



**DAYANANDA SAGAR
UNIVERSITY**



**SCHOOL OF
ENGINEERING**

**DEPARTMENT OF
COMPUTER SCIENCE AND ENGINEERING
(DATA SCIENCE)**

**DATA
GLIMPSE**

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Dayananda Sagar University, School of Engineering
Devarakagallahalli, 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 **CSE (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) is 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 5 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



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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. Tiruveedula Gopi Krishna
Associate Professor

Dr. T. Gopi Krishna is a seasoned academic with over 20 years of teaching and research experience in Computer Science and Engineering in India and abroad. He holds a Ph.D. in Computer Science and Engineering from Rayalaseema University. His research interests include Data Science, Big Data Analytics, Artificial Intelligence, Machine Learning, Deep Learning, Data Mining, and Medical Image Processing. He has made significant contributions through research publications, patents, keynote talks, reviews, and academic collaborations, while actively mentoring students and guiding research in emerging technologies.

FACULTY LIST



Prof. Sneha Banerjee
Associate Professor of
Practice

Ms. Sneha Banerjee is an Associate Professor of Practice in the Department of Computer Science and Engineering (Data Science) at Dayananda Sagar University (DSU), Bengaluru. She is pursuing her M.Tech in Artificial Intelligence and Machine Learning from BITS Pilani and holds a B.Tech in Computer Science and Engineering from VIT. Her areas of interest include Artificial Intelligence, Machine Learning, Data Science, and Drone Technology. She has received specialized training from IIT Hyderabad and IIT Kanpur and is committed to delivering industry-oriented education and fostering innovation in AI and data-driven technologies.



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.



Dr. Jobin Thomas
Assistant Professor

Dr. Jobin Thomas is an accomplished academician with over 12 years of experience in teaching and research in Computer Science and Engineering. He holds a Ph.D. focused on time series analysis using the Distributed Lag Non-Linear Model (DLNM) to study environmental impacts on schizophrenia admissions. His research interests include data analytics, time series modelling, and machine learning, with publications in Scopus-indexed venues. He is skilled in Python, R, Java, JavaScript, C++, Tableau, MongoDB, and Figma, and has guided numerous B.Tech and M.Tech projects. A passionate educator, he integrates activity-based learning, hackathons, and mini-projects into his teaching and contributes to curriculum development and academic growth.



Prof. Shivamma D
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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.

FACULTY LIST



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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.



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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.



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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.

FACULTY LIST



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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.



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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 mainly 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 published a book chapter with IGI Global on Cryptocurrency.



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FACULTY LIST



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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.



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FACULTY LIST



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ARTICLES

From Data to Intelligence: The Generative AI Revolution in Data Science

Data has long been considered the fuel of the digital economy, but data alone does not create value. The real transformation occurs when data is converted into insight, intelligence, and action. Data Science has traditionally enabled this journey through statistics, machine learning, visualization, and predictive analytics. Today, Generative Artificial Intelligence (GenAI) is adding a powerful new dimension—changing not only how we analyze data, but also how we interact with it, interpret it, and transform it into meaningful outcomes. Traditional Data Science typically involves collecting and cleaning data, exploring patterns, engineering features, developing models, evaluating results, and communicating insights. These activities often demand substantial programming expertise and considerable time. Generative AI is beginning to reshape this workflow. Powered by Large Language Models (LLMs) and other foundation models, GenAI can assist data scientists in generating code, formulating analytical queries, explaining statistical results, creating documentation, summarizing complex datasets, and translating technical findings into understandable narratives. Instead of interacting with data only through programming languages and analytical tools, users can increasingly interact with data through natural language.

Conventional machine learning largely focuses on prediction and classification—predicting customer behavior, identifying diseases, detecting fraud, or forecasting demand. Generative AI extends these capabilities by enabling machines to create new content and representations from learned patterns. An important application is synthetic data generation. When real-world datasets are limited, sensitive, expensive, or imbalanced, carefully designed generative models can help create synthetic samples for experimentation and model development. GenAI can also support data augmentation, automated reporting, exploratory analysis, and knowledge discovery. However, synthetic and AI-generated outputs must always be validated to ensure their accuracy, representativeness, privacy, and reliability.

The next evolution is likely to combine Data Science, Generative AI, and Agentic AI. Rather than merely answering individual questions, AI agents can be designed to pursue analytical goals through multiple steps—selecting appropriate tools, querying databases, executing code, evaluating results, and refining their approach. This could lead to intelligent data assistants capable of supporting significant portions of the analytics lifecycle, from understanding a problem and exploring datasets to recommending models and communicating results. The role of the data scientist will therefore evolve rather than disappear. Human expertise will remain essential for defining meaningful problems, validating assumptions, recognizing misleading correlations, ensuring data quality, and making responsible decisions.

For students aspiring to become future data scientists, learning Python, statistics, databases, machine learning, and visualization remains fundamental. However, the emerging technology landscape also demands familiarity with LLMs, prompt engineering, Retrieval-Augmented Generation (RAG), vector databases, multimodal AI, AI agents, and responsible AI practices. Equally important are critical thinking, domain knowledge, creativity, communication, and ethical judgment. Generative AI can produce an answer quickly, but a skilled data scientist must determine whether that answer is accurate, meaningful, unbiased, and useful. The future of Data Science is therefore not simply about building increasingly complex algorithms. It is about creating intelligent systems in which data, AI, and human expertise work together. As Generative AI continues to evolve, Data Science is moving beyond discovering what the data tells us toward understanding what it means, what can be created from it, and what intelligent action should follow.

THE JOURNEY IS NO LONGER ONLY FROM DATA TO INSIGHT—IT IS FROM DATA TO INTELLIGENCE.



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

THE SIGNIFICANCE OF THE EVAL HARNESS

An evaluation harness is the infrastructure that turns a claim about model or agent performance into a reproducible measurement. It defines the task set, executes the system under test, collects outputs, applies scoring logic, and reports results in a comparable form. Without one, progress in AI development is anecdotal - impressions gathered from a handful of prompts that happened to be tried.

The case for harnesses rests on a simple asymmetry: models are stochastic, and human judgment of quality is inconsistent. A change that appears to improve responses may be noise, or may improve one capability while silently degrading another. Only systematic evaluation across a fixed benchmark, run repeatedly, distinguishes real gains from variance.

A well-built harness has several components. The dataset encodes tasks with known expectations, spanning both typical cases and adversarial edge cases. The runner handles execution, including retries, timeouts, sandboxing, and parallelism - non-trivial when evaluating agents that make external tool calls. The scorer converts raw output into a metric: exact match for closed-form answers, programmatic checks for code, rubric-based model grading for open-ended text, or human review for subjective quality. The reporter aggregates results with confidence intervals and surfaces per-case failures for inspection.

Agentic evaluation raises the difficulty considerably. A single turn model produces one output to score; an agent produces a trajectory. Success may depend on tool availability, environment state, and timing. Two runs of the same task can diverge at step three and never reconverge. Harnesses for agents must therefore evaluate both outcome (did the task get done?) and process (were the steps efficient, safe, and appropriate?). Trajectory-level metrics - step count, tool-call accuracy, recovery from error - often reveal more than a binary pass rate.

Statistical rigor is frequently underweighted. Reporting a single accuracy number from one run invites overinterpretation. Because generation is stochastic, the same configuration should be run multiple times and reported with variance. A three-point improvement means little if the run-to-run standard deviation is five points. Sample size matters equally: a fifty-item benchmark cannot reliably detect small effects.

Harnesses also serve as regression protection. As systems evolve - new prompts, new tools, new base models - a maintained evaluation suite catches silent degradation. This mirrors continuous integration in software engineering, and the discipline transfers: evaluations should run automatically on change, gate deployment, and fail loudly.

There are limits worth stating. Benchmarks are proxies, and optimizing against them invites overfitting - a system tuned to score well may generalize poorly. Benchmarks also saturate; once scores approach ceiling, the metric stops discriminating. Mature evaluation practice therefore treats the harness as a living artifact, retiring saturated tasks, adding harder ones, and periodically validating that scores correlate with real-world utility.

Beyond capability, harnesses increasingly carry safety obligations: measuring refusal behavior, robustness to injection, and failure modes under adversarial pressure. As agents gain autonomy and access to real systems, the evaluation harness becomes not merely a development tool but a governance instrument - the mechanism by which claims about safe behavior are substantiated rather than asserted.



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

THE DAWN OF AUTONOMOUS INTELLIGENCE: DATA SCIENCE TRENDS OF 2026

Data science is entering a new era where autonomous intelligence is transforming the way organizations analyze data and make decisions. Traditional manual processes are rapidly being replaced by AI-powered systems that can automate data preparation, model building, and insight generation. The focus is shifting from simply processing data to developing intelligent agents capable of learning, adapting, and reasoning independently.

