Volume-1 Issue-4

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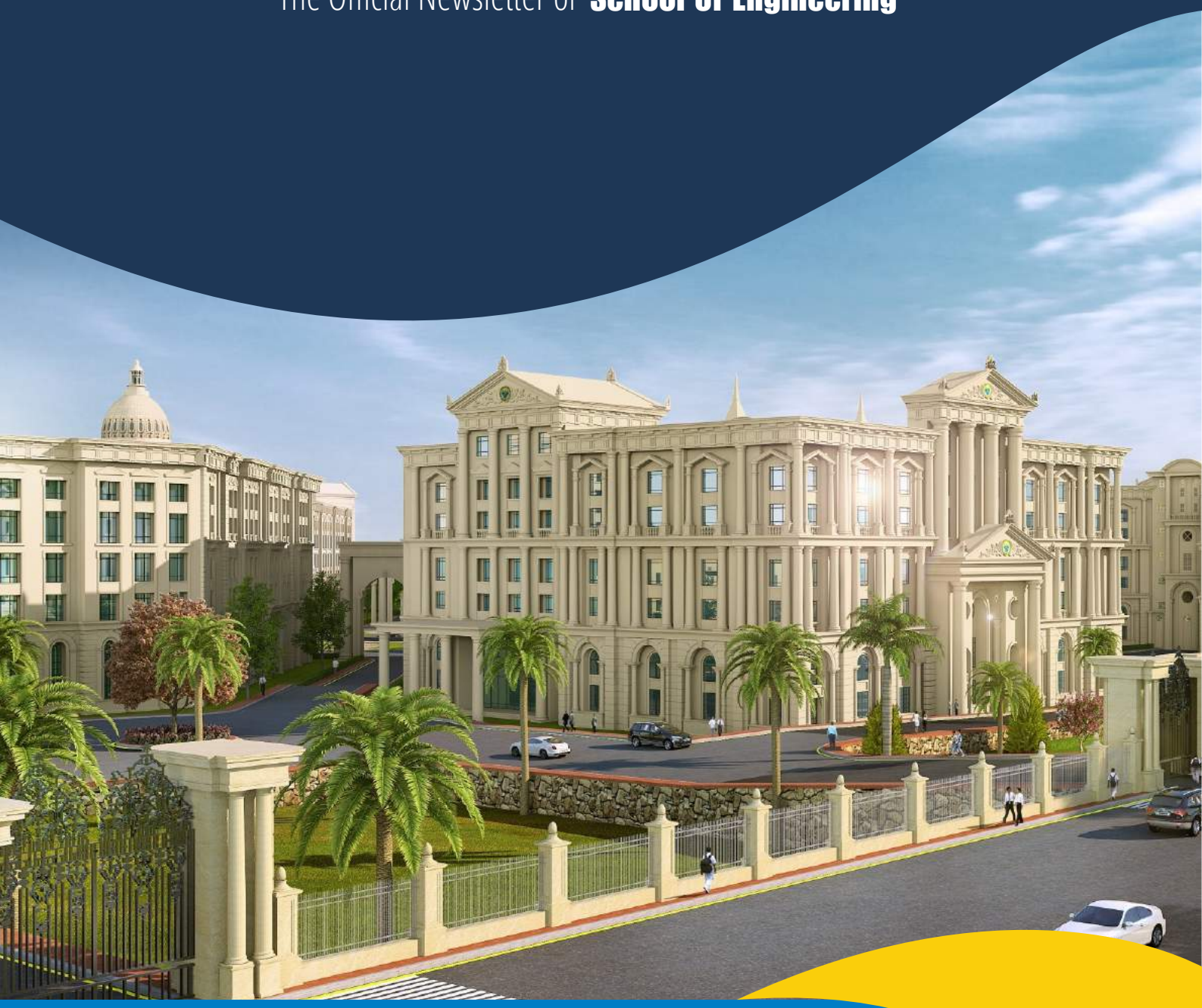
SOE-BULLETIN

The Official Newsletter of **School of Engineering**



April 2023

www.dsu.edu.in

SCHOOL OF ENGINEERING

Vision

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

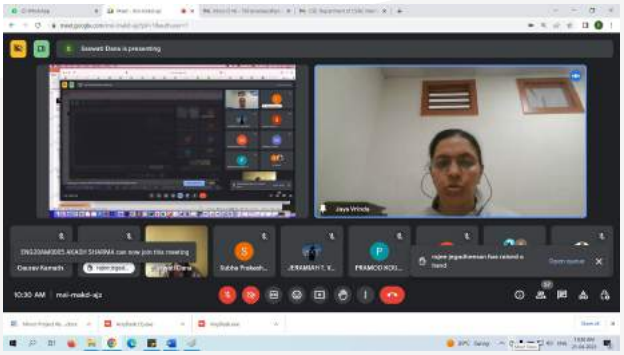
Mission

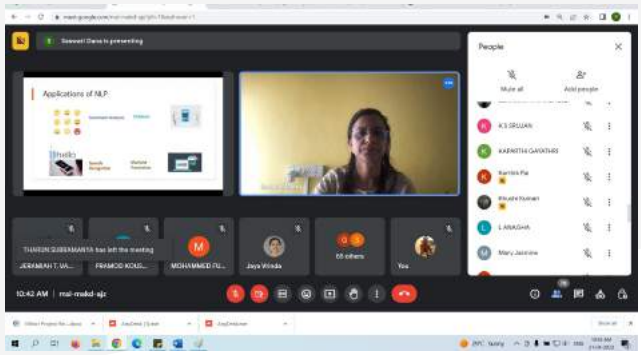
To Develop School of Engineering at Dayananda Sagar University, as Center of Excellence by imparting Quality Education and Research to generate highly Competent, Skilled and Humane manpower to face emerging Technological, Scientific and Social challenges with Ethics, Integrity, Credibility and Social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

