April-June 2024

DAYANANDA SAGAR UNIVERSITY

Volume 03 Issue 04

CSE EDUINSIDE

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

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.

Dayananda Sagar University,School Of Engineering
Devarakaggalahalli, Harohalli, Kanakapura Road, Ramanagara Dt – 562 112

What's inside...

- Articles
- Department Events
- Student Achievements
- Staff Achievements

And more....

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 twenty five faculty members with the doctorate degree and twenty perusing 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 gives me pride and pleasure to introduce Computer Science & Engineering Department. The Department of Computer Science has designed innovative UG program in Computer Science & Engineering and PG programs in Artificial Intelligence & Machine Learning, Cloud Computing, and Network Security. Our aim is to provide a high quality engineering education to our students with adequate hand-on experience.

Faculty members in the department have expertise in the areas of Wireless Networks, Data Networks, Big Data, Data Analytics, Cloud Computing, Image Processing, Information Retrieval and are guiding carrying out active research.

Our department looks forward to contribute in solving technological challenges of the society with active participation from all sections of the society. Thank you for visiting us.
BEST WISHES !

ARTICLE

A one-of-a-kind Space Age TASK and CONTRACT

There was a little space lab, the United States launched in 1973 called Skylab. During my tour of the Smithsonian museums in Washington, DC, I did observe the prototype of the SKYLAB.

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It stayed in orbit for about seven years before a voluntary fall in 1980. Rather than focusing on its successful experiments, the space lab made a news during its fall. Everyone in Asia and the Pacific region, was watching the so-called predicted trajectory, worried that debris from the fall could hit populated areas and cause damage or even death. As I was a student in school, mostly in the era of print media and radio BBC, I recall a SKYLAB experiment in which we were taught that objects might deorbit, enter Earth's atmosphere, and fall anywhere on the planet—all without the need for arbitrary predictions—as long as they retained their atmosphere and burned at high temperatures. Some of the more challenging aspects may manifest as massive pieces of debris in the ocean or in the desert. But in its history, most of the SKYLAB burned down, and the ash and rubble ended up in the Indian Ocean. Some of the unburned parts ended up in the northern deserts of Australia.

SKYLAB

International Space station built on cooperative programme
Mass is about 430 tonnes
Hosted more than 250 individuals from 20 countries since 1998
Solar panels cover an area of one acre
Orbits at an altitude of 402 Kmts above Earth
Total area of the station is a size of football field

By the time I was about to compile this article, Indian-origin astronaut Sunita Williams, NASA had further postponed the strainer's return journey due to technical issues encountered in International Space Station (ISS) as of June 30, 2024. Now we think about the ISS.

However, in the modern era, space travel has facilitated the commercialization of technology, the privatization of government services, increased funding from NASA and also ISRO in INDIA. Rovers, interplanetary missions, solar probe missions, J. Webb telescope projects, moon missions, competition among private agencies and businesses. The huge budget funding paves the way for SpaceX to recently inked a **perfect and unique agreement** with NASA for a sum of 843 million USD.

The **task** is to deorbit the giant International Space Station, which was designed to expire its basic infra by 2030. As a private body, SpaceX has to build a ship (a US deorbit vehicle) that will embark on the ISS, move its trajectory to the lower orbits, and make sure it has to fall (if any hard weighed debris) on a desert or in the ocean.

The new space age problem statements are to be addressed by the new players with new technology.

Dr. Basavaraj N. Hiremath
Professor
CSE

References: NASA web resources and TOI publications

Empowering Health Consciousness: A Session on Promoting Health Awareness

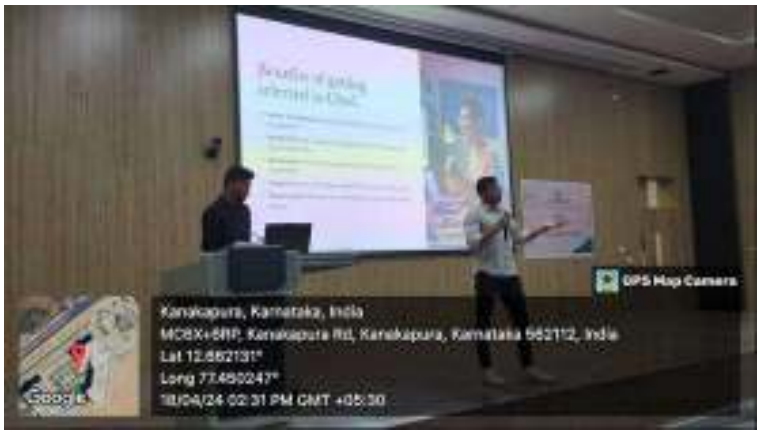
The Data Analytics and Visualization Club at Harohalli Campus took a proactive step in raising health awareness by organizing a session titled "Health is my Personal Right" on April 10, 2024, commemorating World Health Day. The event, spearheaded by Dr. Basavaraj N Hiremath, Professor CSE and Prof. Shilpa Sudheendran, Assistant Professor CSE, aimed to enlighten attendees about the significance of health as an individual's fundamental right.

