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DAYANANDA SAGAR UNIVERSITY

SCHOOL OF ENGINEERING

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING (DATA SCIENCE)

DATA GLIMPSE

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BI - ANNUAL NEWSLETTER

Dayananda Sagar University, School of Engineering
Devarakaggalahalli, Harohalli Kanakapura Road, Bengaluru South District
Karnataka - 562112

VISION AND MISSION DSU

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 Data Science

Vision:

To produce Engineers for Industry and Society in the field of Computer Science and Engineering (Data Science) by providing Excellence in Education, Research and Entrepreneurship with focus on sustainable solutions to fulfill global needs.

Mission:

The Department of Computer Science and Engineering (Data Science) in committed to:

- Impart quality education, critical thinking and sustainable learning practices in the domain of Computer Science and Engineering (Data Science) with ethical values and leadership qualities.
- Inculcate Interdisciplinary Research and Innovation by establishing Industry-Academia collaboration to solve critical problems.
- Prepare graduates to become Ethical Data Science practitioners to contribute in data driven global society.

DEAN'S MESSAGE

Dr. Udaya Kumar Reddy K R
Dean - School of Engineering
Professor, Dept. of Computer Science and Engineering
DSU

I am delighted that the Department of Computer Science and Engineering (Data Science) is bringing out the newsletter that can provide wonderful insights for students and faculty fraternity.

A lot has been happening in the school of computing sciences over the years, and one of the significant changes involves this newsletter.

Our graduate students are doing amazing things in many different areas in different ways. In the current issue, you'll meet some remarkable students and faculty who are making a difference in the technical aspects and otherwise. We are hoping to build this endowment with your support, to afford even more opportunities for students to take part in this important component of their graduate education.

I hope this magazine provides the reader a wonderful insights and I thank the editorial team for their wonderful effort in bringing out this newsletter.
Wish you all the best.

CHAIRPERSON'S MESSAGE

Dr. Shaila S G
Professor & Chairperson
Department of CSE
(Data Science) SOE,DSU

It gives me immense pleasure and pride to introduce the Volume 4 Issue 1 of the Newsletter DATA GLIMPSE from the Department of Computer Science & Engineering (Data Science). The Data Science is designed to bridge the industry gaps in terms of research and development using cutting-edge technologies. The program aims to meet the requirements of various job roles in Data Science.

The students and faculty members of the program have contributed technologically to solving real-world challenges through projects, hackathons, and quizzes. The program has offered various workshops and webinars for the students to develop their skills and knowledge in various domains. These events are effectively captured in the newsletter in the form of articles and achievements. I hope the Data Science newsletter motivates and encourages the students and faculty members with ample opportunities and exposure.

I thank the students, faculty members, and the editorial team for their wonderful efforts in bringing out this newsletter.

ABOUT THE PROGRAM

B.Tech CSE (Data Science) is a 4-year undergraduate degree programme. Data Science teaches the students how to combine Machine Learning techniques, algorithms, tools, business acumen and mathematics and apply on raw data to extract insight information from it. In short, technology algorithm development and data inference are blended together to solve complex problems analytically in Data Science.

Throughout the entire duration of the programme, the students are taught how to amalgamate business knowledge, tools and statistics to generate business value in creative ways.

The four-year undergraduate curriculum includes a detailed delivery of Basic Sciences, Mathematical Foundations, Statistical Foundations, Artificial Intelligence, Machine Learning, Data Science, Deep Learning, and Data Visualization.

The curriculum imparts 21st century skills having the following components: Liberal education aspects for all round development, courses that trigger new age skills, project based learning, special topics (hands-on sessions on multiple topics with mentoring from expert), option for MOOC, UG Research Project/Product Development/Internships.

The curriculum focuses on Liberal Art Courses, Foundation Courses, Professional Courses, and Electives that helps them build expertise in some specialized areas. Curriculum developed also emphasis on Design oriented thinking, Communication, Collaboration and Creativity right from 1st year.

A degree in Computer Science (Data Science) can lead to the following job roles in a variety of industries such as Retail, Finance, E-commerce, Healthcare, IT services:

- Data Scientist
- Data Analyst
- Business Analyst
- Data Engineer
- Senior Data Engineer
- Senior Data Analyst
- Data Director

AGENDA

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FACULTY LIST

Dr. Shaila S G
Professor & Chairperson

Dr. Shaila S G has earned her Ph.D in Computer Science from NIT, Trichy, Tamil Nadu for her thesis on Multimedia Information Retrieval in Distributed System. She has 25 years of experience in teaching & research in the concerned field. She has worked for CPRI, Bangalore as a Trainee Engineer. Later, she worked as a Research Fellow for a DST project, India for a period of 3 years. She has also worked in Indo-US collaborated project for "Obama-Singh Knowledge Initiative Program" in the University of Nevada (UNLV), Las Vegas, United States. She is a certified IBM trainer for the Business Intelligence. Her research areas are Data mining, Information Retrieval, Image Processing and Computational Neuroscience. She has published more than 50 research articles in reputed Journals and Conferences, books and book chapters. She has 11 Indian Patents and 2 Australian Patents.

Dr. Santhosh Kumar G
Associate Professor

Dr. Santhosh Kumar G is an Associate Professor in the Department of Computer Science and Engineering (Data Science) with 14 years of teaching experience and 3 years in industry as a developer at Access Info Technologies. He earned his Ph.D. in Computer and Information Science from VTU, Belagavi, with a thesis on "A Secured and Energy Efficient Framework through Resource Optimization in Cloud Computing," focusing on optimizing virtual machines for security and energy efficiency. He holds a patent on "Maximum Demand Controller for Domestic Load Management" and has published five papers in international conferences. His research interests include cloud computing and data analytics

Dr. Suresh Arumugam
Associate Professor

Dr. Suresh Arumugam, with 13 years of experience across academia, research, and industry, specializes in Machine Learning, Big Data, and MLOps. He holds a Ph.D. in optimizing ML services, over 10 Scopus publications, and five professional certifications, including Microsoft Azure Data Engineer Associate. He has worked with clients like Adidas, Deloitte, and Flipkart, focusing on data pipelines and ML systems. An adjunct faculty at institutions like NMIMS and Rennes School of Business, he has earned awards like the Best Teaching Award and holds a patent for an improved ankle-foot orthosis.

Dr. U Pavan Kumar
Assistant Professor

Dr. U. Pavan Kumar is currently working as an Assistant Professor in the Department of Computer Science and Engineering (Data Science). Dr. U. Pavan Kumar completed his PhD from REVA University, Bengaluru, INDIA.2020, M. Tech., from M.V. J College of Engineering, Bengaluru and his research area includes Image and Video Processing, Data Science with Machine Learning. He has more than 10 years of Teaching, Research and Industry experience in various Institutions in India. He has published more than 21 papers in Peer-reviewed journals, international conferences, books, patents, design patents and copyrights. Dr. U. Pavan Kumar received certification of Appreciation in Computer Science and Engineering as a NPTEL Discipline Star and Top Performing Mentor. He has actively participated in more than 52 FDPs, Workshops and Webinars.

FACULTY LIST

Prof. Shivamma D
Assistant Professor

Shivamma D is working as an Assistant Professor in the Department of Computer Science and Engineering (Data Science). She is pursuing Ph.D in Dayananda Sagar University, Bengaluru. She completed her M.Tech from Birla Institute of Technology and Science (BITS), Pilani (Rajasthan). She has an extensive experience of 12+ years in the field of Teaching and Research. She has worked as an IT Officer/IT Programmer/Data Analyst at National Institute of Mental Health And Neuro Science (NIMHANS), An Institute of National Importance, Government of India located at Bangalore. Her research interests are in the area of Technology Enabled Digital Learning, Machine Learning, Image Processing, Computational Neuroscience, Big Data Analytics and Data Science.

Prof. Monish L
Assistant Professor

Monish L is working as an Assistant Professor in the Department of Computer Science & Engineering (Data Science). He is pursuing Ph D on Image Analytics in Dayananda Sagar University. He has completed M. Tech from Dayananda Sagar University, and B.E. from The Oxford College of Engineering. He has 1 year of industrial experience in ADAS. He is a certified trainer of JAVA and FSD from Virtusa. He has published 3 Book chapters in an international journal. His paper is awarded with the best paper award in the ICAMIDA 2022 conference. His areas of interest are Data Mining, Knowledge Discovery, Data Analytics, Machine Learning and Artificial Intelligence.

Prof. Manjula M
Assistant Professor

Manjula M is working as an Assistant Professor in the Department of Computer Science & Engineering (Data Science). She is pursuing Ph.D on Image Retrieval in Dayananda Sagar University. She has completed M.Tech in Computer Network & Engineering from East west Institute of Technology Bangalore, affiliated to VTU She has 4 years of Teaching Experience in Dayananda Sagar Institute of Technology and 1 year IT experience as a Web Developer, I Published 4 paper in International Journals and 1 paper in National Conferences. Her areas of interest are Cyber Security and Forensics, Image Processing, Machine Learning and Artificial Intelligence.

Prof. Sindhu A
Assistant Professor

Sindhu A is working as an Assistant Professor in the Department of Computer Science & Engineering (Data Science). She has completed M.Tech from Dayananda Sagar University, and B.E. from BMS College of Engineering,Bangalore.Worked as an intern in Tech Citi Technologies. She has published 3 research papers. Areas of interest are Computer Vision, Machine Learning,Data Mining,Artificial Intelligence and Image Processing.

FACULTY LIST

Prof. Mahendra M K
Assistant Professor

Mr. Mahendra M K is an Assistant Professor in the Department of Computer Science and Engineering (Data Science) with 9.8 years of teaching experience across institutions like Alliance University, AMC Engineering College, and Global Academy of Technology. He holds an M.Tech in CSE from BGSIT with 81.5% and is pursuing a Ph.D. at Presidency University, Bangalore, focusing on Image Processing and IoT. He has published three papers in international journals and three in national conferences and has six months of experience as a web designer at Webnock Technologies, Mysore.

Prof. Godhandaraman T
Assistant Professor

Mr. Godhandaraman T, an Assistant Professor in the Department of Computer Science and Engineering (Data Science), holds a Master's in CSE from Anna University, Coimbatore, and a Bachelor's from Anna University, Chennai. With 13 years of teaching experience across institutes like DrMCET and MVJCE, he specializes in Cloud Computing and Data Analytics. He has conducted workshops on IoT, Machine Learning, and more, published seven papers, and completed an IBM Mainframe Certification. Proficient in programming and networking, he is a lifetime ISTE member and has participated in numerous FDPs on AI, cybersecurity, and software trends.

Prof. Chandrakala L
Assistant Professor

Chandrakala L is working as an Assistant Professor in the Department of Computer Science & Engineering (Data Science). She has completed M.Tech from the National Institute of Engineering, Mysuru, and a B.E. from CMRIT College, Bangalore. She has 8 years of teaching experience. She worked as an Assistant Professor in the department of CSE at Mysuru Royal Institute of Technology, Mandya. and also worked as a part-time lecturer in the department of CSE at Government Engineering College, Chamarajanagara.

Prof. Prapti Bhattacharjee
Assistant Professor

Prapti Bhattacharjee is an Assistant Professor in the Department of CSE (Data Science). She completed her M.Tech with a specialization in Data Science from CMR University and her B.Tech in Computer Science and Engineering under MAKAUT (formerly known as WBUT). Prapti's research interests focus on practical applications of machine learning,data science and mainlz LLMs. Her recent projects include a multilingual language model for text generation and a real-time sign language detection system, both aimed at solving real-world challenges. She has also contributed to publications in few journals and have publised a bookchapter with IGI Global on Cryptocurrency.

FACULTY LIST

Prof. Kishor Malakar
Assistant Professor

Mr. Kishor Malakar is an Assistant Professor in the Department of CSE (Data Science) at Dayananda Sagar University. He holds M.Tech and B.Tech degrees from NIT Mizoram. His expertise lies in AI-driven human behavior modeling, trajectory forecasting, and social robotics. He has published research in reputed platforms, including CRC Press and RCSC 2025. Kishor is skilled in Python, Java, ReactJS, and data tools, and is passionate about innovation, teaching, and mentoring in tech and research.

Prof. Megha Chandel
Assistant Professor

Mr. Megha Chandel is an Assistant Professor in the Department of CSE (Data Science) at Dayananda Sagar University. He holds B.Tech and M.Tech degrees from NIT Mizoram, with a strong focus on Computer Vision, Machine Learning, and Data Science. His notable research includes a dual-camera person counting system using YOLOv9 and re-identification in public transport. Passionate about applied research and innovation, he actively works on real-time solutions and seeks collaborative opportunities for societal impact.

Prof. Mithun Kumar
Assistant Professor

Mr. Mithun Kumar is an Assistant Professor in the Department of CSE (Data Science) at Dayananda Sagar University. He holds an M.Tech in Computer Science and Engineering (Data Science) from VIT. His interests include Data Science, Machine Learning, AI, and Generative AI, with a focus on ethical and impactful solutions. With research-driven internships in responsible AI and data privacy, he is passionate about continuous learning and mentoring students to become future-ready professionals. He aims to bridge the gap between academia and industry through innovation and purpose-driven education.

Prof. Souramita Bhowmik
Assistant Professor

Ms. Souramita Bhowmik is working as an Assistant Professor in the Department of CSE (Data Science). She holds an M.Tech in Data Science and Engineering from NIT Agartala and a B.Tech in Computer Science and Engineering from Tripura University, where she received the Gold Medal for academic excellence. Her key interests include Natural Language Processing (NLP), Artificial Intelligence (AI), Machine Learning, and Data Science. She has published a conference paper in the field of biomedical NLP and remains committed to ongoing research and upskilling. Driven by a passion for innovation and teaching, she strives to inspire future innovators and use her expertise to bring meaningful change to her students and to society.

FACULTY LIST

Prof. Shashank Shekhar
Assistant Professor

Mr. Shashank Shekhar is an Assistant Professor in the Department of CSE (Data Science) at Dayananda Sagar University, Bengaluru. He holds an M.Tech in Data Science and a B.Tech in ECE from NIT Mizoram. His research focuses on cybersecurity, machine learning, and explainable AI, with recent work on cyberattack detection in 5G O-RAN networks. Certified in cybersecurity from C-DAC Noida, he brings hands-on expertise in ethical hacking and network security tools. He actively mentors students and promotes interdisciplinary research and innovation.

Prof. Mriganka Das
Assistant Professor

Mr. Mriganka Das is working as an Assistant Professor in the Department of CSE (Data Science). He holds an M.Tech in Data Science and Engineering from NIT Agartala, with expertise in Data Science, Artificial Intelligence, Machine Learning, and Natural Language Processing. His research interests include information retrieval, question answering, and generative AI, focusing on building intelligent, human-centric systems. Passionate about innovation and teaching, he promotes hands-on learning and collaborative exploration to empower future technologists.

TEACHING ASSISTANT

Divya R
Teaching Assistant
/Lab Instructor

Ms. Divya R is serving as a Teaching Assistant / Lab Instructor in the Department of CSE (Data Science). She holds an M.Sc. in Computer Science from The Oxford College of Science, Bengaluru. With a solid academic background and practical proficiency, she effectively facilitates laboratory sessions and supports students in gaining hands-on experience.

SUPPORTING STAFF

Kiran Kumar H L
Lab Instructor

Shivabashayya Puranik math
Office Assistant

ARTICLES

Data Science in the Era of Artificial General Intelligence

The field of data science has experienced dramatic growth over the past decade, driven by advancements in machine learning, big data, and cloud computing. However, the emergence of Artificial General Intelligence (AGI) represents a new epoch—one that could fundamentally reshape the practice of data science. Unlike narrow AI, which is built for specific tasks, AGI refers to machines that possess human-like cognitive abilities and can learn, reason, and adapt across a broad range of problems. This shift introduces possibilities far beyond automation, signaling a future where machines can independently extract meaning, formulate hypotheses, and generate insights from complex data.

In today's data science workflows, human involvement is crucial in every phase—defining problems, cleaning and interpreting data, selecting models, and validating results. AGI promises to automate not just individual tasks but entire workflows through adaptive reasoning. Imagine a system that can autonomously understand a business objective, analyze multidimensional datasets, detect patterns, and deliver actionable strategies—all without manual supervision. This kind of end-to-end intelligence could reduce development time, eliminate human bias, and make data science accessible to non-experts through natural language interaction and dynamic learning.

The implications of AGI for various domains are profound. In healthcare, AGI could correlate patient records, genomic data, and lifestyle factors to deliver personalized diagnostics and treatment plans. In finance, it might forecast economic trends by analyzing structured data alongside news, social sentiment, and policy updates. In scientific research, AGI could generate novel theories by exploring vast, unstructured datasets across disciplines. The integration of AGI with data science tools will also enable hyper-personalized user experiences, predictive governance models, and autonomous decision systems that continuously learn and evolve.

Despite its promise, the integration of AGI into data science raises critical ethical and technical challenges. The "black box" nature of many AI models is further intensified with AGI, making interpretability and transparency vital concerns. Additionally, the misuse of AGI systems in manipulating data, violating privacy, or reinforcing bias could have far-reaching consequences. Therefore, as AGI continues to evolve, the field of data science must also advance its frameworks for responsible AI governance, explainability, and human-AI collaboration. In conclusion, AGI doesn't just enhance data science—it redefines it, transitioning it from a tool-driven discipline to a partnership between human reasoning and machine intelligence.

Dr. Shaila SG
Chairperson & Professor
Dept. of CSE (DS)

RETHINKING ASSESSMENT IN THE AGE OF AI

Higher education institutions need to adapt their assessment methods to accommodate the new environment created by artificial intelligence technologies.

The introduction of generative AI tools has transformed student interactions with academic content through fundamental changes. Traditional assessment methods based on recall and syntax and direct implementation have become obsolete because students now access tools like ChatGPT and GitHub Copilot and code-generation software.

Theory Assessments: Moving Beyond Recall

Students receive critical analysis assignments which require them to evaluate AI-produced responses as well as identify mistakes in automated solutions.

The evaluation of students requires both oral presentations and reflective essays to confirm their understanding reaches past AI-generated responses.

Students must demonstrate original ideas alongside reasoning abilities and synthesis skills and clear articulation since AI systems lack these capabilities without human intervention.

Lab Assessments: From Execution to Insight

Students need to evaluate AI-created code and peer-written solutions through debugging and code review assignments.

The assessment procedure includes live presentations and oral sessions during which students must explain their approach and demonstrate their testing methods and reasoning process.

Open-ended lab challenges must be designed to demand student adaptation along with exploration and personalization efforts because AI tools provide assistance yet require human improvement for meaningful completion.

A Dual Mandate for Educators

Academic integrity needs to be maintained by educators who also need to prepare students for workplaces using AI technologies. That means:

Assessment rubrics must be redesigned to provide rewards for clear explanations and justifications along with proper understanding.

Educational institutions should provide instruction on responsible AI use along with proper methods for citing AI-generated content.

The assessment process should emphasize providing feedback and allowing multiple iterations instead of focusing only on end results.

The assessment process should function as an empowerment tool.

The educational use of AI serves as an opportunity to transform teaching methods and evaluation approaches rather than posing a threat to academic honesty. Strategic assessments help students break their tool dependence by developing their critical thinking abilities and originality while learning for extended periods. The key to success in this new academic environment consists of creating assessments that enable students to surpass AI limitations.

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

THE TRANSFORMATIVE RISE OF GENERATIVE AI AND FOUNDATION MODELS IN DATA SCIENCE

The evolution of data science has reached a pivotal point with the emergence of Generative AI and foundation models. These technologies have moved beyond traditional machine learning paradigms, offering models that can generate content, understand context, and adapt to a wide range of applications with minimal task-specific training. Tools like GPT-4, Google Gemini, and Meta's LLaMA have demonstrated the potential of large language and vision-language models to revolutionize how we process, analyze, and derive insights from data. In doing so, they are transforming industries such as healthcare, finance, education, marketing, and cybersecurity.

Generative AI refers to systems capable of producing human-like outputs, such as text, images, audio, or code, by learning from large datasets. In the realm of data science, this enables applications like automated data augmentation, report generation, and conversational analytics. For instance, analysts can now use natural language queries to explore data, while AI automatically generates dashboards and narratives. Generative models can also simulate realistic data, which is particularly useful in fields where real data is scarce or sensitive, such as medical research or fraud detection. This capability is significantly improving the speed and scalability of analytical workflows.

Foundation models, on the other hand, serve as the backbone of these intelligent systems. Trained on massive multimodal datasets, they are designed to be fine-tuned for a wide variety of downstream tasks. This adaptability has greatly reduced the need for domain-specific models trained from scratch. In practice, data scientists can now leverage pre-trained models for use cases ranging from customer sentiment analysis to image classification with significantly less effort. Moreover, these models facilitate transfer learning, where knowledge from one domain enhances performance in another, thus increasing model robustness and generalizability.

