsevier, ScienceDirect, Procedia Computer Science, 258 (2025) 2091–2100 during June 2025 which was presented in the International Conference on Machine Learning and Data Engineering (ICMLDE 2024).

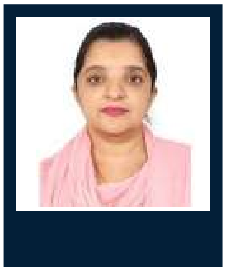
FACULTY ACHIEVEMENTS



The following faculties from Department of CSE, DSU successfully participated in 5-Days Faculty Development Program on "Next-Gen Data Science:Deep Learning, NLP and Responsible AI" from 16/06/2025 to 20/06/2025 organized by Department of CSE, CMR Institute of Technology.

Prof. Annapurna Shobitha S, Prof. Arjun Krishnamurthy, prof. Arpita Paria, Prof. Bharath B, Dr. Damodharan D, Prof. Diana George, Dr. George Fernandez I, Dr. Revathi V, Dr. T Gayathri, Dr. Sasikala Nagarajan, Dr. Jeeva S, Prof. Mala B A, Prof. Muthu Bala N, Prof. Priyanka S Marellavar, Prof. Pavithra D, Prof. Shilpa Sudheendran, Prof. Soham Ghosh, Prof. Sowmya H D, Prof. Sushma. D.S, Prof. Tanaya Bala Behera.

FACULTY ACHIEVEMENTS



Dr. Savitha Hiremath, Dr Meenakshi Malhotra and Dr. Revathi V, Associate Professors, and Dr. Gousia Thahniyath, Assistant Professor, Department of CSE has successfully completed the Faculty Development Programme on "Machine Learning and Generative AI with Quantum Programming" organized by Electronics and ICT Academy IIT Roorkee in association with Delhi Technical Campus, Greater Noida held from 16th June 2025 - 20th June 2025.

Mr. Bharath B, Assistant Professor, Department of CSE has successfully completed the Faculty Development Program on Advanced Machine Learning using Python with Green Technology under Skills4Future Program at K S School of Engineering and Management, Bangalore south, KARNATAKA from 10th June 2025 to 14th June 2025.

DAYANANDA SAGAR UNIVERSITY

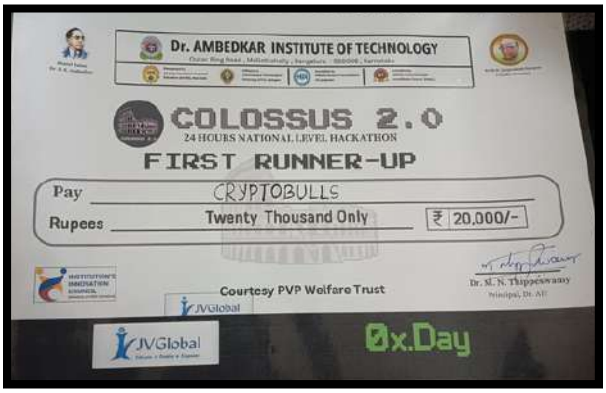
STUDENT ACHIEVEMENTS

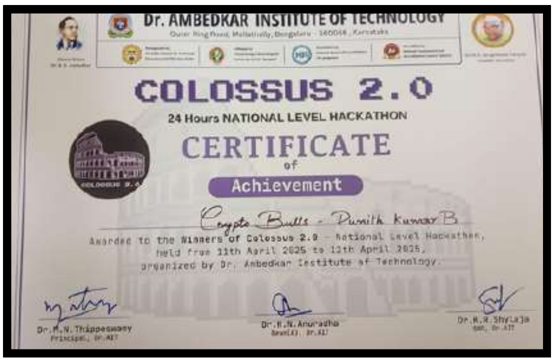
STUDENT ACHIEVEMENTS

Mr. D A Ajay (ENG24CS0052) and Mr. Nithin Katariya V(ENG24CS0151) 2nd semester Students, Department of CSE presented a potential Startup Ideas Heat & Eat project, represented from E-Cell DSU at IIT Delhi, Cyi youth ideathon, selected as top 10 startup's among 50,000 startup's and secured a cash price of ₹1,00,000 during 5th and 6th April 2025.

STUDENT ACHIEVEMENTS

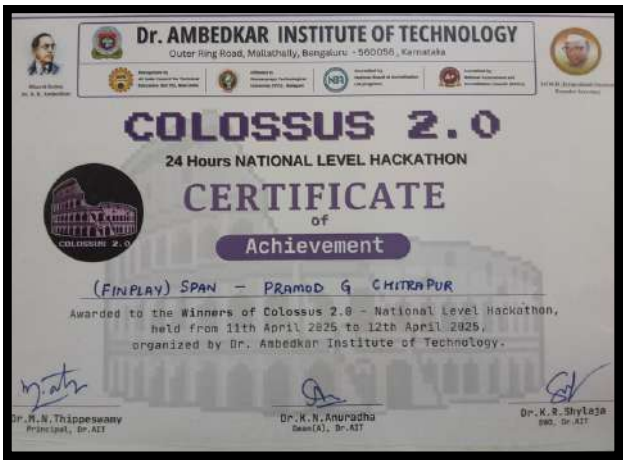
Mr. Devesh Mamadapur (ENG22CS0538), Mr. Bilal Ahmed (ENG22CS0032), Mr. Punit Kumar (ENG22CS0126) and Mr. Adrian Ronan Das (ENG22CS0229), 6th Semester, Department of CSE as a team of "CRYPTO BULLS" has achieved the First Runners-Up position at the Colossus 2.0 - 24-hour National Level Hackathon, hosted by Dr. B.R. Ambedkar Institute of Technology, Bangalore on 11th and 12th April 2025. In recognition of their innovative ideas and relentless effort, the team was awarded a cash prize of ₹20,000.





STUDENT ACHIEVEMENTS

Mr. Aryan Penukonda (ENG22CS0024), Mr Pramod Gurunath Chitrapur (ENG22CS0122) and Mr. M Naveen (ENG22CS0095)" 6th Semester, Department of CSE as a team "SPAN" on the achievement of Best Business Model at the Colossus 2.0 - 24-hour National Level Hackathon, hosted by Dr. B.R. Ambedkar Institute of Technology, Bangalore on 11th and 12th April 2025. The team has been awarded a cash prize of ₹8,000 for their innovative approach.