The highlight of the session was the keynote address delivered by Dr. Gopal Das C M,Professor and Head of the Department,Department Of Psychiatry(CDSIMER), whose expertise added invaluable insights into the subject matter. Dr. Gopal Das C M shared profound perspectives on personal health management, emphasizing the importance of proactive measures and informed decision-making in maintaining optimal well-being.

Attendees gained comprehensive knowledge on various aspects of healthcare, including preventive measures, lifestyle choices, and the utilization of data analytics for health management.Through engaging discussions and interactive sessions, participants were encouraged to take charge of their health and make informed choices towards a healthier lifestyle.

The event not only underscored the significance of World Health Day but also served as a platform for fostering a culture of health consciousness within the academic community. By leveraging the expertise of renowned professionals like Dr. Gopal Das C M and the organizational efforts of Dr. Basavaraj and Prof. Shilpa, the Data Analytics and Visualization Club successfully promoted the message that health is indeed a personal right that deserves utmost attention and care.

Unlock Your Coding Potential: DSU-ACM Student Chapter Hosts 'UNLEASH YOUR CODE WITH GSOC' Seminar



DSU-ACM Student Chapter hosted an exciting event titled "UNLEASH YOUR CODE WITH GSOC Seminar" on April 18, 2024. This seminar, targeted towards 2nd and 4th semester students with a passion for coding, aims to shed light on the Google Summer of Code (GSOC) program and provide valuable insights into its rules and preparation requirements.

A standout feature of this seminar was the presence of a resource person who brings firsthand experience with GSOC to the table. A 6th-semester student, who was selected for Google Summer of Code in 2023, has shared invaluable tips, tricks, and personal anecdotes about the application process and the journey through GSOC.

The objective of the seminar was firstly, to familiarize 2nd and 4th semester students with the intricacies of GSOC, including eligibility criteria, project selection, and the application process and secondly, to provide a hands-on session on working with GitHub, a vital skill for aspiring participants to master.

PROJECT EXPO 2K24: A Showcase of Final Year Projects by CSE Students

The Department of Computer Science and Engineering (CSE) at Dayananda Sagar University has organised PROJECT EXPO 2K24, a project exhibition featuring the innovative works of 8th semester CSE students. The exhibition was held on May 17, 2024 at the Kudlu Gate campus, Dayananda Sagar University.The external Jury Members were Mr. Mihir Mohanty, VP - Data & Analytics at State Street Corporation and Miss Rajeshwari H S, Innovation Manager, Business Area Architecture & Networking, Continental India Pvt. Ltd.

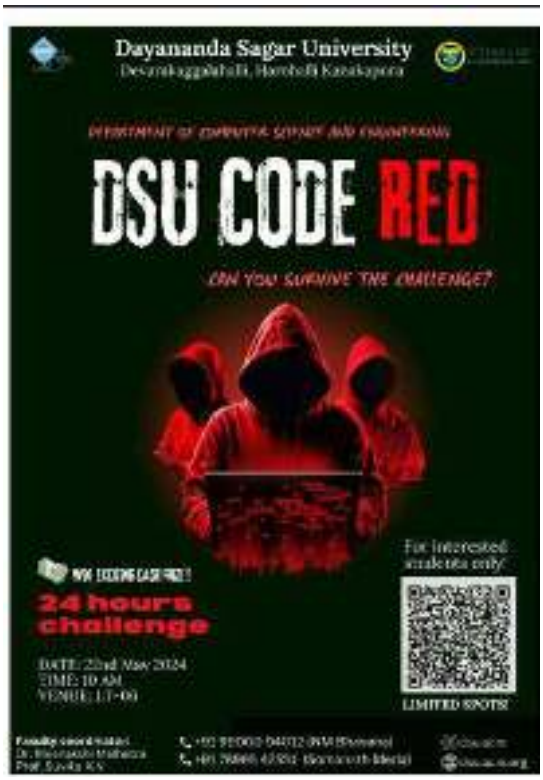
The main objectives of the project exhibition were to:

- Provide a platform for the final year students to showcase their work and get expert comments from industry
- Provide a platform for the upcoming final-year students to see the different domains in which projects can be taken up
- Motivate and inspire all the junior batches.

The Conveners of the event were Dr. Girisha G S Chairperson CSE,Dr. Meenakshi Malhotra,Project Coordinator &Associate Professor and Prof. Mohammed Khurram J, Project Coordinator &Assistant Professor.

PROJECT EXPO 2K24 was a platform for our final year students to present their projects, which are the culmination of their academic journey in the CSE program. This event has displayed a variety of projects that demonstrate the students' technical skills, creativity, and problem-solving abilities.

DSU CODE RED□: The Ultimate Web Dev Hackathon



The Department of Computer Science and Engineering at Dayananda Sagar University has conducted DSU CODE RED, the ultimate web development hackathon. This exhilarating event has taken place on May 22, 2024, at the Harohalli campus. The event immersed participants in a 24-hour coding marathon filled with energy, enthusiasm, and innovation. DSU CODE RED was meticulously designed to push the limits and enhance the coding prowess of the participants through a series of thrilling web development challenges. The event featured multiple elimination rounds, each with increasing difficulty, to identify the top performers. Participants engaged in non-stop coding, tackling complex problems and creating innovative solutions under time pressure.The Faculty Coordinators of the event were Dr. Meenakshi Malhotra and Prof. Suvika K V.Their guidance and support were instrumental in creating an environment where participants could thrive, learn, and showcase their skills.