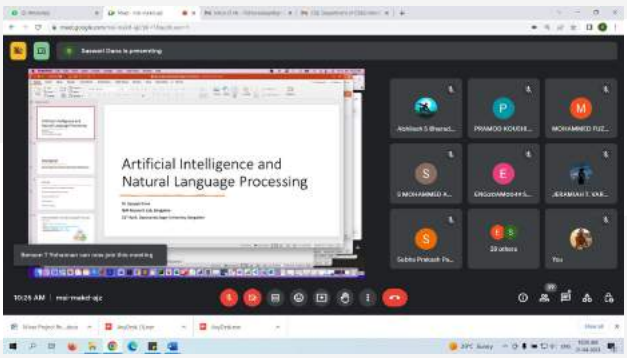
TECH TALKS

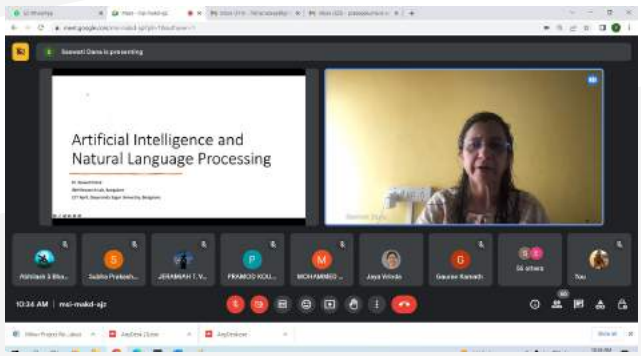
Talk on Artificial Intelligence and Natural Language Processing

Talk on Artificial Intelligence and Natural Language Processing: Dr. Saswati Dana, Advisory Research Engineer, IBM. has given a talk about Artificial Intelligence and Natural Language Processing on 21th April 2023 students of 6th sem AIML students took the benefits of this talk.









Technical talk on "Detection of Neurodegenerative Disorders- Techniques and Tools" Talk by Dr. Vinutha N At Vivekananda college of Engineering

Molecular diagnostics provide a powerful method to detect and diagnose various neurological diseases such as Alzheimer's and Parkinson's disease. The confirmation of such diagnosis allows early detection and subsequent medical counseling that help specific patients to undergo clinically important drug trials. This provides a medical pathway to have better insight of neurogenesis and eventual cure of the neurodegenerative diseases. In this short review, we present recent advances in molecular diagnostics especially biomarkers and imaging spectroscopy for neurological diseases. We describe advances made in Alzheimer's disease (AD), Parkinson's disease (PD), Amyotrophic lateral sclerosis (ALS) and Huntington's disease (HD), and finally present a perspective on the future directions to provide a framework for further developments and refinements of molecular diagnostics to combat neurodegenerative disorders.

Invited Talk - Designing a RISC-V Architecture based Processor for General Purpose Computing (ECE)

Department of Electronics and Communication Engineering organised Invited talk on “Designing a RISC-V Architecture based Processor for General Purpose Computing” on 08th April 2023 from 2:00PM to 4:00PM and the speaker is Mr. Dilip Kumar Erappa, Digital Design and Verification Engineer, Siliconally GmbH, Germany, MS in Nano Electronics Systems, TU Dresden, Germany. The talk was organised by Dr. Ashwin Desai, Assosiate Professor.

The summary of the talk:
The dominant architectures for general purpose computing in laptops and computers are the x86 architectures from Intel and AMD. However, for mobile devices and other battery-operated devices, ARM-based architectures have been the go-to choose. In recent years, RISC-V based processors are gaining popularity with their open-source ISA, flexible design, and easily extendable architectures. This talk will focus on the process of designing a processor using the RISC-V ISA for general purpose computing and the decisions required to optimize the core.

The talk will begin with an overview of the RISC-V ISA, highlighting its advantages over other ISAs. The speaker will then delve into the design process, discussing the key considerations that must be considered, including performance, power consumption, and area. The talk will also cover the various optimization techniques that can be applied to the RISC-V core, such as pipelining, caching, and branch prediction.

Overall, this talk will provide attendees with a detailed understanding of the RISC-V architecture and the considerations involved in designing a processor using this ISA. Attendees will also gain insight into the potential benefits of using RISC-V for general purpose computing and the challenges that must be addressed in the design process.

Invited Talk - Vector Computing using RISC-V Vector extensions for Future AI based applications

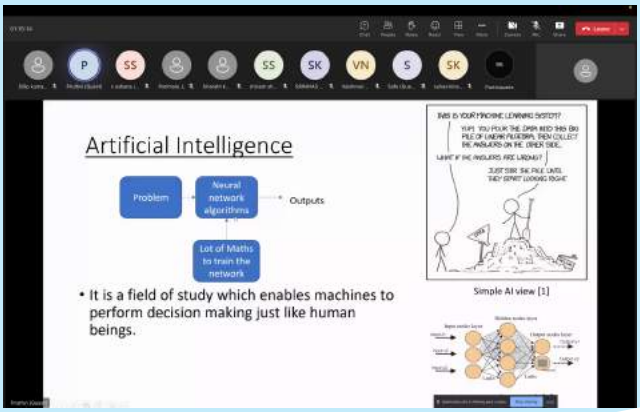
Department of Electronics and Communication Engineering organised Invited talk on “Vector Computing using RISC-V Vector extensions for Future AI based applications” on 08th April 2023 from 2:00PM to 4:00PM and the speaker is Mr. Pruthvi Raj Venkatesh, Digital Design and Verification Engineer, NXP semiconductors, Germany, Ms in Nano Electronics Systems, TU Dresden, Germany. The talk was organised by Dr. Ashwin Desai, Associate Professor.