STUDENT ACHIEVEMENTS

Mr. Syed Fuzail (ENG22CS0476), Mr. Yogesh N (ENG22AM0070), Mr. Suhaib Yasir (ENG22CS0189), and Mr. Sathish S (ENG22CS0153) 6th Semester, Department of CSE as a team developed "SahaayAI – a voice-based, emotionally intelligent AI companion designed to help senior citizens navigate digital services, access wellness support, and stay emotionally connected through familiar voices" and secured the Runner-Up position with cash prize of Rs. 8000 at the RoTech Hackathon hosted by BMS College of Engineering, a 12-hour high-intensity app development challenge themed "CRACK THE CODE", during 5th April 2025.

STUDENT ACHIEVEMENTS

Mr. Samarth Shenoy (ENG22CS0433) and Mr. Suraj S (ENG22CS0425), 6th semester Students, Department of CSE as a team "Team Bingo" participated and won Runner-Up place with cash prize of Rs. 3000 in the Great Holmes Hunt organized by ACM student Chapter, DSU Techflix, Department of CSE, Dayananda Sagar University, Harohalli on 25th and 26th April 2025.

Mr. Eeshaan Undar Bhat (ENG22CS0539), and Mr. Gagan Nagarjuna (ENG22CS0304), 6th semester Students, Department of CSE as a team " Team B1ngo" participated and won 1st place in the Triwizard Hunt with a cash prize of Rs. 15000, organized by ACM student Chapter, DSU Techflix, Department of CSE, Dayananda Sagar University, Harohalli on 25th and 26th April 2025.

Mr. Chidwan AD (ENG24CS0378), Mr. Amara Sai Asish (ENG24CS0318) 2nd semester Students, Department of CSE as a team "Team Sterlebom" participated and won 1st place with the cash prize of Rs. 12000 in the Great Holmes Hunt organized by ACM student Chapter, DSU Techflix, Department of CSE, Dayananda Sagar University, Harohalli on 25th and 26th April 2025.

STUDENT ACHIEVEMENTS

Mr. Sidmal Madhan (ENG23CS0189), Ms. Z Barkath Nisha (ENG23CS0235), Ms. Divya S (ENG23CS303), Ms. Roopa Nagaraj Doddamani (ENG23CS0166) and Ms. Maski Sneha (ENG23CS0109) 4th Semester, Department of CSE, DSU as a team "Tech Tribes" Participated in Xyntra'25 - 36 Hour Inter College Hackathon held on April 12 - 13 , 2025 at Rajalakshmi Engineering college, Chennai with the project titled "AI-powered Sign Language Translator" built to help individuals who rely on hand sign language to communicate. The Project idea was recognized as one of the six best Ideas in the hackathon.

STUDENT ACHIEVEMENTS

Mr. Sameer S Katte [ENG22CS0148], Mr.Sai Shravan V [ENG22CS0144] and Ms. Chhavi Sharma [ENG22CS0278] 6th semester Students, Department of CSE as a team " Team papz" participated in the Sentinel Hack 5.0, Hackathon Conducted at KSIT and won Runner Up position with a cash prize of Rs.15K during 28th and 29th April 2025.

Mr. Darshan B (ENG22CS0044), 6th semester Student and Mr. Shaik Saara Shireen (ENG23CS0179) 4th semester Student, Department of CSE participated in the EURAKTHON and Successfully qualifying in the final round of "EURAKTHON - Unleash Ideas and Ignite Innovation" held on 29/04/2025 at Dayananda Sagar University organized by Department of CST, School of Engineering, DSU, Harohalli.

STUDENT ACHIEVEMENTS

Mr. Aditya Choudhary (ENG22CS0518), Ms. Rashi Badiya(ENG22CS0406) and Mr. Rohan Jaiswal (ENG22CS0578), 6th semester Students, Department of CSE as a team "CoCo Coders" participated and won 1st place with cash prize of Rs.35000 with the project titled "MindBridge : Path to Cognitive Confidence" in the 24hr Hackathon(Hackin' Bad) organized by ACM student Chapter, DSU Techflix, Department of CSE, Dayananda Sagar University, Harohalli on 25th and 26th April 2025.

STUDENT ACHIEVEMENTS

Ms. Savita Chinnur(ENG22CS0156), 3rd year and Ms. Deeksha M(ENG23CS0054), 2nd Year, Department of CSE has been selected for the prestigious IEEE Women in Engineering (WIE) Scholarship for the ACY 2024-2025 and has been granted ₹50,000 each in recognition of their academic excellence and commitment.

Mr. Devesh Mamadapur (ENG22CS0538), Mr. Bilal Ahmed (ENG22CS0032), and Mr. Adrian Ronan Das (ENG22CS0229), 6th semester Students, Department of CSE as a team "CryptoBulls" participated and won 1st Runner-Up place with cash prize of Rs.25000 with the project titled "FinVault" in the 24hr Hackathon(Hackin' Bad) organized by ACM student Chapter, DSU Techflix, Department of CSE, Dayananda Sagar University, Harohalli on 25th and 26th April 2025.

STUDENT ACHIEVEMENTS

Mr. Dhiren CR(ENG21CS0115), Mr. Bhuvan J (ENG21CS0079), Mr. Abhiram DV (ENG21CS0101) and Mr. Ayush Sharma (ENG21CS0495) 8th semester Students Department of CSE under the guidance of Prof. Naitik ST, Assistant Professor Won 1st place for the project titled "Women Safety in Emerging Situation Using SOS Alerts With Integration of Biometrics and IoT" in the ProjectExpo 2K25 organized by the Department of Computer Science and Engineering, SOE, DSU on 24th May 2024.

Ms. H S Sinchana (ENG21CS0143), Ms. K Vaishnavi (ENG21CS0173) and Ms. Shambhavi Hegde (ENG21CS0371) 8th semester Students Department of CSE under the guidance of Dr.George Fernandez I, Associate Professor Won First Runner-up place for the project titled "Smart Wardrobe - MR driven virtual try on" in the ProjectExpo 2K25 organized by the Department of Computer Science and Engineering, SOE, DSU on 24th May 2024.