One of the most exciting developments in 2026 is the rise of autonomous data science agents such as EvoDS and DeepAnalyze. These intelligent systems can perform end-to-end analytical workflows, from data collection and preprocessing to model validation and visualization, allowing researchers and data scientists to focus on innovation and strategic decision-making. At the same time, advances in Geometric Data Science are enabling the analysis of complex data structures for applications in healthcare, materials science, and computational biology.

Another major trend is the growing adoption of causal AI, which helps identify true cause-and-effect relationships rather than simple statistical correlations. Combined with self-healing AI systems powered by Retrieval-Augmented Generation (RAG), modern analytics platforms can automatically detect and correct programming errors, making AI solutions more reliable, efficient, and trustworthy.

Looking ahead, technologies such as Edge AI, Quantum Computing, and autonomous analytics will further accelerate intelligent decision-making across healthcare, finance, manufacturing, agriculture, and education. As autonomous intelligence becomes a reality, data science is evolving into a discipline that combines human expertise with intelligent systems to drive innovation and create a smarter, data-driven future.



**Dr. Tiruveedula Gopi
Krishna**
Associate Professor
Dept. of CSE (DS)

QUANTUM LEAPS: HOW QUANTUM COMPUTING IS RESHAPING THE FUTURE OF DATA SCIENCE

Data science has always advanced by pushing the limits of computation, and as datasets and models grow more complex, classical computers are starting to strain under exponentially scaling problems. Quantum computing offers a fundamentally different approach using qubits that can exist in superposition and become entangled allowing certain problems like optimization, high-dimensional machine learning, and complex simulations to be tackled in ways classical systems can't easily match. Tasks like portfolio allocation, supply chain routing, hyperparameter tuning, and molecular simulation are all areas where researchers believe quantum approaches could eventually offer real advantages over classical methods.

Today's quantum computers are still "noisy" and limited in scale often referred to as NISQ (Noisy Intermediate-Scale Quantum) devices, meaning they can't yet outperform classical supercomputers on most real-world data science tasks. The most promising near-term progress is happening in hybrid quantum-classical algorithms, where classical systems handle the bulk of the work and offload specific subroutines to quantum processors, alongside quantum-inspired classical algorithms that are already delivering practical gains without needing quantum hardware at all. Fields like quantum machine learning and quantum annealing are being actively tested in areas such as financial modeling, logistics optimization, and materials science, though results compared to classical benchmarks remain mixed and highly problem-dependent.

You don't need to become a quantum physicist to stay ahead. Building basic familiarity with quantum concepts, experimenting with accessible tools like Qiskit, PennyLane, or Cirq, and keeping an eye on hybrid workflows will position you well as the field matures. Cloud-based quantum simulators now make it possible to test small-scale quantum algorithms without owning specialized hardware, lowering the barrier to entry for curious data scientists. Quantum computing won't replace your classical toolkit anytime soon, but the data scientists who understand both its promise and its limits and who start building familiarity will be the ones best positioned to apply it wisely when the technology truly comes of age.



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

THE SIGNIFICANCE OF AGENTS AND MEMORY

Autonomous agents represent a shift from single-turn language models to systems that plan, act, and iterate toward goals. An agent decomposes a task, selects tools, executes steps, observes outcomes, and revises its approach. This loop is what separates an agent from a chatbot: the capacity to pursue an objective across many interactions rather than answer one question well.

Memory is what makes that loop coherent. Without persistent state, an agent restarts from zero at every turn - it cannot learn from a failed tool call, cannot recall a user's constraints, and cannot build on partial progress. Memory converts a sequence of disconnected inferences into a continuous line of work.

Agent memory is usually organized into three layers. Working memory holds the immediate context: the current task, recent tool outputs, intermediate reasoning. It is bounded by the context window and must be actively managed through summarization or pruning. Episodic memory stores what happened - past trajectories, decisions taken, errors encountered. This enables reflection: an agent that reviews its own history can avoid repeating mistakes. Semantic memory holds durable facts about the user, the domain, and the environment, typically externalized into a vector store or structured filesystem and retrieved on demand.

The engineering challenge is not storage but retrieval and forgetting. Naive accumulation degrades performance: irrelevant context dilutes attention, stale facts contradict current ones, and cost scales with token count. Effective systems therefore treat memory as a curated artifact - writing selectively, consolidating redundant entries, and expiring information that has served its purpose. What to not remember is as consequential as what to retain.

Memory also carries governance weight. Persistent state about users implicates privacy, consent, and data minimization. A memory system that silently accumulates sensitive attributes creates liability that a stateless model does not. Auditability matters too: when an agent acts on a remembered fact, operators should be able to trace where that fact came from and when it entered the store.

The practical payoff is substantial. In software engineering agents, memory of repository conventions and prior fixes reduces redundant exploration. In customer-facing systems, retained preferences eliminate repetitive interrogation. In research workflows, episodic traces make long-running investigations resumable. Across these settings, memory reduces cost per task while raising success rates, because the agent spends fewer steps rediscovering what it already knew.

Multi-agent systems complicate the picture. When several agents share a workspace, memory becomes a coordination substrate - a blackboard through which agents publish findings and read each other's state. This introduces consistency problems familiar from distributed systems: write conflicts, stale reads, and the need for versioning. Solutions borrowed from database design, such as optimistic concurrency control with version tokens, are increasingly appearing in agent frameworks.

Looking forward, the frontier is memory that improves itself: systems that notice which retrievals actually helped, that reorganize their own stores, and that distill repeated episodes into reusable procedures. That capability would move agents from tools that remember toward systems that genuinely accumulate expertise - the difference between a notebook and an apprentice.



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

RESPONSIBLE DATA SCIENCE: WHY AI GOVERNANCE AND ETHICS MATTER MORE THAN EVER

Data science has transformed the way organizations make decisions. From predicting customer behavior and detecting fraud to improving healthcare and optimizing business operations, data-driven models are becoming an essential part of modern society. However, as data science solutions become more powerful and influential, an important question arises: Are we building systems that are not only intelligent but also responsible and trustworthy?

The success of a data science model is often measured by metrics such as accuracy, precision, and performance. But in the real world, these metrics alone are not enough. A highly accurate model can still produce unfair outcomes, violate privacy, or make decisions that are difficult to explain. This is where AI Governance, Ethics, and Responsible AI become critical components of modern data science.

AI governance provides the frameworks and policies needed to ensure that data science systems are developed and deployed responsibly. It focuses on areas such as data privacy, model transparency, regulatory compliance, and risk management. As governments introduce new AI regulations, organizations must ensure that their data-driven solutions are not only effective but also compliant and accountable.

AI ethics addresses another important challenge: bias in data and algorithms. Since machine learning models learn patterns from historical data, they can unintentionally inherit and amplify existing biases. This can lead to unfair decisions in areas such as hiring, lending, healthcare, and education. Ethical data science requires us to carefully evaluate our data, identify potential biases, and design models that promote fairness and inclusivity.

Responsible AI takes these principles one step further by emphasizing explainability, security, and human oversight. Data scientists are increasingly expected to build models that stakeholders can understand and trust. Techniques such as Explainable AI (XAI), model auditing, and fairness assessment are becoming essential tools in the data science workflow.

The future of data science is not just about building bigger models or achieving higher accuracy. It is about developing intelligent systems that are transparent, fair, secure, and aligned with human values. The data scientists who understand both the power and the responsibility that comes with data-driven decision-making will be the ones who shape the next generation of trustworthy AI.

As the field continues to evolve, responsible data science will no longer be a competitive advantage - it will be a necessity.



Prof. Shashank Shekhar
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PROGRAMME EVENTS

WORKSHOP ON “FROM DATA TO DEPLOYMENT: AI WORKFLOWS FOR DATA SCIENCE USING MATLAB” 5TH AND 6TH FEBRUARY 2026



The Department of Computer Science & Engineering (Data Science) under the DataScience@DSU club and IEEE ITS students chapter, organized a two-day hands-on MATLAB Workshop titled “From Data to Deployment: AI Workflows for Data Science Using MATLAB” on 5th and 6th February 2026, from 9:00 AM to 4:00 PM. The workshop aimed to provide students with practical exposure to end-to-end AI workflows using MATLAB.

The sessions were delivered by Mr. Avinash Vulasa, Senior Application Engineer – UPT, Coreel Technologies, with MathWorks as the Industry Partner, providing valuable industry insights. The workshop covered topics such as Machine Learning, Image Processing, and Deep Learning, including classification, regression, image enhancement, edge detection, morphological operations, pre-trained networks, YOLOv4 object detection, and real-time image processing using MATLAB Mobile.

Resource Person: Mr Avinash Vulasa, Senior Application Engineer – UPT, Coreel Technologies,

The workshop was coordinated by Dr Shaila S G, Prof. Shivamma D, Prof. Snigdha Sikha Kashyap, and Prof. Chandrakala L from the Department of CSE (Data Science). A total of 140 students from the 4th Semester actively participated, gaining practical knowledge and industry-relevant AI skills.