The summary of the talk:
In recent years, Artificial Intelligence (AI) has become a key technology for various applications, particularly in image and speech-based applications, due to its high prediction accuracy. However, the computing demands for these applications are significant and cannot be adequately supported by general-purpose processors for real-time support. This has created a demand for other architectures that can provide efficient support for these tasks.

RISC-V based vector extensions are emerging as a popular solution to this problem. They provide support for vector processing using SIMD (Single Instruction Multiple Data) based approaches, which helps to complete tasks faster. This talk will focus on vector processing and designing a core based on V extensions of RISC-V.

The speaker will begin by providing an overview of vector processing and its importance in AI-based applications. The talk will then delve into the design process, discussing the key considerations that must be considered, including performance, power consumption, and area. The talk will also cover the various optimization techniques that can be applied to the RISC-V core, such as parallelism, pipelining, and memory hierarchy.

Overall, this talk will provide attendees with a detailed understanding of vector processing and the considerations involved in designing a processor using RISC-V V extensions. Attendees will also gain insight into the potential benefits of using RISC-V for AI-based applications and the challenges that must be addressed in the design process.

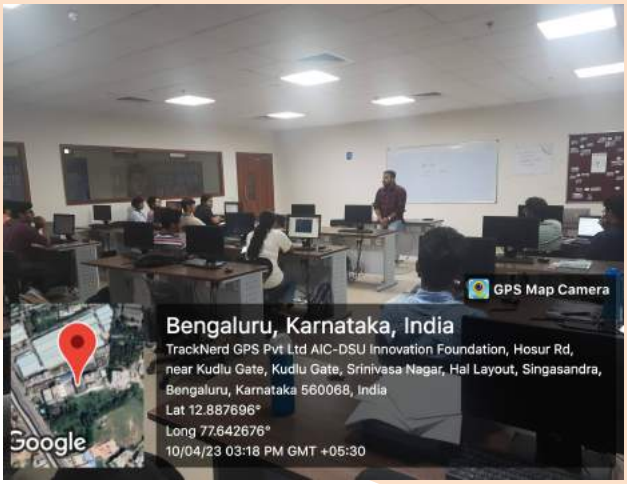


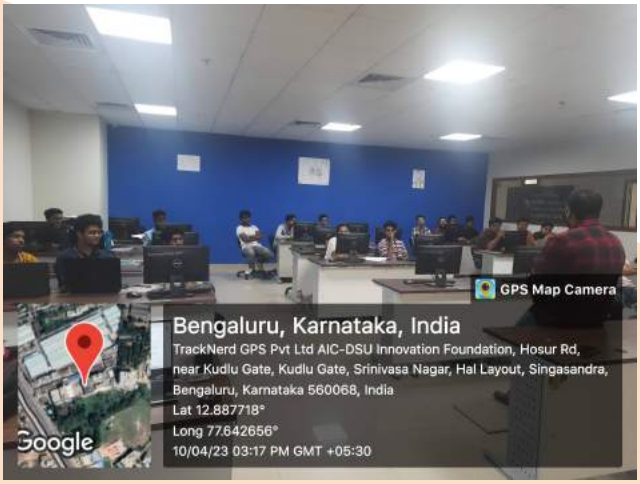
ALUMNI TALK

Department of Computer Science & Technology has organized an Alumni Talk on 10th April 2023 for the pre final year students. The talk was delivered by Shubhang Vangari, AI Scientist-1, Intern at IQVIA, Bengaluru, Karnataka, India. Shubhang Vangari is the 2016-2020 batch CST student and currently working as an AI Scientist.

The event started at 3:00 PM and Prof. Ramandeep Kaur introduced Shubhang Vangari to all the students and handed over the session to Shubhang Vangari. Shubhang Vangari interacted with students and shared his experience during B. Tech and after B. Tech program. He also explained the placement process to the students and motivated them to focus more on placement and should listen to their heart and brain to gain more success in their career.

He also interacted with students, asked them a few questions and made them think about a few important things to stay active and alert. Students also asked various questions to him about the placement activities and how to prepare and handle the stress of it.





EVENTS

Protothon 2023

The 24-Hour Protothon event organized by Department of Computer Science and Engineering (Cyber Security) in association with AIC-DSU, was successfully completed. It was inaugurated by Dr. Amit R. Bhatt, Pro VC, DSU, Bangalore on 31st March 2023 at 9:00 AM in B Block, DSU, Hosur Road, Bangalore.

In the inaugural speech, he explained about the importance of prototypes for manufacturing the products as per the market needs. India, as one of the major outlets for global market, and to make Indian products to be successfully occupying the market space, strong prototypes leading to product realization are very much essential. He also spoke about how engineers play a very vital role in making the prototypes. So, this kind of Contest will build a culture in students to bringing their thoughts out of their mind and exhibit as a prototype. The authorities of various schools and colleges of DSI have helped by promoting the event in their respective schools/ colleges and encouraging the students for participation. We thank all the authorities.

Competition of 24 hours ended by 9.30 am on 1st April. All 24 teams were still energetic to showcase their prototypes to 7 jury members of AIC-DSU. Jury team lead by Mr. Vinod Shankar, CEO, AIC -DSU patiently evaluated prototypes for around 2.5 hours. In the valedictory function on 01 April, at 1 pm prizes were distributed. There were 1st, 2nd, 3rd prizes and 7 teams got consolation prizes of worth of Rs. 42000/-. Jury team appreciated students participation and expressed that, these kind of events help the students in exhibiting their technical skills, creativity, presentation skills, stress management, time management etc.