STUDENT ACHIEVEMENTS

Mr. Manoj S (ENG21CS0222), Mr. Kiran Gangoor (ENG21CS0189), Ms. Harshitha S (ENG21CS0154) and Ms. Kavana N (ENG21CS0184) 8th semester Students Department of CSE under the guidance of Prof . Pooja Shree H R, Assistant Professor Won Second Runner-up place for the project titled "High resolution 3D of terrain and infrastructure, Road travel conditions in Disaster struck areas" in the ProjectExpo 2K25 organized by the Department of Computer Science and Engineering, SOE, DSU on 24th May 2024.

Mr. D A Ajay (ENG24CS0052) 2nd semester , Department of CSE and the team of other branch students participated and won 2nd place with cash prize of Rs.500 in the Unlock.Ed Quiz conducted on 20th May 2025 as part of the National Technology Day celebrations by FSD Club department of CSE, SOE, DSU, Harohalli.

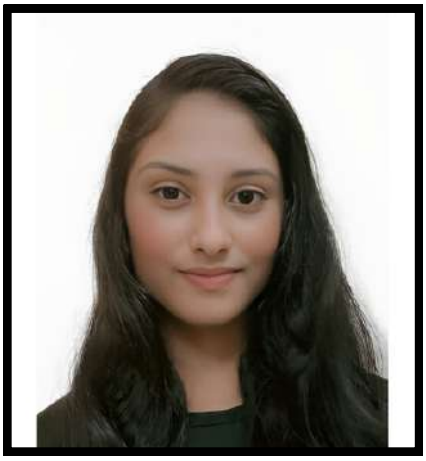
STUDENT ACHIEVEMENTS

Mr. D A Ajay (ENG24CS0052), Mr. NMK Chiranth (ENG24CS0539), 2nd Semester CSE Students collaborated with other branch students and participated in the Mini AIML hackathon conducted by Ai works club at Dayananda Sagar University. The challenge focused on key ML concepts like EDA (Exploratory Data Analysis) and Feature Engineering secured 2nd Place during 16th April 2025.

Mr. D A Ajay (ENG24CS0052), Ms. Diya D Acharya (ENG24EC0012), 2nd semester Students as team participated in the Wild Canvas: Digital Art Competition, organized under TechFlix 2025 by Department of Computer Science and Engineering, Dayananda Sagar University and Secured 1st place with cash price of Rs.7000 on 25th April 2025.

STUDENT ACHIEVEMENTS

Mr. Sidmal Madhan (ENG23CS0189), 4th Semester, Department of CSE, DSU as a team Khatarnakgaming2580 has participated in Image AI thon - Prompt Engineering Challenge of Spring Fiesta organised by Indian Institute of Information Technology (IIIT), Surat on 5th of April 2025.



Ms. Harini Sri S (ENG22CS0314), 6th semester student Department of CSE got the 2 months Summer Internship at "Google IT Services India Pvt Ltd" with the CTC of Rs 1,65,000 as a Stipend on 15th April 2025.

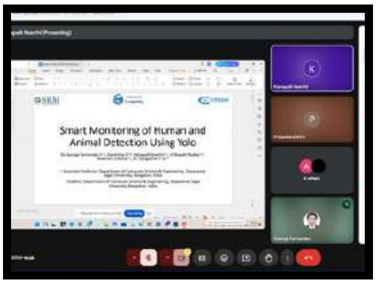
Ms. Shivani K (ENG22CS0164), 6th semester student Department of CSE, has been placed in "Vivnovation" with CTC 20 LPA and one year Internship with Rs. 15k per month as Stipend on 15th April 2025.

STUDENTS ACHIEVEMENENTS

Ms. Shambhavi Hegde (ENG21CS0371), Ms. K Vaishnavi (ENG21CS0173) and Ms. H S Sinchana (ENG21CS0143) 8th semester Students, Department of CSE presented a paper titled "Smart Wardrobe: AR Driven Virtual Try - on" , under the guidance of Dr. George Fernandez I, Associate Professor, Department of CSE in the 5th International Conference on Internet of Things -ICIoT 2025, held at SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu, during 2nd to 4th April 2025.

STUDENTS ACHIEVEMENENTS

Ms. Kalvapalli Keerthi (ENG21CS0176), Ms. Harshitha S (ENG21CS0155), Ms. Madineni Likitha (ENG21CS0212) and Mr. V Bharath Reddy (ENG22CS1042) 8th semester Students, Department of CSE presented a paper titled "Smart Monitoring of Human and Animal Detection using yolo" , under the guidance of Dr. George Fernandez I, Associate Professor, Department of CSE in the 5th International Conference on Internet of Things -ICIoT 2025, held at SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu, during 2nd to 4th April 2025.



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

STUDENT ACHIEVEMENTS

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

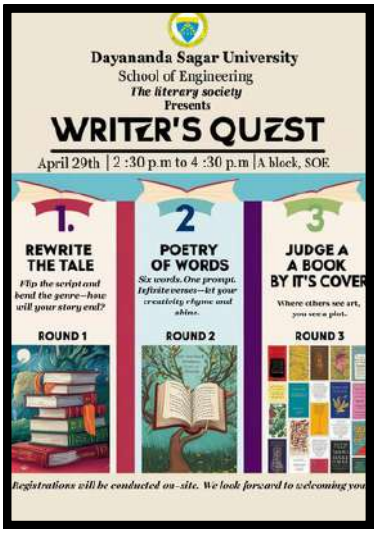
STUDENT ACHIEVEMENTS

Ms. Naina Kalyanshetti (PH24CSPT14), Research Scholar, Dr. Praveen Kulkarni, Associate Professor, Department of CSE presented a research paper titled "Integrating Multimodal Learning for Scalable Indoor Scene Understanding" in the IEEE 3rd International Conference on Inventive Computing and Informatics (ICICI 2025) held from 4th to 6th June 2025 at S.E.A. College of Engineering and Technology, Bengaluru, Karnataka.