TECHNICAL TALK ON “ENTREPRENEURSHIP BEYOND TECH” 19TH FEBRUARY 2026



The Department of Computer Science and Engineering (Data Science), Dayananda Sagar University, under the DataScience@DSU club and IEEE ITS students chapter, organized a talk on “Entrepreneurship Beyond Tech” on 19th February 2026 at the CDSIMER Auditorium. The session was delivered by Mr. Vinod Shankar, CEO of AIC DSU, who shared valuable insights on the startup ecosystem, leadership, and business innovation.

The talk emphasized the importance of strategic thinking, market understanding, and interdisciplinary skills beyond technical expertise, encouraging students to transform technical ideas into scalable business solutions. The event was organized under the guidance of Dr. Shaila S G, Professor and Chairperson, CSE (Data Science).

Resource Person: Mr. Vinod Shankar, CEO of AIC DSU

Around 200 students from the 4th and 6th semesters actively participated in the session and gained valuable exposure to entrepreneurship and innovation.

WORKSHOP ON “AZURE AI” 19TH FEBRUARY 2026

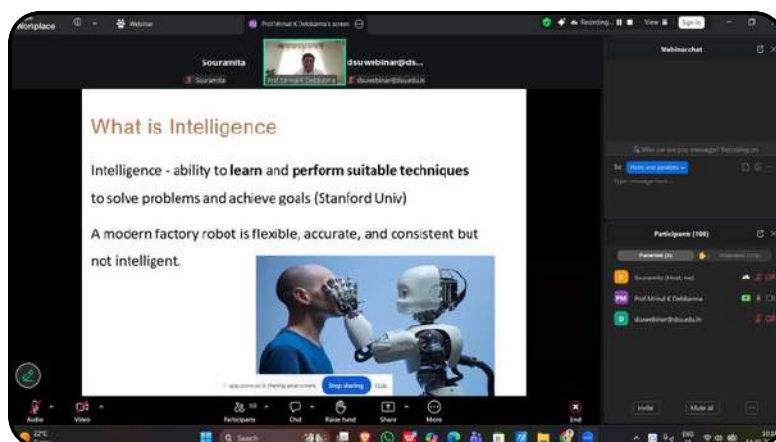
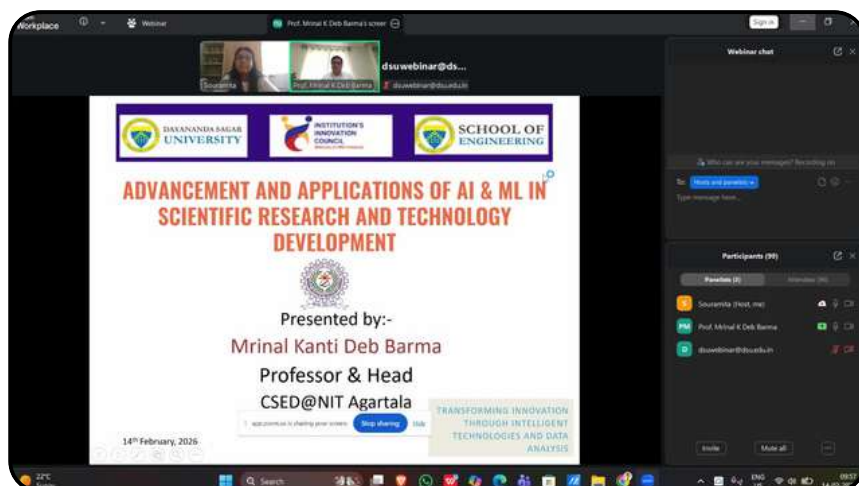


The Department of Computer Science and Engineering (Data Science), Dayananda Sagar University, organized a Workshop on Azure AI on 19th February 2026 at 1:30 PM in the CDSIMER Auditorium, under the DataScience@DSU Club and IEEE ITS Students Chapter. The event was conducted under the guidance of Dr. Shaila S. G., Professor and Chairperson, CSE (Data Science) and coordinated by Dr. Santhosh Kumar G., Dr. U. Pavan Kumar, Prof. Prapti Bhattacharjee, and Prof. Kishor Malakar, along with faculty members of the department. The session was delivered by Mr. Lingaraj Benni, an AI and Cloud Leader with over 18 years of experience in Enterprise AI and a Microsoft Practice Leader.

Resource Person: Mr. Lingaraj Benni, Enterprise AI and a Microsoft Practice Leader

During the session, the speaker shared practical insights on core AI workloads, Agentic AI, and cloud-based AI implementations using Azure, along with demonstrations of real-world AI architectures. Around 200 students from the 4th and 6th semesters actively participated in the interactive session and gained valuable exposure to Azure AI tools, cloud-based applications, and Microsoft's AI ecosystem.

EXPERT LECTURE ON “ADVANCEMENT AND APPLICATIONS OF AI & ML IN SCIENTIFIC RESEARCH AND TECHNOLOGY DEVELOPMENT” 14TH FEBRUARY 2026



The Department of CSE (Data Science), School of Engineering, Dayananda Sagar University, organized an expert lecture titled “Advancement and Applications of AI & ML in Scientific Research and Technology Development” on 14 February 2026 in online mode under the DataScience@DSU Club and IEEE ITS Students Chapter. The event was conducted under the guidance of Dr. Shaila S. G., Professor and Chairperson, CSE (Data Science). The session was delivered by Dr. Mrinal Kanti Deb Barma, Professor and Head, Department of CSE, National Institute of Technology Agartala, who provided insights into the evolution and advancements in Artificial Intelligence, Machine Learning, and Deep Learning, along with their applications in healthcare, cybersecurity, environmental monitoring, and robotics. He also discussed emerging trends such as deep learning, generative AI, and explainable AI, and emphasized the importance of ethical AI, data privacy, and responsible innovation.

Resource Person: Dr. Mrinal Kanti Deb Barma, Professor and Head, Department of CSE, National Institute of Technology Agartala

Around 200 students from the 4th and 6th semesters, along with faculty members, actively participated in the interactive session, which concluded with a Q&A discussion on research opportunities and career pathways in AI and ML.

ALUMNI TALK-III

“ALUMNI TALES - A DATA SCIENCE JOURNEY”

5TH FEBRUARY 2026



The Alumni Committee of the Department of CSE (Data Science), Dayananda Sagar University organized “ALUMNI TALK-III: Alumni Tales – A Data Science Journey” on 5th February 2026 for the 4th semester students. The session was delivered by Mr. Suraj Rao, an alumnus who graduated in 2025, who shared his academic experiences, industry exposure, and career journey in the field of Data Science. The event was conducted under the guidance of Dr. Shaila S. G., Professor and Chairperson, CSE (Data Science) and organized by Prof. Manjula M, Prof. Souramita Bhowmik, and Prof. Mriganka Das, Assistant Professors. Around 180 students from the 4th semester actively participated in the session, gaining valuable insights into career opportunities, industry expectations, and skill development in Data Science.

PLACEMENT ORIENTATION ON “CAREER READINESS” 6TH FEBRUARY 2026



The Career Readiness & Placement Orientation Program was organized on 6th February 2026 at 10:30 AM by the Department of Computer Science and Engineering (Data Science), School of Engineering, Dayananda Sagar University (DSU). The event was conceptualized and guided by Mr. Vijay Kumar, Director – Placement Cell, SOE, DSU, and Dr. Shaila S. G., Professor & Chairperson, CSE (Data Science). The program was organized by Prof. Shivamma D and Prof. Godhandaraman T, Assistant Professors, with the support of the Placement team.

Resource Person: Mr. Vijay Kumar, Director – Placement Cell, SOE, DSU

The orientation was conducted for 120 students of the 6th semester to provide clarity on the placement process, recruiter expectations, and effective preparation strategies. The session aimed to bridge the gap between academic learning and industry requirements, helping students better prepare for upcoming recruitment drives and future career opportunities.

THREE-DAY HANDS-ON WORKSHOP ON “INTERNET OF THINGS (IOT)” 2ND TO 4TH MARCH 2026



The Department of Computer Science and Engineering (Data Science), Dayananda Sagar University, successfully organized a three-day hands-on workshop on Internet of Things (IoT) from 2nd to 4th March 2026 at LH-1, School of Engineering, in association with the DS Club and IEEE Club. The workshop was coordinated by Dr. Santhosh Kumar G, Dr. U. Pavan Kumar, Prof. Prapti Bhattacharjee, and Prof. Kishor Malakar, and was conducted by Mr. Harish N (Co-founder & CTO) and Mr. Mahesh Deginal (MD & CEO) from Karunadu Technologies. Around 180 students from the 4th Semester (Sections A, B, and C) enthusiastically participated in the program.