They also told that, they are happy to extend their support for implementation of students ideas by providing financial/technical support. Dr. Udaya Kumar Reddy, Dean, SoE happily appreciated effort of department, staff coordinators, student volunteers for smooth conduction of continuous 24 hours event. Participants have given positive feedback on opportunity given to learn and prepare prototypes, food arrangements and other facilities provided.

NSS Activities

Department of computer science and Engineering (Cyber Security) organized one day NSS Program with three activities included, on 21st April, 2023. The event details are as given under.

1. Plantation of trees at campus 4, in front of A Block, DSU. We are thankful to Mr. Chetan of horticulture maintenance department and his team at campus 4 for kind support.

2. Visit to Sericulture Chawki, cocoon development farms at Keeranagere village. Students observed all four stages of silk worms' development. We would like to thank Shri Jagadeesh, owner of farm for patient explanation and hospitality. Also, we thank the PDO Mr. Sateesh for helping out in organizing the event.

3. Voting awareness by road Jhatha at keeranagere village.

Total 40 students of 4th and 6th semester of CSE(CY) participated in these events. The event was coordinated by Dr. Bhagyajyoti (Physical Education director), Prof. Naveen Kulkarni, Prof. Ranjima and Mr. Murthy.

Potluck - “Tasty Treasures”

The DataScience@DSU club, Department of Computer Science Engineering (Data Science) has successfully organized a Potluck” Tasty Treasures” on 12th April, 2023 organized by Dr. Shaila S G, Professor and Chairperson, Dept. of CSE (Data Science) and Prof. Monish L, Assistant Professor, Dept. of CSE (DS). The targeted audience were students of the Department of CSE (Data Science). Around 60+ students participated in the Potluck.

Faculty Enrichment Program “LTI Mindtree"

From the Department of Computer Science and Engineering (Data Science), Prof. Monish L Assistant Professor have attended the Faculty Enrichment Program organized by the LTI Mindtree, Bangalore on 20th April 2023. Firstly, they gave a small introduction about the LTI Mindtree and its value in the international market and the employees across the world. Umesh Krishnamurthy, Associate Vice President, Head – Global Transition. He briefed about the roles of transition manager.

A transition manager is responsible for overseeing the smooth transition of a project or process from one state to another, ensuring that it is completed efficiently and effectively. This typically involves planning, coordinating, and monitoring the various stages of the transition, as well as managing any risks and issues that may arise. The ultimate goal of a transition manager is to achieve a successful outcome while minimizing disruption and ensuring that the transition aligns with the organization's strategic objectives. Chandan Pani, Chief Information Security Officer, Corporate Security. He discussed the Organizational change management and curriculum aspects. Organizational change management refers to the process of planning, implementing, and guiding changes within an organization to achieve desired outcomes. It involves carefully managing the people, processes, and systems affected by the change to minimize resistance, maximize adoption, and ensure successful implementation. It typically includes activities such as assessing the need for change, creating a change management plan, communicating the change to stakeholders, providing training and support, and monitoring progress. Effective organizational change management is crucial for organizations to adapt and thrive in today's dynamic business environment.

EV SUMMIT

A one-day **"Electric Vehicle (EV) Summit,"** organised by the ***Bangalore Chamber of Industry and Commerce (BCIC)***, is a high level, global e-mobility event held at ***"The Hotel Lalit Ashok"*** in Bengaluru on April 10, 2023. Eminent speakers from various EV industries like TVS Motors, Volvo Group, Nomura Research Institute, Simpson & Co. Pvt. Ltd., Vitesco Technologies, Toyota Kirloskar Motors, Ashok Leyland, TE Connectivity India Pvt. Ltd., Toyota Group, Tata Technologies, EDS Technologies, Continental India, ABB India, Ather Energy, and Ace Designers Limited have delivered the lectures. This EV Summit has consisted of keynotes and special lectures in different tracks like electric vehicle challenges, opportunities, growth and policy, design and development, sustainability, zero net emissions, manufacturing, technology and battery management systems skills, testing, and infrastructure. Two faculties (Dr. Kamalbabu P. and Prof. Karthik S. B.) and ten students from B.Tech. second year Mechanical Engineering have participated in the summit. This summit helps the students and faculties explore the advancements in the electric vehicle design and development field. Also, the students and faculty have interacted with leading professionals and R&D team members from various EV industries around India.

PLACEMENT ACTIVITIES

PLACEMENT ACTIVITIES
SOFT SKILLS TRAINING – 4th Semester

The session started at 9:00 AM with an extempore by resource person Keerthi Chalakaran. There are many things that students learnt from an extempore speech, both in terms of the content of the speech and the skills of the speaker. Here are a few key things that students learnt from the extempore: Critical thinking, Communication skills, public speaking skills, Adaptability, Content knowledge etc. Extempore speeches taught students valuable skills that can be applied in a wide range of settings, from academic and professional presentations to everyday conversations with friends and colleagues.

Next up this training had a group discussion on the topic “Men are better drivers than women.” During the group discussion, participants had the opportunity to share their ideas and perspectives, listen to others, and collaborate to come up with new solutions or insights. This process has been particularly beneficial to students as it helped dealing with complex or multifaceted issues that require input from multiple viewpoints. However, group discussion was also challenging, as it required active listening, effective communication, and the ability to work collaboratively with others.

After a short break, students were taught about the types of communication. There are several types of communication, each with its own unique characteristics and uses like Verbal communication, Nonverbal communication, Visual communication, Interpersonal communication, Group communication, Mass communication, Written communication. Overall, understanding the different types of communication and their unique characteristics helped students as individuals to communicate more effectively in a variety of settings.

Students were taught the usage of idioms in conversations. They learnt that when used correctly and in the appropriate context, idioms can help add interest and personality to work conversations. However, they also learnt that it is important to use them thoughtfully and with clear communication in mind to ensure that your message is effectively conveyed.