Despite their transformative potential, generative AI and foundation models raise important concerns. Issues such as data bias, lack of transparency, model hallucination, and ethical misuse demand attention. As these technologies become more embedded in critical decision-making systems, ensuring fairness, explainability, and accountability becomes crucial. Organizations must adopt responsible AI frameworks to guide their development and deployment. In conclusion, the rise of Generative AI and foundation models marks a new era in data science—one driven by automation, adaptability, and innovation. When implemented ethically, these technologies promise to unlock unprecedented levels of efficiency and intelligence in data-driven decision-making.

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

THE HIDDEN TRUTH IN MODERN SOFTWARE ENGINEERING

It has been widely accepted for many years that coding is not the main obstacle in software development. The main bottlenecks are found in the processes around code reviews, mentoring, testing, debugging and team coordination. The critical activities that are embedded in planning meetings, agile ceremonies, and documentation workflows usually take up more time and effort than the actual act of coding.

The recent emergence of large language models (LLMs) such as Claude and ChatGPT has sped up the creation of functional code and has led to the belief that the long-standing bottleneck has been resolved. However, this view oversimplifies the challenge. LLMs cut down the time it takes to write code but they do not eliminate the requirement for thorough validation and integration and long-term maintainability. In many cases, they simply shift the burden. Teams now have to review and trust code which may be generated without full understanding and may contain unconventional patterns and may overlook subtle bugs and edge cases.

While it is now easier to generate code, the complexity of verifying and maintaining the generated code has increased. This does not automatically translate to improved development velocity or better software outcomes. The biggest cost in software engineering is the effort to understand code — not just to write it. LLMs do not reduce the cognitive load required to reason about behaviour, ensure correctness, or build shared understanding across teams.

Engineering remains a deeply collaborative practice. Success still depends on trust, alignment, and thoughtful review. As more code is generated, often faster than teams can effectively assess, the need for strong fundamentals — design clarity, communication, and review discipline — becomes even more important. The cost of producing code has decreased. But the cost of making sense of it — together — remains high

Prof. Sindhu A
Assistant Professor
Dept. of CSE (DS)

DATA SCIENCE IN AGRICULTURE: TRANSFORMING FARMING WITH INTELLIGENCE

Data science is profoundly reshaping modern agriculture by transforming traditional farming methods into intelligent, data-driven systems that enhance productivity, efficiency, sustainability, and resilience. As global food demand rises alongside challenges such as climate change, resource scarcity, and population growth, the need for smarter agricultural practices has become critical.

Data science meets this need by enabling farmers to collect, process, and analyze vast amounts of information in real time. Technologies like IoT sensors, drones, satellite imagery, remote sensing, and GPS mapping generate detailed data on soil health, moisture levels, temperature, crop conditions, and weather forecasts. These data streams feed into machine learning and AI models that can predict optimal sowing and harvesting times, forecast pest infestations and disease outbreaks, and even simulate crop growth under various environmental scenarios. Precision agriculture practices use these insights to apply water, fertilizers, and pesticides only where and when needed, minimizing waste and environmental impact while maximizing yield. In livestock farming, data science supports the use of biosensors and smart collars to monitor animal health, feed intake, reproductive cycles, and location tracking, improving overall herd management and reducing disease risks. Moreover, supply chain analytics powered by big data help optimize post-harvest storage, transportation, market distribution, and pricing strategies. Cloud computing and edge AI allow farmers in even remote areas to access real-time insights via smartphones, while blockchain technology brings transparency and traceability to the food system from farm to fork. Agribusinesses, governments, and research institutions are increasingly investing in agritech innovation, fostering the development of platforms that integrate satellite data, farm records, market intelligence, and climate models. As data becomes more available and algorithms more accurate, agriculture is rapidly evolving into a precision-oriented, predictive, and sustainable industry. Data science, therefore, is not just a tool for improving yield — it is a cornerstone of the future of global food security, rural development, and environmental stewardship.

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

INVISIBLE INFLUENCERS

What if I told you that invisible forces shape nearly every decision you make each day, from what you eat to what you buy, all driven by data you never even see? It's easy to think of data as something abstract, like rows in a spreadsheet or code running in the background. But data doesn't just sit there. It quietly shapes how we live. From the moment we wake up to the moment we go to bed, algorithms are working behind the scenes, making guesses about what we'll do next. Take mornings, for example. Your phone might wake you at the perfect time by tracking your sleep patterns. Your music app lines up songs you're likely to enjoy. Your coffee app might even suggest your usual order before you've thought about it. These little things aren't random. They're powered by data that's constantly learning from your habits. As the day goes on, Google Maps finds faster routes using live traffic from other drivers. Amazon recommends products based on what you've clicked or bought before. Social media feeds show you posts you're most likely to like, based on your past activity. And sometimes, data shows us more than we expect. A quirky account called The Pentagon Pizza Report recently predicted military action just by tracking pizza orders near defence hubs. When there was a sudden spike in orders near the Pentagon, the account flagged it. Hours later, former President Trump confirmed that the US had carried out airstrikes on Iranian nuclear sites. The same account noticed traffic at another military base right before the announcement. What started as a joke turned out to be a surprising example of how small signals, like food delivery patterns, can point to major events when viewed through the right lens.

But all this personalization has a flip side. Social media algorithms often push posts that get strong emotional reactions, like outrage or fear, because they keep us glued to our screens. Over time, that can trap us in echo chambers where we mostly see views that match our own. It can feed misinformation, polarize opinions, and even harm mental health. Even shopping isn't free from this influence. You might see an ad for something you briefly thought about, followed by a discount email just when you are about to forget it. Health apps track your steps, heart rate, and sleep to suggest workouts or send reminders to drink water. Helpful, yes. But it raises a big question. Are we still choosing for ourselves, or are we just following a path built by data? This isn't about saying technology is bad. Data makes life easier, faster, and often smarter. But it also requires awareness. The same algorithm that helps you discover a great book can just as easily box you into routines or beliefs without you realizing it. In a world shaped by data, we still have the power to choose. But we need to stay alert. The more we understand how data works around us, the better we can use it to make smart, intentional choices. The goal isn't to escape the digital world. It's to move through it with curiosity, control, and clarity. After all, the future belongs to those who decide to steer the data — not be steered by it.

Prof. Prapti Bhattacharjee
Assistant Professor
Dept. of CSE (DS)

POWER OF DATA IN SOCIAL ROBOTICS

Social robots are no longer confined to science fiction, they are steadily becoming a part of our everyday world, whether it's in elderly care, rehabilitation, or workplace collaboration. What truly fuels these intelligent machines isn't simply their physical structure, but the constant flow of human-related data they analyze and learn from. To move safely and engage effectively with people, social robots must process real-time details about human movements, gestures, emotional states, and the surrounding environment. Unlike traditional robots that follow fixed instructions, these robots are built to adapt, predict, and evolve based on continuous exposure to new information.

One of the most significant advancements in this field is the robot's growing ability to anticipate human actions and intentions. This is made possible by feeding robots with highly detailed datasets that reflect how people behave in a variety of everyday situations. For instance, human-robot teamwork during tasks like passing objects or harvesting crops is carefully recorded, capturing moments when people cooperate, hesitate, or even resist. By learning from this diverse data, robots can better predict human responses, allowing interactions to feel smoother, safer, and more intuitive. In fact, in activities like competitive chess, robots are already using visual data to track player moves and enable people with physical disabilities to fully participate in the game.

Beyond helping with physical tasks, social robots are also playing a key role in supporting mental well-being. Recent research has shown that when placed in home environments, these robots can monitor daily cognitive patterns, offering valuable insights for the early detection of conditions like Mild Cognitive Impairment (MCI). However, as social robots become more deeply involved in personal spaces and sensitive activities, serious attention must be given to ethical concerns, including data privacy, ownership, and the potential misuse of personal information. Ultimately, the success of social robotics will not only depend on technological improvements but also on how responsibly and thoughtfully we collect, use, and protect the data that makes these machines truly intelligent.

Prof. Kishor Malakar
Assistant Professor
Dept. of CSE (DS)

QUANTUM COMPUTING: HYPE OR HOPE FOR THE FUTURE?

Imagine a computer so powerful that it could solve problems in seconds that would take today's fastest supercomputers thousands of years. That's the promise of quantum computing—a revolutionary new type of computing based on the strange rules of quantum physics. Instead of using regular bits (0 or 1) like normal computers, quantum computers use qubits, which can be both 0 and 1 at the same time. This allows them to process huge amounts of data at once. Tech giants like Google, IBM, and Microsoft are racing to build these machines, while countries like the US, China, and India are investing billions. There's a lot of excitement because quantum computers could help us discover new medicines, solve climate problems, improve cybersecurity, and make artificial intelligence even smarter. Some experts even believe that one day, quantum computers might break current internet security, forcing the world to invent new ways to protect data. The possibilities sound like science fiction—but they're quickly becoming real science.

However, while the potential is exciting, quantum computing is still in its early stages. These computers are extremely delicate and difficult to build. They only work under special conditions, like ultra-cold temperatures close to absolute zero, and can handle only small-scale problems for now. In fact, most of what we hear in the news are lab experiments or early prototypes. It might take another 10 to 20 years before quantum computers are powerful and stable enough to be used widely. Some scientists are even concerned that the technology is being overhyped, and people may expect too much too soon. Still, many agree that the research is heading in the right direction, and progress—though slow—is steady. Governments and universities are investing heavily. In India, the government launched a National Quantum Mission, and institutes like IISc and IITs are already doing advanced research in this area.

For students, this is the perfect time to get involved. Quantum computing combines physics, computer science, and math—fields that are already in high demand. Even if the technology isn't fully ready yet, learning about it now can open doors to future careers in research, data science, cryptography, or even quantum programming. Platforms like IBM Quantum Experience and Qiskit allow students to try real quantum coding online for free. So, is quantum computing just hype, or is it truly the future of technology? Maybe it's a bit of both. But one thing is certain—it's one of the most fascinating and promising areas of science today, and those who start early could be the ones to shape that future.

Prof. Shashank Shekhar
Assistant Professor
Dept. of CSE (DS)

THE INDISPENSABLE ROLE OF DATA SCIENCE IN ADVANCING COMPUTER VISION

Computer Vision (CV) empowers machines to “see” and interpret visual data, a capability fundamentally driven by sophisticated data science techniques. With the explosion of visual data from sources like medical scans and drone imagery, data science has become critical in converting raw images into actionable intelligence. The journey begins with data acquisition and preprocessing, core data science tasks that directly impact model performance. Imagery is collected in large volumes and undergoes steps such as resizing, normalization, and augmentation. Preprocessing techniques like smoothing, sharpening, and thresholding are used to remove noise, enhance details, and segment objects. Data augmentation techniques like rotation, flipping, and zooming enrich the dataset, improving model generalizability.

Data scientists are essential in developing and training computer vision models using advanced machine learning and statistical techniques. Tasks include training Convolutional Neural Networks (CNNs) for image classification and applying object detection frameworks like YOLO and Faster R-CNN. Pre-trained models like VGG16 or ResNet50 are often used for feature extraction, saving computational resources. Model evaluation, a core data science activity, employs metrics such as accuracy, precision, recall, and F1-score. Optimization through hyperparameter tuning and cross-validation refines performance further. The quality, quantity, and diversity of training data are vital, as models learn only from the data they are exposed to. Without diverse datasets, CV models risk bias and poor generalization, making the concept of data-centric AI focusing on high-quality datasets increasingly important.

The synergy between data science and CV is evident across industries. In healthcare, data scientists analyze imagery from X-rays and MRIs to detect diseases. Retail uses CV for inventory tracking and customer behavior analysis. Agriculture benefits from drone and satellite imagery for crop monitoring. Autonomous vehicles rely heavily on CV for tasks like lane detection and obstacle recognition. However, these applications raise ethical concerns, particularly regarding bias and privacy. Algorithms trained on unbalanced datasets may exhibit demographic bias, while unauthorized use of personal images breaches privacy norms. Data scientists mitigate these risks by designing balanced datasets, applying fairness metrics like the Disparate Impact (DI) ratio, and implementing privacy-preserving techniques such as data anonymization and synthetic image generation. Ethical AI is no longer optional; it's a design principle that must be embedded from the start.

Furthermore, data science ensures long-term model reliability through ongoing monitoring and retraining to combat data drift. As real-world data evolves, performance can decline. Continuous evaluation and strategic updates through incremental learning or full retraining maintain model accuracy. This lifecycle approach ensures sustained effectiveness, underscoring that a CV model's value extends well beyond deployment. The powerful collaboration between data science and computer vision is crucial for driving innovation and addressing challenges, solidifying their interdependence in the evolving AI landscape.

Prof. Megha Chandel
Assistant Professor
Dept. of CSE (DS)

DATA SCIENCE IN HEALTHCARE: PREDICTIVE ANALYTICS AND PATIENT CARE

In recent years, the integration of data science into healthcare has brought a paradigm shift in how we approach patient care and medical decision-making. Among its many applications, predictive analytics has emerged as a powerful tool, allowing healthcare professionals to foresee potential health outcomes and make proactive clinical decisions.

At its core, predictive analytics in healthcare involves analyzing current and historical data to anticipate future events. Using algorithms and machine learning models, data scientists can predict disease outbreaks, identify high-risk patients, and recommend timely interventions. This transformation from reactive to proactive healthcare is significantly improving patient outcomes while optimizing resource allocation.

Moreover, predictive analytics plays a crucial role in personalized treatment plans. By evaluating patient history, genetic information, and treatment response data, models can suggest the most effective therapies tailored to individual needs. This not only enhances treatment efficacy but also minimizes adverse effects.

Hospital operations also benefit immensely. Predictive models help forecast patient inflow, enabling better bed management, staff scheduling, and supply chain logistics. During the COVID-19 pandemic, such models were used to predict surges in cases, guiding policy decisions and preparedness measures.

However, integrating predictive analytics into healthcare is not without challenges. Data privacy and security, ethical concerns, and the need for high-quality, standardized data are pressing issues. Additionally, healthcare professionals must be trained to interpret model outputs accurately, ensuring that technology complements clinical judgment rather than replaces it.

Despite these hurdles, the potential of data science in revolutionizing healthcare is undeniable. As electronic health records become more widespread and AI algorithms more sophisticated, the healthcare sector stands on the brink of a data-driven future—one where prevention takes precedence over cure and where care is not just reactive but predictive and personalized.

In conclusion, data science and predictive analytics are redefining the landscape of patient care. For educators, researchers, and practitioners alike, understanding and embracing this transformation is essential to shaping the future of medicine.

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

PROGRAMME EVENTS

"IDEAVERSE'25"
20TH FEBRUARY, 2025

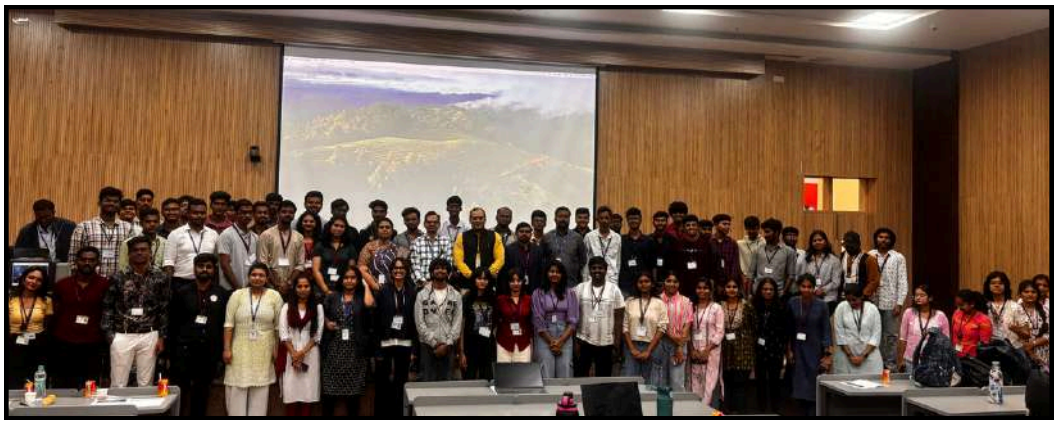
The **IDEAVERSE'25** of Dept. of CSE (Data Science), Information Theory Society (ITS) Student Chapter was held on 20th February, 2025, at 9:00 AM to 4:20 PM at the LH 2 & 3 'A Block' Ground Floor SOE. This highly anticipated event was organized by the Department of Computer Science and Engineering (Data Science), School of Engineering, in collaboration with the IEEE Information Theory Society (ITS) IdeaVerse'25 aims to foster innovation, creativity, and problem-solving among participants by providing a dynamic platform for idea exchange. The event encourages collaboration between students, faculty, and industry experts to address real-world challenges through technological solutions. It aspires to inspire, nurture young minds in enhancing their critical thinking and research skills. The ceremony was led by key organizers, including Dr. Shaila S G, Chairperson of the CSE (Data Science) Department, Dr. Pavan Kumar U, Faculty Advisor of the IEEE ITS Student Branch, DSU and Prof. Prapti Bhattacharjee, Faculty Coordinator of the IEEE ITS Student Branch at DSU. The event was further supported by the leadership of **Dr. Pushpa Mala S**, the IEEE Student Branch Counsellor, and **Dr. Arun Balodi,** Faculty Advisor of IEEE SPS and MTTS, DSU.

Chief Guest: Dr. Kishore Kumar Pedapenki, a Senior Member of IEEE, Associate Professor, Jain University, Bangalore

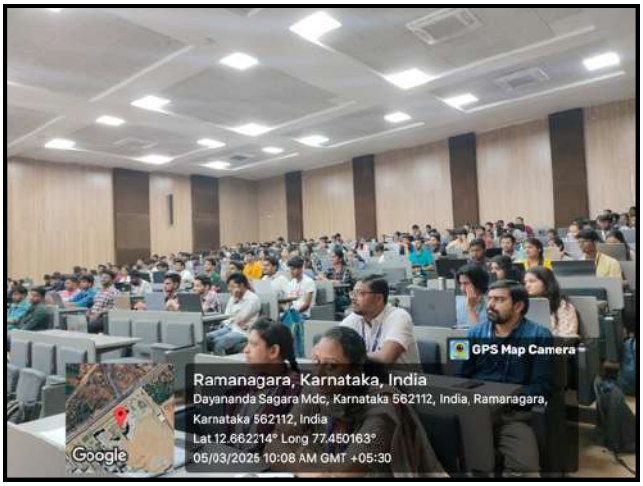
The student committee played an integral role in managing the event, with Nitin Prajwal R - Chair of IEEE ITS, Pavan Kumar G - Vice-Chair, Janardhan KS - Secretary, and other IEEE ITS members taking the lead in student coordination. The chief guest of the event was Dr. Kishore Kumar Pedapenki, a Senior Member of IEEE and an Associate Professor at Jain University, Bangalore. His presence greatly enriched the occasion, as he shared his extensive experience and deep expertise in the field of technology and research, making his address one of the most impactful moments of the event.

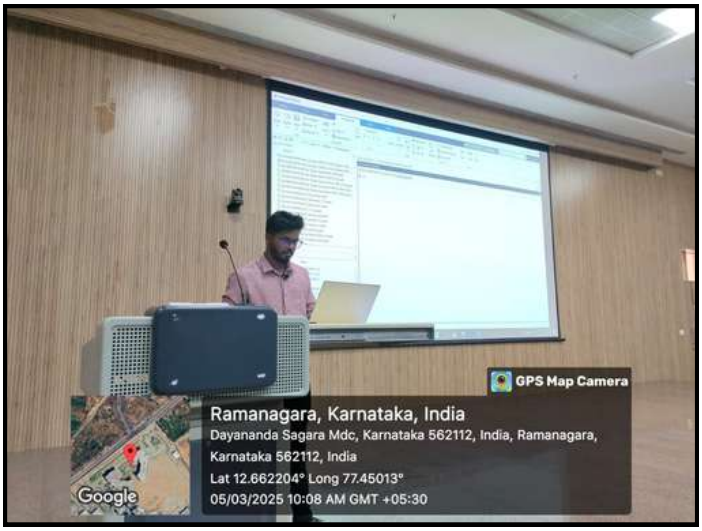
CONTD.

In the first round of evaluation, the top six teams were officially announced based on their creativity, feasibility, technical proficiency, and impact. The jury panel recognized the outstanding projects that stood out in terms of innovation and problem-solving approach. After the announcement, a memento presentation was conducted to honor the jury members and distinguished guests for their valuable contributions. The session concluded with encouragement for the selected teams as they prepared for the final presentation round. After the final presentations, the jury panel carefully evaluated the top six teams based on their technical execution, innovation, feasibility, and overall impact. Following deliberation, the top three winners of IdeaVerse'25 were officially selected and announced. The prize distribution ceremony honoured the winning teams with certificates, and Cash Prize, recognizing their outstanding contributions to problem-solving and technological innovation. The event concluded with applause and encouragement, celebrating the participants' dedication and inspiring them to continue their journey in research and innovation.