Resource Person: Mr. Harish N (Co-founder & CTO) and Mr. Mahesh Deginal (MD & CEO) from Karunadu Technologies.

The workshop provided students with a comprehensive understanding of the fundamentals of IoT, including IoT architecture, embedded systems, sensors and actuators, communication protocols, cloud platforms, and real-time industrial applications. Through interactive technical sessions and live demonstrations, participants explored the design and implementation of IoT-enabled systems while gaining exposure to current industry practices and emerging technologies.

A major highlight of the workshop was the extensive hands-on training, where students worked with IoT development boards, sensors, and embedded hardware to design and implement real-time applications. They successfully developed projects such as automated traffic light control systems, obstacle detection using ultrasonic sensors and buzzers, and sensor-based monitoring systems. The participants also learned hardware interfacing, programming microcontrollers, cloud integration, and simulation techniques, enabling them to understand the complete IoT application development lifecycle.

The workshop fostered teamwork, problem-solving, and innovation by encouraging students to build and test practical IoT solutions in collaborative groups. The industry experts also shared insights into emerging trends, career opportunities, and entrepreneurship in the IoT ecosystem, motivating students to explore research and product development in smart technologies.

Overall, the workshop was highly interactive and well received by the participants. It significantly enhanced their practical knowledge, technical skills, and confidence in designing intelligent IoT-based solutions, effectively bridging the gap between academic concepts and real-world industrial applications.

“SHREE RAMA NAVAMI CELEBRATION”**27TH MARCH 2026**

The Department of Computer Science and Engineering (Data Science), Dayananda Sagar University, celebrated Shree Rama Navami on 27th March 2026 at Lab 411, School of Engineering. The event was organized to commemorate the auspicious occasion and to promote cultural values, spirituality, and unity among faculty members and students.

The celebration commenced with traditional prayers and the lighting of the ceremonial lamp, followed by devotional offerings honoring Lord Rama. Faculty members and students enthusiastically participated in the event, reflecting the department's commitment to preserving India's rich cultural heritage alongside academic excellence.

The gathering provided a platform for meaningful interaction, fostering a sense of togetherness, mutual respect, and community spirit within the department. The celebration concluded with the distribution of prasadam and best wishes, leaving participants with a sense of joy, harmony, and cultural pride. The event successfully strengthened the bond among faculty and students while reinforcing the importance of values, tradition, and collective celebration.

EXPERT TALK ON “AI SKILLS FOR HIGH-PACKAGE TECH CAREERS: GUIDANCE FROM INDUSTRY EXPERTS”

27TH MARCH 2026



The Department of Computer Science and Engineering (Data Science), School of Engineering, Dayananda Sagar University, organized an expert talk on “AI Skills for High-Package Tech Careers: Guidance from Industry Experts” on 27th March 2026 at SOE – A Block, LH-3. The session featured distinguished industry experts Mr. Keerthi Vasani K, Software Engineer II at Microsoft, and Ms. Malarvizhi Saravanan, Senior AI/ML Engineer at Adobe, who shared valuable insights into the rapidly evolving Artificial Intelligence landscape and career opportunities in leading technology organizations. Around 140 students attended the session and actively participated in the interactive discussions.

Resource Persons:

- Mr. Keerthi Vasani K – Software Engineer II, Microsoft
- Ms. Malarvizhi Saravanan – Senior AI/ML Engineer, Adobe

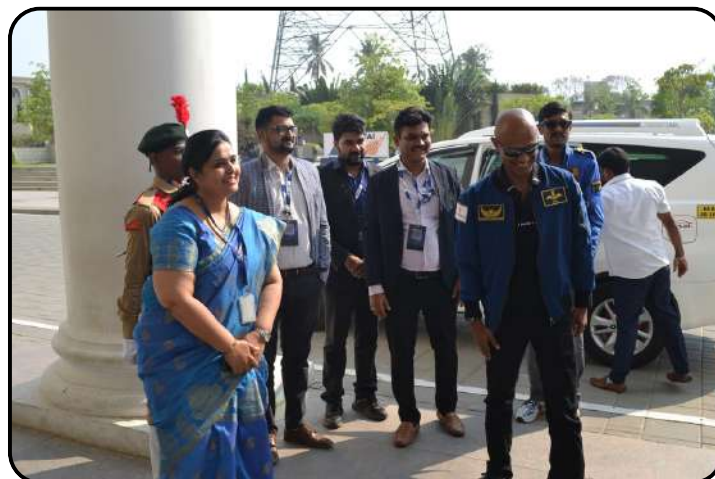
The experts discussed the latest advancements in AI, Machine Learning, Generative AI, Large Language Models (LLMs), and emerging industry trends, highlighting the technical and professional skills expected by top global companies. They also emphasized the importance of strong programming fundamentals, problem-solving abilities, system design, open-source contributions, internships, certifications, and continuous upskilling to remain competitive in the AI-driven job market.

Students actively engaged in the interactive session, gaining practical guidance on career planning, interview preparation, resume building, portfolio development, and strategies for securing high-package roles in the technology industry. The speakers shared their personal career journeys, industry experiences, and valuable tips on navigating recruitment processes at leading multinational companies.

The event successfully bridged the gap between academic learning and industry expectations by providing students with first-hand exposure to real-world AI applications and workplace practices. The insightful discussions inspired participants to strengthen their technical competencies, pursue innovation, and prepare for successful careers in Artificial Intelligence, Machine Learning, and Data Science.

DSU ANNUAL TECHFEST – “CELESTAI 2026”

23RD TO 25TH APRIL 2026



The Department of Computer Science and Engineering (Data Science), Dayananda Sagar University organized the DSU Annual TechFest – CELESTAI 2026, an AI-themed national-level event, in collaboration with the Departments of Electronics & Communication Engineering (ECE) and Aerospace Engineering, from 23rd to 25th April 2026, under the guidance of the respective Department Chairpersons.

The event was conducted under the visionary leadership and guidance of Dr. Shaila S G (Chairperson, CSE – Data Science), the Chairperson of the Electronics & Communication Engineering (ECE) Department, and the Chairperson of the Aerospace Engineering Department, whose collective support ensured the successful planning and execution of this interdisciplinary techfest.

The event coordination was efficiently managed by Faculty Coordinator: Shivamma D., along with a dedicated team of Student Coordinators, whose active involvement, planning, and execution contributed significantly to the smooth conduct and success of all activities.

On 23rd April 2026, events such as Poster Presentation, Tech Exhibition, and Game Rush were conducted. Students from various institutions actively participated and showcased innovative ideas, research-oriented posters, and working prototypes across domains such as Artificial Intelligence, Data Science, Robotics, Electronics, and Aerospace applications. The Tech Exhibition provided a platform for hands-on demonstrations, encouraging creativity, problem-solving, and applied learning.

On 24th and 25th April 2026, the EDGE IQ Challenge, a 24-hour national-level hackathon, was organized. Participants worked in teams to design and develop AI-driven solutions addressing real-world challenges in areas such as healthcare, smart systems, sustainability, and automation. The hackathon fostered innovation, critical thinking, and rapid prototyping under time constraints.

The event was evaluated and mentored by industry experts from MathWorks, who provided valuable insights, technical feedback, and industry perspectives to the participants.

CELESTAI 2026 witnessed enthusiastic participation from students across multiple institutions, promoting interdisciplinary collaboration, knowledge exchange, and exposure to emerging technologies.

PROJECT EXPO
“IGNITE, PRAGATHI & PINNACLE EXPO 2026”
22ND APRIL 2026



The Department of Computer Science and Engineering (Data Science), Dayananda Sagar University organized a series of academic events namely IGNITE: Project Showcase 2026 (4th Semester), Pragathi Project Expo 2026 (6th Semester), and Pinnacle Capstone Project Expo 2026 (8th Semester) on 22nd April 2026 at Dayananda Sagar University.

The events provided a platform for students to showcase their innovative ideas, projects, and technical skills across domains such as Artificial Intelligence, Machine Learning, Cybersecurity, Data Science, and Web Technologies. Around 180 students from 4th semester, 130 students from 6th semester, and 57 students from 8th semester actively participated in the expos.

Students presented their work through posters, live demonstrations, and project prototypes, which were evaluated based on innovation, technical understanding, and practical applicability. The events created an interactive learning environment where students enhanced their problem-solving abilities, communication skills, and industry readiness.

The events were successful in promoting innovation, interdisciplinary collaboration, and experiential learning among students.

THREE-DAY FACULTY DEVELOPMENT PROGRAM (FDP) “INTEGRATING SOFT SKILLS AND LIFE SKILLS FOR PRODUCTIVITY ENHANCEMENT” 3RD – 5TH JUNE 2026



The Department of Humanities, Department of Computer Science and Engineering, and Department of Computer Science and Engineering (Data Science), School of Engineering, Dayananda Sagar University, in collaboration with The Art of Living Foundation, organized a three-day Faculty Development Program (FDP) on "Integrating Soft Skills and Life Skills for Productivity Enhancement" from 3rd to 5th June 2026 at Lecture Hall-1, Block A, School of Engineering, DSU. The program focused on enhancing the personal and professional well-being of faculty members through sessions on meditation, breathwork, stress management, emotional intelligence, and holistic development.