DSU CODE RED was a remarkable event that highlighted the talent and creativity of Dayananda Sagar University's students. It provided an excellent platform for them to demonstrate their web development skills, learn new techniques, and network with peers and industry experts.

Insightful Lecture on "Brain Research: A Technological Intervention"

The Department of Computer Science and Engineering at Dayananda Sagar University organized an insightful lecture titled "Brain Research: A Technological Intervention" on 24th May 2024 at the Harohalli campus. The lecture was presented by distinguished speakers Prof. Harry W.M. Steinbusch and Prof. Boris Kramer. Prof. Harry W.M. Steinbusch,a renowned expert in Cellular & Translational Neuroscience serves as a Professor at the Faculty of Health, Medicine and Life Sciences, Maastricht University, Netherlands. His extensive knowledge and experience in neuroscience provided the audience with a profound understanding of the latest technological interventions in brain research.

The lecture explored cutting-edge technological advancements in brain research and insights were shared on cellular and translational neuroscience and their implications for health and medicine.Discussions also included the integration of computer science and engineering with neuroscience research.

The event was coordinated by Dr. ArunKumar Gopu, Associate Professor,whose efforts were instrumental in organizing this successful and enriching experience.

The lecture was an excellent opportunity for attendees to gain valuable insights from two leading experts in neuroscience and technology. It highlighted the importance of interdisciplinary collaboration in advancing our understanding of the brain.

One-Day Workshop on Technical Writing

The Department of Computer Science and Engineering organized an insightful one-day workshop on technical writing on May 27, 2024, at Harohalli campus,Dayananda Sagar University.The workshop aimed to enhance the technical writing skills of students, focusing on various key aspects essential for their academic and professional development in the field.

The resource Person,Ms. Varsha Venkatraman,Technical Writer from Nference, led the workshop. Ms.Varsha Venkatraman brought her extensive experience and expertise to the session, providing valuable insights and practical knowledge.

The session emphasized the importance of clear and concise language, proper grammar, and the nuances of effective communication in technical documentation. It also explored the impact of artificial intelligence on technical writing, including tools that aid in the creation and management of technical documents.

The faculty Coordinators of the event were Dr. Rajesh TM, Associate Professor,Prof. Pramoda R,Assistant Professor and Prof.Benaka Santosh S,Assistant Professor

The workshop provided participants with a comprehensive understanding of technical writing, from fundamental concepts to advanced techniques. Attendees left with enhanced skills, ready to apply their knowledge to real-world scenarios in their professional careers.

Workshop on LaTeX Fundamentals: Crafting Research Articles, Presentations, and Reports

The Department of Computer Science and Engineering (CSE) organized a workshop on LaTeX Fundamentals: Crafting Research Articles, Presentations, and Reports on 3rd June 2024. This workshop aimed to equip participants with the essential skills to efficiently use LaTeX, a powerful typesetting system widely used for technical and scientific documentation. Dr. Savitha Hiremath, Associate Professor, CSE department, led the workshop as the resource person. With her extensive experience and expertise in LaTeX, Dr.Savitha Hiremath provided comprehensive insights and practical knowledge to the students. Her guidance was instrumental in helping participants understand the intricacies of LaTeX and its applications in academic and professional writing. The workshop was coordinated by Dr. Rajesh T M, Associate Professor, CSE and Prof. Manjusha Kulkarni, Research Scholar, CSE. They both played a crucial role in organizing and overseeing the workshop, ensuring its smooth execution.

The workshop on LaTeX Fundamentals provided a valuable learning opportunity for students. Participants left with a deeper understanding of LaTeX and its capabilities, enabling them to enhance the quality and presentation of their academic and professional documents

Inauguration Ceremony of IEEE Computer Society Bangalore Chapter-STUDENT CHAPTER

The Department of Computer Science and Engineering at Dayananda Sagar University proudly hosted the inauguration ceremony of the IEEE Computer Society Bangalore Chapter-STUDENT CHAPTER, on 7th June 2024. This significant event marked a milestone in the university's journey towards fostering a culture of innovation, collaboration, and academic excellence among its students and faculty.

The inauguration ceremony was graced by the presence of the esteemed chief guest, Dr. D N Sujatha, Professor, Department of Computer Applications, BMS College of Engineering, IEEE Chair Computer Society Bangalore Chapter. Dr. Sujatha, with her extensive academic and professional experience, shared invaluable insights and inspired the attendees with her words of wisdom. Her presence added immense value to the event, highlighting the importance of such initiatives in the academic community. The Student Branch Faculty Advisor for the newly inaugurated IEEE Computer Society Bangalore Chapter-Student Chapter is Dr. Basavaraj N Hiremath. Dr. Basavaraj N Hiremath, with his dedication and vision, has been instrumental in the establishment of this chapter. His guidance and support are expected to drive the chapter towards achieving its goals and fostering a vibrant community of young professionals and researchers.