WORKSHOP ON
"PREDICTIVE POWER: MATLAB FOR DATA SCIENCE"
5TH MARCH, 2025





The Department of Computer Science and Engineering (Data Science) at Dayananda Sagar University (DSU), in association with IEEE ITS, DataScience@DSU Club, and MathWorks, successfully organized a workshop titled "**Predictive Power: MATLAB for Data Science"** on the 5th of March, 2025, from 9:30 AM to 4:30 PM. The workshop aimed to provide students and faculty with hands-on experience and insights into the application of MATLAB for data science and predictive analytics.

The event was meticulously organized by **Prof. Shivamma D,** Assistant Professor, and **Prof. Monish L,** Assistant Professor, Department of CSE (Data Science). Their efforts in coordinating with MathWorks and IEEE ITS played a crucial role in the workshop's success.

Resource Person:

Mr. Avinash, Application Engineer, MathWorks Bangalore

The resource person for the workshop was Mr. Avinash, Application Engineer at MathWorks, Bangalore. With his deep expertise and engaging approach, Mr. Avinash guided the participants through various MATLAB tools and techniques used for data analysis, visualization, and predictive modeling. The session covered key concepts in data science, including data preprocessing, building machine learning models, and interpreting results using MATLAB's powerful capabilities. The workshop also included inputs on Machine Learning (ML) and Deep Learning (DL) concepts tailored specifically for 4th semester and 6th semester students.

The workshop saw active participation from students and faculty members from the Department of CSE (Data Science), with a total of 150+ participants attending the session. The interactive nature of the session provided participants with ample opportunities to clarify their doubts and enhance their understanding of data science methodologies.

The workshop concluded with a vote of thanks, acknowledging the contributions of the resource person, the organizers, and the enthusiastic participants. The event proved to be highly informative and instrumental in equipping attendees with practical knowledge of MATLAB's application in data science, fostering a collaborative and innovative learning environment at DSU.

CONTD.

Objective:

- Provide hands-on experience with MATLAB for data science and predictive analytics.
- Introduce key concepts of Machine Learning (ML) and Deep Learning (DL) for 4th and 6th semester students.
- Enhance participants' skills in data preprocessing, visualization, and predictive modeling.
- Foster an interactive learning environment for practical knowledge and collaboration.

Workshop Outcomes:

- Enhanced understanding of MATLAB's application in data science, ML, and DL.
- Hands-on experience in data preprocessing, visualization, and predictive modeling.
- Strengthened practical skills for real-world data-driven problem-solving.
- Increased engagement and collaboration among students and faculty.
- Prepared 4th and 6th semester students for advanced data science projects and research

"FIT INDIA MOVEMENT PROGRAMME 2025"
7TH MARCH, 2025

The FIT India Movement Programme 2025, held on 7th March 2025 from 8:30 AM to 2:00 PM, was a remarkable and inspiring event dedicated to promoting health, well-being, and a culture of fitness among students and faculty members. This event was meticulously organized by **Prof. Shivamma D**. and **Prof. Monish L.,** Assistant Profesor, CSE (DS) in collaboration with the Department of Physical Education, led by **Dr. Tilak Kumar, Director of Sports,** DSU and team, in association with the **Sports Authority of India (SAI)**. Their collective efforts brought together experts and leaders from the fields of sports, health, and education, fostering a culture of well-being on campus. More than 250+ students were present

The event also celebrated International Women's Day, highlighting the importance of women's health and fitness. Special sessions were dedicated to empowering women through awareness on physical well-being and nutrition.

Distinguished Guests: We were honored to welcome an esteemed panel of delegates from the Sports Authority of India (SAI) :

1. **Mr. Mahesh,** High Performance Analyst, Department of Strength and Conditioning, SAI
2. **Mrs. Namrata Pramod,** High Performance Analyst, Department of Nutrition, SAI
3. **Mr. Vivoto,** Performance Analyst, Department of Anthropometry, SAI
4. **Mr. Bibin,** Senior Customer Sales Executive, InBody India
5. **Mr. Tejas,** Medical Specialist (Equipment), InBody India

We were privileged by the presence of our respected university leaders:

1. **Dr. Udaya Kumar Reddy,** Dean, School of Engineering, DSU
2. **Dr. Shaila S G**, Chairperson, Department of CSE (Data Science), DSU
3. **Dr. Vinod Kumar K C,** Associate Professor, School of Physiotherapy, DSU

CONTD.

Event Highlights:

The event began with a warm and heartfelt welcome address, setting the stage for an engaging and informative session focused on the importance of fitness and well-being. Our distinguished guests were invited to the dais, and their presence greatly enriched the occasion.

The expert speakers delivered insightful and impactful talks on various dimensions of health and fitness:

- Mr. Mahesh emphasized the critical role of strength and conditioning in maintaining physical health and enhancing performance.
- Dr. Udaya Kumar Reddy shared his invaluable perspectives on integrating fitness into academic and professional life, highlighting the significance of physical well-being for holistic development.

Key Takeaways:

- The event spotlighted several essential aspects of health and fitness:
- The importance of incorporating regular fitness activities into daily life for long-term well-being.
- The crucial role of proper nutrition, strength training, and body analysis in maintaining optimal health.
- The value of collaborative efforts to promote and sustain a culture of fitness within the university community.
- Stalls were set up to facilitate free BMI tests for all staff and students, encouraging them to assess and understand their fitness levels.

"INTERNATIONAL WOMEN'S DAY CELEBRATION"
8TH MARCH, 2025

The Department of CSE (Data Science) celebrated **"International Women's Day"** on March 8, 2025, with great enthusiasm and unity. The event was held in Room A432 of the SOE Block, and it witnessed the active participation of all faculty members, staff, and students associated with the department.

The celebration aimed to recognize and honor the invaluable contributions of women in academia, research, technology, and society at large. The event began with a warm welcome address by the Head of the Department, followed by inspiring speeches from faculty members appreciating the resilience, talent, and achievements of women in the field of teaching and others.

A highlight of the event was a short documentary screening showcasing influential women technologists and scientists, sparking thought-provoking discussions among attendees. Various fun and engaging activities were also conducted, including appreciation notes and a team-building session that emphasized inclusivity and empowerment.

The women faculty were felicitated with flowers as a gesture of gratitude for their hard work and dedication. Refreshments were served, and the celebration concluded with a group photograph capturing the joyous spirit of the occasion.

Overall, the event was a meaningful and heartwarming tribute to the spirit of womanhood and strengthened the sense of community and equality within the department.

WORKSHOP ON "INDUSTRIAL IOT FOR AUTOMATION" 10TH, 11TH, AND 12TH MARCH 2025

The DataScience@DSU Club under the IEEE Information Theory Society student chapter, Department of CSE (Data Science) organized Hands-on workshop on **"Industrial IoT for Automation"** held on 10th, 11th, and 12th March 2025. Organized by **Dr. Shaila S G,** Professor and Chairperson (DS), **Prof. Mahendra M K**, Assistant Professor, and **Prof. Chandrakala L,** Assistant Professor and student volunteers for their support. More than 150+ students have participated in this workshop.

Resource Persons:

- **Mr. Mahesh Deginal,** Manager and CEO of karunadu Technologies Pvt Ltd
- **Mr.Harish,** CTO and Co-Founder of karunadu Technologies Pvt Ltd.
- **Mr.Nithesh Kumar,** Software Engineer of Karunadu Technologies Pvt.Ltd

Introduction:

The Hands-on Workshop on Industrial IoT for Automation, held over three days, provided participants with a practical and immersive learning experience in electronics and sensor-based applications. Through a series of interactive sessions, attendees explored the fundamentals of hardware components such as LEDs, buzzers, digital displays, and various sensors. Guided activities focused on circuit design, microcontroller programming, and IoT integration, enabling participants to control electronic components, work with display modules, and collect real-time data. Each session built upon the previous one, reinforcing key concepts while fostering problem-solving and innovation. The workshop proved to be a valuable opportunity for skill development and hands-on experimentation in the field of industrial automation.

CONTD.

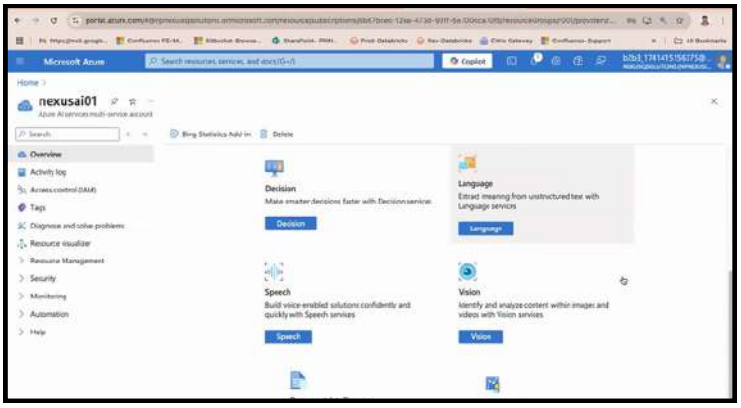
Objectives:

- Introduce participants to the fundamentals of IoT in industrial automation, focusing on practical applications.
- Enable hands-on experience in controlling LEDs, buzzers, and digital displays through microcontroller programming.
- Teach participants how to interface and program various sensors (light, temperature, ultrasonic, infrared, humidity, etc.) for real-time data collection.
- Guide attendees in implementing sensor-based automation, such as triggering alerts, controlling devices, and monitoring environmental conditions.
- Develop skills in displaying sensor readings on LCD screens and serial monitors for better data interpretation.
- Explore techniques for wireless data transmission and cloud integration using ESP modules.
- Encourage problem-solving by challenging participants to design and execute small IoT projects related to industrial automation.

Outcomes:

- Hands-on Experience: Participants gained practical skills by working with microcontrollers, sensors, and automation techniques, enabling them to build and troubleshoot IoT-based systems.
- Project Development: Many participants developed project ideas or prototypes during the workshop, which can be expanded into real-world applications in the future.
- Mini-Project Opportunities: Problem statements introduced during the workshop can be pursued as mini-projects in upcoming semesters, fostering continued learning and innovation.
- Sensor Integration: Participants learned to integrate multiple sensors (e.g., temperature, ultrasonic, infrared) to create interactive and automated systems, enhancing their understanding of IoT applications.

"FRACTAL ANALYTICS CORPORATE TRAINING PROGRAM" 10TH MARCH TO 19TH MARCH, 2025



The Fractal Analytics Corporate Training Program, organized and delivered by **Dr. Suresh Arumugam**, Associate Professor at Dayananda Sagar University. This **14-hour intensive course** focused on building practical skills in Azure Data Factory, Synapse Analytics, Databricks, and Azure Cognitive Services. The program was designed to provide 60% hands-on learning, ensuring participants gained real-world, practical experience. The training commenced with an introduction to Azure & Azure Data Factory (4 hours). Participants were introduced to Azure's cloud services, resource management, and security basics, and then given a comprehensive overview of Azure Data Factory (ADF). A hands-on lab enabled them to build ETL pipelines, connecting Azure SQL Databases and Blob Storage, and performing data transformations using ADF's Mapping Data Flows.

Next, Azure Synapse Analytics (4 hours) covered the basics of Synapse, exploring its SQL and Spark pools and distinctions between dedicated and serverless options. During practical sessions, participants provisioned a Synapse workspace, loaded and queried data, created external tables, and integrated Synapse with Power BI for data visualization. The program then transitioned to Azure Databricks (3 hours). After understanding Databricks' architecture and Lakehouse concepts, learners engaged in hands-on exercises to process big data using PySpark notebooks, showcasing the integration with Azure Data Lake and Delta Lake technologies.

Finally, Azure Cognitive Services (3 hours) introduced Microsoft's suite of AI-powered services. Participants implemented text analytics for sentiment analysis, extracted text from images using OCR, and developed speech-to-text transcription models through guided lab activities. Overall, this highly focused corporate training not only enhanced participants' technical skills in cloud-based ETL, big data processing, and AI integration but also achieved strong practical outcomes thanks to its lab-heavy structure. Dr. Suresh Arumugam's expertise and well-structured delivery played a crucial role in the program's success.

WORKSHOP ON "THE RELATIONAL MODEL CHANGED OUR WORLD 50 YEARS AGO: WHAT WE NEVER TALK ABOUT" 28TH MARCH, 2025

The Department of Computer Science and Engineering (Data Science) at Dayananda Sagar University (DSU), in association with IEEE ITS, and in collaboration with DSU International affairs successfully organized a workshop titled **"The Relational Model changed our world 50 years ago: what we never talk about"** for the students of the School of Engineering. Event organized by **Manjula M, Sindhu A and Godhandaraman T** Assistant Professors of CSE(Data Science), On March 28th, 2025, **Dr. Sebastian, the esteemed Dean of the DSTI School of Engineering**, France. The session was designed to engage students in a hands-on learning experience regarding data management, with a particular focus on the significance of the relational model in the evolution of database systems.

The session commenced at 2:00 PM IST with Dr. Sebastian addressing an enthusiastic group of students from the Department of CSE(Data Science), School of Engineering. The lecture lasted for two hours and included both theoretical discussions and practical demonstrations. Dr. Sebastian provided an in-depth look at the relational model, a foundational concept in database management systems, and discussed how it has profoundly influenced the way data is stored, processed, and utilized across various industries.

Dr. Sebastian started by introducing the relational model, pioneered by Dr. E.F. Codd in the early 1970s. He explained how this groundbreaking model revolutionized data storage and retrieval, shifting away from traditional hierarchical and network models. The relational model introduced the concept of tables (relations), keys, and set theory, allowing for a more intuitive and flexible way to manage data. The lecture focused on the lasting impact of the relational model, which has underpinned the development of modern databases such as MySQL, PostgreSQL, and Oracle. Dr. Sebastian highlighted how the relational model facilitates scalability, data integrity, and querying through Structured Query Language (SQL), which has become a universal tool for interacting with relational databases.

The guest lecture by Dr. Sebastian was a resounding success, offering valuable insights into the relational model's foundational role in data management. The session not only helped students understand the technical aspects of database systems but also inspired them to appreciate the historical evolution of data management. The hands-on session, combined with Dr. Sebastian's expert knowledge, provided a comprehensive learning experience that will undoubtedly benefit the students in their future studies and careers in engineering and technology.

AWARENESS PROGRAM ON "WORLD HEALTH DAY" 07TH APRIL, 2025

The DataScience@DSU Club, the Department of CSE (Data Science) organized an awareness program on **"Awareness Program on World Health Day"** held on 07th April 2025, from 10:00 AM to 02:00 PM at T. Hosahalli, Kanakapura Road, organized by **Dr. Shaila S G**, Professor and Chairperson (DS), **Dr. Santhosh Kumar** G, Associate Professor, **Dr. U. Pavan Kumar,** and **Prof. Shivamma D,** Assistant Professor, Dept. of CSE (Data Science). **Dr. K.S. Bhagyajyothi**, Asst. Director Physical Education, DSU, supported to complete the program successfully.

World Health Day is celebrated globally on 7th April every year to raise awareness about health and well-being. An awareness program to educate participants on the importance of health, preventive measures, and healthy lifestyle choices.

CONTD.

Objectives

- The primary objectives of the awareness program were:
- To spread awareness about global and local health issues.
- To promote healthy habits such as balanced nutrition, physical activity, and mental well-being.
- To encourage preventive healthcare and regular medical check-ups.
- To highlight the importance of universal access to healthcare.

Target Audience

The program targeted a diverse audience including:

- Local residents
- School students
- Office workers
- Program Activities

The event consisted of various activities aimed at raising awareness and fostering active participation:

- To spread awareness about global and local health issues.
- To promote healthy habits such as balanced nutrition, physical activity, and mental well-being.
- To encourage preventive healthcare and regular medical check-ups.
- To highlight the importance of universal access to healthcare.

Outcome of the Program

- Increased awareness about preventive healthcare.
- Positive feedback from participants regarding free check-ups and expert advice.
- Encouraged participants to adopt healthier lifestyles

AWARENESS PROGRAM ON "WATER CONSERVATION" 08TH APRIL, 2025

The DataScience@DSU Club, the Department of CSE (Data Science) organized awareness program on **"Awareness Program on Water Conservation"** held on 08th April 2025, from 10:00 AM to 02:00 PM at T. Hosahalli, Kanakapura Road, organized by **Dr. Shaila S G**, Professor and Chairperson (DS), **Dr. Santhosh Kumar** G, Associate Professor, **Dr. U. Pavan Kumar**, and **Prof. Shivamma D**, Assistant Professor, Dept. of CSE (Data Science). **Dr. K.S. Bhagyajyothi,** Asst. Director Physical Education, DSU, supported to complete the program successfully.

Water conservation has become an urgent priority due to the increasing global water crisis. As water scarcity intensifies in many regions, raising awareness about efficient water use is crucial. An Awareness Program on Water Conservation was organized to educate individuals on the significance of conserving water and to encourage practices that reduce water wastage in daily life

CONTD.

Objectives

The primary objectives of the awareness program were:

- To educate the community about the importance of water conservation.
- To promote sustainable water use practices in households, schools, and workplaces.
- To demonstrate practical methods of reducing water wastage.
- To engage participants in discussions about local water challenges and solutions.

Target Audience

The program targeted a diverse audience, including

- Local residents
- School students
- Community leaders
- Environmentally conscious groups and activists
- Office workers

Program Activities

The event consisted of various activities aimed at raising awareness and fostering active participation:

- **Interactive Presentations:** Experts in environmental science and water management delivered presentations on the global water crisis, water scarcity issues, and the importance of sustainable water practices.
- **Workshops:** Practical workshops were organized to teach techniques such as rainwater harvesting, reducing water usage in daily activities (e.g., shorter showers, fixing leaks), and using water-efficient appliances.
- **Posters and Flyers Distribution:** Informational material, including posters and flyers, highlighting the importance of water conservation and simple water-saving tips were distributed throughout the community

Outcome of the Program

- **Increased Awareness:** Participants gained a deeper understanding of the global water crisis and the direct impact of their daily actions on water resources.
- **Adoption of Water-Saving Practices:** Many attendees pledged to adopt water-saving practices, such as reducing shower time and fixing leaks at home.

TECHTALK
ON
"NEXTGEN ORACLE - R&D CONNECT"
9TH APRIL, 2025

The Department of Computer Science and Engineering (Data Science) successfully organized the **TechTalk: NextGen Oracle - R&D Connect on 9th April 2025**, an engaging and insightful event held at LH2, A-Block, School of Engineering (SOE). The event, which took place from 10:00 AM to 4:00 PM, brought together tech enthusiasts, students, and professionals for a deep dive into Oracle's groundbreaking research and development efforts. The session was a resounding success, with participants gaining invaluable knowledge and networking with industry leaders. 190 students have participated in the session.

The event was graced by two eminent speakers from Oracle:

- **Ashutosh Naik,** Director of Software Development at Oracle
- **N. Naveen Kumar,** Senior Member of Technical Staff (MTS), R&D at Oracle

The TechTalk was attended by a diverse group of participants, including students and faculty. The interactive sessions and Q&A rounds allowed attendees to ask questions directly to the experts, gaining more clarity on technical topics and discussing the future impact of Oracle's innovations.

Organizers and Coordination

The event was meticulously organized by the following faculty members of the Department of CSE (Data Science): **Prof. Manjula M, Prof. Sindhu A, Dr. Suresh Arumugam Prof. Godhandaraman T**

CONTD.

Objective:

- Introduce emerging trends in Oracle's R&D, including AI, cloud computing, and data science.
- Enhance participants' technical knowledge through expert-led sessions and real-world case studies.
- Foster industry-academia collaboration by facilitating interaction with experienced professionals from Oracle.
- Encourage innovation and research orientation among students in the field of next-generation technologies.

Workshop Outcomes:

- Participants gained in-depth insights into Oracle's cutting-edge research and development practices.
- Key technological domains such as cloud computing, artificial intelligence, data science, machine learning, and database systems were explored in detail.
- Exposure to Oracle's internal R&D strategies helped bridge the gap between academic learning and real-world enterprise solutions.

Conclusion

The TechTalk: NextGen Oracle - R&D Connect was a highly successful event, offering invaluable insights into Oracle's cutting-edge research and development efforts. Participants left the event with a deeper understanding of the technological advancements shaping the future of software development and data science. The workshop saw active participation from students and faculty members from the Department of CSE (Data Science), with a total of 150+ participants attending the session. The interactive nature of the session provided participants with ample opportunities to clarify their doubts and enhance their understanding of data science methodologies.