The FDP featured interactive sessions conducted by experienced resource persons from The Art of Living Foundation. Participants engaged in guided meditation, pranayama, reflective discussions, and experiential activities that emphasized the importance of mental wellness, self-awareness, and effective communication in academic environments. The sessions provided practical techniques for improving productivity, maintaining work-life balance, and strengthening emotional resilience.

The program concluded with a valedictory session where participants reflected on their learning experiences and appreciated the practical insights gained throughout the FDP. The initiative successfully inspired faculty members to integrate life skills and soft skills into their professional practices, fostering a positive and productive academic environment.

Objectives of the FDP:

- To equip faculty members with essential soft skills and life skills.
- To promote mental and emotional well-being.
- To enhance professional effectiveness and productivity.
- To develop practical strategies for stress management and work-life balance.
- To foster a positive, collaborative, and value-based academic environment.

INTERNATIONAL EXPERT TALK ON “EMERGING TRENDS IN DATA ANALYTICS AND STATISTICS” 17TH JUNE 2026



The Department of Computer Science and Engineering (Data Science), Dayananda Sagar University, organized an International Expert Talk on 17th June 2026 at Lecture Theatre-2, School of Engineering. The session was delivered by Dr. Nagaraj Neerchal, Professor and Chair, Department of Mathematics and Statistics, University of Maryland, Baltimore County (UMBC), USA. The event witnessed enthusiastic participation from faculty members and over 140 students.

Resource Person: Dr. Nagaraj Neerchal, Professor and Chair, Department of Mathematics and Statistics, University of Maryland, Baltimore County (UMBC), USA.

The expert talk focused on Emerging Trends in Data Analytics and Statistics, Research Opportunities in STEM Disciplines, and Career Pathways in Data-Driven Industries. Dr. Neerchal shared valuable insights into the latest advancements in data science, statistical modeling, artificial intelligence, and interdisciplinary research, highlighting the growing demand for data-driven decision-making across industries and academia.

The session also provided guidance on pursuing higher education, international research collaborations, and career opportunities in global technology and research organizations. An engaging question-and-answer session enabled students to interact directly with the speaker, clarifying their queries on research, graduate studies, and professional development. The program successfully broadened participants' understanding of emerging technologies, research trends, and global academic opportunities, inspiring them to pursue excellence in data science and related fields.

FACULTY ACHIEVEMENTS



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

Research Publications

Journal Articles

1. Inamdar, Vijaylaxmi, **Shaila, S. G.**, Automated Segmentation and Analysis of Histopathological Breast Cancer Images for Enhanced IDC Diagnosis and Assessment Using MobileNetV2+U-Net With Label Propagation, International Journal of Breast Cancer, 2026, 5948413, 23 pages, 2026. <https://doi.org/10.1155/ijbc/5948413>
2. Renukadevi, M.N., Rajesh, T.M., **Shaila, S.G.** et al. Modeling audio dynamics using hierarchical assisted K-means model for structured speaker profiling in TED talks. Sci Rep 16, 18656 (2026). <https://doi.org/10.1038/s41598-026-47033-4>
3. S. G. Sumana, T. M. Rajesh, and **S. G. Shaila**, "An Adaptive LSB-Based Video Steganography Framework with Blockchain-Enabled Verification for Secure Multimedia Communication", Eng. Technol. Appl. Sci. Res., vol. 16, no. 2, pp. 32786–32793, Apr. 2026.

Conference Proceedings

1. Shivamma, D., **Shaila, S. G.**, Monish, L., Chundi, R., & Sumana, S. G. (2026). Deep learning for emotion recognition: CNNs, RNNs, transformers, and self-supervised learning techniques. In Affective Artificial Intelligence: Fundamentals, Challenges, and Applications.
2. Monish, L., **Shaila, S. G.**, Chundi, R., Sumana, S. G., & Manjula, M. (2026). Multi-modal emotion detection system: Fusion of facial, voice, and physiological data for improved emotion understanding. In Affective Artificial Intelligence: Fundamentals, Challenges, and Applications.
3. Shivamma, D., **Shaila, S. G.**, Monish, L., Chundi, R., & Sumana, S. G. (2026). Affective AI in healthcare and mental health: AI-driven emotion detection for diagnosing depression, anxiety, and autism spectrum disorders. In Affective Artificial Intelligence: Fundamentals, Challenges, and Applications.
4. Monish, L., **Shaila, S. G.**, Chundi, R., Sumana, S. G., Shivamma, D., & Manjula, M. (2026). Emotion recognition techniques: Facial expression analysis, speech emotion recognition, physiological signal processing, and multimodal approaches. In Affective Artificial Intelligence: Fundamentals, Challenges, and Applications.
5. **Shaila, S. G.**, Monish, L., Sumana, S. G., & Chundi, R. (2026). Natural language processing for sentiment and emotion analysis: AI-driven methods for detecting emotions in text, chatbots, and social media. In Affective Artificial Intelligence: Fundamentals, Challenges, and Applications.
6. Monish, L., Rajesh, T. M., **Shaila, S. G.**, Vamshi, V., Sumana, S. G., & Kumar, U. P. (2026). Piezoelectric sensor based apnea disorder prediction using IoT monitoring system. AIP Conference Proceedings, 3386(1), Article 020031.
7. **Shaila, S. G.**, Kumar, U. P., Sumana, S. G., Vamshi, V. R., Rajesh, T. M., et al. (2026). MobileNet-based driver drowsiness detection and monitoring system. AIP Conference Proceedings, 3386(1), Article 020019.
8. Monish, L., & **Shaila, S. G.** (2026). Electroencephalogram signal processing based emotion analysis and recognition using deep networks. AIP Conference Proceedings, 3386(1), Article 020030.
9. **Shaila, S. G.**, Kumar, U. P., Sumana, S. G., Vamshi, V. R., Rajesh, T. M., & Kumar, J. B. S. D. (2026). An IoT-driven emergency medical service vehicle detection system using WaveResNet and YOLOv8 for real-time traffic management. AIP Conference Proceedings, 3386(1), Article 020035.
10. Shivamma, D., **Shaila, S. G.**, & Shreedhara, K. S. (2026). Vision Transformer driven sustainable classification of compound facial expressions using morphological features. In Proceedings of the 2026 International Conference on Innovative Computing, Intelligent Systems and Smart Technologies.
11. Monish, L., **Shaila, S. G.**, Manjula, M., Nandini, S., Sheetal, P., & Rao, G. S. S. (2026). Sustainable data-driven aquatic ecosystem. In Data Science and Big Data Analytics: Proceedings of IDBA 2025 (Vol. 1, p. 183).

FACULTY ACHIEVEMENTS

Patents

- 1.Co-inventor: Edge AI-Driven Embedded Computer Vision and Mechatronic Hardware System for Real-Time Classification and Autonomous Segregation of Solid Waste Using Deep Neural Networks (Application No. 202641041475 A, Published 10-04-2026).
- 2.Pavan Kumar, U., & **Shaila, S. G.** (2026). System and method for hybrid wearable-vision monitoring of Alzheimer's patients with adaptive mode switching and secure telehealth alerts (Indian Patent No. 202541125359). Published.
- 3.Godhandaraman, T., **Shaila, S. G.**, & Pavan Kumar, U. (2026). A pattern-driven deep learning framework for time-optimized crop yield prediction (Indian Patent No. 202641012363). Published.
- 4.Godhandaraman, T., **Shaila, S. G.**, & Pavan Kumar, U. (2026). Autonomous multimodal intelligence system with cross-modal attention and bio-physiological root-zone digital twin for real-time rice yield and grain quality optimization (Indian Patent No. 202641008201). Published.
- 5.Shivamma, D., **Shaila, S. G.**, Santhosh Kumar, G., Pavan Kumar, U., & Gopi. (2026). Edge AI-driven embedded computer vision and mechatronic hardware system for real-time classification and autonomous segregation of solid waste using deep neural networks (Indian Patent No. 202641041475 A). Published.
- 6.**Shaila, S. G.** (2026). A method and system for blur-aware enhancement, classification, and adaptive restoration of aerial images (Indian Patent No. 202641000801). Published.
- 7.**Shaila, S. G.**. Classifier device, system, and method (Indian Patent No. 202341013040). Granted.
- 8.**Shaila, S. G.**, Santhosh Kumar, Pavan Kumar, U., Godhandaraman, T., & Shivamma, D. (2025). Dynamic energy management system for self-powered IoT devices using intelligent energy harvesting (Indian Patent No. 202541083566). Published.