The last event of the day was to enact a skit to market a product created using instances from the ancient texts like The Ramayana or The Mahabharata. This team building activity helped improve communication, collaboration, and problem-solving skills among members of the student group. It was a creative challenge that encouraged teams to think creatively and outside of the box, like an improv game. The team building activity was a valuable tool for improving team dynamics and productivity by fostering a sense of community and collaboration, team members could work together more effectively to achieve their goals.

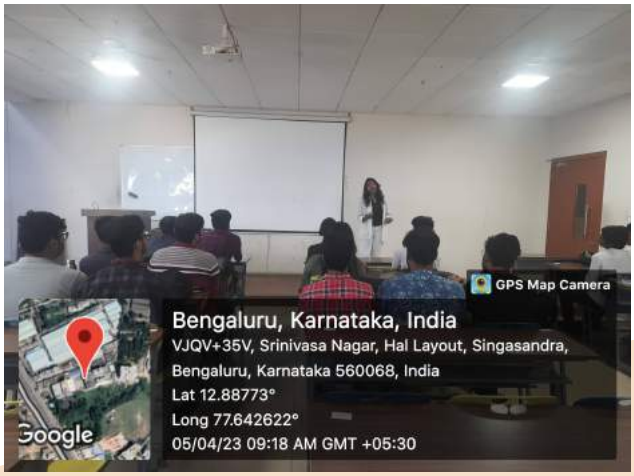
PRE-PLACEMENT TRAINING

The pre-placement training held on 5th April 2023 was conducted by Ms. Archana. The training started at 8:45 AM by Vijay Kumar S, Deputy Director - Training, Placement & Skill Development, Dayananda Sagar University. He explained the rules & regulations about placement activities and introduced the trainer Ms. Archana.

Ms. Archana started the training at 9 AM with a brief introduction about the trainer’s occupation, their college days and the experience in the training field.

At first, students were asked to make a resume on the basis of what job they desire. Students were trained about the ethics of making a resume and Do’s and Don'ts on the resume. Ms. Archana informed students about different job portals to apply on and the hiring process of the said portals. Students also got educated about how the industry works and what the recruiters are looking for in a fresher. There was a brief discussion over how important an internship is before the actual job.

After the student's resumes were ready, the trainer conducted a Mock Group-Discussion in which students actively participated. The class was divided in 3 groups and each group was given one topic to discuss. The exercise was very informative and built our confidence in public speaking and the group discussion rounds. Students were also trained for the etiquettes during an interview. Small things like posture, firm handshakes and the tone we speak in were covered.
In the afternoon session, all students sat for mock interviews. Each one of them had to answer personal questions as well as technical questions. There were various ways in which their communication skills were tested. There was also a stress interview round for the post of Manager in a company. Many of them were tasked to take up interviews of our classmates as well. The training ended at 4:45 PM with a thanking the trainer.



Pre – Placement Training "Communication Skills"

The DataScience@DSU club, Department of Computer Science and Engineering (Data Science) has successfully organized a Pre-Placement training "Communication Skills" on 6th April, 2023 organized by Dr. Shaila S G, Professor and Chairperson, Dept. of CSE (Data Science) and Prof. Shivamma D, Assistant Professor, Dept. of CSE (DS). The targeted audience was 2nd year students of the Department of CSE (Data Science). The session was organized in offline mode. Around 45+ students were attended the session.

Effective communication skills are an essential requirement for success in the workplace. For students preparing for pre-placement, it is crucial to develop and improve their communication skills to increase their chances of success in their future careers.

“Pre – Placement Training”

The DataScience@DSU club, Department of Computer Science Engineering (Data Science) has successfully organized a “Pre-Placement training” on 18th April, 2023 organized by Dr. Shaila S G, Professor and Chairperson, Dept. of CSE (Data Science) and Prof. Shivamma D, Assistant Professor, Dept. of CSE (DS). The targeted audience was 3rd year students of the Department of CSE (Data Science). The session was organized in offline mode. Around 45+ students were attended the session.

The pre-placement training is an essential step for students to prepare themselves for the job market. It helps them develop the necessary skills and knowledge required to succeed in the workplace

Resource Person: Raghavendra, CISCO, Bangalore

PROJECT EXPO

PROJECT EXPO

1.A student project expo provides an opportunity for students to display their projects, and research work to a wider audience. This can help students gain recognition for their efforts, build their resumes, and establish themselves as experts in their field.
2.A student project expo can inspire creativity and innovation by showcasing the latest trends, ideas, and technologies in various fields. This can encourage students to think outside the box and explore new ideas and approaches.
CST Project expo 2023 inaugurated by welcoming the guest Dr. Amith Bhatt, Pro Vice Chancellor and Dr. Uday Kumar Reddy K.R., Dean SOE by the chairperson Dr. M. Shahina Parveen, Professor, CST, SOE. Chairperson Dr. M. Shahina Parveen addressed the gathering and explained about the event and work done by the project teams. Total 16 teams participated in the event and these teams presented their work which covers various domains like E-Commerce, Emergency/Health Care, Education Industry, Consumer app, Security, Logistics and Sustainability. Projected a short video of the project work done by the teams to all the audience presented in the expo followed by the live demonstrations by the respective teams.

Pro. Vice Chancellor and Dean SOE addressed the audience by sharing their thoughts on the project expo and appreciated students for their efforts in excelling their research work in terms of innovative and environment sustainability project works carried out by them and faculty members for providing their guidance and support throughout their work. Pro. Vice Chancellor visited all the project demonstration by the teams and appreciated the work done by them. Faculty members and students from various departments visited the project expo and shared their feedback on the event.