"TUBERCULOSIS AWARENESS DRIVE"
23RD APRIL, 2025

The Department of student affairs organized **"Tuberculosis Awareness Drive"** held on 23rd April 2025, from 10:00 AM to 02:00 PM at **M. Maniyambal, Kanakapura Road,** with the support of **Dr. Shaila S G,** Professor and Chairperson (DS), **Dr. Santhosh Kumar G**, Associate Professor, **Dr. U. Pavan Kumar, Prof. Prapti B,** Assistant Professor , **Mr. Kiran Kumar H L,** Dept. of CSE (Data Science). **Dr. K.S. Bhagyajyothi**, Asst. Director Physical Education, DSU, supported to complete the program successfully.Tuberculosis (TB) remains a major public health concern worldwide, particularly in developing countries. To combat the spread of TB and promote early detection and treatment, The event aimed to educate the community about TB prevention, symptoms, and treatment options.

Objectives

- Raise awareness about tuberculosis causes, symptoms, and prevention.
- Encourage early diagnosis and treatment adherence.
- Reduce stigma associated with TB.
- Promote government health schemes and free treatment facilities.

Target Audience

The program targeted a diverse audience including:

- Local residents
- Office workers

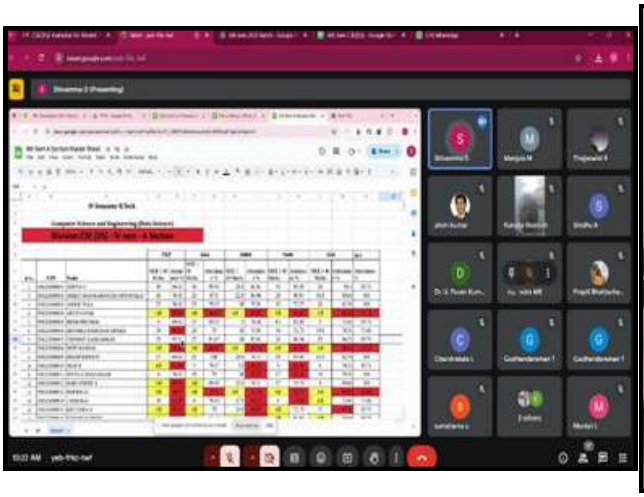
Program Activities

- The event consisted of various activities aimed at raising awareness and fostering active participation:
- A health expert delivered a presentation on TB transmission, symptoms (persistent cough, fever, weight loss), and treatment.
- Emphasis was placed on the importance of completing the full course of medication to prevent drug-resistant TB.

Outcome of the Program

- Increased Awareness & Knowledge
- Behavioral Impact & Stigma Reduction
- The TB Awareness Drive successfully improved knowledge, encouraged early testing, and reduced stigma. Sustained efforts will help move closer to a TB-free community.
- Encouraged participants to adopt healthier lifestyles.

"PARENTS TEACHERS MEETING"
26TH APRIL, 2025



The PTM was inaugurated by **Dr. Shaila SG**, Professor and Chairperson, Dept. of CSE (Data Science) on 26th April 2025 **Prof. Shivamma D,** Class Advisor of 4th Sem A section; **Prof. Godhandaraman T,** Class Advisor of 4th Sem B section, **Prof. Monish L**, Class Advisor of 6th semester A Section, **Prof. Manjula M**, Class Advisor of 8th semester along with other faculties were present in the department. Around 40 parents were joined in the meeting. Chairpersons followed by the class advisors took up the agenda points listed below

Agenda:

Welcoming parents, class advisor information (name, designation, contact number, email id)

- Discussion on effect of less attendance:
- Minimum attendance requirement 85%
- Detaining policy for not meeting the attendance requirements- not allowed for SEE exams
- Inform about remedial classes conduction for slow learners/performers.
- Upcoming examination MSE2
- Discussion on placement: Best Practices: Adopted project-based learning, carrier guidance.
- Inform about CTS learning.
- Show the marks secured by student in MSE I
- Show the results of Previous semester.
- Show the Attendance status of the student.
- Current status of 7th semester placement
- On going placement training for 5th and 3rd semester and future plans
- Opinion of the parents:
- Parents were well satisfied by the Institution and its policies. The parents congratulated the department for its achievements.
- Parents suggested to keep the online classes on Saturdays as they are facing it difficult to attend on Saturday.
- Parents also requested to provide them access with credentials to them.

ALUMNI MEET & TALK
"ALUMNI TALES: A DATA SCIENCE JOURNEY"
6TH MAY, 2025.

The Department of CSE (Data Science) successfully organized an Alumni Meet & Talk titled **"Alumni Tales: A Data Science Journey"** on 6th May 2025. The event was organized by **Prof. Shivamma D, Prof. Monish L,** and **Prof. Prapti Bhattacharjee** and was attended by students of the 4th and 6th semesters around 150 students. The talk featured alumni from the department's first batch (2020-24), who shared their unique professional journeys, offering valuable insights and motivation to the current students.

The session began with a warm welcome by **Dr. Shaila S G,** Professor & Chairperson of the Department, who set a nostalgic tone by sharing fond memories of the very first batch of the Dept. This was followed by a talk from **Rahul Srikanth**, Technical Product Manager at EY, who delivered a detailed presentation on the roles and responsibilities of a project manager in the industry, focusing on leadership, coordination, and strategy.
Next, **Ayesha Malaika**, Chief Operating Officer at Acolyteai.in, inspired the audience with her journey of finding purpose and staying committed to one's goals, even when the path is unclear. Her insights offered encouragement to students still exploring their career directions.
The final speaker, **Varun N**, Marketing Team at Acolyteai.in and also a multifaceted artist now working as a screenwriter, director, and actor, brought an energetic close to the session. He spoke passionately about following one's creative instincts and emphasized how important it is to stay true to one's passion, even beyond the tech domain.
The event served as both an informative and emotionally resonant experience for current students, offering them a glimpse into the varied and inspiring journeys of their seniors.
At the end of the talk an evaluation was carried out and the students submitted the feedback.

The takeaways of the event are

- Students got to understand the real-world role of a project manager from an industry expert.
- They heard firsthand how finding one's path takes time and self-belief.
- They were inspired by a senior who pursued creative passions beyond tech.
- They saw how diverse and successful the first batch's career paths have been.
- Overall, students left motivated and encouraged by the alumni journeys.

SESSION ON "ADVANCE YOUR CAREER THROUGH MS/MBA PROGRAMS IN GERMANY"
20TH MAY, 2025

The Department of CSE (Data Science) successfully organized a session on **"Advance Your Career Through MS/MBA Programs in Germany"** on 20th May 2025. The event was held in collaboration with the Office of **International Affairs, DSU**, and was coordinated by **Dr. Shaila S G**, Professor and Chairperson, Department of CSE (DS), along with **Prof. Shivamma D and Prof. Monish L**. The session witnessed active participation from students of the 4th and 6th semesters, who showed keen interest in exploring higher education opportunities in Germany.
Resource Persons: Dr. Manjula Mundakana, Senior Advisor, Science Technology & Political Affairs, German Consulate Bangalore
Dr. Manjula Mundakana, Senior Advisor for Science, Technology, and Political Affairs at the German Consulate in Bangalore, delivered an insightful talk highlighting the evolving Indo-German collaboration in science, technology, and research. She emphasized her role in facilitating visits of German scientific, business, and political delegations to Karnataka and Kerala, fostering meaningful partnerships with Indian institutions. Her talk shed light on how these engagements strengthen bilateral cooperation and create opportunities for innovation and knowledge exchange.
She also guided students and researchers on navigating the German education and research landscape, explaining various higher education opportunities, scholarships, funding programmes, and career prospects in Germany. Dr. Mundakana encouraged young professionals to explore global research networks and outlined pathways to study, collaborate, and work in Germany. Her talk inspired the audience to actively engage in international scientific collaborations and benefit from Germany's robust research ecosystem.

Outcome:

1. Participants gained a clear understanding of Germany's education and research ecosystem, including funding and scholarship opportunities.
2. Students and researchers received valuable insights into studying, working, and collaborating in Germany.
3. The talk sparked enthusiasm for Indo-German academic and scientific exchange programs.

Attendees were encouraged to build connections through Indo-German research networks and consular support.

INDUSTRY CONCLAVE ON "CURRICULUM DEVELOPMENT" 23RD MAY, 2025

The Department of CSE (Data Science) at Dayananda Sagar University, in association with the Placement Team, organized a **Curriculum Review Meeting on 23rd May 2025**. The event was coordinated by **Dr. Shaila S G,** Professor and Chairperson, **Ms. Shivamma D**, Assistant Professor, **Mr. Monish L**, Assistant Professor, **Dr. Suresh Arumugam,** Associate Professor, and **Mr. Vijaykumar, Director – Placements**. The meeting was well-attended by all faculty members and students of the department. The primary objective was to evaluate and enhance the current B.Tech in Data Science curriculum to ensure its alignment with evolving industry demands. The session featured expert insights from distinguished industry leaders, who shared perspectives on current technology trends, essential workforce skills, and strategic directions for curriculum enhancement, thereby strengthening the industry-academia interface.

The invited guests included **Mr. Pramod M. V.,** University Liaison & Early Career Engagement at LTIMindtree, known for his contributions to campus engagement and leadership development; **Mr. Vinayak Pai**, Associate Vice President – Data & Analytics BU, LTIMindtree, a seasoned leader with expertise in Generative AI and Lakehouse architectures; and **Ms. Mamatha Shanmugam,** Senior Director – Financial Services at Capgemini, with deep experience in technology delivery, DevOps, and cloud solutions. Several key curriculum integration suggestions were proposed during the session. These included adopting Python as the primary programming language across courses, replacing R where necessary, and integrating Generative AI tools like GitHub Copilot and Power BI Copilot into labs and projects. The experts stressed the importance of promoting end-to-end project development using AI and automation tools, and making Ethical AI a mandatory subject from the 6th semester onwards. They also recommended the introduction of Big Data Engineering topics using platforms such as AWS, Azure, GCP, Snowflake, and Databricks, along with clubbing Supply Chain Analytics and Risk Analytics under domain electives.

Additionally, the Cognitive and Technical Skills (CTS) course should be restructured to enhance students' communication, technical, and team collaboration capabilities. To further align academic learning with industry standards, the inclusion and encouragement of Global Certifications were advised in the domains of Cloud (AWS, Azure), AI/ML, DevOps & Agile, Data Analytics (Power BI, Tableau), and Cybersecurity.The review session concluded with a shared understanding of the urgent need to bridge the gap between academia and industry by embedding emerging technologies, practical learning, and ethical responsibility into the curriculum. The department has resolved to begin implementing the suggested updates to enhance the employability and skill set of students pursuing B.Tech in Data Science.

CONTD.


DAYANANDA SAGAR UNIVERSITY
NAAC GRADE A+
SCHOOL OF ENGINEERING
INDUSTRY CONCLAVE ON CURRICULUM DEVELOPMENT
ENGAGING FUTURE TALENT
Vinayak Pai
Vinayak Pai leads LTIMindtree's Center of Excellence, architecting Generative AI governance and Lakehouse solutions with 26+ years in data leadership. A NASSCOM speaker and mentor, he drives global initiatives like supply chain analytics and data migrations while building AI systems with high-performance teams.
Save the date


DAYANANDA SAGAR UNIVERSITY
NAAC GRADE A+
SCHOOL OF ENGINEERING
INDUSTRY CONCLAVE ON CURRICULUM DEVELOPMENT
ENGAGING FUTURE TALENT
Pramod.M.V.
Talent Acquisition Professional with 19+ years of experience, specializing in talent development and organizational transformation within matrix structures. Renowned for implementing innovative sourcing models and campus engagement strategies that boost brand awareness and attract top talent. Proven leader in employer branding through impactful programs like Leadership Connect Sessions and Hackathons.
Save the date


DAYANANDA SAGAR UNIVERSITY
NAAC GRADE A+
SCHOOL OF ENGINEERING
INDUSTRY CONCLAVE ON CURRICULUM DEVELOPMENT
ENGAGING FUTURE TALENT
Mamatha
Experienced Technology Delivery Lead with expertise in Agile, DevOps, AWS, software development (Java, C++, Oracle), security, and project management. Holds an MCA in Computer Science from Sri Venkateswara University, blending strong technical skills with a passion for arts and design. Adept at driving project success through innovative solutions and cross-functional leadership.
Save the date
Begins May 23
2025

MAJOR PROJECT EXPO : “MIND SPARK 2025"
24TH MAY, 2025

The Department of Data Science conducted **“Major Project Expo”** on 24th May 2025 for the 8th semester students, offering a platform to present their final-year project work to peers, faculty, and industry experts. A total of 15 teams participated in the event, showcasing projects that tackled real-world problems using cutting-edge data science techniques. The expo was inaugurated by Dr. Shaila S. G, Chairperson of the Department, who addressed the students and emphasized the importance of innovation and hands-on learning.

Highlighted projects included Video Steganography, Emotion Recognition using Deep Learning, Smart Traffic Monitoring, and Healthcare Analytics. Students demonstrated practical applications of machine learning, artificial intelligence, and data visualization.

The event was judged by **Mr. Vinod D from EY**, RMZ Infinity, who evaluated each project based on its creativity, technical depth, real-world relevance, and presentation. He provided valuable feedback and encouraged students to align their learning with industry expectations.

Faculty members played a key role in mentoring and assessing the teams. The top three teams were awarded certificates of excellence for their outstanding contributions. The expo provided students with experience in presenting to a professional audience and fostered a culture of collaboration and innovation. It also served as a valuable networking opportunity. The event concluded with a vote of thanks and group photos. The Project Expo was a successful and inspiring event that reflected the department’s commitment to academic excellence and industry readiness.

"TECHSPARK MATLAB EXPO"
23RD MAY, 2025

The Department of CSE (Data Science) successfully organized a session on **"Techspark Matlab expo 2025"** on 24th May 2025. The event was held in collaboration with the IEEE student chapter ITS, and was coordinated by **Dr. Shaila S G,** Professor and Chairperson, Department of CSE (DS), along with **Prof. Shivamma D** and **Prof. Monish L.** The session witnessed active participation from students of the 4th semester's A section and B section, around 52 teams.

Resource Persons: 1. **Nisha U N,** Programmer Analyst, Cognizant
2. **Vinod D,** Senior Consultant, EY

The Techspark MATLAB Expo 2025 was designed as an academic-industry interface to showcase innovative student projects and applications developed using MATLAB. The project focused on demonstrating how MATLAB can be effectively used for solving real-world problems in areas such as data science, signal processing, machine learning, image processing, control systems, and simulation.

During the expo, students presented mini-projects and prototypes that illustrated the practical implementation of theoretical concepts. These included:

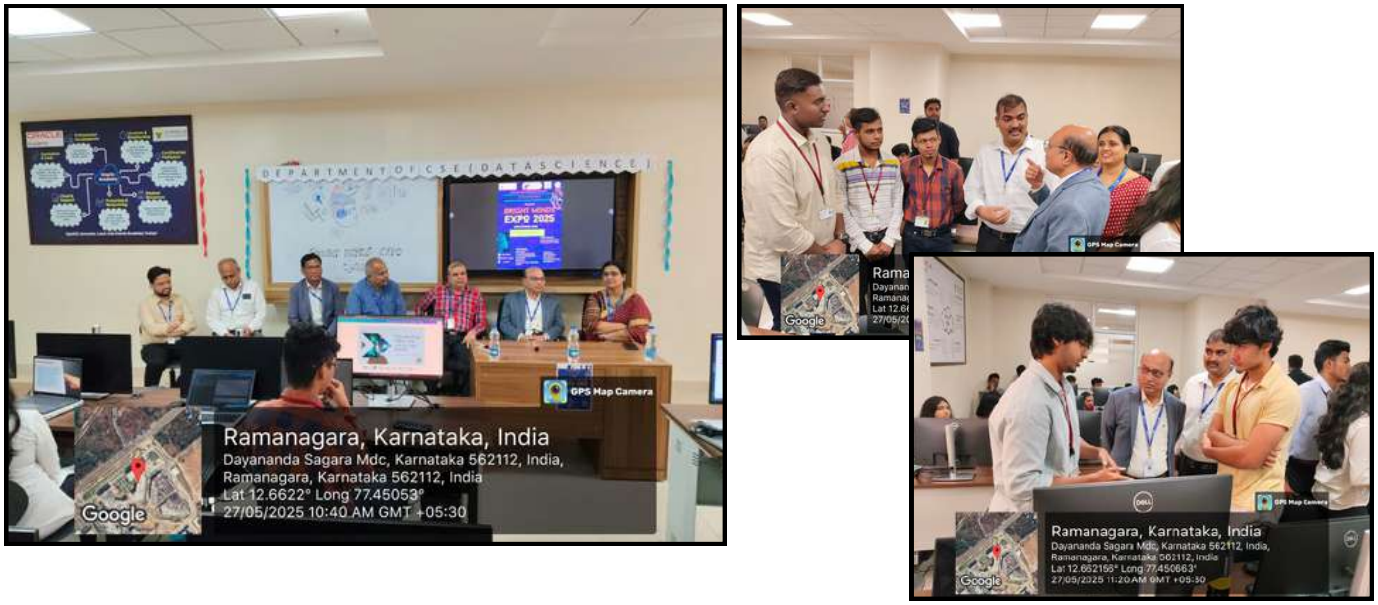
- Data Visualization Dashboards
- Face and Emotion Detection using MATLAB Toolboxes
- Machine Learning Models for Predictive Analytics
- Image Filtering and Enhancement Projects

The goal of the project was to encourage students to apply classroom knowledge to hands-on problem solving using MATLAB. It helped build critical thinking, coding proficiency, and familiarity with industry-standard tools, while also enhancing their presentation and teamwork skills. The expo acted as a platform for peer learning, expert feedback, and technical exposure—aligning with the department's vision to promote experiential learning and innovation

Outcomes:

- Students gain practical skills in processing and analyzing medical images.
- They learn to interpret biomedical signals like ECG and EEG for health monitoring.
- Students understand how to create safe simulations of biological systems.
- They develop experience with machine learning to predict diseases using real data.

"BRIGHT MINDS EXPO 2025"
27TH MAY, 2025



The Department of Data Science conducted its **Bright Minds Expo** on 27th May 2025 for the 6th semester students, offering a platform to present their project work to peers & faculty. This annual expo serves as a celebration of creativity, critical thinking, and practical application of data science principles in solving real-world problems.

The primary goals of the event were:

- To provide students an opportunity to showcase their project work and innovations.
- To encourage peer learning, knowledge sharing, and collaborative research culture.
- To engage faculty, industry experts, and external evaluators in recognizing and mentoring emerging talent.
- To highlight the importance of data science in shaping modern technology and business solutions.

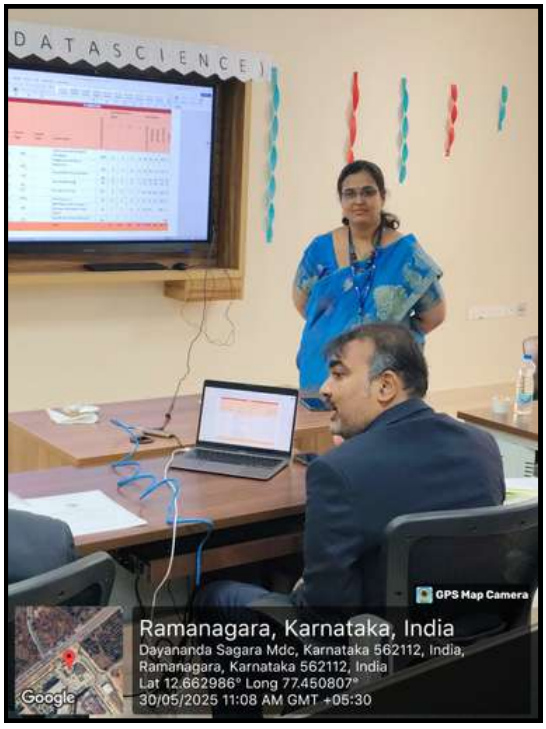
We were honored to have Dr. Basavaraj N. Hiremath, Professor, Department of CSE, as the Chief External Panel Member. Dr. Hiremath provided valuable feedback to students and appreciated the diversity and depth of the projects presented.

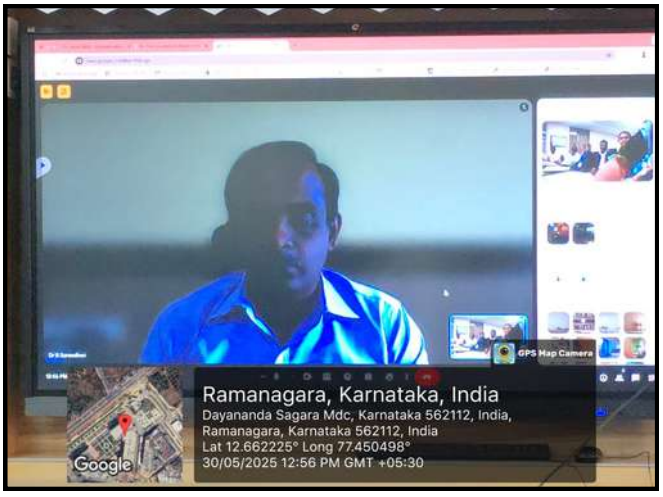
- **Inauguration Ceremony:** The event commenced at 10:30 AM with a welcome note by the Chairperson, followed by a brief address from Dr. Hiremath & Pro Vice Chancellor Dr. Prakash S.
- **Project Exhibition:** Students demonstrated their projects which included applications in Machine Learning, Deep Learning, Natural Language Processing, Computer Vision, Data Visualization, and more.
- **Evaluation & Interaction:** Each team presented their project to the panel members and visitors. Dr. Hiremath and internal faculty assessed the projects based on innovation, implementation, societal relevance, and presentation.
- **Peer Engagement:** Students actively interacted with visitors, explaining their concepts and methodologies, receiving feedback and suggestions for further enhancement.
- **Closing Session:** The event concluded at 3:00 PM with a note of thanks to all participants, evaluators, and the organizing team.