One-Day Workshop on Essential Computing Skills for Research Methodology

The Department of Computer Science and Engineering, in collaboration with the College of Physiotherapy, organized a one-day workshop titled "Essential Computing Skills for Research Methodology" on 20th June 2024. This workshop aimed to equip participants with vital computing skills necessary for conducting and enhancing research methodologies across various disciplines. The workshop featured two distinguished resource persons: Dr. Seema Tharannum, Professor, Department of Biological Sciences and Dr. Savitha Hiremath, Associate Professor, Department of CSE.

The one-day workshop on "Essential Computing Skills for Research Methodology" was a resounding success, providing valuable learning opportunities for students from various disciplines. The collaborative effort between the Department of Computer Science and Engineering and the College of Physiotherapy highlighted the importance of interdisciplinary approaches in enhancing research capabilities. The Department of CSE remains committed to organizing such enriching programs that contribute to the academic and professional growth of its members, fostering a culture of excellence and innovation in research.

FACULTY ACHIEVEMENTS

- .Dr. Bondu Venkateswarlu, Associate Professor,Dayananda Sagar University, received BITES Best PhD Supervisor Award-2021 from BITES Best PhD Thesis Awards 2021 Ceremony on 2nd April 2024 at SIT Thumakuru, Karnataka.

- .Dr. Bondu Venkateswarlu, Associate Professor has published a research article in International Journal of Intelligent Systems and Applications in Engineering with the title "ULODF: An Unsupervised Learning based Outlier Detection", indexed in Scopus.

- Dr. Pramod Kumar Naik, Associate Professor, delivered an insightful presentation on April 7th 2024 at the "Education Fair and Seminar- Edu Expo" held in Hosur's Hotel Hills organized by Alliance University. The session focused on elucidating the reasons why students, upon completing their PUC, should consider DSU, Bangalore, for their engineering education. Through an engaging discourse, he highlighted the myriad opportunities available to students after pursuing various programs at DSU, including BE, MBA, and MTech. The central theme of his presentation revolved around the dynamic fields of AI, Robotics, and ML, underscoring the university's commitment to excellence in these domains.

- Dr. Amit R Bhat, Vice Chancellor, DSU engaged a session on Pipelining for the Computer Organization and Architecture course on 16th April 2024 for 4th semester students in DSU, Harohalli campus. In the session he discussed principles of Pipelining, including its stages, its benefits in enhancing CPU performance and the challenges it presents.

- Dr. Pramod Kumar Naik, Associate Professor and Dr. Basavaraj N. Hiremath, Professor, jointly published a research article in Journal of Electrical Systems (JES) with the title "Ultra-Fast BNN Analysis with the upgraded FINN Framework: Harnessing GoogLeNet and Contemporary Transfer Methods for deploying algorithms on NVidia GPU", indexed in Scopus with Q3.

- Mr. Benaka Santhosha S, Assistant professor, presented and published a paper in International Conference on Integrated Circuits and Communication Systems (ICICACS)-2024 organized by Department of Electronics and Communication Engineering, H.K.E. Society's Sir M Visvesvaraya College of Engineering, Raichur with the title "A Comprehensive Study on Various Encryption Techniques for Digital Images in Multimedia Networks" in IEEE, with DOI: 10.1109/ICICACS60521.2024.10498590.

- Prof Mala B A and Prof Suvika K V, Assistant Professors, have successfully participated in 2 weeks International FDP on "Advancement in Quantum Computing and Sensor Technology for viksit Bharat @2047, from 15th to 27th April conducted by The Oxford College of Engineering, Bengaluru.

FACULTY ACHIEVEMENTS

- Dr. Bipin Kumar Rai, Professor, Dept of CSE, contributed as a session chair in the 2nd International Conference on Disruptive technologies (ICDT-2024) on 15th and 16th March 2024 organized by Department of Computer Science and Engineering, GL Bajaj Institute of Technology and management, Greater Noida (U.P), India.

- Dr. Meenakshi Malhotra, Associate Professor, Dept of CSE has successfully completed 12 weeks NPTEL Online Certification course on "NBA Accreditation and Teaching-Learning in Engineering (NATE)" as Elite and **Topper with 88% in May 2024.

- Dr. George Fernandez and Dr. Revathi V, Associate professors, extended their service as a session chair for the technical presentation session and contribution towards the successful organization of IEEE sponsored 2024 International Conference on Advances in Computing, Communication and Applied Informatics (ACCAI-2024) held at St. Joseph's College of Engineering, Chennai, Tamil Nadu during 9th and 10th may 2024.

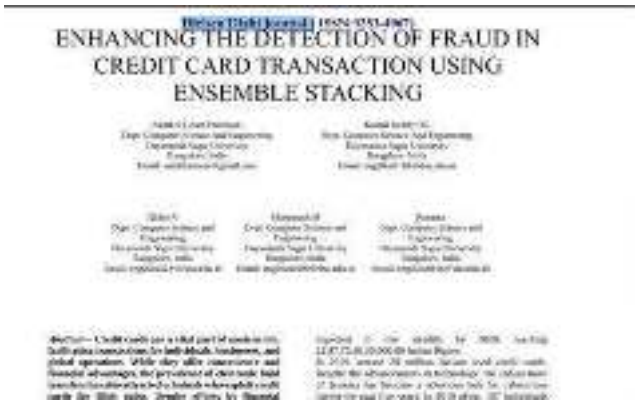
- Prof Mala B A and Prof Suvika K V, Assistant Professors, have successfully participated in 5 days online FDP on "AI insights: Predictive power of ML, DL and NLP", from 14th to 18th May conducted by Sphoorthy Engineering College.