Project Expo 2023

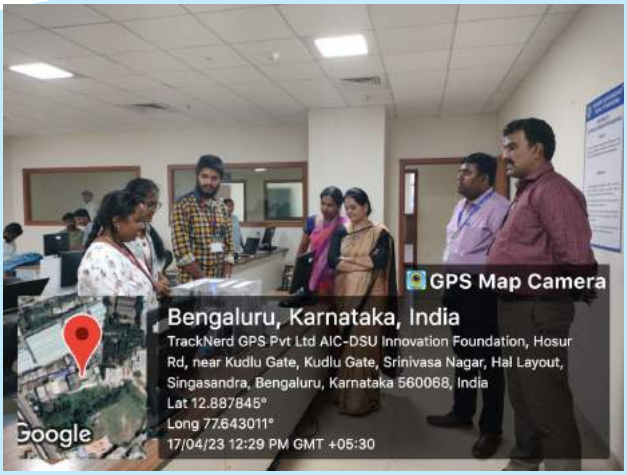
The Department of Computer Science and Engineering organized the project exhibition “Project Expo 2023” for final year students of the department on 13th April,2023. The event was coordinated by Dr. Meenakshi Malhotra, Dr. Pramod Naik, Dr. Basavaraj Hiremath, Dr. Savitha Hiremath Ganakanveshana club faculty team Prof. Veena M., Prof. Shwetha G S, Prof. Pooja Goud and student coordinators of the club and Dr. George. External Jury Members were Dr. Pradeep V Desai, Co-Founder and Chief Business Officer of SIAMAF Healthcare and Rathna Kumar Kayyar, CEO Lite Core Networks. 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.

PROJECT EXTRAVAGANZA

The final year project exhibition “PROJECT EXTRAVAGANZA” was conducted on 17th April 2023 in the department of Electronics and Communication engineering, SOE, Dayananda Sagar University. The entire event was planned and coordinated by the project coordinators, Dr. Saara K, Associate Professor and Dr. Pushpa Mala Associate professor, Dept. of ECE. Project Exhibition 2023 was inaugurated by the Mr. Yash Mahendra, Design-Verification Engineer, Cadence and Dr. Rupam Bhaduri, Professor, ECE, DSU.

The inaugural ceremony commenced as per schedule at 9:00 am. All the faculties and students were invited to be the part of the event. Dr. Theodore Chandra S, HOD-ECE of Dayananda Sagar University encouraged everyone with his motivational speech and advised students to be more creative with innovative ideas and project address real time societal issues. Guest Mr. Yash Mahendra addressed the students and emphasized on exploring opportunities and providing solutions to real time problems in the field of medical, VLSI, Agricultural, IOT etc., There were about 31 projects from final year students to demonstrate and exhibit.

The students were asked to make poster presentations. The final hardware and simulation were demonstrated and showcased in front of external and internal panel members. The experts were requested to evaluate the projects and declare the best project. The process of evaluation commenced at 09:30 am and completed at 1:15 pm. Valedictory ceremony of the event began at 1:30 pm. Mr. Yash Mahendra, Dr. Rupam Bhaduri and Dr. Theodor Chandra were asked to share their views on the project expo. “All the projects were THE BEST, the Evaluators had a very tough time in selecting best project”.



WORKSHOPS

Workshop: Web Design of STARBUCKS website

Full Stack Development Club of the Department of Computer Science and Engineering conducted a Workshop on “Web Design of STARBUCKS website” on 10th April,2023. The event was organized by Dr. Gousia Thahniyath, Assistant Professor, Department of Computer Science and Engineering, and student coordinators. The Conveners of the event Dr. Udaya Kumar Reddy KR, Dean SoE and Dr. Girisha G S, Professor and Chairperson CSE addressed the participants regarding the importance of the workshop. The workshop was conducted to enhance the web designing skills by creating Starbucks website as case study using HTML and CSS.

Workshop: Data Analytics and Power Bi

Department of Computer Science and Engineering in association with Vodafone_VOIS conducted a 5-days online Workshop on **“Data Analytics and Power Bi”** from 10th to 14th April,2023. The resource person of the event was Mr. YOGESH RAJE Intel certified Instructor with 21 years of experience as a technical trainer. The event was organized by Dr. Revathi V., Associate Professor, Prof. Ranjini K., Assistant Professor and Prof.Sharvari J N., Assistant Professor, Department of Computer Science and Engineering, and student coordinators. The Conveners of the event Dr. Udaya Kumar Reddy KR, Dean SoE and Dr. Girisha G S, Professor and Chairperson CSE addressed the participants regarding the importance of the workshop. The target participants were students in second and third year from the Department of CSE. Learn open-source OS concepts, execute various useful Linux shell commands, utilize different Linux text editors for shell scripting, Develop and execute applications in the Linux environment, learn how to use Python to develop applications, use data analytics tools and technologies with ease, Understand and experience building real world solutions for Data Analytics, Translate data-driven insights into decisions and actions, E quip themselves with knowledge in areas of Data Analytics.

Value added Course: Data Visualization Using RapidMiner Studio

A one-month value-added course on “Data Visualization Using RapidMiner Studio” was organized by Dr. Basavaraj N. Hiremath, Professor, Department of Computer Science and Engineering, which spanned from 24th February to 26th March,2023 and concluded in April with the closing talk by Dr. Girisha G.S., Professor and Chairperson, Department of Computer Science and Engineering. The goals of the training were to learn the fundamentals of explore, transform, and load (ETL) operations on RapidMiner Studio, work on data quality analysis using data visualization, and comprehend data aggregation and preparation. The experts were Computer Science and Engineering faculty members, including Dr. Basavaraj N. Hiremath, Professor, Dr. Savitha Hiremath, Associate Professor, Prof. Veena M., Assistant Professor. The participants were students of sixth semester/third year of the Department of Computer Science and Engineering. At the conclusion of the course, students registered for the certification exam on the Altair portal and participants received participation certificates.