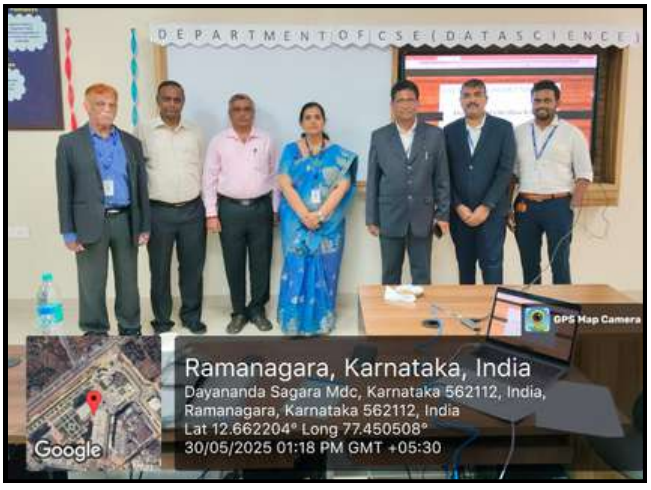
Outcomes and Impact

- Students gained real-time experience in presenting and defending their work.
- Constructive feedback from external and internal evaluators enriched the learning experience.
- Promising projects were identified for further development and potential publication or incubation.
- Strengthened collaboration among students and faculty on interdisciplinary topics.

"BOARD OF STUDIES (BOS) MEETING–2025"
30TH MAY, 2025







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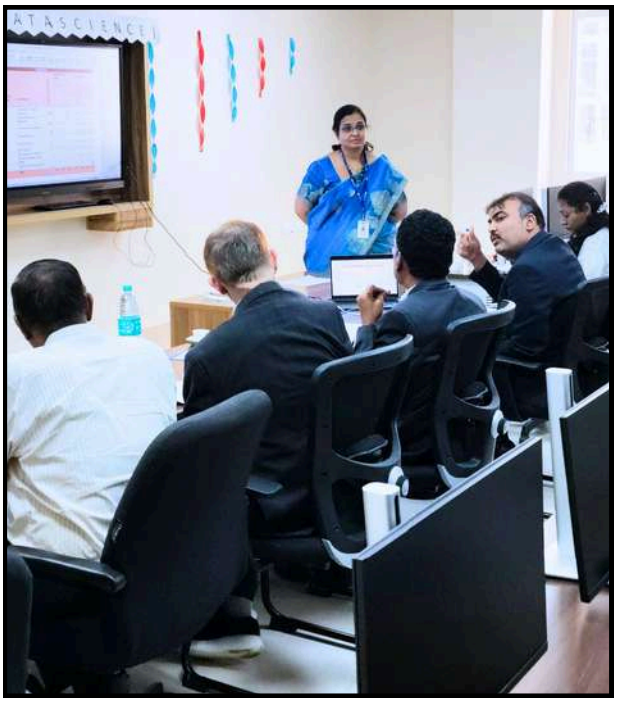

PROCEEDINGS OF BOS MEETING	
School	: School of Engineering
College	: Dayananda Sagar University
Program/Department	: Computer Science & Engineering (Data Science)
Mode of BOS Held	: Hybrid (https://meet.google.com/akq-cvzk-yqj)
Date	: 30th May 2025
Venue	: A411, Block A, SOE, Main Campus, DSU
Time	: 10:30 AM to 12:30 PM

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Agenda:

Presentation and discussion of the updated curriculum and scheme for the CSE (Data Science) program.

• Particulars
• Stakeholder feedback on curriculum: Faculty, Parents, Students, Alumni
• Deliberation and discussion on the 2025 batch scheme of 1st - 2nd semester and CBCS syllabus 1st - 2nd semester of BTech CSE(Data Science)
• Deliberation and discussion on the 2025 batch scheme and CBCS syllabus 3rd - 8th semester of BTech CSE(Data Science)
• Deliberation and discussion on the 2024 batch scheme and CBCS syllabus 3rd - 8th semester of BTech CSE(Data Science)
• Deliberation and discussion on the 2023 batch scheme and CBCS syllabus 5th - 8th semester of BTech CSE(Data Science)
• Overall suggestions and directions, Concluding remarks

Key Attendees:

Offline Participants:

- **Dr. Udaya Kumar Reddy K R** – Professor & Dean, School of Engineering, DSU
- **Dr. Shaila SG** – Chairperson, Dept. of CSE (DS), DSU
- **Dr. K S Sreedhar** – Professor, UBDTCE, Davanagere
- **Mr. Rajashekhar Hiremath** – Senior Manager, IBM India Software Labs
- **Dr. M K Banga** – Professor, DSU
- **Dr. Basavaraj N Hiremath** – Professor, DSU
- **Prof. Monish L** – Assistant Professor, DSU

Online Participants:

- **Dr. Mahesh Kumar H. Kolekar** – Associate Professor, IIT Kharagpur
- **Dr. Surendiran K** – Associate Professor, NIT Puducherry

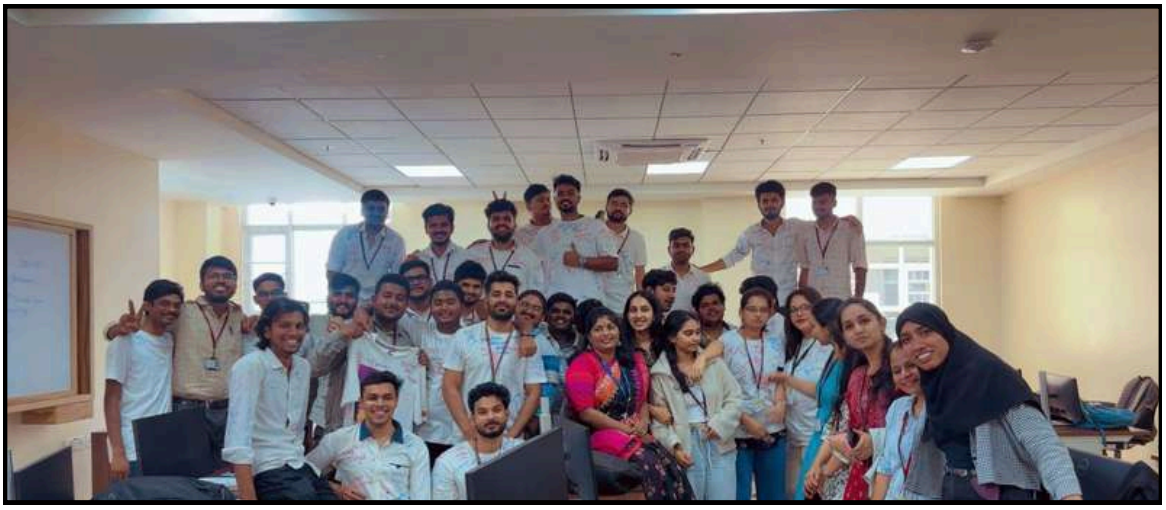
Meeting Highlights:

- Dr. Shaila SG presented the proposed scheme and syllabus for the CSE (Data Science) program.
- All members actively reviewed and commented on the curriculum.
- Suggestions and inputs were provided by both internal and external experts to enhance the structure and content of the program.

Outcome:

Constructive feedback was received and noted. The syllabus was refined based on the collective inputs of the BoS members.

"SIGNATURE DAY"
5TH JUNE, 2025



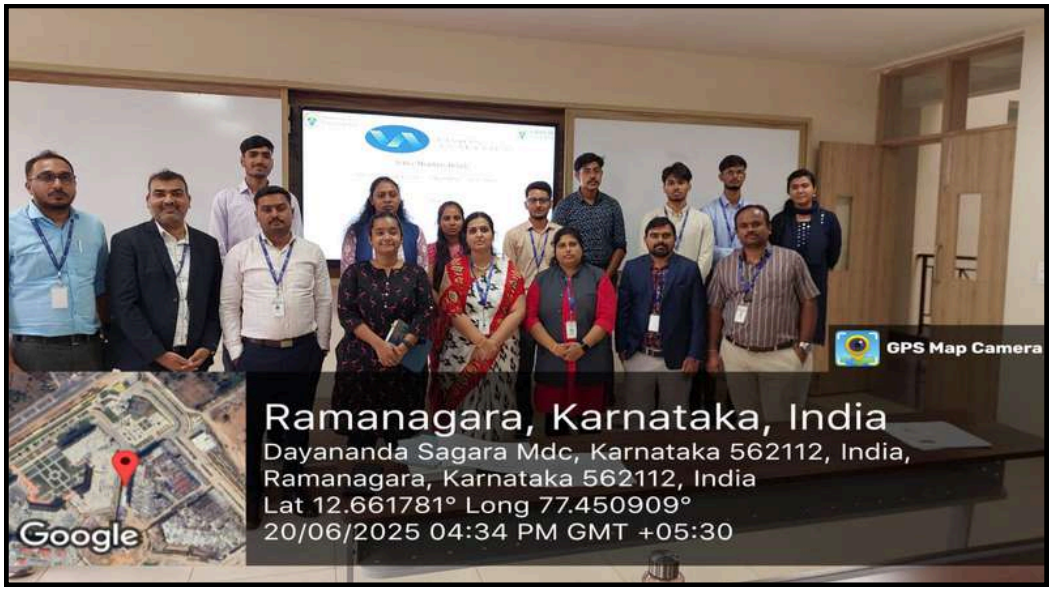
The Department of Data Science celebrated **"Signature Day"** on 5th June 2025 as part of the farewell activities for the outgoing 2021–2025 batch. Students arrived in vibrant attire, writing heartfelt messages and signing each other's white T-shirts as a symbol of memories and friendship.

The event was filled with joy, laughter, photo sessions, and emotional moments as students reflected on their journey. Faculty members joined the celebration and shared encouraging words. It was a day of smiles, gratitude, and lasting bonds, marking the end of an unforgettable chapter in their academic life.

"FAREWELL FUNCTION"
6TH JUNE, 2025

School of Engineering, Department of CSE (Data Science), organized a **"Farewell"** for the 2021–2025 batch on 6th June 2025. The event took place in Lecture Hall 2, School of Engineering, DSU, attended by faculty, staff, and students. The chairperson of the department delivered a warm and motivating welcome address. The Dean congratulated the students and extended best wishes for their future. Outgoing students shared memories and expressed gratitude to teachers and peers. Juniors performed cultural programs, adding energy and celebration to the event. A nostalgic video montage of college memories was screened for the batch. Final-year students received mementos as tokens of appreciation. The event strengthened the bond between seniors, juniors, and faculty. The farewell concluded with group photos and heartfelt goodbyes.

"SIG DATA ENGINEERING & VISION ANALYTICS"
20TH JUNE, 2025



The Department of CSE (Data Science) conducted a **Special Interest Group (SIG) meeting** on **"Vision Analytics" & "Data Engineering"** on 20th June 2025 at School of Engineering, Dayananda Sagar University Room No: A-106 & 107

The Department of CSE (Data Science), Chairperson Dr. Shaila S G addressed the overview of the Department of Special Interest Groups (SIG), followed by Dr. Suresh A. (Lead) Data Engineering & Dr. U. Pavan Kumar (Lead) Vision Analytics, who presented about the domain-specific goals of respective groups.

This report explores the intersection of **Vision Analytics** and **Data Engineering,** highlighting key advancements, challenges, and applications. The convergence of computer vision, artificial intelligence (AI), and big data processing has enabled transformative solutions across industries such as healthcare, autonomous systems, retail, and security.

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Data Engineering plays a critical role in managing visual data by ensuring its efficient collection, storage, processing, and retrieval. Automated data pipelines, powered by tools like Apache Kafka and AWS Kinesis, streamline the ingestion of high-volume video streams and image datasets. For scalable storage, distributed systems such as AWS S3, Hadoop HDFS, and modern data lakes provide robust solutions to handle massive amounts of visual data. Once stored, preprocessing techniques—including image augmentation, normalization, and labeling (facilitated by frameworks like TensorFlow Data Services)—refine raw data for machine learning readiness. Further optimization is achieved through feature engineering, where dimensionality reduction methods like PCA (Principal Component Analysis) and autoencoders help extract meaningful patterns while minimizing computational overhead, ensuring efficient model training and deployment.

Vision analytics involves extracting meaningful insights from visual data, such as images and videos, through advanced techniques like deep learning (including convolutional neural networks (CNNs) and transformer-based models. Key applications include object detection and segmentation using frameworks like YOLO (You Only Look Once) and Mask R-CNN, which enable precise identification and localization of objects within scenes. Additionally, facial recognition and emotion analysis leverage AI to interpret human expressions and identities, while activity recognition and anomaly detection algorithms analyze motion patterns to identify unusual behaviors or events in real time. These technologies collectively enhance decision-making across industries, from security to healthcare.

"INTERNATIONAL DAY OF YOGA 2025"
25TH JUNE, 2025

The Department of CSE (Data Science) has organized **"International Day of Yoga 2025"** held on 25th June 2025, from 09:30 AM to 10:30 AM at the School of Engineering, Dayananda Sagar University, Kanakapura Road, Bengaluru. Dr. Shaila S. G., Professor and Chairperson (DS), Dr. Santhosh Kumar G., Associate Professor; Dr. U. Pavan Kumar, and Prof. Shivamma D., Assistant Professor. Dr. K.S. Bhagyajyothi, Asst. Director of Physical Education, DSU, & all faculties of the Department of CSE (Data Science) supported the completion of the program successfully.

The event aimed to promote health, harmony, and peace through the practice of yoga its importance in daily life among staff. The event commenced at 9:30 AM with a welcome address by Dr. Shaila S G, Professor and Chairperson (DS). This was followed by a brief talk on the significance of Yoga Day and its global impact. A certified yoga instructor, Dr. K.S. Bhagyajyothi, Asst. Director of Physical Education, DSU, conducted a yoga demonstration session as per the Common Yoga Protocol issued by the Ministry of AYUSH.

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Participants performed various asanas, pranayama, and meditation techniques during the session. The enthusiastic participation of CSE(DS) faculty members reflected their commitment to healthy living.

Highlights:

- Mass yoga session as per Common Yoga Protocol
- Awareness talk on the science and philosophy behind yoga
- Participation certificate distribution
- Refreshments provided after the session

Outcome:

The event fostered a sense of unity and well-being among participants. Many expressed interest in continuing yoga as a regular practice. The event successfully emphasized yoga as a holistic tool for physical fitness, mental calmness, and emotional stability.

Conclusion:

The International Day of Yoga celebration was a resounding success and fulfilled its objective of spreading awareness about the importance of yoga. The organizing team expresses gratitude to all participants, volunteers, and facilitators for making the event memorable.

"POTLUCK"
25TH JUNE, 2025

The Department of CSE (Data Science) has organized a vibrant and heartwarming "**Potluck**" on 25th June 2025, from 12:45 PM at the School of Engineering, Dayananda Sagar University,, Kanakapura Road, Bengaluru, bringing together faculty and staff to share food, culture, and camaraderie. The event witnessed enthusiastic participation from across departments and cultural backgrounds. Participants brought a delightful variety of homemade dishes, representing regional, national, and international cuisines. From traditional Indian snacks and sweets to pasta, poli, and fusion desserts, the spread reflected the diverse community that forms the backbone of our university.

The event began with a welcome address by **Dr. Shaila S. G., Professor and Chairperson (DS)**, who highlighted the importance of such gatherings in fostering community spirit and cultural exchange.

One of the key highlights was the Dish with a Story segment, where select participants shared personal anecdotes behind their dishes—adding a touching, nostalgic element to the event. Everyone enjoyed not just the food but also the stories and laughter that came with it.

The Potluck Day was more than a food event; it was a celebration of unity, creativity, and the joy of sharing. It concluded with a group photo and a collective promise to make it an annual tradition.

FIVE DAYS
FACULTY DEVELOPMENT PROGRAM ON
"DEVOPS & MLOPS"
30TH JUNE, 2025 - 4TH JULY, 2025

The Faculty Development Program (FDP) on **"DevOps & MLOps"** was organized by the Department of CSE (Data Science), Dayananda Sagar University, from 30th June to 4th July, 2025. The FDP is designed to provide hands-on exposure to DevOps and MLOps practices. It aims to bridge the gap between software development and operations through streamlined automation. Participants will gain a clear understanding of continuous integration, continuous delivery, and workflow orchestration. The program emphasizes real-world applications, enabling the automation of machine learning pipelines from data ingestion to model deployment. It fosters skills in collaborative development, version control, and monitoring of ML systems. Through this FDP, faculty will be better equipped to teach and implement DevOps and MLOps methodologies in academic and research settings. Ultimately, the program promotes the development of scalable, efficient, and reproducible AI/ML solutions. The event received an enthusiastic response, with 82 online registrations and over 20 spot registrations, culminating in the participation of more than 80 active attendees over five days. The program provided practical, hands-on experience with key MLOps and DevOps tools, including Git, Docker, Jenkins, Kubernetes, MLflow, and Airflow.

The sessions were further enriched by insightful contributions from invited experts **Dr. M.N. Saroja and Mr. Dinesh Jothiram**

The FDP directly contributes to **SDG 4:** Quality Education by enhancing technological competencies in academia and **SDG 9:** Industry, Innovation, and Infrastructure by promoting the use of modern digital tools in teaching and research.

Details of the Resource Person

1. **Mr. Dinesh Jothiram,** Senior Manager, Fractal Analytics, Bengaluru
2. **Dr. M.N. Saroja**, Professor, Department of CSE, Sapthagiri NPS University, Bengaluru

Objective of the Event

- To familiarize participants with the fundamental concepts of MLOps and DevOps.
- To showcase the application of modern software development practices in machine learning workflows.
- To empower faculty with the skills to automate ML model deployment using tools like Docker, Jenkins, and Kubernetes.
- To promote understanding of model reproducibility and lifecycle management through MLflow.
- To encourage the integration of MLOps best practices into research activities, teaching methodologies, and student mentoring.

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Beneficiaries of the Event

Faculty Development Program primarily benefited faculty members and academic researchers from all the departments, along with participants from various other engineering and non-engineering disciplines. Through active participation, attendees gained:

- Technical proficiency in integrating DevOps workflows into research and academic instruction.
- Hands-on experience with tools such as Docker, Jenkins, and Kubernetes to develop scalable AI solutions.
- The ability to mentor students effectively through real-world MLOps project cycles.
- Insights into enhancing curriculum design by incorporating practical MLOps components.

This initiative aligns with the university's commitment to promoting excellence in innovation, technology adoption, and research-driven pedagogy.

Day 1 (30th June 2025) – Git & GitHub for ML Projects

Resource Person: Mr. Dinesh Jothiram, Senior Manager, Fractal Analytics, Bengaluru
Morning Session: Introduction to Version Control and Git

This session introduced participants to the core concepts of Git, including initializing repositories, cloning, committing changes, and managing local version histories. The focus was on the importance of reproducibility and effective version tracking within machine learning workflows.

Afternoon Session: Collaborative Development with GitHub

In this session, participants explored key GitHub functionalities such as pull requests, issue tracking, branching strategies, and remote collaboration techniques. Through hands-on exercises, attendees gained practical experience in managing repositories within collaborative, team-based environments.

Day 2 (1st July 2025) – Docker & Containerization

Resource Person: Dr. M.N. Saroja, Professor, CSE, SNPS University
Morning Session: Introduction to Docker, Images, and Containers

Participants were introduced to Docker fundamentals, including installation, writing Dockerfiles, building images, and executing machine learning models within containers. The session emphasized the benefits of environment portability and consistent deployment practices.

Afternoon Session: Docker Networking, Volumes & Docker Hub

This session focused on advanced Docker concepts such as inter-container communication, persistent storage using volumes, and image sharing via Docker Hub. Attendees engaged in hands-on activities, including pushing and pulling custom ML containers to and from Docker Hub.

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Day 3 (2nd July 2025) – Jenkins for CI in ML Pipelines

Resource Person: Dr. M.N. Saroja, Professor, CSE, SNPS University
Morning Session: Jenkins Overview & Job Creation

Participants were guided through the installation of Jenkins and the creation of both freestyle and pipeline jobs. The session emphasized automating code builds and triggering tasks based on GitHub events to streamline development workflows.