- Prof. Kavyashree I Pattan, Assistant Professor, Dept of CSE has successfully completed 12 weeks NPTEL Online Certification course on "Computer Network and Internet Protocol" as Elite with 77% in May 2024.

- Dr. Bipin Kumar Rai, Professor, Dept of CSE has filed an Indian patent for the title "Smart water Bottle" in Jan 2024 and approved grant in May 2024.

- Dr. Bipin Kumar Rai, Professor, Dept of CSE, has published a research article in 4th International Conference on Recent Trends in Machine Learning, IoT, Smart Cities and Applications. ICMISC-2023 with the title "Clean Sustainable Society Using CNN " in Springer conference, ISBN978-981-99-9441-0 in May 2024.

- Prof Naitik ST, Assistant professor, has published a research article in the Journal of Xi'an University of Architecture & Technology along with the students (Kushal Reddy HG, Nithin V, Manjunath M, Kumara) with the title "Survey on Enhancing the Detection of Fraud in Credit Card Transaction Using Machine Learning Techniques", ISBN 1006-7930 and publisher is Science China Press indexed in Scopus during May 2024.



ENHANCING THE DETECTION OF FRAUD IN CREDIT CARD TRANSACTION USING ENSEMBLE STACKING

- Prof Naitik ST, Assistant professor, has published a research article in the Dizhen Dizhi Journal along with the students (Kushal Reddy HG, Nithin V, Manjunath M, Kumara) with the title "Enhancing the Detection of Fraud in Credit Card Transaction Using Ensemble Stacking", ISBN 2534967 and publisher is SSA indexed in Scopus during May 2024.

Crowdsourcing of Criminal Records from Digital Identities of Individuals using AI

ABSTRACT

- Prof Naitik ST, Assistant professor, has published a research article in the Journal of Xi'an University of Architecture & Technology with the title "Crowdsourcing of Criminal Records from Digital identities of Individuals using AI", ISBN 1006-7930 and publisher is Science China Press indexed in Scopus during May 2024.

EduCast

CERTIFICATE

OF PARTICIPATION

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- Prof Suvika K V and Prof. Arpita Paria, Assistant Professors, have successfully attended one-week National Level online Workshop on "Next-gen Web Tech Intensive: React, Angular JS, Kubernetes, Docker, MongoDB" organized by Dept. of ISE in association with Start-Up EduCast, CMR Institute of Technology, Bangalore from 27/05/2024 to 31/05/2024

Dr. J. S. Nixon, Professor and Prof Priyanka S Marellavar, Assistant Professor, have successfully participated one-week online FDP on the topic "Cyber-Physical System Design and Data Analytics" (CSDA-2024) given by Dr. Sudip, IIT Roorkee, Uttarakhand, organized by AGKS Pvt. Ltd from 3rd June to 8th June 2024.

- Dr. Bipin Kumar Rai, Professor, Dept of CSE has Presented research paper entitled "Smart Transplants: Blockchain Powered Organ Donation & Analytics" in 5th International Conference on Data Analytics & Management (ICDAM-2024) Organized By London Metropolitan University, London, UK and BPIT New Delhi on 14th June 2024.

- Dr. Bipin Kumar Rai, Professor, Dept of CSE extended his service as a Paper Reviewer in 2nd International Conference on Computer, Electronics and Electrical Engineering and their Applications (IC2E3-2024), held from 6th and 7th June, 2024 at NIT Uttarakhand, (IEEE, Scopus).

- Dr. Senthil Kumar, Professor, Dept of CSE, has published a book chapter with the name "AI-Driven Alzheimer's Disease Detection and Prediction", by the publisher IGI Global Publishing with the volume no chapter 13 and ISBN 9798369336052 in June 2024

- Dr. Senthil Kumar, Professor, Dept of CSE has presented and published a paper with the title "Detection of Leaf Blight Disease in Sorghum Using Convolutional Neural Network" and ISSN NO CCIS, volume 2122-page no 123-134 by the springer conference Intelligent Computing for Sustainable Development during 1st June 2024.

- Dr. Senthil Kumar and Dr. Nixon J S Professors, Dept of CSE have published a paper with the title "A Novel approach for detection and Identification of Vehicles using Single Shot MultiBox Detector (SSD) and Real Time Analytics" on 13th June 2024 by Scopus journal Q4, Educational Administration: Theory and Practice, with DOI https://doi.org/10.53555/kuey .v30i6.5892 ISSN: 2148-2403, Vol. 30 No. 6 (2024).