Parents Teachers Meeting 6th sem & 4th Sem

6th sem PTM Agenda

1) To inform parents about activity being done in the department.
2) To inform about their children’s academics performance.
3) To inform ERP, time table of IA, SEE and class time table.
4) To convey the importance of CGPA for placements and several placement related training activities in our department and University as well.

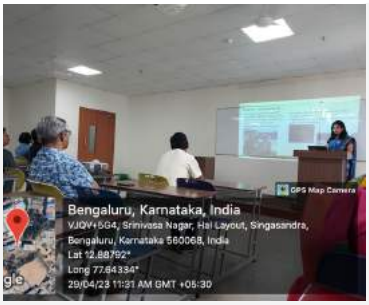
4th sem PTM Agenda

1) Informed parents about activity being done in the department.
2) Informed parents about their ward’s attendance and academics performance.
3) Informed parents about Collaboration Universities and Industries.
4) Informed about Workshop, Seminar and Value-Added Courses.

PARENT TEACHER MEETING

Parents Teachers Meeting 6th sem & 4th Sem

6th sem PTM Agenda



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3) Informed parents about Collaboration Universities and Industries.
4) Informed about Workshop, Seminar and Value-Added Courses.

Parent Teacher Meeting - 6th semester students

The Department of Computer Science and Engineering (Data Science) has successfully organised Parent Teacher Meeting for 6th Semester students on 8th April, 2023. A formal welcome address to parents was presented by the Dr. Shaila S G, Professor and Chairperson, Department of CSE (Data Science), Class advisors Prof. Shivamma D, Assistant Professor and Batch coordinator Dr. Rajesh T M, Associate Professor. The meeting included the importance of Parent-Teacher's meeting in both, students' and organization's point of view.

FACULTY ACHIEVEMENTS

Prof. M. Chithambarathanu
Assistant Professor
Department of CST, DSU.

Mr. Hemant Sudharshan, Prof. M. Chithambarathanu published a paper titled **"Discovering Insights into Heart Health: A survey of Data Mining and Machine Learning Methods"** in the International Conference on Control, Instrumentation, Communication and Computational Technologies held on April 27nth & 28th April, 2023.

Prof. Shivamma D
Assistant Professor
Department of DS, DSU.

Prof. Shivamma D – Assistant Professor

- Attended a **Faculty Diploma Program** on **"Cloud Computing & Devops Engineering"** from 25th February, 2023 to 8th April, 2023 organised by PHN Technology Pvt LTD on 4th Feb 2023.
- Rapid Miner Academy awarded certification in "Machine Learning Professional Certification" On April 29, 2023.

Prof. Monish L
Assistant Professor
Department of DS, DSU.

Prof. Monish L – Assistant Professor

- Prof. Monish L – Assistant Professor Rapid Miner Academy awarded certification in "Data Engineering Professional Certification" On February 01, 2023. Rapid Miner Academy awarded certification in " Data Engineering Master Certification" On February 24, 2023.

Dr. George Fernandez
Assistant Professor
Department of CSE, DSU.

Dr. George Fernandez, Assistant Professor, Department of Computer Science and Engineering, along with Dr. Ashok Kumar Koshariya, Dr. Chidurala Srinivas, Mr. Sampath Dakshina Murthy Achanta on 29th March,2023 received Certificate of Registration for a UK Design grant for "Sprayer robot for agriculture".

Prof. Yashpal Gupta, Assistant Professor and Mr. Nagendra, Admin, Department of Computer Science and Engineering have won the runner up prize for Badminton singles and Table Tennis Singles respectively in the annual sports meet of DSU for the Faculty on 11th April,2023.

Dr. Tina Babu
Assistant Professor
Department of CSE, DSU

Dr. Tina Babu, Assistant Professor, Department of Computer Science and Engineering have published a Conference paper on "Colon Cancer Prediction with Transfer Learning and K-Means Clustering" on 25th April 2023, in Springer Frontiers of ICT in Healthcare, Lecture Notes in Networks and Systems.

Dr. Pramod Kumar Naik
Associate Professor
Department of CSE, DSU

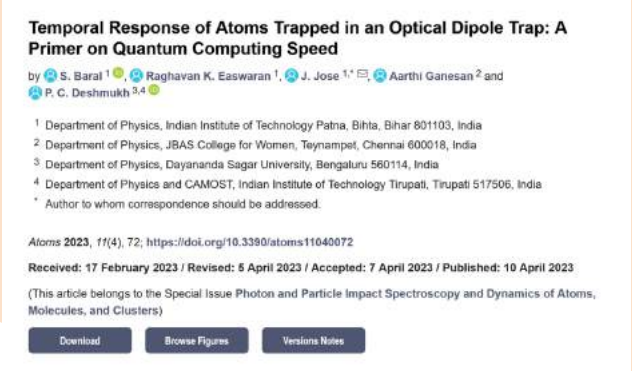
Dr. Pramod Kumar Naik, Associate Professor, **Dr. Basavaraj Hiremath**, Professor, Department of Computer Science and Engineering along with Dr. Sindhu P. Menon, Prof Baskar Venugopalan, Dr. Kiran B. Malagi, Mr. Arun Khannur, Dr. Ravinder Singh Kuntal, Prof.Naveen Kulkarni, Mr. Pratham V Kamat, Mr. Ganesh Gunjan, Mr.Yogesh Sirvi, Mr. Nachiketh U. published a patent in the Republic of South Africa with the patent number 2022/12546.