Afternoon Session: Jenkins + GitHub Integration and Pipeline Automation
This session provided hands-on experience in developing continuous integration (CI) workflows for machine learning projects. Participants learned to write and use Jenkinsfiles to build pipelines that compile, test, and prepare ML containers automatically.

Day 4 (3rd July 2025) – CI/CD + Kubernetes for ML Deployment

Resource Person: Mr. Dinesh Jothiram, Senior Manager, Fractal Analytics
Morning Session: CI/CD Pipeline Design & Implementation

This session integrated Jenkins, GitHub, and Docker to build a complete CI/CD pipeline. Participants implemented key stages such as code building, testing, Docker image creation, and automated, trigger-based deployments, demonstrating end-to-end workflow automation

Afternoon Session: Kubernetes Deployment & Scaling

Participants explored core Kubernetes concepts including Pods, Deployments, Services, and ReplicaSets. Using YAML manifests, they deployed and scaled containerized machine learning applications, gaining hands-on experience in orchestrating ML workloads in a Kubernetes environment.

Day 5 (4th July 2025) – MLflow, Airflow, and Project Presentations

Resource Persons: Mr. Dinesh Jothiram, Senior Manager, Fractal Analytics
Morning Session: MLflow for Model Lifecycle Management

In this session, participants explored the four core MLflow components—Tracking, Projects, Models, and the Model Registry. They practiced logging experiments, registering models, and deploying them through the MLflow UI, gaining hands-on experience in end-to-end model lifecycle management.

Afternoon Session: Apache Airflow & Final Presentations

Attendees learned to author Directed Acyclic Graphs (DAGs) and schedule tasks using Apache Airflow. Following this, each group presented their mini-project, showcasing a complete MLOps pipeline built with the tools covered throughout the FDP. The program concluded with a valedictory address and certificate distribution.

GLIMPSES OF THE EVENT

Figure 1. Invocation Song

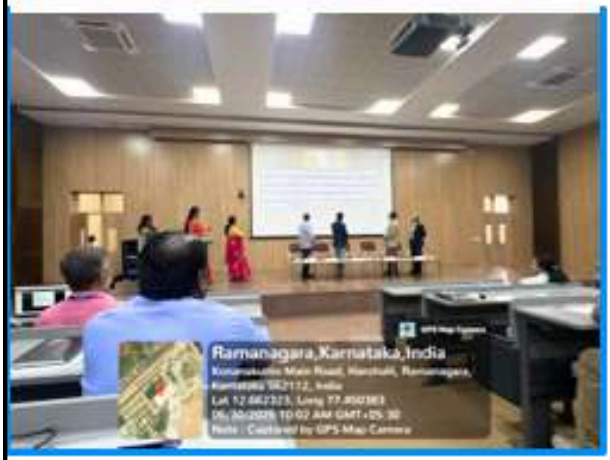


Figure 2. Inauguration of the Event

Figure 3. Dean's motivational Speech

Figure 4. Group Photograph

Figure 5. Session on Git & GitHub for ML Projects

GLIMPSES OF THE EVENT

Figure 6. *Session on Docker & Containerization*

Figure 7. *Session on Jenkins for CI in ML Pipelines*

Figure 8. *Session on* CI/CD + Kubernetes for ML Deployment

GLIMPSES OF THE EVENT

Figure 9. *Interactive discussion between Guest speaker and faculties.*

Figure 10. *Mr. Dinesh Jothiram, handing over certificates to participants during the valedictory session of the FDP on MLOps and DevOps Practices.*

Figure 11. *Group Photograph*

MEMORANDUM OF UNDERSTANDING (MOU) "DAYANANDA SAGAR UNIVERSITY (DSU) & NEXUSIQ" SOLUTIONS LLP, HYDERABAD 3RD JULY, 2025

Overview of NexusIQ Solutions LLP

NexusIQ Solutions LLP is a Hyderabad-based technology-driven organization, registered under the LLP Act, 2008. The company specializes in delivering advanced data-driven software solutions, enterprise integration systems, analytics platforms, and AI-powered automation services. With operations spanning sectors such as healthcare, finance, and smart infrastructure, NexusIQ offers scalable digital transformation capabilities to a wide range of industries.

CONTD.

Purpose of the Collaboration

This Memorandum of Understanding (MoU) marks the beginning of a collaborative partnership between Dayananda Sagar University (DSU) and NexusIQ Solutions LLP to bridge academic excellence with real-world industry innovation. The MoU was officially signed on 3rd July 2025, during a ceremony held at the university's Board Room. Initiated by **Dr. Shaila S. G., Professor and Chairperson, and Dr. Suresh A., Associate Professor, Department of CSE (Data Science),** this collaboration aims to strengthen competencies in Data Science, AI/ML, Software Engineering, and Full Stack Development through joint academic, research, and training initiatives.

Key Areas of Collaboration

- Skill Development & Training: Joint design and delivery of training programs, workshops, and expert sessions for students and faculty in key technological areas.
- Research & Innovation: Execution of applied research projects, industry-focused case studies, and participation in innovation challenges.
- Access to Technology: NexusIQ will provide access to APIs, platforms, and software tools to support learning and project work.
- Faculty Development Programs (FDPs): Certification programs, sabbaticals, and exposure to real-time industry practices for faculty members through online and on-site formats.
- Curriculum Enhancement: NexusIQ will offer strategic inputs to align DSU's curriculum with evolving technological and industry trends.

Expected Outcomes

- Improved industry readiness among students
- Enhanced research output and relevance
- Upgraded teaching methodologies and lab infrastructure
- Stronger academia–industry collaboration

The MoU signing ceremony was attended by representatives from NexusIQ Solutions, the Hon'ble Vice Chancellor, the Pro Vice Chancellor, the Dean of the School of Engineering, the Chairpersons of all departments, and faculty members from the Department of CSE (Data Science).

GALLERY


INDUSTRIAL IoT FOR
AUTOMATION


GPS Map Camera
Ramanagara, Karnataka, India


20 FEBRUARY
10:00 AM
PRIZE POOL


Ramanagara,Karnataka,India


Ramanagara, Karnataka, India


Ramanagara, Karnataka, India


Bengaluru, Karnataka, India


GPS Map Camera

FACULTY ACHIEVEMENTS

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

Research Publication

- Prof. Monish L, **Dr. Shaila S G**, presented a Conference Paper ID: 198 titled, Electroencephalogram Signal Processing based Emotion Analysis and Recognition using and Deep Networks the International Conference on Healthcare Innovation and Smart Systems (ICHISS 2024) Organised by the Department of Computer Science and Engineering, Shri Shankaracharya Institute of Professional Management and Technology, Raipur, Chhattisgarh, India, during 29th-30th December 2024.
- Prof. Monish L, **Dr. Shaila S G**, Dr. U. Pavan Kumar presented a Conference Paper ID: 201 titled, Piezoelectric Sensor based Apnea Disorder Prediction IoT using Monitoring System the International Conference on Healthcare Innovation and Smart Systems (ICHISS 2024) Organised by the Department of Computer Science and Engineering, Shri Shankaracharya Institute of Professional Management and Technology, Raipur, Chhattisgarh, India, during 29th-30th December 2024.
- **Dr. Shaila S G,** Dr. U. Pavan Kumar, Prof. Monish L were participated at Conference Paper ID: 109 titled, Mobile Net-based Driver Drowsiness Detection and Monitoring System the International Conference on Healthcare Innovation and Smart Systems (ICHISS 2024) Organised by the Department of Computer Science and Engineering, Shri Shankaracharya Institute of Professional Management and Technology, Raipur, Chhattisgarh, India, during 29th-30th December 2024.
- **Dr. Shaila S G,** Dr. U. Pavan Kumar were participated at Conference Paper ID: 223 titled, An IoT-Driven Emergency Medical Service Vehicle Detection System Using WaveResNet and YOLOv8 for RealTime Traffic Management the International Conference on Healthcare Innovation and Smart Systems (ICHISS 2024) Organised by the Department of Computer Science and Engineering, Shri Shankaracharya Institute of Professional Management and Technology, Raipur, Chhattisgarh, India, during 29th-30th December 2024.
- Prof. Monish L, and **Dr. Shaila S G**, has presented the Paper titled Electrocardiogram Signal Based Analysis and Predictions of Emotions using Deep Networks in the 5th International Conference on Paradigms of Communication, Computing and Data Analytics (PCCDA 2025) held during January 18-19, 2025.

FACULTY ACHIEVEMENTS

- A Sindhu, A Suresh, **SG Shaila,** B Bindu, B Akshaya, P Priyanka, "Personalized Skincare Recommender System Using Deep Learning," 2025 3rd International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA), Coimbatore, India, 2025, pp. 1-6, doi: 10.1109/ICAECA63854.2025.11012227.
- **Dr. Shaila S G**, Prof. Monish L, Dr. U. Pavan Kumar, Prof. Shivamma D has presented paper titled Speech Audio Analytics based Classification of Human Emotions using Machine Learning and Deep Learning Models in the IEEE International Conference on. Next Generation Information System Engineering NGISE 2025 Organized by Department of Information Technology, Ajay Kumar Garg Engineering College, Ghaziabad, Uttar Pradesh, India, during 28th-29th March, 2025
- Sumana SG, Rajesh TM, **Shaila SG**, Monish L has accepted Paper titled Video Action Recognition based Human Behavioral Analysis using Deep 3D and R(2+1)D Convolutional Neural Networks in the IEEE 4th International Conference on Intelligent Technologies 2025.

Patents

- A Multimodal Assistive System for the Visually and Hearing Impaired
- SmartMentor: Deep Learning System for Classroom Behavior Intelligence and Pedagogical Enhancement
- Classifier Device, System, And Method
- System and Method For Data Hiding In Video Communication Using Steganography
- System and Method Of Classifying Egg-carrying Fish

Dr. Shaila S G has participated a two-day workshop on "Research and Publication Ethics" organized by office of Dean Research, Dayananda Sagar University, Lecture Hall 2, Main Campus Harohalli, Ramanagara Dt. during 24 & 25th January 2025.

Dr. Shaila S G has participated Five-day faculty Development Program on **"Embedded System Design Using Arm Cortex"** Organized by Department of CSE, School of Engineering, Dayananda Sagar University during 3rd to 07th Feb 2025

Dr. Shaila S G has a Reviewer of "International Conference on Recent Innovations in Engineering Science & Technology-(ICRIET-2025) held at K. S. Institute of Technology, Bengaluru on 9th - 10th May 2025

FACULTY ACHIEVEMENTS

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

Dr. Santhosh Kumar G has successfully participated in the One Week National Level Faculty Development Program on "AI Tools" organized by Mahatma Gandhi Mission's College of Engineering and Technology in association with Brainovision Solutions India Private Ltd. in collaboration with All India Council for Technical Education (AICTE) during the period of 17th to 21st February 2025

Dr. Santhosh Kumar G has successfully completed the online Faculty Development Program on "Data Science" organized by SkillDzire in collaboration with AICTE from 17th March to 31st March-2025

Dr. Santhosh Kumar G has successfully completed the NPTEL Online Certification on "Cloud Computing" during Jan-Apr 2025 (12 week course).

FACULTY ACHIEVEMENTS

Research Publication

Dr. Santhosh Kumar G has presented paper entitled "Improved Wild Horse Optimization based Deep Neural Network for Speaker Identification and Verification" for 3rd International Conference on 6G Communications Networking and Signal Processing (SGCNSP-2024) at Nanyang Technological University, Singapore during 27-28th December 2024.

Dr. Santhosh Kumar G has presented paper entitled "Fault Detection in Power Line Communication Systems for Smart Grids by using One Class Support Vector Machine based Autoencoder" for 3rd International Conference on 6G Communications Networking and Signal Processing (SGCNSP-2024) at Nanyang Technological University, Singapore during 27-28th December 2024

Dr. Santhosh Kumar G & Dr. U. Pavan Kumar has presented paper entitled "Multimodal Dialogue Systems Multimodal Transformer Fusion for using Audio and Text Data" for 3rd International Conference on 6G Communications Networking and Signal Processing (SGCNSP-2024) at Nanyang Technological University, Singapore during 27-28th December 2024.

Dr.Santhosh Kumar G has actively participated in the One Day Online Faculty Development Programme on "AI TOOLS FOR RESEARCH" organized by Department of Automobile Engineering & MBA, Eswar College of Engineering(Autonomous) in association with Pencilbitz Publication on 30-05-2025

FACULTY ACHIEVEMENTS

Dr. Suresh Arumugam
Associate Professor
Department of CSE (Data Science)

Research Publication

- S Kanagaraj; **Suresh A;** Sindhu A, "Cloud-Based Deep Learning for Pneumonia Detection: A Comprehensive Overview, 2025 3rd International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA), Coimbatore, India, 2025, pp. 1-7, doi: 10.1109/ICAECA63854.2025.11012567

- A Sindhu, **A Suresh**, SG Shaila, B Bindu, B Akshaya, P Priyanka, "Personalized Skincare Recommender System Using Deep Learning," 2025 3rd International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA), Coimbatore, India, 2025, pp. 1-6, doi: 10.1109/ICAECA63854.2025.11012227.

- A Sindhu, **A Suresh**, B Bindu, P Priyanka, "Visual Simultaneous Localisation and Mapping (VSLAM) for Unstructured Environment," 2025 3rd International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA), Coimbatore, India, 2025, pp. 1-4, doi: 10.1109/ICAECA63854.2025.11012543.

Dr. Suresh Arumugam has successfully participated in the One Week Faculty Development Program on Applications of Business Analytics from 24th Feb to 1st March 2025, organized by the Department of Business Management, Vaagdevi College of Engineering, in association with Pantech Learning.


Pantech e Learning

VAAGDEVI
COLLEGE OF ENGINEERING
UGC AUTONOMOUS
Permanent Affiliation to JNTU, Hyderabad.

Faculty Development Programme

CERTIFICATE OF PARTICIPATION

This is to Certify that Dr.SURESH ARUMUGAM of Dayananda Sagar University has actively participated in One Week Faculty Development Programme on Applications of Business Analytics from 24th February to 01st March 2025, organized by Department of Business Management, Vaagdevi College of Engineering in association with Pantech e Learning.

FACULTY ACHIEVEMENTS

- **Dr. Suresh Arumugam** has been appointed as a Consultant in Emerging Technology at Golden Gate University.
- **Reviewer** for the 3rd International Conference on Advancements in Electrical, Electronics, Communication, Computing, and Automation (ICAECA) held on 04th April 2025.
- Established MoU with NexusIQ Solution with DSU on 03rd July 2025 for the period of 3 Years

FACULTY ACHIEVEMENTS

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

Research Publication

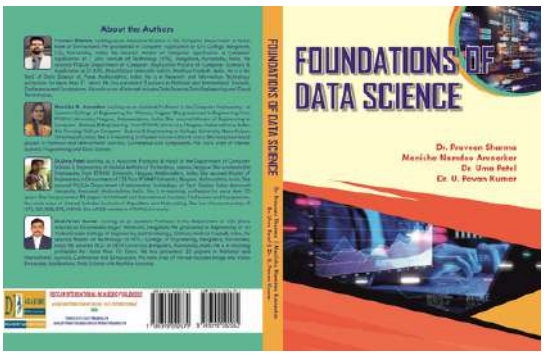
- Prof. Monish L, Dr. Shaila S G, **Dr. U. Pavan Kumar** presented a Conference Paper ID: 201 titled, Piezoelectric Sensor based Apnea Disorder Prediction IoT using Monitoring System the International Conference on Healthcare Innovation and Smart Systems (ICHISS 2024) Organised by the Department of Computer Science and Engineering, Shri Shankaracharya Institute of Professional Management and Technology, Raipur, Chhattisgarh, India, during 29th-30th December 2024.
- Dr. Shaila S G, **Dr. U. Pavan Kumar**, Prof. Monish L were participated at Conference Paper ID: 109 titled, Mobile Net-based Driver Drowsiness Detection and Monitoring System the International Conference on Healthcare Innovation and Smart Systems (ICHISS 2024) Organised by the Department of Computer Science and Engineering, Shri Shankaracharya Institute of Professional Management and Technology, Raipur, Chhattisgarh, India, during 29th-30th December 2024.
- Dr. Shaila S G, **Dr. U. Pavan Kumar** were participated at Conference Paper ID: 223 titled, An IoT-Driven Emergency Medical Service Vehicle Detection System Using WaveResNet and YOLOv8 for RealTime Traffic Management the International Conference on Healthcare Innovation and Smart Systems (ICHISS 2024) Organised by the Department of Computer Science and Engineering, Shri Shankaracharya Institute of Professional Management and Technology, Raipur, Chhattisgarh, India, during 29th-30th December 2024.
- Dr. Shaila S G, Prof. Monish L, **Dr. U. Pavan Kumar**, Prof. Shivamma D has presented paper titled Speech Audio Analytics based Classification of Human Emotions using Machine Learning and Deep Learning Models in the IEEE International Conference on. Next Generation Information System Engineering NGISE 2025 Organized by Department of Information Technology, Ajay Kumar Garg Engineering College, Ghaziabad, Uttar Pradesh, India, during 28th-29th March, 2025
- **Dr. U. Pavan Kumar** has participated and presented a research paper title: Privacy-preserving Federated Learning for Equipment Failure Detection in Smart Manufacturing at 7th International Conference on Intelligent Sustainable Systems - ICISS 2025 Organized by SCAD College of Engineering and Technology (SCADCET) during 12-14, March 2025 | Tirunelveli, India

FACULTY ACHIEVEMENTS

Dr. U. Pavan Kumar has presented a paper entitled "Improved Wild Horse Optimization-Based Deep Neural Network for Speaker Identification and Verification" for 3rd International Conference on 6G Communications Networking and Signal Processing (SGCNSP-2024) at Nanyang Technological University, Singapore, during 27-28th December 2024.

Dr. U. Pavan Kumar & Dr. Santhosh Kumar G has presented paper entitled "Fault Detection in Power Line Communication Systems for Smart Grids by Using One-Class Support Vector Machine-Based Autoencoder" for 3rd International Conference on 6G Communications Networking and Signal Processing (SGCNSP-2024) at Nanyang Technological University, Singapore, during 27-28th December 2024

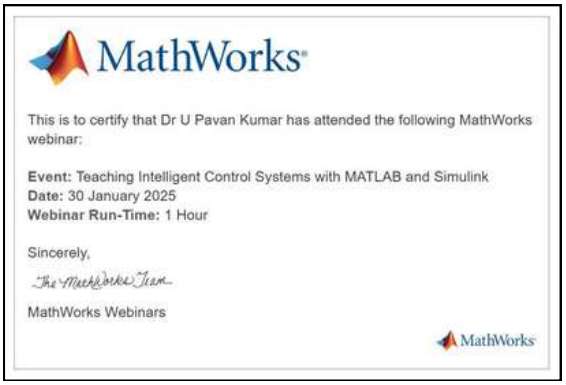
Dr. U. Pavan Kumar has published a book entitled "Foundations of Data Science" of DECCAN INTERNATIONAL ACADEMIC PUBLISHERS, registered under MSME Government of India with ISBN: 978-93-49092-08-2.



Dr. U. Pavan Kumar has presented paper entitled "Multimodal Dialogue Systems Multimodal Transformer Fusion for using Audio and Text Data" for 3rd International Conference on 6G Communications Networking and Signal Processing (SGCNSP-2024) at Nanyang Technological University, Singapore during 27-28th December 2024.

FACULTY ACHIEVEMENTS

Dr. U. Pavan Kumar has attended Webinar on "Teaching Intelligent Control Systems with MATLAB and Simulink" organized by MathWorks on 30th January 2025


MathWorks

This is to certify that Dr U Pavan Kumar has attended the following MathWorks webinar:

Event: Teaching Intelligent Control Systems with MATLAB and Simulink
Date: 30 January 2025
Webinar Run-Time: 1 Hour

Sincerely,

The MathWorks Team

MathWorks Webinars

MathWorks


DEPARTMENT OF
COMPUTER SCIENCE AND ENGINEERING
(INTERNET OF THINGS)

CERTIFICATE

OF PARTICIPATION

THIS CERTIFICATE IS PROUDLY PRESENTED TO

DR. U. PAVAN KUMAR, ASSISTANT PROFESSOR, CSE(DATA SCIENCE)

of DAYANANDA SAGAR UNIVERSITY

has participated in the 6 DAYS ONLINE FACULTY DEVELOPMENT PROGRAM on "IOT IN FOCUS: EMERGING TRENDS AND REAL-WORLD CHALLENGES" held from 20.01.2025 to 25.01.2025 hosted by Sri Sai Ram Engineering College

Dr.P.Sathyaraj Coordinator/ CSE(IoT) | Dr.S. Valarmathy Coordinator/ CSE(IoT) | Dr.M.Kanthimathi HOD/CSE(IoT) | Dr.J.Raja Principal | Dr.Sai Prakash Leemuthu Chairman & CEO, Sairam Institutions

Dr. U. Pavan Kumar has participated Six days Online Faculty Development Program on "IOT in Focus Emerging Trends and Real -World Challenges" held from 20.01.2025 to 25.01.2025 hosted by Sri Sai Ram Engineering College.