- Dr. Bondu Venkateswarlu, Associate Professor has published a research article in International Journal of Intelligent Systems and Applications in Engineering with the title "A Novel Data Stream High Utility Itemset Miner with the Batch Transaction Processing Model", indexed in Scopus with ISSN NO 21476799, volume no 12 and page no 1675–1686 during June 2024

Prof. Shreekant Salotagi, Assistant Professor, Department of CSE has successfully completed Final Ph.D Viva Voice on the Thesis entitled "Optimization of Resource Allocation in Internet of Things (IoT) Applications" under the guidance of Dr. Jayshree D. Mallapur Professor & Head, BEC. Bagalkote, (VTU Belagavi), The defense panel consisted of Dr. Gopalkrishna Hegde, Professor, IISc Bangalore, and Dr. Shashidhar G. Koolgudi, Professor, Dept. of CSE, NITK Surathkal on 21/06/2024.

Prof. Shilpa Sudheendran, Assistant Professor, Department of CSE has successfully completed the following online courses on Coursera.

i) Exploratory Data Analysis for Machine Learning, an online non-credit course authorized by IBM and offered through Coursera on Jun 14, 2024.

ii) Foundations: Data, Data, Everywhere an online non-credit course authorized by Google and offered through Coursera on Jun 20, 2024.

iii) Ask Questions to Make Data-Driven Decisions, an online non-credit course authorized by Google and offered through Coursera on Jun 20, 2024.

- Prof Suvika K V, Assistant Professor, has successfully completed the online course on Infosys Springboard titled " Machine Learning & Deep Learning Tools in the Cloud" on June 19, 2024

A Survey on Application of Analytics in Legal Profession

- Prof Suvika K V and Prof Mala B A, Assistant Professors presented and published a paper in scopus indexed conference "International Conference on Emerging Technologies in Science and Engineering-ICETSE-2024" with the title "A Survey on Application of Analytics in Legal Profession" during June 2024 organized by Akshaya Institute of Technology, Tumkur.

CERTIFICATE OF APPRECIATION

First International Conference on "EMERGING TECHNOLOGIES in SCIENCE & ENGINEERING"

Suvika. K.V

Dayananda Sagar University

A Survey on Application of Analytics in Legal profession

CERTIFICATE OF APPRECIATION

First International Conference on "EMERGING TECHNOLOGIES in SCIENCE & ENGINEERING"

Mala. B.A

Dayananda Sagar University

A Survey on Application of Analytics in Legal profession

- Prof Soubhagyalakshmi, Assistant professor, Department of CSE has successfully completed Final Ph.D Viva Voice on 28th June 2024 Under Visvesvaraya Technological University (VTU) Belagavi.

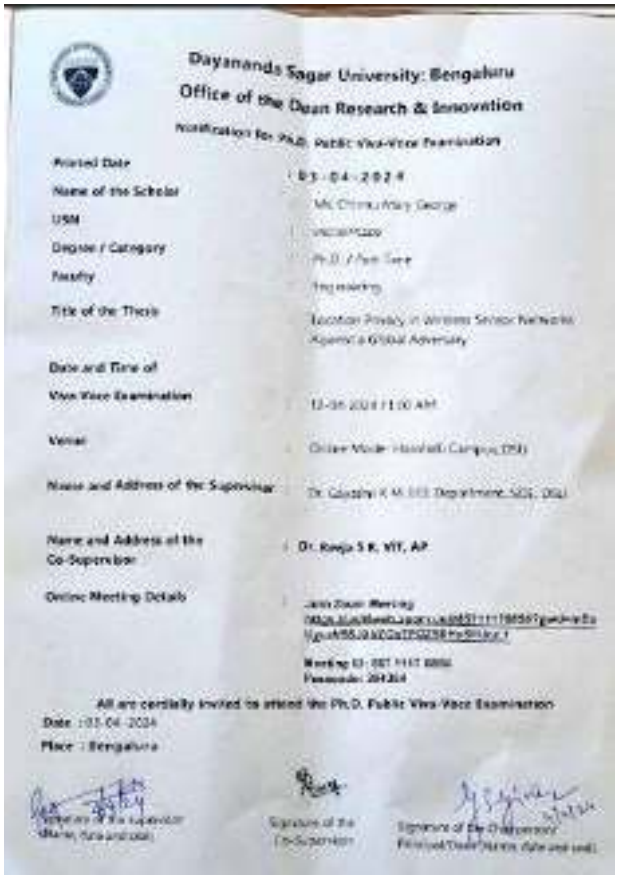
STUDENT ACHIEVEMENTS

- Ms. Ekta Maini, Research Scholar of Dr. Bondu Venkateswarlu, Associate Professor, received BITES Best PhD Thesis Award-2021 from BITES Best PhD Thesis Awards 2021 Ceremony on 2nd April 2024 at SIT, Thumakuru, Karnataka.

- Ms Sanaa Kittur (ENG20CS0313), Swati Priya(ENG20CS0375),Shermeen Ulfat(ENG20CS0335) and Shravana(ENG20CS0339) final year project Guided by Dr Basavaraj N Hiremath, Professor, CSE and Dr Gopal Das, CDSIMER with project titled "Identifying and Diagnosing common mental disorders by Digital Phenotyping" got the second place with cash prize of Rs 20000 @ the Project Expo of MVJ college of Engineering Whitefield Bangalore held on 27th April 2024.

- Mr. Ayush kumar (ENG20CS0047), Fahad U R Rahman (ENG20CS0097), Himanshu (ENG20CS0115), Uday Narayan Gautam (ENG20CS0390) and Dr. George Fernandez, Associate Professor, Presented and published a research paper in ICONSTEM 2024 titled "Early-Stage Detection of Autism Spectrum Disorders" in 9th IEEE conference organized by Jeppiaar Engineering college 4th and 5th April 2024.