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

STUDENT ACHIEVEMENTS

Mr. Swapnil Kashinath Kodliwadmath (ENG23CS0665), Student of 4th Semester, Department of CSE participated and Won 1st Place in Writer's Quest organized by The Literary Society, School of Engineering, DSU during 29th April 2025



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

STUDENT ACHIEVEMENTS


CERTIFICATE OF PRESENTATION & PUBLICATION

Hinweis Third International Conference on Advanced Research in Engineering and Technology, ARET-2025

Upamanyu Shrishanth M

Dayananda Sagar University, Bengaluru, Karnataka, India.

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


AttUNet : Enhancing ResUNet with Attention Mechanism for Accurate Brain Tumor Segmentation

Mr. Vignesh S (ENG19CS0360) student of 2023 graduated batch and Dr. Renukadevi M N, Assistant Professor, Department of CSE published a paper in IEEE Xplore with the paper title "AttUNet : Enhancing ResUNet with Attention Mechanism for Accurate Brain Tumor Segmentation" which was presented in the IEEE Conference 2025 IEEE International Conference on Interdisciplinary Approaches in Technology and Management for Social Innovation (IATMSI) with the DOI: 10.1109/IATMSI64286.2025.10984834 during 9th May 2025.

STUDENT ACHIEVEMENTS

Mr. Veeresha R (ENG22CS204), 6th Semester, Department of CSE has successfully completed 12 weeks NPTEL Online Certification courses on "Machine Learning for Engineering and science applications" with 62% and "Deep Learning" with 54% during January to April 2025.


NPTEL ONLINE CERTIFICATION

This certificate is awarded to

VEERESHA R

for successfully completing the course

Deep Learning

with a consolidated score of 54 %

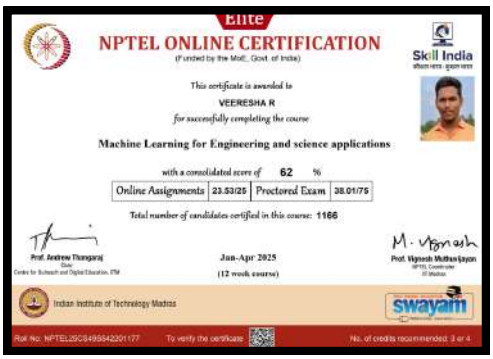
Online Assignments	22.35/25	Proctored Exam	31.5/75

Total number of candidates certified in this course: 1806

Jan-Apr 2025

(12 week course)

Indian Institute of Technology Kharagpur


Elite

NPTEL ONLINE CERTIFICATION

This certificate is awarded to

VEERESHA R

for successfully completing the course

Machine Learning for Engineering and science applications

with a consolidated score of 62 %

Online Assignments	23.53/25	Proctored Exam	38.01/75

Total number of candidates certified in this course: 1166

Jan-Apr 2025

(12 week course)

Indian Institute of Technology Madras


Analysis of Fruits and Vegetable Conditions Using Image Processing

"Talupula Jahnavi, Renuka Devi M.N. and Punith Amilineni

Department of CSE, Dayananda Sagar University, Bangalore, India

Abstract

This research presents a strong framework for automated fruit and vegetable quality inspection through advanced image processing techniques. Such applications range from defect detection to freshness assessment, enabling agriculture supply chains and retailers to classify produce into good and infected layers. It uses RGB masking, Otsu thresholding, and K-means clustering to develop a very efficient segmentation and feature extraction scheme. Feature computations such as defect area, mean intensity, and shape descriptors help isolate and classify the defective area. Apples, mangoes, and potatoes are analyzed in well-controlled lighting conditions for consistent results in this experimental setup. The proposed system embodies major advantages like scalability, accuracy, and quick response while maintaining diversity in product types and lighting conditions. Results state the efficient defect isolation and classification, while visualization through a binary and masked image manifests a clear understanding of the work. Future work includes the proposal of integrating machine-learning-enhanced adaptability and performance over various agricultural datasets to enhance quality assurance methods in food supply systems.

Keywords: Image Processing, Computer Vision, Segmentation, Thresholding, Feature Extraction, Otsu thresholding, RGB Masking, K-means Clustering, Defect Detection.

1. Introduction

The quality and freshness of fruits and vegetables matter immensely for consumer health and satisfaction, as well as for minimizing food wastage. The traditional means of inspection, heavily dependent on manual processes, which are slow and prone to human error, enjoy doctoral support from computer vision technique automated systems delivering a scalable and efficient alternative for quality assessment [1, 5, 18]. These technologies not only improve the quality of control but also minimize food loss during transport and storage. With the rise in global demand for fresh produce, there is an urgent need to set up efficient systems that can assess the quality of fruits and vegetables in real time. The need for research into an automated system capable of real-time identification of defects has led to extensive investigations into developing efficient technologies to locate visual defects, discoloration, and rot [8, 12, 19]. These technologies improve quality control and reduce food losses during transport and storage. Image processing, machine learning, and artificial intelligence have become the basis of modern agricultural technology. The systems can discover subtle defects through color, texture, and shape analysis normally invisible to the human eye[4, 7, 10, 16, 20]. This study focuses on creating a potent framework for checking the quality of fruits and vegetables, precise enough for conducting tests on potatoes, bananas, apples, and mangoes [3, 9, 17]. The study employs segmentation, thresholding, and feature extraction on the quality assessment protocol for process automation, thus providing an unparalleled and precise solution to agri-industries.

2. Flow Diagram

© The Author(s) 2025

Ms. Talupula Jahnavi (ENG22CS0478), 6th semester, Dr. Renuka Devi M N, Assistant Professor, and Mr Punith Amilineni (ENG22CS0399), 6th Semester, Department of CSE has successfully Published a research article with the title "Analysis of Fruits and Vegetable conditions using Image Processing" in Springer series "Advances in Intelligent Systems Research" ,which was presented in the International Conference on Advancements in Computing technologies and Artificial Intelligence (Computatia-2025) organized by Vivekananda Global, University, Jaipur during May 2025 with DOI 10.2991/978-94-6463-700-7_21.