Dr. U. Pavan Kumar has successfully participated in the One Week National Level Faculty Development Program on "AI Tools" organized by Dayananda Sagar Academy of Technology and Management in association with Brainovision Solutions India Private Ltd. in collaboration with All India Council for Technical Education (AICTE) during the period of 17th to 21st February 2025


Dayananda Sagar Academy of Technology and Management
(Autonomous Institute Under VTU)
Department of Information Science & Engineering

CERTIFICATE

of participation

This certificate is proudly awarded to

DR. U. PAVAN KUMAR

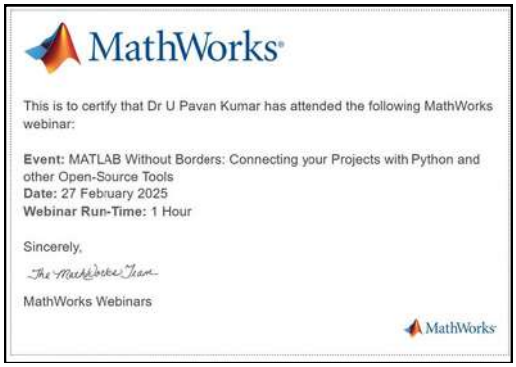
has successfully Participated in the One Week National Level Faculty Development Program on AI Tools organized by

DAYANANDA SAGAR ACADEMY OF TECHNOLOGY and MANAGEMENT

in association with Brainovision Solutions India Pvt Ltd in collaboration with All India Council For Technical Education (AICTE) During the period of 17th to 21st February 2025.

We commend your dedication to enhancing your knowledge with AI TOOLS.

Dr Nandini Prasad KS | Dr.M Ravishankar | Dr. BUDDHA CHANDRASEKHAR


MathWorks

This is to certify that Dr U Pavan Kumar has attended the following MathWorks webinar:

Event: MATLAB Without Borders: Connecting your Projects with Python and other Open-Source Tools
Date: 27 February 2025
Webinar Run-Time: 1 Hour

Sincerely,

The MathWorks Team

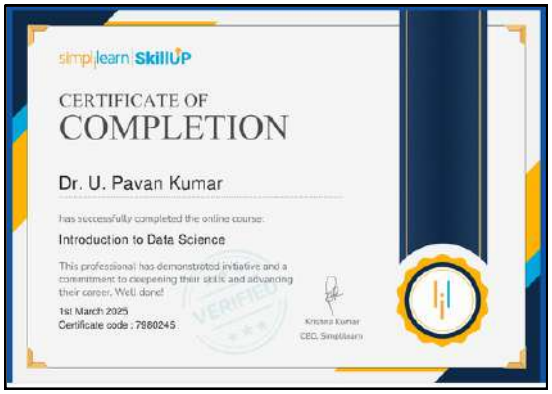
MathWorks Webinars

MathWorks

Dr. U. Pavan Kumar has attended the Mathworks Webinar in the MATLAB without Borders: Connecting your Projects with Python and other Open Source Tools by MathWorks on 27th February, 2025

FACULTY ACHIEVEMENTS

Dr. U. Pavan Kumar has participated and presented a research paper title: Privacy-preserving Federated Learning for Equipment Failure Detection in Smart Manufacturing at 7th International Conference on Intelligent Sustainable Systems - ICISS 2025 Organized by SCAD College of Engineering and Technology (SCADCET) during 12-14, March 2025 | Tirunelveli, India



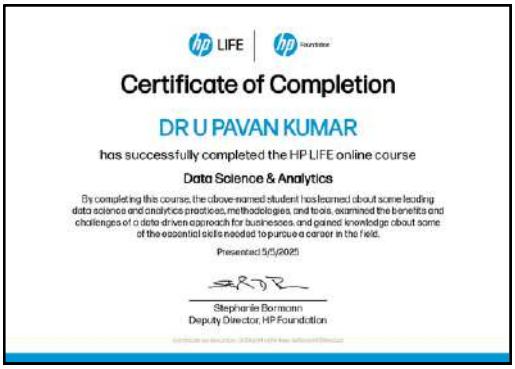
Dr. U. Pavan Kumar has successfully completed the online course on Introduction to Data Science offered by Simplilearn| Skillup on 1st March 2025

Dr. U. Pavan Kumar has successfully completed the online Faculty Development Program on "Machine Learning" organized by SkillDzire in collaboration with AICTE from 17th March to 31st March-2025

Dr. U. Pavan Kumar has been recognized for his contribution as a Reviewer for 4th International Conference on Distributed Computing and Electrical Circuits and Electronics (ICDCECE-2025) organized by IEEE SB Ballari Institute of Technology and Management, Ballari, 25-26th April 2025

FACULTY ACHIEVEMENTS

Dr. U. Pavan Kumar has successfully completed the HP LIFE online course Data Science & Analytics on 05th May 2025.



Dr. U. Pavan Kumar has successfully completed the NPTEL Online Certification on "Business Intelligence & Analytics" during Jan-Apr 2025 (12 week course).

Dr. U. Pavan Kumar has actively participated in the One Day Online Faculty Development Programme on "AI TOOLS FOR RESEARCH" organized by Department of Automobile Engineering & MBA, Eswar College of Engineering (Autonomous) in association with Pencilbitz Publication on 30-05-2025

FACULTY ACHIEVEMENTS

Prof. Shivamma D
Assistant Professor
Department of CSE (Data Science)

Prof. Shivamma D were participated in Hands-on Workshop on Predictive Power-Matlab for Data Science held on 5th March 2025 organized by CoreEL Technologies India Pvt Ltd

Research Publication

- Manjula, M., Monish, L., Vedashree, L. V., & **Shivamma, D.** (2024, September). Novel Approach for Brain Tumor Classification with CNN and MobileNet. In 2024 7th International Conference on Contemporary Computing and Informatics (IC3I) (Vol. 7, pp. 1241-1244). IEEE.
- Monish, M., **Shivamma, D.**, Srinivas, K., Gowda, V., Sheetal, P., & Nandhini, S. (2025, January). Continuous Sign Language Recognition Using 3D Convolutional Neural Networks. In 2025 International Conference on Intelligent and Innovative Technologies in Computing, Electrical and Electronics (IITCEE) (pp. 1-5). IEEE.
- **Shivamma, D.**, Manjula, M., & Eshwar Reddy, M. (2025, January). Smart Wheelchair Navigation Using Gesture-Based Control and IoT. In 2025 International Conference on Intelligent and Innovative Technologies in Computing, Electrical and Electronics (IITCEE) (pp. 1-4). IEEE.

Dr. Shaila S G, Prof. Monish L, Dr. U. Pavan Kumar, **Prof. Shivamma D** has presented paper titled Speech Audio Analytics based Classification of Human Emotions using Machine Learning and Deep Learning Models in the IEEE International Conference on. Next Generation Information System Engineering NGISE 2025 Organized by Department of Information Technology, Ajay Kumar Garg Engineering College, Ghaziabad, Uttar Pradesh, India, during 28th-29th March, 2025

FACULTY ACHIEVEMENTS

Prof. Monish L
Assistant Professor
Department of CSE (Data Science)

Research Publication

- **Prof. Monish L**, Dr. Shaila S G, presented a Conference Paper ID: 198 titled, Electroencephalogram Signal Processing based Emotion Analysis and Recognition using and Deep Networks the International Conference on Healthcare Innovation and Smart Systems (ICHISS 2024) Organised by the Department of Computer Science and Engineering, Shri Shankaracharya Institute of Professional Management and Technology, Raipur, Chhattisgarh, India, during 29th-30th December 2024.
- **Prof. Monish** L, Dr. Shaila S G, Dr. U. Pavan Kumar presented a Conference Paper ID: 201 titled, Piezoelectric Sensor based Apnea Disorder Prediction IoT using Monitoring System the International Conference on Healthcare Innovation and Smart Systems (ICHISS 2024) Organised by the Department of Computer Science and Engineering, Shri Shankaracharya Institute of Professional Management and Technology, Raipur, Chhattisgarh, India, during 29th-30th December 2024.
- Dr. Shaila S G, Dr. U. Pavan Kumar, **Prof. Monish L** were participated at Conference Paper ID: 109 titled, Mobile Net-based Driver Drowsiness Detection and Monitoring System the International Conference on Healthcare Innovation and Smart Systems (ICHISS 2024) Organised by the Department of Computer Science and Engineering, Shri Shankaracharya Institute of Professional Management and Technology, Raipur, Chhattisgarh, India, during 29th-30th December 2024.
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- Dr. Shaila S G, **Prof. Monish L**, Dr. U. Pavan Kumar, Prof. Shivamma D has presented paper titled Speech Audio Analytics based Classification of Human Emotions using Machine Learning and Deep Learning Models in the IEEE International Conference on. Next Generation Information System Engineering NGISE 2025 Organized by Department of Information Technology, Ajay Kumar Garg Engineering College, Ghaziabad, Uttar Pradesh, India, during 28th-29th March, 2025
- Sumana SG, Rajesh TM, Shaila SG, **Monish L** has accepted Paper titled Video Action Recognition based Human Behavioral Analysis using Deep 3D and R(2+1)D Convolutional Neural Networks in the IEEE 4th International Conference on Intelligent Technologies 2025.

FACULTY ACHIEVEMENTS

Prof. Monish L has contributed to **three innovative patents** in the field of computer science and assistive technology.

- The first, titled "AI-Based Network Threat Detecting Device", was registered on 30th December 2024 and focuses on using AI for real-time cybersecurity threat detection.
- The second patent, "AI-Enabled Automated Curriculum Optimization System for Sustainable Educational Development", filed on 17th February 2025, aims to improve educational planning using intelligent systems.
- The third, "A Multimodal Assistive System for the Visually and Hearing Impaired", filed on 29th April 2025, proposes a smart support system integrating multiple sensory modes to aid individuals with dual sensory impairments.

Prof. Monish L were participated in Hands-on Workshop on Predictive Power-Matlab for Data Science held on 5th March 2025 organized by CoreEL Technologies India Pvt Ltd.

FACULTY ACHIEVEMENTS

Prof. Manjula M
Assistant Professor
Department of CSE (Data Science)

Research Publication

Prof. Manjula M has presented Paper ID 45 title: Integrating IoT and Sensors for comprehensive Road Safety: A Systematic Approach to Accident Prevention at 1st International conference on advances and applications in artificial intelligence (ICAAAI 2025) Organized by Department of CSE, Shri Shankaracharya Institute of Professional Management & Technology, Raipur during 27-28 February 2025


Shri Shankaracharya Institute of Professional Management & Technology, Raipur, India

ICAAAI2025
International Conference on Advances and Applications in Artificial Intelligence (ICAAAI 2025)

ATLANTIS PRESS
SPRINGER NATURE

Certificate of Appreciation

This is to certify that

Prof. Manjula M

Presented the Paper ID 45 titled

Integrating IoT and Sensors for Comprehensive Road Safety: A Systematic Approach to Accident Prevention

Authored by

Dr. Tina Babu, Dr. Rekha Nair, Prof. Manjula M, Prof. Vedashree L V, Chaitrashree P

at Ist International Conference on Advances and Applications in Artificial Intelligence (ICAAAI 2025), organized by the Department of Computer Science & Engineering, Shri Shankaracharya Institute of Professional Management and Technology Raipur, Chhattisgarh, India during 27th - 28th February 2025.

Dr Suman Kumar Swamkar, General Chair, ICAAAI-2025
Dr Yogesh Kumar Rathore, General Co-Chair, ICAAAI-2025
Prof Anand Tamrakar, General Co-Chair, ICAAAI-2025
Dr Alok Jain, Principal, SSIPMT, Raipur

- **Manjula, M.**, Monish, L., Vedashree, L. V., & Shivamma, D. (2024, September). Novel Approach for Brain Tumor Classification with CNN and MobileNet. In 2024 7th International Conference on Contemporary Computing and Informatics (IC3I) (Vol. 7, pp. 1241-1244). IEEE.

- Shivamma, D., **Manjula, M.,** & Eshwar Reddy, M. (2025, January). Smart Wheelchair Navigation Using Gesture-Based Control and IoT. In 2025 International Conference on Intelligent and Innovative Technologies in Computing, Electrical and Electronics (IITCEE) (pp. 1-4). IEEE.


MeitY

E & ICT Academy, IIT Kanpur
(A Joint initiative of MeitY & IIT Kanpur)

Certificate

This is to certify that
Dr. / Mr. / Ms. Manjula M of
Dayananda Sagar University
has completed the Faculty Development Program on
AI for Managers
from 24-02-2025 to 01-03-2025

Date of Issue: 10-03-2025

Prof B.V. Phani
Chief Investigator, E&ICT Academy, IIT Kanpur

Prof. Manjula M has completed the Faculty Development Program on "AI for Managers" organized by E & ICT Academy , IIT Kanpur from 24th February to 01st March-2025

FACULTY ACHIEVEMENTS

Prof. Sindhu A
Assistant Professor
Department of CSE (Data Science)

Prof. Sindhu A has successfully participated One Week Faculty Development Program on Applications of Business Analytics from 24th Feb to 1st March 2025, Organized by Department of Business Management, Vaagdevi College of Engineering in association with Pantech learning.

Research Publication

- S Kanagaraj; Suresh A; **Sindhu A**, "Cloud-Based Deep Learning for Pneumonia Detection: A Comprehensive Overview, 2025 3rd International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA), Coimbatore, India, 2025, pp. 1-7, doi: 10.1109/ICAECA63854.2025.11012567

- **A Sindhu,** A Suresh, SG Shaila, B Bindu, B Akshaya, P Priyanka, "Personalized Skincare Recommender System Using Deep Learning," 2025 3rd International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA), Coimbatore, India, 2025, pp. 1-6, doi: 10.1109/ICAECA63854.2025.11012227.

- **A Sindhu,** A Suresh, B Bindu, P Priyanka, "Visual Simultaneous Localisation and Mapping (VSLAM) for Unstructured Environment," 2025 3rd International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA), Coimbatore, India, 2025, pp. 1-4, doi: 10.1109/ICAECA63854.2025.11012543.

FACULTY ACHIEVEMENTS

Prof. Godhandaraman T
Assistant Professor
Department of CSE (Data Science)

Prof. T. Godhandaraman has participated Six days Online Faculty Development Program on "IOT in Focus Emerging Trends and Real -World Challenges" held from 20.01.2025 to 25.01.2025 hosted by Sri Sai Ram Engineering College.

Prof. T. Godhandaraman has participated Faculty Development Program on "Gen AI & Chat GPT Application in the Industry" Organized by the Department of MBA & Research Centre, SJC Institute of Technology, Chikkaballapur. Chaitanya Bharathi Institute of Technology Autonomous, Hyderabad – Telangana. Bharti Vidyapeeth (Deemed to be University) College of Engineering, Pune in Collaboration with ExcelR Edtech Pvt. Ltd during 27th Jan to 31st Jan 2025

Prof. T. Godhandaraman has successfully participated in the One Week International Faculty Development Program on AI in Cyber Security organized by RAMCO Institute of Technology, Department of Artificial Intelligence and Data Science, held from February 17, 2025 to February 21, 2025

FACULTY ACHIEVEMENTS

Prof. Godhandaraman T has participated in Faculty Development Program on Cyber Security organized by the Department of MBA & Research Centre, Sapthagiri NPS University, Bangalore in collaboration with ExcelR Edtech Pvt. Ltd. During 14th Feb to 20th Feb 2025.

Prof. Godhandaraman T has published a book title on “Fundamentals of Data Science” with ISBN: 978-93-5762-445-9 Alpha International Publication March 2025.

Prof. Godhandaraman T has successfully completed the online Faculty Development Program on "Data Science" organized by SkillDzire in collaboration with AICTE from 17th March to 31st March-2025

FACULTY ACHIEVEMENTS

Prof. Chandrakala L
Assistant Professor
Department of CSE (Data Science)

Prof. Chandrakala L has participated in a Five-day faculty Development Program on "Embedded System Design Using Arm Cortex" Organized by Department of CSE, School of Engineering, Dayananda Sagar University during 3rd to 07th Feb 2025

Prof. Chandrakala L has participated in 15 Hours of Faculty Development program on Salesforce Business Analyst Professional (Online Live FDP) conducted by ICT Academy on 28th April 2025 to 03rd May 2025.

FACULTY ACHIEVEMENTS

Prof. Prapti Bhattacharjee
Assistant Professor
Department of CSE (Data Science)

Prof. Prapti Bhattacharjee has participated in 15 Hours of Faculty Development program on Salesforce Adminstrator (Online Live FDP) conducted by ICT Academy on 6th Jan 2025 to 10th Jan 2025

Prof. Prapti Bhattacharjee has participated in in the Faculty Training Session on " Software Engineering Using LLM's- Developing a Forecasting Solution" conducted on 12th March 2025 at Dayananda Sagar University.

Prof. Prapti Bhattacharjee has participated in Faculty Development Program on "Applied AI: Practical Implementations" under TechSaksham Program from "3rd Mar 2025 - 7th Mar 2025".

Prof. Prapti Bhattacharjee has participated Faculty Development Program on Generative AI-understanding,usage and applications on 29th March 2025

Prof. Prapti Bhattacharjee has participated in 15 Hours of Faculty Development program on Salesforce Business Analyst Professional (Online Live FDP) conducted by ICT Academy on 28th April 2025 to 03rd May 2025

STUDENT ACHIEVEMENTS

VinuRaj Vamshi presented a Conference Paper ID: 109 titled, Mobile Net-based Driver Drowsiness Detection and Monitoring System the International Conference on Healthcare Innovation and Smart Systems (ICHISS 2024) Organised by the Department of Computer Science and Engineering, Shri Shankaracharya Institute of Professional Management and Technology, Raipur, Chhattisgarh, India, during 29th-30th December 2024.

VinuRaj Vamshi presented a Conference Paper ID: 223 titled, An IoT-Driven Emergency Medical Service Vehicle Detection System Using WaveResNet and YOLOv8 for Real Time Traffic Management the International Conference on Healthcare Innovation and Smart Systems (ICHISS 2024) Organised by the Department of Computer Science and Engineering, Shri Shankaracharya Institute of Professional Management and Technology, Raipur, Chhattisgarh, India, during 29th-30th December 2024.

Shashi Kumar C successfully accomplished the official ACE-220: Enterprise Prototyping with Arduino Portenta Proto Kit on 8th January 2025.

Venkat Nivas Reddy K participated at the Asian Youth Summit held on 28th & 29th December 2024 in the Indo-Nepal Cabinet Committee as Prime Minister of Nepal and having secured BEST DELEGATE along with received Cash prize of Rs.4000/-

STUDENT ACHIEVEMENTS

Aditya S - ENG23DS0001 & Shashi Kumar - ENG23DS0034 were had an incredible opportunity to visit SAP Labs, Whitefield, Bengaluru for the 1st edition of SAP Inside Track Bengaluru 2025 – Business AI on 1st March 2025.

Sadgi Jaiswal (ENG23DS0082) has successfully participated in the AI Innovation Day: Bhasha Bandhu Ideathon on 25th February 2025 organized in collaboration with Microsoft and the Government of India's Bhashini Initiative.

Sadgi Jaiswal (ENG23DS0082) has participated in Ideaverse'25 hosted by the IEEE Information Theory Society CSE(DS), Dayananda Sagar University on 20th February 2025

Ayush Singh (ENG23DS0098) has successfully participated in the AI Innovation Day: Bhasha Bandhu Ideathon on 25th February 2025 organized in collaboration with Microsoft and the Government of India's Bhashini Initiative.

Ayush Singh (ENG23DS0098) has participated in Ideaverse'25 hosted by the IEEE Information Theory Society CSE(DS), Dayananda Sagar University on 20th February 2025.

STUDENT ACHIEVEMENTS

Vedeshwari Nakate (ENG23DS0075) has successfully participated in the AI Innovation Day: Bhasha Bandhu Ideathon on 25th February 2025 organized in collaboration with Microsoft and the Government of India's Bhashini Initiative

Vedeshwari Nakate (ENG23DS0075) has participated in Ideaverse'25 hosted by the IEEE Information Theory Society CSE(DS), Dayananda Sagar University on 20th February 2025

Amit Singh (ENG23DS0096) has successfully participated in the AI Innovation Day: Bhasha Bandhu Ideathon on 25th February 2025 organized in collaboration with Microsoft and the Government of India's Bhashini Initiative.