Dr. Basavaraj Hiremath
Professor
Department of CSE, DSU

Project Funding by KSCST - The Karnataka State Center for Science and Technology (KSCST) sanctioned a Student Project Proposal titled "Thrust Vector Control" mentored by Prof Sripad Kulkarni for the final year students of the Department. The participating students are: **Mr. Rohit S, Mr. Sunil G, Mr. David Paul K, Mr. Ganesh J Shetty.**

Publication in book published by Springer, Singapore:
Singh, D, Yanamashetti, G., Suryanarayana, G K, Jagadeesh, G. (2023): Passive Control of Transonic Unsteady Pressure Fluctuations Using Aerodisc: Lecture Notes in Mechanical Engineering. Springer, Singapore. https://doi.org/10.1007/978-981-19-6270-7_82.

Prof. P C Deshmukh published an international paper in the journal Atoms. The title of the paper is, **"Temporal Response of Atoms Trapped in an Optical Dipole Trap: A Primer on Quantum Computing Speed"**. In this paper authors report that, "An atom confined in an optical dipole trap is a promising candidate for a qubit. Analyzing the temporal response of such trapped atoms enables us to estimate the speed at which quantum computers operate. The present work models an atom in an optical dipole trap formed using crossed laser beams and further examines the photoionization time delay from such confined atoms. We study noble gas atoms, such as Ne (Z = 10), Ar (Z = 18), Kr (Z = 36), and Xe (Z = 54). The atoms are considered to be confined in an optical dipole trap using X-ray Free Electron Lasers (XFEL). The present work shows that the photoionization time delay of the trapped atoms is different compared with that of the free atoms. This analysis alerts us that while talking about the speed of quantum computing, the temporal response of the atoms in the trapped environment must also be accounted for.



Temporal Response of Atoms Trapped in an Optical Dipole Trap: A Primer on Quantum Computing Speed

by S. Baral [1], Raghavan K. Easwaran [1], J. Jose [1,*], Aarthi Ganesan [2] and P. C. Deshmukh [3,4]

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[3] Department of Physics, Dayananda Sagar University, Bengaluru 560114, India
[4] Department of Physics and CAMOST, Indian Institute of Technology Tirupati, Tirupati 517506, India
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(This article belongs to the Special Issue Photon and Particle Impact Spectroscopy and Dynamics of Atoms, Molecules, and Clusters)

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Dr. Suresh Pittala visited CSIR-National Physical Laboratory at New Delhi on 27th April 2023. as a part of colloborative research work and visited the laboratory facilities, interacted with the scientist on implementing the research work and student exchange for using the research facilities at NPL.

Dr. Anuradha Bhattacharya
Assistant Professor
Department of Mathematics, DSU

Dr. Anuradha Bhattacharya:

- "Assessing the Impact of Hyper viscosity on Stenosis Shape in Covid Patients"- Ain Shams Engineering Journal, Science Direct https://doi.org/10.1016/j.asej.2023.102227.
- "CFD Analysis of Hyper-Viscous Effects on Blood Flow Across Abdominal Aortic Aneurysm in Covid Patients: Multiphysics Approach"- Computer Methods in Biomechanics and Biomedical Engineering Journal https://doi.org/10.1080/10255842.2023.

STUDENT ACHIEVEMENTS

Mr. Nihal, Mr. Punith, Mr. Sushanth 6th sem students participated in the **Product Launch** event in DSU level and grabbed First Prize.

Mr. Hemant Sudharshan, Prof. M. Chithambarathanu published a paper titled “Discovering Insights into Heart Health: A survey of Data Mining and Machine Learning Methods” in the International Conference on Control, Instrumentation, Communication and Computational Technologies held on April 27nth & 28th April, 2023.

Shrihari K B and **Raj Utso Bhattacharyya** of 4th semester got first prize in **Gaming-Volarant** at Annual Cultural Fest Tantra-23.

Abhishek (4th Semester J section Dept. of CSE (DS)) won the Second Place in Carrom Men Doubles and Men Singles in the Annual Sports meet conducted by Dayananda Sagar University during the year 2022-2023 on 26th April, 2023.

Varun (6th Semester I section Dept. of CSE (DS)) won the First Place in Standup Comedy in the Annual Sports meet conducted by Dayananda Sagar University during the year 2022-2023 on 26th April, 2023.

Mr Khyrun Ali (4th Semester J section Dept. of CSE (DS)) won the second Place in Beat Boxing in the Annual Sports meet conducted by Dayananda Sagar University during the year 2022-2023 on 26th April, 2023.

Rakshita R, Akshaya B and Bindu B (4th Semester J section Dept. of CSE (DS)) won the Third Place in Rangoli in the Annual Sports meet conducted by Dayananda Sagar University during the year 2022-2023 on 26th April, 2023.

Shaik Waseem (4th Semester J section Dept. of CSE (DS)) won the First Place in Gaming Volarent in the Annual Sports meet conducted by Dayananda Sagar University during the year 2022-2023 on 26th April, 2023.

Final year students of Department of Computer Science and Engineering **Sinchitha J R** ENG19CS0309, **Swetha G** ENG19CS0329, **U Shambhavi Chavan** ENG19CS0341, **Vainavi M Davasam** ENG19CS0348 secured third place out of 128 Projects in the hackathon hosted by Continental Automotive Bangalore for the project titled, "Semantic Segmentation for Autonomous Driving Using U-Net" held on 13th April,2023 guided by Dr. Pramod Kumar Naik, Associate Professor, Dept of CSE.

N Rishi Rohan ENG21CS0256, **A Sharon** ENG22CS0311, **P. L. N Sai Sriniketh** ENG21CS0283 and **Shubhashree P.** ENG19CS0305 of the Department of Computer Science and Engineering along with **Rahul Nag, Harsh Manalel, AIML** won 2nd Prize in Documentary Competition at annual fest Tantra 23' held for the documentary "Sericulture around Harohalli" on 11th April,2023.

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