STUDENT ACHIEVEMENTS

Mr. A Sachin (ENG22CS0002), Mr. Pramod Gurunath Chitrapur (ENG22CS0122), Mr. Aryan Penukonda (ENG22CS0024), Mr. M Naveen (ENG22CS0095), 6th Semester CSE Students, Dr. Praveen Kulkarni, Associate Professor, Department of CSE, and in collaboration with Prof. Chandrakala B M, Department of ISE DSCE, presented a research paper titled "NAVISIGHT: A Deep Learning and Voice-Assisted System for Intelligent Indoor Navigation of the Visually Impaired" in the IEEE 3rd International Conference on Inventive Computing and Informatics (ICICI 2025) held from 4th to 6th June 2025 at S.E.A. College of Engineering and Technology, Bengaluru, Karnataka.

STUDENT ACHIEVEMENTS

Mr. Shreyas H Reddy (ENG21CS0388), Mr. Shreyas Sridhar (ENG21CS0389), Mr. Shrinikethan S(ENG21CS0392), and Mr. Sanju John (ENG21CS0361), 2025 graduated CSE Students has presented paper entitled "Emergency Traffic Prioritization System with Priority-based Dynamic Route Optimization and IoT-Enabled Dynamic Signal Control" under the guidance of Dr. Sasikala N, Assistant Professor, in the IEEE 5th International Conference on Intelligent Technologies (CONIT 2025) during 20th to 22nd June 2025.


IEEE BANGALORE SECTION

5th International Conference on Intelligent Technologies (CONIT 2025)

20th – 22nd June 2025

Certificate

This is to certify that Dr./Prof./Mr./Ms. Shreyas Sridhar has presented paper entitled Emergency Traffic Prioritization System with Priority-based Dynamic Route Optimization and IoT-Enabled Dynamic Signal Control in 5th International Conference on Intelligent Technologies (CONIT 2025) during 20th to 22nd June 2025.

Dr. Manu T M, General Chair — Dr. Yerriswamy T, Conference Chair


IEEE BANGALORE SECTION

5th International Conference on Intelligent Technologies (CONIT 2025)

20th – 22nd June 2025

Certificate

This is to certify that Dr./Prof./Mr./Ms. Shreyas H Reddy has presented paper entitled Emergency Traffic Prioritization System with Priority-based Dynamic Route Optimization and IoT-Enabled Dynamic Signal Control in 5th International Conference on Intelligent Technologies (CONIT 2025) during 20th to 22nd June 2025.

Dr. Manu T M, General Chair — Dr. Yerriswamy T, Conference Chair


IEEE BANGALORE SECTION

5th International Conference on Intelligent Technologies (CONIT 2025)

20th – 22nd June 2025

Certificate

This is to certify that Dr./Prof./Mr./Ms. Sasikala N has presented paper entitled Emergency Traffic Prioritization System with Priority-based Dynamic Route Optimization and IoT-Enabled Dynamic Signal Control in 5th International Conference on Intelligent Technologies (CONIT 2025) during 20th to 22nd June 2025.

Dr. Manu T M, General Chair — Dr. Yerriswamy T, Conference Chair


IEEE BANGALORE SECTION

5th International Conference on Intelligent Technologies (CONIT 2025)

20th – 22nd June 2025

Certificate

This is to certify that Dr./Prof./Mr./Ms. Sanju John has presented paper entitled Emergency Traffic Prioritization System with Priority-based Dynamic Route Optimization and IoT-Enabled Dynamic Signal Control in 5th International Conference on Intelligent Technologies (CONIT 2025) during 20th to 22nd June 2025.

Dr. Manu T M, General Chair — Dr. Yerriswamy T, Conference Chair


IEEE BANGALORE SECTION

5th International Conference on Intelligent Technologies (CONIT 2025)

20th – 22nd June 2025

Certificate

This is to certify that Dr./Prof./Mr./Ms. Shrinikethan S has presented paper entitled Emergency Traffic Prioritization System with Priority-based Dynamic Route Optimization and IoT-Enabled Dynamic Signal Control in 5th International Conference on Intelligent Technologies (CONIT 2025) during 20th to 22nd June 2025.

Dr. Manu T M, General Chair — Dr. Yerriswamy T, Conference Chair

STUDENT ACHIEVEMENTS

Ms. D N Padmashri (ENG22CS0283) , Ms. Boomika B (ENG22CS0271) , Ms. Arushi G Hiregoudar (ENG22CS0531) , and Ms. Moni Shree S (ENG22CS0372), 6th semester CSE Students has presented a paper entitled " Comparative Analysis and Evaluation of Deep Learning Models for Efficient Waste Classification" under the guidance of Dr. Damodharan D, Assistant Professor, in the IEEE 5th International Conference on Intelligent Technologies (CONIT 2025) during 20th to 22nd June 2025.

STUDENT ACHIEVEMENTS

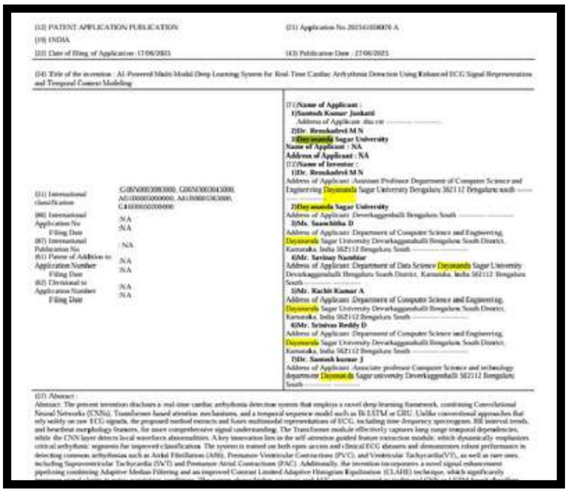
Ms. B Saishree (ENG22CS02600), Ms. Deepthi S V (ENG22CS0287), Ms. Deethiksha R (ENG22CS0288) and Ms. Harini Sri S (ENG22CS0314), 6th semester CSE Students has presented a paper entitled "FoodMuse: Health-Aware Food Recommendation System Using Machine Learning and API-Based Food Data" under the guidance of Dr. Damodharan D, Assistant Professor, in the IEEE 5th International Conference on Intelligent Technologies (CONIT 2025) during 20th to 22nd June 2025.