- Mr. Aditi Bharath (ENG20CS0014), Antriksh Singh (ENG20CS0037), Aryanjeet Singh (ENG20CS0042), Ashmita Neog (ENG20CS0043) and Dr. George Fernandez, Associate Professor, Presented and published a research paper in ICONSTEM 2024 titled "Smart-Segregation of Waste Management Using IoT" in 9th IEEE conference organized by Jeppiaar Engineering college 4th and 5th April 2024.



- Ms. Chinnu Mary George, Research scholar, CSE under the guidance of Dr. Gayathri K M, ECE Department, SOE, DSU, completed her Ph.D Public Viva-Voce Examination on 12-04-2024 11 :00 AM, Harohalli Campus, DSU.

KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

47th series of Student Project Programme (SPP): 2023-24

List of Student Project Proposals Approved for Sponsorship

- Ten final year BTech Projects from KSCST SPP scheme 2023-24 received funding of Rs. 37500/- in April 2024.

KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

47th series of Student Project Programme (SPP): 2023-24

List of Student Project Proposals Approved for Sponsorship

KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

KARNATAKA STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

47th series of Student Project Programme (SPP): 2023-24

CERTIFICATE

- Mr. S G Sumanth (ENG22CS0140), has participated in Unleash your code with GSoC organized by DSU-ACM Student Chapter on 18-04-2024, at DSU.

CERTIFICATE

Utkarsh Priye

- Mr. Utkarsh Priye (ENG22CS0602), has participated in Unleash your code with GSoC organized by DSU-ACM Student Chapter on 18-04-2024, at DSU.

- Mr. Gaurav Shetty (ENG22CS0061), has Participated Spring 2024 Battle of the brains coding contest Online held by Department of Computer Science, The University of Texas at Dallas on 13th April 2024.

- Mr. Sai Prasad Handigund (ENG22CS0143), has participated in Talent Show and Won 1st Place in Group Singing held at DSU on 19th April 2024

- Mr. Sandeep Kumar Pradhan (ENG20CS0315), Vinod V(ENG20CS0413), R DINAKAR (ENG20CS0272), PRAJWAL J (ENG20CS0258) and Uday Kumar A (ENG20CS0389) has successfully participated in The State Level Project Competition 2024 was held on April 27th, Saturday, at Bangalore Institute of Technology (BIT).

BANGALORE INSTITUTE OF TECHNOLOGY
STATE LEVEL PROJECT COMPETITION-2024
CERTIFICATE
BIT

BANGALORE INSTITUTE OF TECHNOLOGY
STATE LEVEL PROJECT COMPETITION-2024
CERTIFICATE
BIT

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CERTIFICATE
BIT

BANGALORE INSTITUTE OF TECHNOLOGY
STATE LEVEL PROJECT COMPETITION-2024
CERTIFICATE
BIT

BANGALORE INSTITUTE OF TECHNOLOGY

[AFFILIATED TO VTU BELAGAVI, ACCREDITED BY NBA, NAAC A+]

K.R. ROAD, V.V.PURA, BENGALURU-560004

DEPARTMENT OF INFORMATION SCIENCE AND ENGINEERING

STATE LEVEL PROJECT COMPETITION-2024

CERTIFICATE

This is to certify that Mr./Ms. Uday Kumar A has participated in the "State Level Project Competition-2024" conducted on 27th of April 2024, organised by the Department of Information Science and Engineering, Bangalore Institute of Technology, Bengaluru - 560004.

BIT

Dr. Asha T. HOD, ISE Dept.

Dr. J. Prakash Vice Principal, BIT

Dr. Aswath M.U. Principal,BIT

Mr. Amith R (ENG21CS0033), Ms D Akshitha (ENG21CS0102), Mr Amith Kumar P (ENG21CS0281), and Ms Akila A (ENG21CS0025), Students 6th Semester, Department of Computer Science and Engineering have participated in the e-YUVA Project Funding Proposal Presentation Competition organized by BIRAC. The event took place at the University of Agricultural Sciences, Dharwad, on 08/05/2024. Presentation focused on an innovative app called 'Lung Sight,' which utilizes an advanced approach to detect and classify lung nodules using CT images for the early detection of cancer. The app aims to contribute significantly to improving survival rates by enabling early identification of lung cancer under the guidance of Dr Pramod Kumar Naik.

- Mr. Jashwanth P V (ENG23CSE005) and Mr Giridhar S T (ENG23CSE005), students of 1st year CSE have participated has a finalist in the grand finale of EG Hackathon 2024 from 14/5/24 to 15/5/24, at Mangalore.

- Mr. Kamarsu Venkata Sriya (ENG21CS1009), Student of 8th semester CSE Won Second Prize in the DSU Project Expo 2024, conducted by CSE department on 17th May 2024.

- Mr. Shreyas S (ENG21CS0389), Student of 6th sem CSE Won first place at the blockchain based web3wave event conducted by Carrer club at DSU on 03rd May 2024.