Workshops Attended

- 1.One-Day Workshop on Ethics, Transparency, and Accountability in AI-Assisted Research Writing, organized by Vellore Institute of Technology (VIT), Vellore (5th March 2026).

Events Organized & Mentorship

- 1.Leadership & Guidance: DSU Annual TechFest – CELESTAI 2026 (AI-themed national-level event, 23rd to 25th April 2026).
- 2.Mentorship: National Innovation Challenge for Drone Application and Research (NIDAR), organized by the Drone Federation of India (January 10-16, 2026) - Team secured top positions.
- 3.Mentorship: Team 'Roxx Power Bots' securing 1st place in RoboEdge Event during Celestia.
- 4.Visionary leadership for Department Events including MATLAB AI Workflow Builder workshop, Technical talk on 'Entrepreneurship beyond Tech', Workshop on 'Azure AI', Expert Lecture on AI & ML, Alumni Talk-III, and Placement Orientation.

FACULTY ACHIEVEMENTS



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

Research Publications Journal Articles

1. Metan, Jyoti, **Santhosh Kumar, G** et al. "A Semantic-Aware File Metadata Generation Framework for Disk-Level Anomaly Detection in Virtual Machine Backups." *Cybernetics and Information Technologies*, vol. 26, no. 2, Bulgarian Academy of Sciences, Institute of Information and Communication Technologies, 2026, pp. 196-216. <https://doi.org/10.2478/cait-2026-0021>.
2. Mothkur, R., Venkateswarlu, B., Gokulakrishnan, **Santhosh Kumar, G** et al. AgroQuali-FSL: a few-shot deep learning framework with QualiProtoNet for automated quality grading of fruits and vegetables. *Sci Rep* 16, 22639 (2026). <https://doi.org/10.1038/s41598-026-52715-0>
3. Viswanath, P. bhathe, & **Santhosh Kumar, G.** (2026). Tomato Leaf Disease Classification Using Mixed Pooling with Nesterov Accelerated Gradient-Based Convolutional Neural Network. *Journal of Artificial Intelligence and Technology*, 6, 410–420. <https://doi.org/10.37965/jait.2026.1034>.
4. Kumar, G.S., Lath, C.A., Pradeep, K.R. **Santhosh Kumar, G** et al. Enhanced Breast Cancer Prediction Using Self-Adaptive Sea Lion Optimization-Based Recurrent Neural Network. *Int J Comput Intell Syst* 19, 96 (2026). <https://doi.org/10.1007/s44196-026-01217-y>
5. Viswanath, PB, **G Santhosh Kumar.** "Residual Densely Connected Progressive Attention Based Transnet for Crop Recommendation Using Soil Conditions". *International Journal of Drug Delivery Technology*. Volume 16 Issue 24s, 1032-1046. 10.25258/ijddt.16.24s.124.

Conference Proceedings

1. Pavan Kumar, U., **Santhosh Kumar, G.**, & Prapti, B. (2026). Contrast Enhancement in Mammogram Images using CLAHE and CNN-based Approaches. In *Proceedings of the 2026 6th International Conference on Expert Clouds and Applications (ICOECA)*.
2. Pavan Kumar, U., & **Santhosh Kumar, G.** (2026). Fault Detection in Power Line Communication Systems for Smart Grids by Using One Class Support Vector Machine-Based Autoencoder. In *6G Communications Networking and Signal Processing (SGCNSP 2026), Lecture Notes in Electrical Engineering (Vol. 1437)*. Springer. https://doi.org/10.1007/978-981-96-7991-1_27
3. Pavan Kumar, U., & **Santhosh Kumar, G.** (2026). Multimodal Dialogue Systems: Multimodal Transformer Fusion for Using Audio and Text Data. In *6G Communications Networking and Signal Processing (SGCNSP 2026), Lecture Notes in Electrical Engineering (Vol. 1437)*. Springer. https://doi.org/10.1007/978-981-96-7991-1_35
4. Pavan Kumar, U., & **Santhosh Kumar, G.** (2026). Signal Processing Approaches for Secure Channel Estimation and Data Transmission in 5G/6G. In *6G Communications Networking and Signal Processing (SGCNSP 2026), Lecture Notes in Electrical Engineering (Vol. 1437)*. Springer. https://doi.org/10.1007/978-981-96-7991-1_16
5. **Santhosh Kumar, G.**, & Pavan Kumar, U. (2026). Improved Wild Horse Optimization-Based Deep Neural Network for Speaker Identification and Verification. In *6G Communications Networking and Signal Processing (SGCNSP 2026), Lecture Notes in Electrical Engineering (Vol. 1437)*. Springer. https://doi.org/10.1007/978-981-96-7991-1_29
6. **Santhosh Kumar, G.**, & Pavan Kumar, U. (2026). Speech Emotion Recognition Using Acoustic Feature Extraction with Relief and Hidden Markov Model. In *6G Communications Networking and Signal Processing (SGCNSP 2026), Lecture Notes in Electrical Engineering (Vol. 1437)*. Springer. https://doi.org/10.1007/978-981-96-7991-1_31
7. Shivamma, D., Shaila, S. G., & **Santhosh Kumar, G.** (2025). Pharmaceutical Quality Assurance via Transformer-Based Deep Learning Models for Automated Tablet Defect Detection. In *Proceedings of the 2025 2nd International Conference on Artificial Intelligence and Knowledge Discovery in Concurrent Engineering (ICECONF)* (pp. 1-6). IEEE. <https://doi.org/10.1109/ICECONF65644.2025.11379551>
8. G. H. Kumar, D. K. J. Saini, V. Kalpana, P. S. N, **Santhosh Kumar, G.** and Y. D. Kumar, "Secure Edge AI: A Federated Learning Approach to Cache Side-Channel Attack Detection in Vehicular Networks," 2025 IEEE 17th International Conference on Computational Intelligence and Communication Networks (CICN), Goa, India, 2025, pp. 1046-1052, doi: 10.1109/CICN67655.2025.11368045.

FACULTY ACHIEVEMENTS

Patents

- 1.Co-inventor: Edge AI-Driven Embedded Computer Vision and Mechatronic Hardware System for Real-Time Classification and Autonomous Segregation of Solid Waste Using Deep Neural Networks (Application No. 202641041475 A, Published 10-04-2026).

FDPs Attended

- 1.Faculty Development Program on Data Science (ML & AI) conducted by the EICTA Consortium (23rd February 2026 to 8th March 2026).
- 2.Faculty Development Program on 'Advanced Pedagogy for Effective Teaching, Learning & Assessment', conducted by the EICTA Consortium (9th March 2026 to 21st March 2026).

Events Organized

- 1.Co-coordinator: Workshop on 'Azure AI' (19th February 2026).
- 2.Co-coordinator: Three-Day Hands-on Workshop on Internet of Things (IoT) (2nd to 4th February 2026).

FACULTY ACHIEVEMENTS



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

Research Publications

Journal Articles

1. **Arumugam, S.** (2026). Adaptive Deep Reinforcement Learning for Effective Spectrum Sensing in Cognitive Radio Networks. *Wireless Personal Communications*.

Conference Proceedings

1. **Arumugam, S.** (2026). A CNN-LSTM-Based Framework for EEG Mental Workload Classification with Explainability. In *Proceedings of the 4th International Conference on Integrated Circuits and Communication Systems (ICICACS 2026)*.
2. **Arumugam, S.** (2026). A Hybrid Quantum-Post-Quantum Framework for Secure Data Encryption Using Adaptive Steganography. In *Proceedings of the 2026 3rd International Conference on Integrated Intelligence and Communication Systems (ICIICS 2026)*. IEEE.
3. **Arumugam, S.** (2026). AMF-IoT-Health: An Adaptive Multi-Modal Fusion Framework for Real-Time Smart Health Monitoring Using IoT Sensors. In *Proceedings of the 2026 3rd International Conference on Integrated Intelligence and Communication Systems (ICIICS 2026)*. IEEE.
4. **Arumugam, S.** (2026). An Explainable Framework for Anomaly Detection in Database Query Logs Using Isolation Forest and SHAP. In *Proceedings of the Third International IEEE Conference on Trends in Quantum Computing and Emerging Business Technologies (TQCEBT'26)*. IEEE.
5. **Arumugam, S.** (2026). Multimodal AI Integration: Text, Speech, and Image for Human Interface. In *Proceedings of the 2026 2nd International Conference on Cognitive Computing in Engineering, Communications, Sciences and Biomedical Health Informatics (IC3ECSBHI)*. IEEE.
6. **Arumugam, S.** (2026). Smart City Traffic Optimization Using Adaptive Spatio-Temporal Graph Attention with Predictive Consistency Learning. In *Proceedings of the 2026 3rd International Conference on Integrated Intelligence and Communication Systems (ICIICS 2026)*. IEEE.
7. **Arumugam, S.** (2026). Smart Energy Optimization System Using AI Agents to Monitor, Analyze and Optimize Energy Utilization. In *Proceedings of the 2026 International Conference on Machine Learning and Autonomous Systems (ICMLAS)*. IEEE.
8. **Arumugam, S.** (2026). Tasmanian Devil Integrated Greylag Goose Optimization for Secure and Energy Efficient Clustering and Routing in Wireless Sensor Network. In *Proceedings of the 2026 3rd International Conference on Integrated Intelligence and Communication Systems (ICIICS 2026)*. IEEE.
9. **Arumugam, S., & Sindhu, A.** (2026). Efficient Secure Aggregation in Federated Learning for Edge Computing. In *Proceedings of the 6th International Conference on Image Processing and Capsule Networks (ICIPCN 2026)*.
10. **Arumugam, S., & Sindhu, A.** (2026). Exploratory Analysis and Temporal Dynamics of Air Pollution in Bengaluru. In *Proceedings of the 6th International Conference on Communication, Computing & Industry 6.0*. IEEE.
11. Chandel, M., Bhattacharjee, P., Malakar, K., **Arumugam, S.**, Sindhu A, & Esakkiammal A (2026). An Integrated Dual-Headed CNN-LLM Framework for Simultaneous Alzheimer's Stage and Brain Tumor Classification from MRI Scans. In *Proceedings of the 2026 International Conference on Computing Theory and Wireless Communications (ICCTWC)*. IEEE.