STUDENT ACHIEVEMENTS

Mr. Anirudh R (ENG22CS0526), Mr. Adwaith T N (ENG22CS0520), Mr. Kedar Minesh Thaker (ENG22CS0555), and Mr. Mritunjay Kumar Singh (ENG22CS0373), 6th semester CSE Students has presented a paper entitled "2D Game Engine Design With GPU Optimization", under the guidance of Dr. Senthil Kumar A, Professor, at 6th International Conference on Inventive Research in Computing Applications (ICIRCA 2025) organised by Department of Electrical and Electronics Engineering, RVS College of Engineering and Technology, Coimbatore, India on 25-27, June 2025.

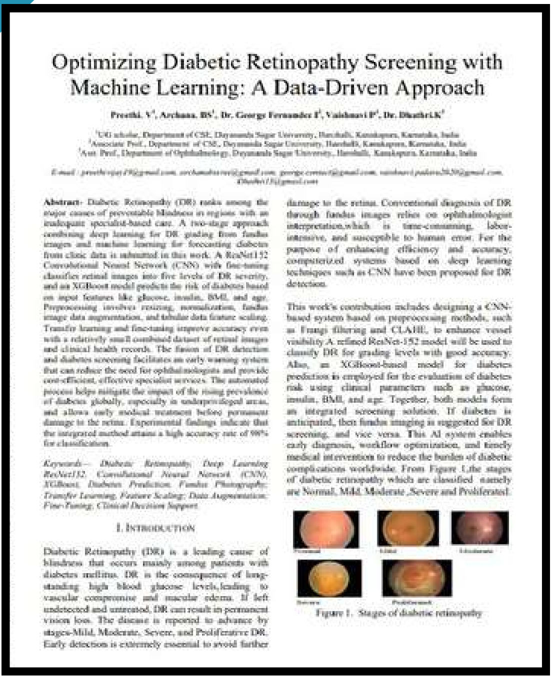
STUDENT ACHIEVEMENTS

Ms. Disha K Nanjunda (ENG21CS0120), Ms. Diya Sujil (ENG21CS0125), Mr. Harish Sasikumar (ENG21CS0147) and Mr. Harsh Jolania (ENG21CS0148) 8th semester CSE Students has presented a paper entitled “FrameWeaver - A Virtual Storyboarding and Scene Generation Tool” , under the guidance of Prof. Shilpa Sudheendran, Assistant Professor, in the Hinweis Third International Conference on Advances in Information, Telecommunication and Computing (AITC) during May 31-1-2 June 2025.



Mr. Rachit Kumar A(ENG21CS0317), Ms. Saanchitha D (ENG21CS0350) Mr. Savinay Nambiar (ENG21CS0368) and Mr. Srinivas Reddy D (ENG21CS0415) 6th semester students, Department of CSE under the guidance of Dr Renuka Devi M N, Assistant Professor published an Indian patent with the title “AI-Powered Multi-Modal Deep Learning System for Real-Time Cardiac Arrhythmia Detection Using Enhanced ECG Signal Representation and Temporal Context Modeling.” with the application no 202541058076 and the name of the applicant Dayananda Sagar University during 27th June 2025.

STUDENT ACHIEVEMENTS



Optimizing Diabetic Retinopathy Screening with Machine Learning: A Data-Driven Approach

Preethi. V[1], Archana. BS[1], Dr. George Fernandez I[2], Vaishnavi P[1], Dr. Dhathri.K[3]

[1]UG scholar, Department of CSE, Dayananda Sagar University, Harohalli, Kanakapura, Karnataka, India
[2]Associate Prof., Department of CSE, Dayananda Sagar University, Harohalli, Kanakapura, Karnataka, India
[3]Asst Prof., Department of Ophthalmology, Dayananda Sagar University, Harohalli, Kanakapura, Karnataka, India

Abstract- Diabetic Retinopathy (DR) ranks among the major causes of preventable blindness in regions with an inadequate specialist-based care. A two-stage approach combining deep learning for DR grading from fundus images and machine learning for forecasting diabetes from clinic data is submitted in this work. A ResNet152 Convolutional Neural Network (CNN) with fine-tuning classifies retinal images into five levels of DR severity, and an XGBoost model predicts the risk of diabetes based on input features like glucose, insulin, BMI, and age. Preprocessing involves resizing, normalization, fundus image data augmentation, and tabular data feature scaling. Transfer learning and fine-tuning improve accuracy even with a relatively small combined dataset of retinal images and clinical health records. The fusion of DR detection and diabetes screening facilitates an early warning system that can reduce the need for ophthalmologists and provide cost-efficient, effective specialist services. The automated process helps mitigate the impact of the rising prevalence of diabetes globally, especially in underprivileged areas, and allows early medical treatment before permanent damage to the retina. Experimental findings indicate that the integrated method attains a high accuracy rate of 98% for classification.

Keywords— Diabetic Retinopathy, Deep Learning ResNet152, Convolutional Neural Network (CNN), XGBoost, Diabetes Prediction, Fundus Photography, Transfer Learning, Feature Scaling, Data Augmentation, Fine-Tuning, Clinical Decision Support

I. INTRODUCTION

Diabetic Retinopathy (DR) is a leading cause of blindness that occurs mainly among patients with diabetes mellitus. DR is the consequence of long-standing high blood glucose levels, leading to vascular compromise and macular edema. If left undetected and untreated, DR can result in permanent vision loss. The disease is reported to advance by stages-Mild, Moderate, Severe, and Proliferative DR. Early detection is extremely essential to avoid further damage to the retina. Conventional diagnosis of DR through fundus images relies on ophthalmologist interpretation,which is time-consuming, labor-intensive, and susceptible to human error. For the purpose of enhancing efficiency and accuracy, computerized systems based on deep learning techniques such as CNN have been proposed for DR detection.