- Ms. Sofia Rebecca (ENG22CS0590) and team, students of 4th semester have participated and won the consolation prize in Two-day PAN India Contest and Drone Competition. This team made a surveillance drone that recognises faces and can track objects. The event was held in the open auditorium at DSU,Harohalli from 9 am to 4 pm on 03rd May 2024.

- Mr. Sujeet Mahadev Alagundi (ENG22CS0191) and Mr Sharanu Mitta (ENG22CS0160), students of 4th sem CSE has participated DSU Code Red Hackathon Contest was held on 22-23th of May by DSU ACM Student Chapter in DSU Main Campus Harohalli.

Ms. Sristi A H (ENG22CS0186), student of 4th semester CSE, has participated DSU Matrix International Hackathon Workshop on Exploring ARM technologies and opportunities held on 22nd May 2024, The HR conclave '24 held on May 24, 2024.

- Mr. Adarsh Priyadarshi (ENG22CS0517), student of 4th semester CSE Participated in the Dayananda Sagar University Model United Nations Lok Sabha (DSUMUN) held at DSU Main Campus on 24-05-2024 & 25-05-2024. Secured the 2nd position while representing Rajnath Singh, Hon'ble Defence Minister of India in the Lok Sabha and also awarded a cash prize for the same.

- Ms Savita Chinnur (ENG22CS0156), student of 4th semester CSE, was awarded IEEE Women Engineering scholarship 50,000 funded by Quest global on 16th May 2024.

- Ms N M Bhavana, student of 4th semester CSE has delivered a presentation on Personalized Carbon Emission Tracker during the workshop organized by INAE Bangalore Chapter and DSU on 11th may 2024.

- Alumni Ms Subhra of 2021 batch currently doing MS in Carnegie Mellon University PA in USA donated a Textbook to the CSE department library on 21st June 2024 to Dr Girisha and Dr Rajesh receiving with Thanks.

- Mr. Pavanananda K S (ENG21CS0293), student of 6th semester CSE Won 3rd place under AI/ML category in the pre-final year project exhibition Srishti 2024 Avishkar (State-level project expo) held at Atria Institute of Technology, Bengaluru on 24th May 2024.

- Ms. Moni Shree S (ENG22CS0372), student of 4th semester CSE has participated in LaTeX Workshop on Technical Writing organized by the Department of Computer Science and Engineering, SOE, Dayananda Sagar University on June 3rd, 2024.

- Mr. Darshan Kumar M (ENG20CS0081), Mr. Guntur Lohith Sai (ENG20CS0106), Mr. Jasin Jayachandran (ENG20CS0131), and Mr. Kapil Adarsh S A (ENG20CS0143) students of 8th semester CSE under the Guidance of Prof. Suvika K V, Assistant professor, presented and published a project paper in scopus indexed conference "International Conference on Emerging Technologies in Science and Engineering-ICETSE-2024" with the title "Continuous user Authentication through Keystroke Dynamics" during June 2024 organized by Akshaya Institute of Technology, Tumkur.

GRENZE

Continuous user Authentication through Keystroke Dynamics

CERTIFICATE
OF APPRECIATION
First International Conference on
"EMERGING TECHNOLOGIES in SCIENCE & ENGINEERING"

CERTIFICATE
OF APPRECIATION
First International Conference on
"EMERGING TECHNOLOGIES in SCIENCE & ENGINEERING"

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"EMERGING TECHNOLOGIES in SCIENCE & ENGINEERING"

CERTIFICATE
OF APPRECIATION
First International Conference on
"EMERGING TECHNOLOGIES in SCIENCE & ENGINEERING"

Smart Bin: A Segregation and Management of Garbage for Smart City using IoT

CERTIFICATE
OF APPRECIATION

First International Conference on
"EMERGING TECHNOLOGIES in SCIENCE & ENGINEERING"

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"EMERGING TECHNOLOGIES in SCIENCE & ENGINEERING"

- Mr. Karanveer Singh (ENG21CS1027), Ms. Akshaya Singh (ENG20CS0022), Mr. Saksham Dubey (ENG20CS0310), and Mr. Hemang Verma ((ENG19CS0119) students of 8th semester CSE under the Guidance of Prof. Mala B A Assistant professor, presented and published a project paper in scopus indexed conference "International Conference on Emerging Technologies in Science and Engineering-ICETSE-2024" with the title "Smart Bin: A Segregation and Management of Garbage for Smart City using IoT" during June 2024 organized by Akshaya Institute of Technology, Tumkur.

- Ms. Alisha Aric Fernandes (ENG21CS0021) and Ms. Bhat Dhanvi (ENG21CS0074), students of 6th sem are Attended the Q-Karyashala Workshop held on the 24th and 25th of June 2024 at the Indian Institute of Science, Bangalore. In this workshop, The knowledge gained is across various quantum computing concepts presented by professors from IIT and IISc. Additionally, they also participated in a hands-on workshop on ADS Quantum Pro and had a lab session on the Mach-Zehnder Interferometer.

EDITORIAL COMMITTEE

Faculty Coordinators

Prof. Bharathy Vijayan
Assistant Professor

Prof. Mala B A
Assistant Professor

Student Coordinator

Ms. Vaishnavi P
3rd Year

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

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.

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