FACULTY ACHIEVEMENTS

Patents

1. Agent-Based Generative AI Model for Cost-Aware Automation in Machine Learning Pipelines (Published Indian Patent, June 2026).
2. AgileOps Agentic Framework (AAF): A Multi-Agent and LLM-Driven Governance System for Operational Visibility in Agile-DevOps Ecosystems (Published Indian Patent, June 2026).

Certifications & FDPs Attended

1. NVIDIA-Certified Associate: Generative AI LLMs.
2. 6-Day National Level Faculty Development Programme (FDP) on 'Generative & Agentic AI – Tools & Demos', organized by Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat (16th to 21st February 2026).

Awards & Guest Lectures

1. Best Paper Presenter Award at the 4th International Conference on Integrated Circuits and Communication Systems (ICICACS 2026) for presenting the research paper titled 'A CNN-LSTM-Based Framework for EEG Mental Workload Classification with Explainability'.
2. Delivered an expert session on 'Visual AI Workflow Builder using No-Code Technique (LLM + RAG)' during the FDP on Data Science and Machine Learning organized by Kongunadu College of Engineering and Technology, Tamil Nadu (Received Letter of Appreciation)

Events Organized & Other Roles

1. AI Skills for High-Package Tech Careers: Guidance from Industry Experts.

FACULTY ACHIEVEMENTS



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

Research Publications

Journal Articles

1. **Pavan Kumar, U.** (2026). Protocol-Sensitive Fingerprint Embedding Analysis Using a Lightweight Hybrid CNN-Transformer Framework. Machine Learning with Applications, 100932. <https://doi.org/10.1016/j.mlwa.2026.100932>. Elsevier. (Q1 Journal)
2. **Pavan Kumar, U., & Santhosh Kumar, G.** (2026). AgroQuali-FSL: A Few-Shot Deep Learning Framework with QualiProtoNet for Automated Quality Grading of Fruits and Vegetables. Scientific Reports. (Q1 Journal)

Conference Proceedings

1. **Pavan Kumar, U.** (2025). An Adaptive Machine Learning Framework for Detection and Mitigation of Rogue Access Points (RAPs) in WLAN. In Proceedings of the International Conference on Information and Communication Technology for Competitive Strategies (ICTCS 2025). Springer Nature.
2. **Pavan Kumar, U., Santhosh Kumar, G., & Prapti, B.** (2026). Contrast Enhancement in Mammogram Images using CLAHE and CNN-based Approaches. In Proceedings of the 2026 6th International Conference on Expert Clouds and Applications (ICOECA).
3. **Pavan Kumar, U., & Santhosh Kumar, G.** (2026). Fault Detection in Power Line Communication Systems for Smart Grids by Using One Class Support Vector Machine-Based Autoencoder. In 6G Communications Networking and Signal Processing (SGCNSP 2026), Lecture Notes in Electrical Engineering (Vol. 1437). Springer. https://doi.org/10.1007/978-981-96-7991-1_27
4. **Pavan Kumar, U., & Santhosh Kumar, G.** (2026). Multimodal Dialogue Systems: Multimodal Transformer Fusion for Using Audio and Text Data. In 6G Communications Networking and Signal Processing (SGCNSP 2026), Lecture Notes in Electrical Engineering (Vol. 1437). Springer. https://doi.org/10.1007/978-981-96-7991-1_35
5. **Pavan Kumar, U., & Santhosh Kumar, G.** (2026). Signal Processing Approaches for Secure Channel Estimation and Data Transmission in 5G/6G. In 6G Communications Networking and Signal Processing (SGCNSP 2026), Lecture Notes in Electrical Engineering (Vol. 1437). Springer. https://doi.org/10.1007/978-981-96-7991-1_16
6. **Pavan Kumar, U.** (2026). Hybrid Orientation Token and Lightweight Transformer Architecture for Robust Fingerprint Pattern Classification. In Proceedings of the 2nd International Conference on Computing for Sustainability and Intelligent Future (COMPSIF 2026).
7. **Pavan Kumar, U.** (2026). ViT-based Triplet Embeddings with Metric Learning and Lightweight Classifiers for Fingerprint Recognition. In Proceedings of the International Conference on Advanced Scientific Computing & Machine Learning (ASCML 2026).
8. **Santhosh Kumar, G., & Pavan Kumar, U.** (2026). Improved Wild Horse Optimization-Based Deep Neural Network for Speaker Identification and Verification. In 6G Communications Networking and Signal Processing (SGCNSP 2026), Lecture Notes in Electrical Engineering (Vol. 1437). Springer. https://doi.org/10.1007/978-981-96-7991-1_29
9. **Santhosh Kumar, G., & Pavan Kumar, U.** (2026). Speech Emotion Recognition Using Acoustic Feature Extraction with Relief and Hidden Markov Model. In 6G Communications Networking and Signal Processing (SGCNSP 2026), Lecture Notes in Electrical Engineering (Vol. 1437). Springer. https://doi.org/10.1007/978-981-96-7991-1_31

Books

1. **Pavan Kumar, U.** (2026). Machine Learning: Concepts and Applications. VINSA Publishing. ISBN: 978-81-997970-5-5.

FACULTY ACHIEVEMENTS

Patents

1. System and Method for Hybrid Wearable-Vision Monitoring of Alzheimer's Patients with Adaptive Mode Switching and Secure Telehealth Alerts (Application No: 202541125359, Published 09-01-2026).
2. Edge AI-Driven Embedded Computer Vision and Mechatronic Hardware System for Real-Time Classification and Autonomous Segregation of Solid Waste Using Deep Neural Networks (Application No. 202641041475 A, Published 10-04-2026).

Certifications, FDPs & Workshops Attended

1. NPTEL Online Certification Course on 'Natural Language Processing' (Indian Institute of Technology Kharagpur, SWAYAM platform, Jan-Apr 2026 session).
2. Faculty Development Program on 'Data Visualization with Excel and Power BI', conducted under the EICTA Consortium (Joint initiative of MeitY and IITs/NITs/IIITs), 23rd March 2026 to 3rd April 2026.
3. Online Faculty Development Program (FDP) on 'Deep Learning' organized by SkillDzire in collaboration with AICTE (09 March 2026 to 21 March 2026).
4. Five-day Faculty Development Programme on 'Artificial Intelligence with Machine Learning' organized by PSN College of Engineering and Technology, Tirunelveli (09 to 13 February 2026).
5. One Day Faculty Development Program titled 'Cyber Security Essentials for the Digital Era' organized by Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya (SCSVMV) in association with Pencilbitz (22nd January 2026).

Events Organized & Other Roles

1. Co-coordinator: Workshop on 'Azure AI' (19th February 2026).
2. Co-coordinator: Three-Day Hands-on Workshop on Internet of Things (IoT) (2nd to 4th February 2026).
3. Review Committee Member: International Conference on Electrical, Computer and Energy Technologies (ICECET 2026), reviewed paper on 24th February 2026.