This work's contribution includes designing a CNN-based system based on preprocessing methods, such as Frangi filtering and CLAHE, to enhance vessel visibility A refined ResNet-152 model will be used to classify DR for grading levels with good accuracy. Also, an XGBoost-based model for diabetes prediction is employed for the evaluation of diabetes risk using clinical parameters such as glucose, insulin, BMI, and age. Together, both models form an integrated screening solution. If diabetes is anticipated, then fundus imaging is suggested for DR screening, and vice versa. This AI system enables early diagnosis, workflow optimization, and timely medical intervention to reduce the burden of diabetic complications worldwide. From Figure 1,the stages of diabetic retinopathy which are classified namely are Normal, Mild, Moderate ,Severe and Proliferated.

Figure 1. Stages of diabetic retinopathy

Ms. Vaishnavi P (ENG21CS0459), Ms. Archana B S(ENG22CS1021), Ms. Preethi V(ENG21CS0458), 2025 passed out Students, Department of CSE published a paper in the IEEE titled "Optimizing Diabetic Retinopathy screening with Machine Learning: A data-driven approach" , under the guidance of Dr. George Fernandez I, Associate Professor, Department of CSE and Dr. Dhathri, Assistant Professor, Department of Ophthalmology, CDSIMER during June 2025, which was presented in the IEEE sponsored First International Conference on Frontier Technologies and Solutions (ICFTS 2025) held at St. Joseph's College of Engineering, Chennai, Tamil Nadu.

Smart Management of Crop Monitoring Using Drone Technology

Dr. George Fernandez I[1], Yashwanth G M[1], Dr. Gopal Sharma R Joshi[2], Sangamesh Lingshetty[1], Rakesh Prabhugowda Gowdra[1], Mohammed Arif[1]

[1]Department of CSE, Dayananda Sagar University, Harohalli, Kanakapura, Karnataka, India
[2]Department of CSST, Dayananda Sagar University, KudluGate, Hosur Road, Karnataka, India

Abstract- Agriculture is a critical industry facing challenges such as early disease detection, inefficient pest control, and excessive chemical pesticide use, which lead to significant crop yield losses. To address these issues, we propose a smart crop monitoring system that leverages AI, IoT, and drone technology to provide real-time disease detection and geo-tracking of affected plants. Proposed system integrates Raspberry Pi, GPS, and deep learning models to automate disease identification and pesticide recommendations, with a strong emphasis on organic farming practices.The core functionality of Proposed system is built on a hybrid deep learning architecture. A TensorFlow Lite model, deployed on Raspberry Pi, performs on-device disease classification using images captured by a camera module along with the plant's geo-location. When local model fails to classify an image, the data is transmitted to a cloud-based TensorFlow model, where advanced image preprocessing and disease classification take place. The identified disease, along with its location and recommended treatments, is stored in MongoDB. Over time, the cloud model continuously updates the database, improving future predictions.A farmer-friendly mobile application retrieves data via APIs, allowing users to monitor real-time disease alerts, affected plant locations, and pesticide recommendations, prioritizing organic solutions while also suggesting chemical alternatives. Experimental results demonstrate high efficiency, with our deep learning model achieving an accuracy of 98% and a minimal loss of 2.5 %, ensuring precise disease classification and reliable predictions. This intelligent system provides modernizing agriculture and enhancing crop health management.

Keywords - Smart Agriculture, Drone Technology, Plant Disease Detection, Geo-Location Tracking, Cloud Computing, Precision Farming, Sustainable Agriculture, AI in Agriculture

I. INTRODUCTION

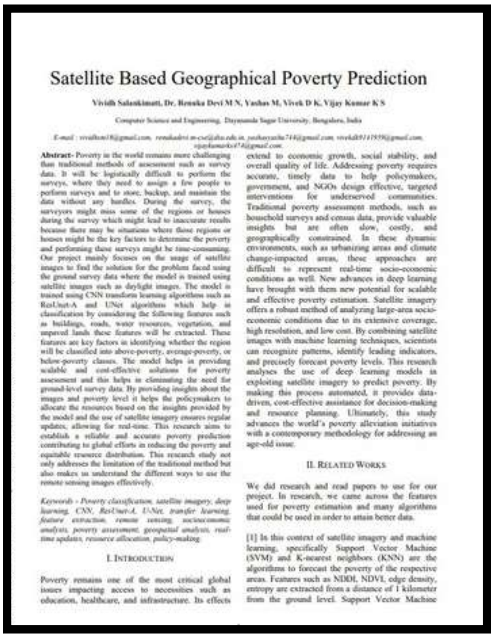
Agriculture is a vital industry facing significant challenges such as early disease detection, ineffective pest control, and the overuse of chemical pesticides. Traditional crop monitoring methods are labour-intensive, time-consuming, and often result in delayed identification of plant diseases, leading to severe yield losses. With the advancement of precision agriculture, Harnessing the power of AI, IoT, and drone systemscan revolutionize crop monitoring by providing automated, real-time, and data-driven solutions. This research focuses on developing an intelligent crop monitoring system using drone-based imaging, Raspberry Pi, GPS, and deep learning models. The system efficiently detects plant diseases, tracks affected areas, and suggests targeted pesticide applications, prioritizing organic solutions to promote sustainable farming. A locally deployed TensorFlow Lite model on Raspberry Pi ensures real-time disease classification

II. RELATED WORK

Drones are essential to automated agricultural surveillance because they can detect plant diseases by taking high-resolution photos.An AI-based drone system employing an upgraded CNN model for multiclass plant disease diagnosis was presented by Albattah et al. [1], with increased accuracy. The geolocation tracking of impacted crops, which is incorporated into our system, is absent from their work, though.A UAV-based smart agriculture platform with wireless sensor networks (WSN) for real-time data collecting was proposed by Rao et al. [2]. Although useful, the study did not concentrate on our system's ability to classify diseases and recommend pesticides.In order to detect plant illnesses, Bharathiraja et al. [3] used drone-assisted image processing techniques; nevertheless, real-time decision-making was challenging because manual involvement was required for analysis. Our method

Mr. Mohammed Arif (ENG22CS1032), Mr. Sangamesh(ENG22CS1040), Mr. Rakesh P G(ENG22CS1037) and Mr. Yashwanth G M(ENG22CS1043), 2025 passed out Students, Department of CSE published a paper in the IEEE titled "Smart management of Crop Monitoring Using Drone Technology" , under the guidance of Dr. George Fernandez I, Associate Professor, Department of CSE during June 2025, which was presented in the IEEE sponsored First International Conference on Frontier Technologies and Solutions (ICFTS 2025) held at St. Joseph's College of Engineering, Chennai, Tamil Nadu.