Sai Krishna S (ENG23DS0083) has successfully participated in the AI Innovation Day: Bhasha Bandhu Ideathon on 25th February 2025 organized in collaboration with Microsoft and the Government of India's Bhashini Initiative

Soumya Singh (ENG23DS0125) has successfully participated in the AI Innovation Day: Bhasha Bandhu Ideathon on 25th February 2025 organized in collaboration with Microsoft and the Government of India's Bhashini Initiative

STUDENT ACHIEVEMENTS


DAYANANDA SAGAR UNIVERSITY
SCHOOL OF ENGINEERING
Devarakaggalahalli, Harohalli,Kanakapura Road, Ramanagara Dt ,
Bengaluru-562112
Department of CSE(Data Science)
CERTIFICATE
Three Days Hands on Workshop
on
"Industrial IoT for Automation"
This is to certify that Mr./Ms. BHARATKUMAR bearing USN ENG23DS0005 has participated in Three days Hands Workshop on "Industrial IoT for Automation" Organized by the Department of Computer Science and Engineering(Data Science), DSU from 10-March-2025 to 12-March-2025 in association with Karunadu Technologies Private Limited, Bengaluru.

Bharat Kumar (ENG23DS0005) has participated in the Three days Hands on Workshop on Industrial IoT for Automation Organized by the Department of CSE(Data Science), DSU from 10th March to 12th March 2025 in association with Karunadu Technologies Private Limited, Bengaluru.


DAYANANDA SAGAR UNIVERSITY
SCHOOL OF ENGINEERING
Devarakaggalahalli, Harohalli,Kanakapura Road, Ramanagara Dt ,
Bengaluru-562112
Department of CSE(Data Science)
CERTIFICATE
Three Days Hands on Workshop
on
"Industrial IoT for Automation"
This is to certify that Mr./Ms. MITHILESH N A bearing USN ENG23DS0110 has participated in Three days Hands Workshop on "Industrial IoT for Automation" Organized by the Department of Computer Science and Engineering(Data Science), DSU from 10-March-2025 to 12-March-2025 in association with Karunadu Technologies Private Limited, Bengaluru.

Mithilesh N A (ENG23DS0110) has participated in the Three days Hands on Workshop on Industrial IoT for Automation Organized by the Department of CSE(Data Science), DSU from 10th March to 12th March 2025 in association with Karunadu Technologies Private Limited, Bengaluru.


CERTIFICATE OF MERIT
ONLINE COURSE
THIS CERTIFICATE IS
AWARDED TO
MR. ANSHUMAN
ON COMPLETION OF THE ONLINE COURSE ON
"Geodata Processing using Python and Machine Learning"
THIS ONLINE COURSE WAS CONDUCTED DURING 17 February 2025 to 28 February 2025

Anshuman (ENG22DS0026) has successfully completed the Online Course on "Geodata Processing using Python and Machine Learning" during 17th February 2025 to 28th February 2025 concerned by Indian Institute of Remote Sensing, Dehradun


TechXcelerate
Certificate of Participation
This certificate is presented to
AKSHAYA. B
For his/her vehement participation in the Workshop AI/ML
& 24 Hours Hackathon conducted by the
TechXcelerate from 22nd March to 23rd March 2025.
We appreciate their enthusiasm, creativity,
and dedication showcased throughout the event.

Akshaya B (ENG21DS0006) has participated in the workshop AI/ML & 24 Hours Hackathon conducted by TechXcelerate from 22nd March to 23rd March 2025


TechXcelerate
Certificate of Participation
This certificate is presented to
CHAITHRA.K
For his/her vehement participation in the Workshop AI/ML
& 24 Hours Hackathon conducted by the
TechXcelerate from 22nd March to 23rd March 2025.
We appreciate their enthusiasm, creativity,
and dedication showcased throughout the event.

Chaitra K (ENG21DS0014) has participated in the workshop AI/ML & 24 Hours Hackathon conducted by TechXcelerate from 22nd March to 23rd March 2025

STUDENT ACHIEVEMENTS

Shubham Kumar (ENG21DS0039) has participated in the workshop AI/ML & 24 Hours Hackathon conducted by TechXcelerate from 22nd March to 23rd March 2025

Nithin Prjawal (ENG22DS0039) has exhibited exceptional performance during the Microsoft AI Skills Fest 2025. His active involvement in sessions, challenges, and hackathon projects—focused on real-world AI solutions—showcased his technical proficiency and innovation, particularly with tools like GitHub Copilot and Azure AI Foundry. His dedication was recognized and appreciated not only by Sridharan Venkataramanan, Associate Vice President at GlobalLogic, but also by key Microsoft leaders including Gunjan Kathariya, Indrani Choudhury, and Kishore Kumar Thangavelu, who applauded his journey and progress. Their engagement and encouragement further reflect the impact Nitin made during the program, standing out as a top-performing, driven learner with a clear passion for AI.

Sachin Chandram Bhosagi-ENG22DS0014, Kumar Mukund -ENG23DS0069, Amit Singh-ENG23DS0096, and **Sai Krishna S-ENG23DS0083** has participated in the 2025 Statewide Engineering IT Quiz TCS Tech Bytes an Inter -College Quiz on IT organized by TATA Consultancy Services and Board for IT Education Standards Government of Karnataka during 08th April 2024.

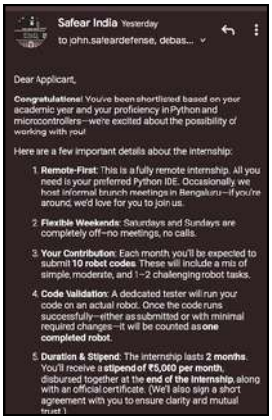
Vedeswari Nakate -ENG23DS0075, Sai Krishna S -ENG23DS0083, Shashi Kumar C -ENG23DS0034 participated in ROBOSOCCER-2025, organized by the Electroblitz Club in association with AIC-DSU, Techflix, MIT Square and the IEEE Student Branch at Dayananda Sagar University on 25th-26th April 2025.

STUDENT ACHIEVEMENTS

Shashi Kumar C (ENG23DS0034) has received a Global Internship Offer worth $200 from MIT Square official sponsor for National Robosoccer event Organized by Dept. of EC&E held on 25th-26th April, 2025 at DSU.

Aditya S (ENG23DS0001) secured the Second Runner-Up position in the Eurekathon 2025 competition, organized by the Department of Computer Science and Technology, and was awarded a cash prize of ₹6,000 on 29th April 2025

Kovarthana K (ENG22DS0032) & Pavan Kumar G (ENG22DS0040) participated in Hackathon 26.1-AI/ML(Gen AI) held on 12th April 2025


Safear India Yesterday
to john.safeardefense, debas...

Dear Applicant,

Congratulations! You've been shortlisted based on your academic year and your proficiency in Python and microcontrollers—we're excited about the possibility of working with you!

Here are a few important details about the internship:

1. **Remote-First**: This is a fully remote internship. All you need is your preferred Python IDE. Occasionally, we host informal brunch meetings in Bengaluru—if you're around, we'd love for you to join us.
2. **Flexible Weekends**: Saturdays and Sundays are completely off—no meetings, no calls.
3. **Your Contribution**: Each month, you'll be expected to submit **10 robot codes**. These will include a mix of simple, moderate, and 1–2 challenging robot tasks.
4. **Code Validation**: A dedicated tester will run your code on an actual robot. Once the code runs successfully—either as submitted or with minimal required changes—it will be counted as **one completed robot**.
5. **Duration & Stipend**: The internship lasts **2 months**. You'll receive a **stipend of ₹5,060 per month**, disbursed together at the **end of the internship**, along with an official certificate. (We'll also sign a short agreement with you to ensure clarity and mutual trust.)

Shashi Kumar C (ENG23DS0034) internship offer from Safear Defence for Robotics Software Development, which involves working with MicroPython packages. The internship offers a base stipend of ₹5,000 and has the potential to convert into a full-time job after two months.

STUDENT ACHIEVEMENTS

Sanjana T (ENG22DS0017) for being selected for the Ruckus CommScope (Internship) with a stipend of 40,000 on 09th May 2025

Shashi Kumar (ENG23DS0034) & Aditya (ENG23DS0001) team has been successfully shortlisted for the next round of India's largest drone innovation challenge – NIDAR 2025 on 22nd May 2025.

Shashi Kumar C (ENG23DS0034) participated in the Drone Stack Trade Expo organized by drone federation of India from June 5th and 6th 2025 in the Bengaluru international exhibition Center we are working for a project for NDMA(National disaster management authority) govt. of India with a team of 8 named sktantra air systems our team is transforming the drone industry to new heights by networking with ceo's and cto's of leading UAV company

STUDENT PLACEMENTS

B TECH 2021-2025 BATCH

DSU B.TECH CSE (DS) - 2025 BATCH – TOP PLACEMENT DETAILS

SL NO	USN NO	FULL NAME	COMPANY	CTC
1	ENG21DS0020	GOLLA PUJARI SOWMYA	KICKDRUM	15.73
2	ENG21DS0002	A ABHISHEK	PEGASYSTEMS	15
3	ENG21DS0046	V NIVAS REDDY	PEGASYSTEMS	15
4	ENG21DS0026	PRANJAL MEWARA	SAKS INDIA	13.45
5	ENG21DS0021	MANOJ V BHANDARE	CYWARE LABS	12.26
6	ENG21DS0035	SAMMANA BHAVANI PRASAD	STONEX	10
7	ENG21DS0016	DESAI SREENIJA	EDUSTATION	9
8	ENG21DS0028	PRIYANKA P	HPE	8.5
9	ENG21DS0031	R PREM KUMAR REDDY	INRY	8.4
10	ENG21DS0020	GOLLA PUJARI SOWMYA	INFOGAIN	6.35
11	ENG21DS0012	BINDU. B	ROYAL CYBER	6
12	ENG21DS0003	N ABHISHEK	MUSIGMA	5
13	ENG21DS0047	VINUTH GOWDA S	KPMG GLOBAL SERVICES	5
14	ENG21DS0017	DIKESH REDDY S N	ENCORA	5
15	ENG21DS0023	NIKUNJ VIHARI KONAKALLA	ENCORA	5
16	ENG21DS0041	SRINIVAS K	CONSILIO INDIA	5

STUDENT ACHIEVEMENTS (PLACEMENTS)

TOP RECRUITER 2021-2025 BATCH

PLACEMENT DETAILS

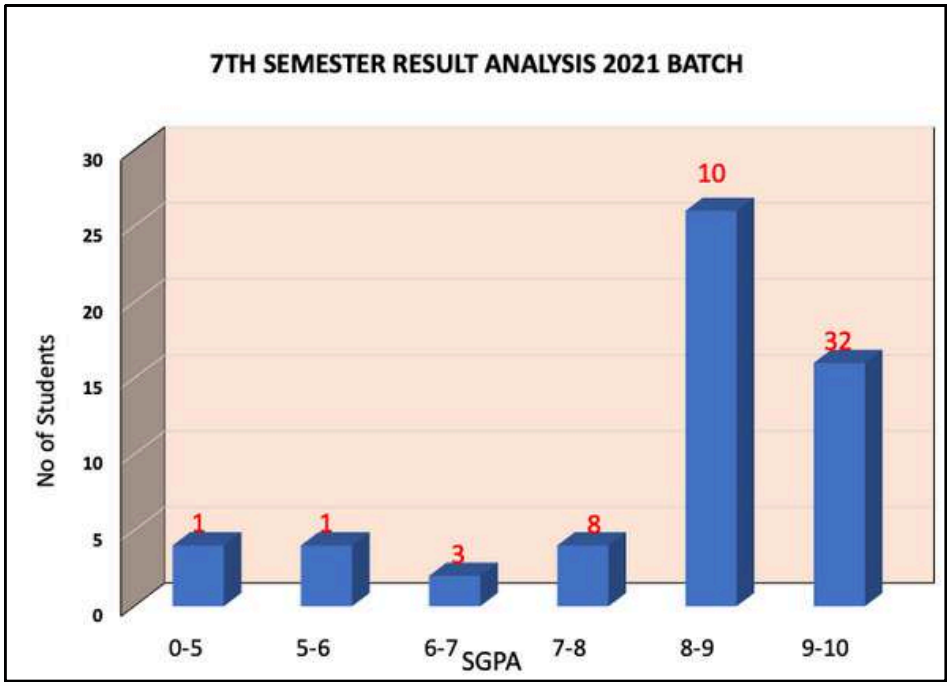
BATCH	REGISTERED	ELIGIBLE	NON ELIGIBLE	HIGHER EDUCATION	TOTAL OFFERS
2021-2025	49	32	17	4	31

DREAM OFFERS

	REGULAR OFFER	DREAM OFFER	SUPER DREAM OFFER
BATCH	UPTO 5 LPA	5 LPA TO 10 LPA	10 TO 15 LPA
2021-2025	15	9	4

RESULTS

RESULT ANALYSIS (2021 BATCH)

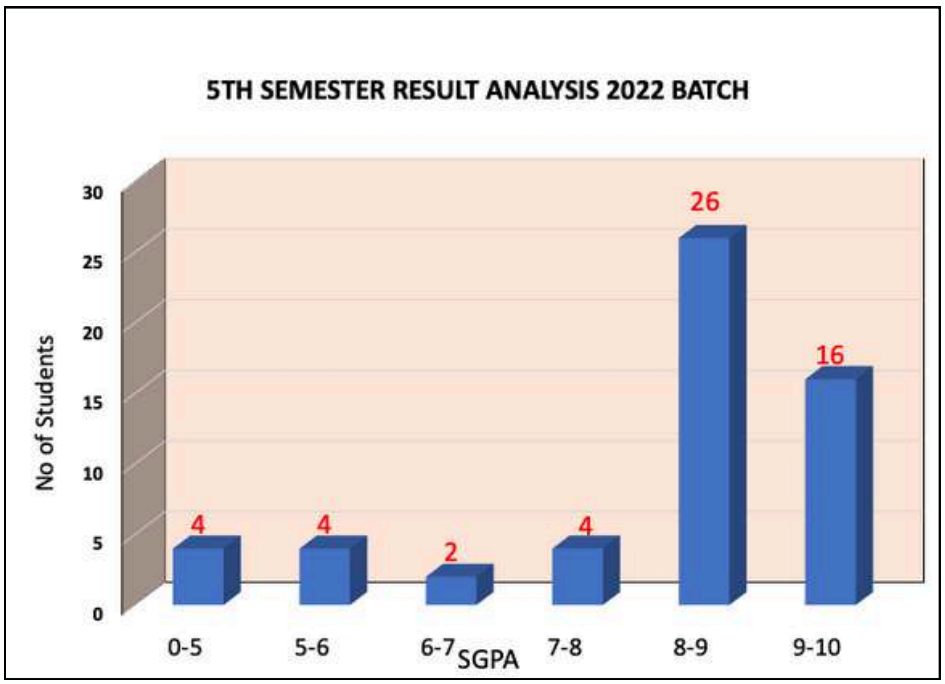


7TH SEMESTER TOPPERS (2021 BATCH)

USN	STUDENT NAME	SGPA
ENG21DS0013	CHAITHRA SHREE P	10
ENG21DS0038	SHEETAL P	10
ENG21DS0002	ABHISHEK A	9.75
ENG21DS0003	ABHISHEK N	9.75
ENG21DS0006	AKSHAYA B	9.75
ENG21DS0014	CHAITHRA K	9.75
ENG21DS0020	GOLLA PUJARI SOWMYA	9.75
ENG21DS0025	NOOR HADIYA	9.75
ENG21DS0028	PRIYANKA P	9.75
ENG21DS0039	SHUBHAM KUMAR	9.75

RESULTS

RESULT ANALYSIS (2022 BATCH)

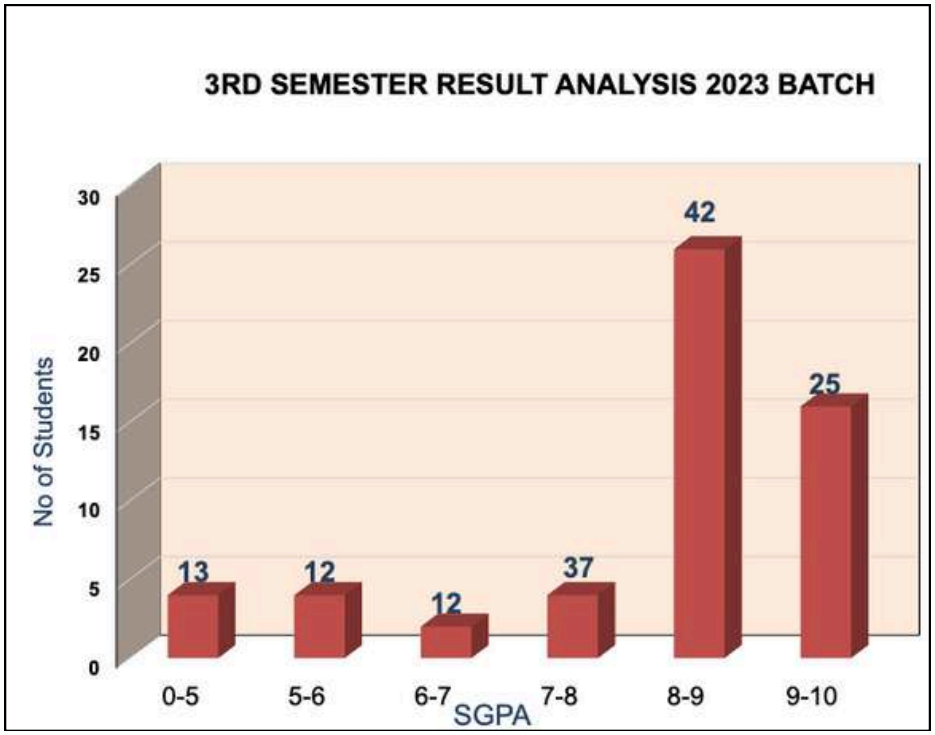


5TH SEMESTER TOPPERS (2022 BATCH)

USN	STUDENT NAME	SGPA
ENG22DS0002	HARSHA	9.84
ENG22DS0004	JANARDHAN K S	9.84
ENG22DS0032	KOVARTHANA K	9.84
ENG22DS0039	NITIN PRAJWAL R	9.84
ENG22DS0040	PAVAN KUMAR G	9.84
ENG22DS0017	SANJANA T	9.72
ENG22DS0024	VIRIKA OLIVIA SOANS	9.72
ENG22DS0003	HARSHITA JEETENDRA	9.6
ENG22DS0022	VENKAT NIVAS REDDY K	9.56
ENG22DS0010	R SINDHU	9.44

RESULTS

RESULT ANALYSIS (2023 BATCH)



3RD SEMESTER TOPPERS (2023 BATCH)

USN	STUDENT NAME	SGPA
ENG23DS0041	THUNGASHREE I L	9.57
ENG23DS0063	KAMMALA KALYAN	9.57
ENG23DS0065	KANISHKA SHARMA	9.57
ENG23DS0032	SHALINI S	9.39
ENG23DS0075	NAKATE VEDESHWARI	9.39
ENG23DS0129	VALLURI VINESH	9.39
ENG23DS0131	VENNAPUSA PUNITH	9.39
ENG23DS0026	PRIYANKA M	9.35
ENG23DS0098	AYUSH SINGH	9.35
ENG23DS0037	SHREYA PRAVEEN	9.3

EDITORIAL COMMITTEE

DAYANANDA SAGAR UNIVERSITY

SCHOOL OF ENGINEERING

Department of Computer Science and Engineering
(Data Science)
Dayananda Sagar University
School of Engineering, Devarakaggalahalli, Harohalli,
Kanakapura Road, Bengaluru South District – 562 112

PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

After few years of graduation, the graduates of Computer Science & Engineering (Data Science) will be able to:

PEO1: Knowledge delivery in terms of analytics and visualization, research, design, product implementation and optimization by using modern tools and techniques of data science to provide absolute resolution in social aspects.

PEO2: Applying strong mathematical and statistical foundations of Data Science to build powerful knowledge models to generate actionable insights, necessary for making data-driven decisions in multi-disciplinary areas.

PEO3: Function effectively as competent Data Science Professionals, Entrepreneurs or Researchers in the work place or maintain employment through lifelong learning including professional certifications.

PROGRAM OUTCOMES (POS)

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 analyse 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 modelling 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 SPECIFIC OUTCOMES (PSOS)

PSO1. Apply the principles of Data Science including Data Visualization, Data Management and Data Security for building intelligent predictive models for solving real world problems.

PSO2. Apply Business Analytics, Visualization Tools & Statistical Tools acquired through professional society, certification programs, projects, Internship & Laboratory exercises to solve critical problems.

CONTACT US

DSU Main Campus:
Devarakaggalahalli, Harohalli,
Kanakapura Road, Bengaluru South
District, Bengaluru – 562 112
E-mail: admissions@dsu.edu.in

DSU City Innovation Campus:
Administrative & Main Admission office,
Kudlu Gate, Hosur Road,
Bengaluru - 560 068
Admissions Helpline: 080 49092924 / 25
E-mail: admissions@dsu.edu.in | dsat@dsu.edu.in