STUDENT ACHIEVEMENTS



Satellite Based Geographical Poverty Prediction

Vividh Salankimatt, Dr. Renuka Devi M N, Yashas M, Vivek D K, Vijay Kumar K S

Computer Science and Engineering, Dayananda Sagar University, Bengaluru, India

E-mail : [illegible]

Abstract- Poverty in the world remains more challenging than traditional methods of assessment such as survey data. It will be logistically difficult to perform the surveys, where they need to assign a few people to perform surveys and to store, backup, and maintain the data without any hurdles. During the survey, the surveyors might miss some of the regions or houses during the survey which might lead to inaccurate results because there may be situations where those regions or houses might be the key factors to determine the poverty and performing these surveys might be time-consuming. Our project mainly focuses on the usage of satellite images to find the solution for the problem faced using the ground survey data where the model is trained using satellite images such as daylight images. The model is trained using CNN transform learning algorithms such as ResUnet-A and UNet algorithms which help in classification by considering the following features such as buildings, roads, water resources, vegetation, and unpaved lands these features will be extracted. These features are key factors in identifying whether the region will be classified into above-poverty, average-poverty, or below-poverty classes. The model helps in providing scalable and cost-effective solutions for poverty assessment and this helps in eliminating the need for ground-level survey data. By providing insights about the images and poverty level it helps the policymakers to allocate the resources based on the insights provided by the model and the use of satellite imagery ensures regular updates, allowing for real-time. This research aims to establish a reliable and accurate poverty prediction contributing to global efforts in reducing the poverty and equitable resource distribution. This research study not only addresses the limitation of the traditional method but also makes us understand the different ways to use the remote sensing images effectively.

Keywords - Poverty classification, satellite imagery, deep learning, CNN, ResUnet-A, U-Net, transfer learning, feature extraction, remote sensing, socioeconomic analysis, poverty assessment, geospatial analysis, real-time updates, resource allocation, policy-making

I. INTRODUCTION

Poverty remains one of the most critical global issues impacting access to necessities such as education, healthcare, and infrastructure. Its effects extend to economic growth, social stability, and overall quality of life. Addressing poverty requires accurate, timely data to help policymakers, government, and NGOs design effective, targeted interventions for underserved communities. Traditional poverty assessment methods, such as household surveys and census data, provide valuable insights but are often slow, costly, and geographically constrained. In these dynamic environments, such as urbanizing areas and climate change-impacted areas, these approaches are difficult to represent real-time socio-economic conditions as well. New advances in deep learning have brought with them new potential for scalable and effective poverty estimation. Satellite imagery offers a robust method of analyzing large-area socio-economic conditions due to its extensive coverage, high resolution, and low cost. By combining satellite images with machine learning techniques, scientists can recognize patterns, identify leading indicators, and precisely forecast poverty levels. This research analyses the use of deep learning models in exploiting satellite imagery to predict poverty. By making this process automated, it provides data-driven, cost-effective assistance for decision-making and resource planning. Ultimately, this study advances the world's poverty alleviation initiatives with a contemporary methodology for addressing an age-old issue.

II. RELATED WORKS

We did research and read papers to use for our project. In research, we came across the features used for poverty estimation and many algorithms that could be used in order to attain better data.

[1] In this context of satellite imagery and machine learning, specifically Support Vector Machine (SVM) and K-nearest neighbors (KNN) are the algorithms to forecast the poverty of the respective areas. Features such as NDBI, NDVI, edge density, entropy are extracted from a distance of 1 kilometer from the ground level. Support Vector Machine

Mr. Vijay Kumar K S (ENG21CS0474), Mr. Vividh Salankimatt (ENG21CS0481), Mr. Vivek D K (ENG21CS0480) and Mr. Yashas M (ENG21CS0485), 2025 passed out Students, Department of CSE published a paper in the IEEE titled "Satellite based Geographical Poverty Prediction" , under the guidance of Dr. RenukaDevi M N, Assistant Professor, Department of CSE during June 2025, which was presented in the IEEE sponsored First International Conference on Frontier Technologies and Solutions (ICFTS 2025) held at St. Joseph's College of Engineering, Chennai, Tamil Nadu.

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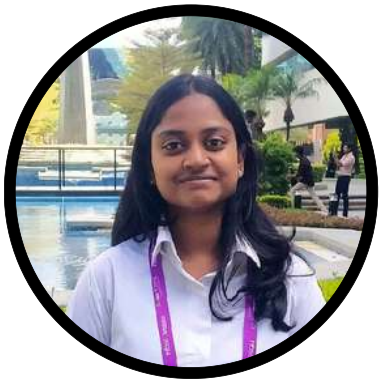

Ms. Deepthi S V
3rd Year

PROGRAM OUTCOMES (PO'S)

PO1 - Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO2 - Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO3 - Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO4 - Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO5 - Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

PO6 - The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO7 - Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO8 - Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO9 - Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO10 - Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO11 - Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO12 - Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

PROGRAM EDUCATIONAL OBJECTIVES (PEO'S)

After few years of graduation, the graduates of Computer Science and Engineering will be able to:

PEO1: Apply appropriate theory, practices and tools in the design, implementation, maintenance and evaluation of computing in the work place or in higher education.

PEO2: Exhibit professional skills in solving challenging problems in their career and advance to leadership roles.

PEO3: Become effective innovator, researcher, and entrepreneur to provide technical solutions for socio-economic challenges.

PROGRAM SPECIFIC OUTCOMES (PSO'S)

Engineering Graduates will be able to:

PSO1: Design and Integrate software and hardware systems by following standard software engineering principles in the areas related to IOT, Cloud, Networks, Security, Embedded Systems, and Artificial Intelligence of varying complexity.

PSO2: Design and Implement application software systems by applying the concepts of Programming languages, Machine Learning, Mobile Computing, and Data Science that meet the automation requirements of society and Industry.

Department of Computer Science and Engineering Dayananda Sagar University Devarakaggalahalli, Harohalli, Kanakapura Road, Ramanagara Dt - 562 112