FACULTY ACHIEVEMENTS



Dr. Dr. Jobin Thomas
Assistant Professor
Department of CSE (Data Science)

Research Publications

Conference Proceedings

1. **Thomas, J.**, Sanjesh, R., VS, D. P., & Poornima, G. (2026, May). Cognitive Networking using Deep Reinforcement Learning for Real-Time Optimization. In 2026 6th International Conference on Pervasive Computing and Social Networking (ICPCSN) (pp. 150-155). IEEE.
2. Sridevi, S., **Thomas, J.**, Komalavalli, C., Sharma, S., & Gnanaprakash, V. (2026, March). Rug Pulls in Blockchain-Based NFT Markets: Detection Techniques and Risk Mitigation Strategies. In 2026 IEEE International Conference on AI Engineering and Innovations (AIEI) (pp. 1-6). IEEE.
3. Vinitha, V., **Thomas, J.**, George, D., Pavithra, A. C., Vidyashree, K. P., & Yathiraj, G. R. (2026, April). A Unified Semantic Alignment Framework for Robust Text Classification. In 2026 International Conference on Recent Advancement in Electrical, Computer and Communication Technologies (IECCT) (pp. 1-6). IEEE.

Book Published

1. Data-Driven Recommender Systems: Methods and Real-World Applications by **Dr. Jobin Thomas** presents advanced data-driven recommendation techniques and their real-world applications, offering valuable insights for students, researchers, and practitioners (ISBN: 9789375009009).

Reviewer

1. Q1 journal- Elsevier- Information Processing and Management (IPM) Paper titled:- MASSANet: Multiscale Adaptive Spectral-Spatial Dual-path Attention Network for Motor Imagery Decoding From EEG

FDPs Attended

1. Two-week Online Joint Faculty Development Programme on 'CS02: Generative AI in Cyber Security' organized by the Electronics and ICT Academy, IIT Guwahati (08 June 2026 to 19 June 2026).
2. Six-Day Online Faculty Development Programme on 'Research Methodology and Pedagogy for Academic Excellence' conducted by Sir M. Visvesvaraya Institute of Technology (Sir MVIT), Bengaluru (March 2026).

Workshop attended

1. ANRF-PAIR sponsored workshop on "Proposal Writing and Research Ethics in Science and Technology", 6th January 2026. Venue: Bangalore University

FACULTY ACHIEVEMENTS



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

Research Publications

Conference Proceedings

1. **Shivamma, D.**, & Shaila, S. G. (2026). Vision Transformer Driven Sustainable Classification of Compound Facial Expressions Using Morphological Features. In Proceedings of the 2026 International Conference on Innovative Computing, Intelligent Communication and Smart Electrical Systems (ICSES). IEEE. <https://doi.org/10.1109/ICSES66558.2026.11478858>
2. **Shivamma, D.**, Shaila, S. G., & Santhosh Kumar, G. (2025). Pharmaceutical Quality Assurance via Transformer-Based Deep Learning Models for Automated Tablet Defect Detection. In Proceedings of the 2025 2nd International Conference on Artificial Intelligence and Knowledge Discovery in Concurrent Engineering (ICECONF) (pp. 1-6). IEEE. <https://doi.org/10.1109/ICECONF65644.2025.11379551>
3. **Shivamma, D.**, Shaila, S. G., Monish, L., Chundi, R., & Sumana, S. G. (2026). Deep learning for emotion recognition—CNNs, RNNs, transformers, and self-supervised learning techniques. In Affective artificial intelligence: Fundamentals, challenges, and applications (pp. 77-104). John Wiley & Sons. <https://doi.org/10.1002/9781394422760.ch4>
4. **Shivamma, D.**, Shaila, S. G., Monish, L., Chundi, R., & Sumana, S. G. (2026). Affective AI in healthcare and mental health—AI-driven emotion detection for diagnosing depression, anxiety, and autism spectrum disorders. In Affective artificial intelligence: Fundamentals, challenges, and applications (pp. 175-191). John Wiley & Sons. <https://doi.org/10.1002/9781394422760.ch8>
5. Monish, L., Shaila, S. G., Chundi, R., Sumana, S. G., **Shivamma, D.**, & Manjula, M. (2026). Emotion recognition techniques: Facial expression analysis, speech emotion recognition, physiological signal processing, and multimodal approaches. In Affective artificial intelligence: Fundamentals, challenges, and applications (pp. 1-24). John Wiley & Sons. <https://doi.org/10.1002/9781394422760.ch1>

Book published

1. Big Data Analytics, authored by **Shivamma D**, was published in 2026 through Infinite Learning Solutions and carries the ISBN 978-81-69144-00-1. The book addresses core principles and practical applications within the field of big data analytics. Its registration is officially recorded with the Indian ISBN Agency (RRRNA) under the Ministry of Education, Government of India.

FACULTY ACHIEVEMENTS

Patents

1. System and Method for Voice-Activated Emergency Alerting and Real-Time Location Tracking (Application No. 202641012364 A, Published 20-02-2026)
2. Terrain-Adaptive Wireless Hexapod Robot with Tripod Gait Control and Integrated Real-Time Visual Monitoring (Application No. 202641012357 A, Published 20-02-2026)
3. Real-Time EEG-Based P300 System for Neurocognitive Anomaly Detection in ADHD and Autism (Application No. 202641012359 A, Published 20-02-2026)
4. Noise-Resilient Handwritten Language Recognition Method Integrating Handcrafted and Deep Spatial-Temporal Features (Application No. 202541123092 A, Published 02-01-2026)

Events Organized

1. Faculty Coordinator: DSU Annual TechFest – CELESTAI 2026 (23rd to 25th April 2026).
2. Co-coordinator: Two-day hands-on MATLAB Workshop titled 'From Data to Deployment: AI Workflows for Data Science Using MATLAB' (5th and 6th February 2026).
3. Organizer: Career Readiness & Placement Orientation Program for 6th-semester students (6th February 2026).

FACULTY ACHIEVEMENTS



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

Research Publications

1. Shivamma, D., Shaila, S. G., **Monish, L.**, Chundi, R., & Sumana, S. G. (2026). Deep learning for emotion recognition: CNNs, RNNs, transformers, and self-supervised learning techniques. In Affective Artificial Intelligence: Fundamentals, Challenges, and Applications.
2. **Monish, L.**, Shaila, S. G., Chundi, R., Sumana, S. G., & Manjula, M. (2026). Multi-modal emotion detection system: Fusion of facial, voice, and physiological data for improved emotion understanding. In Affective Artificial Intelligence: Fundamentals, Challenges, and Applications.
3. Shivamma, D., Shaila, S. G., **Monish, L.**, Chundi, R., & Sumana, S. G. (2026). Affective AI in healthcare and mental health: AI-driven emotion detection for diagnosing depression, anxiety, and autism spectrum disorders. In Affective Artificial Intelligence: Fundamentals, Challenges, and Applications.
4. **Monish, L.**, Shaila, S. G., Chundi, R., Sumana, S. G., Shivamma, D., & Manjula, M. (2026). Emotion recognition techniques: Facial expression analysis, speech emotion recognition, physiological signal processing, and multimodal approaches. In Affective Artificial Intelligence: Fundamentals, Challenges, and Applications.
5. Shaila, S. G., **Monish, L.**, Sumana, S. G., & Chundi, R. (2026). Natural language processing for sentiment and emotion analysis: AI-driven methods for detecting emotions in text, chatbots, and social media. In Affective Artificial Intelligence: Fundamentals, Challenges, and Applications.
6. Patil, S., Parwekar, S. G. S. P., **Monish, L.**, & Rajesh, T. M. (2026). Empowering vision: Smart glasses for the visually impaired community. In Signal Processing, Telecommunication & Embedded Systems: Automation and Intelligent Technologies.
7. Abhinav, R. B., Begum, D., **Monish, L.**, Manjula, M., Siri, A. K., & Thungashree, I. L. (2026). Enhanced iris recognition framework using hybrid cosine and Hamming similarity measures. In 2026 International Conference on Smart Electronic Devices and Intelligent Systems.
8. **Monish, L.**, Rajesh, T. M., Shaila, S. G., Vamshi, V., Sumana, S. G., & Kumar, U. P. (2026). Piezoelectric sensor based apnea disorder prediction using IoT monitoring system. AIP Conference Proceedings, 3386(1), 020031.
9. Shaila, S. G., Kumar, U. P., Sumana, S. G., Vamshi, V. R., Rajesh, T. **Monish.**, et al. (2026). MobileNet-based driver drowsiness detection and monitoring system. AIP Conference Proceedings, 3386(1), 020019.
10. **Monish, L.**, & Shaila, S. G. (2026). Electroencephalogram signal processing based emotion analysis and recognition using deep networks. AIP Conference Proceedings, 3386(1), 020030.
11. Suha, S., Amritha, R., Manjula, M., **Monish, L.**, Chandrakala, L., & Nandini, K. (2026). Secure multimedia image encryption via MPHT shuffling and Bogdonov map-driven substitution. In Proceedings of the 9th International Conference on Intelligent Computing and Control Systems (ICICCS 2026).
12. **Monish, L.**, Shaila, S. G., Manjula, M., Nandini, S., Sheetal, P., & Rao, G. S. S. (2026). Sustainable data-driven aquatic ecosystem. In Data Science and Big Data Analytics: Proceedings of IDBA 2025 (Vol. 1, p. 183).

FACULTY ACHIEVEMENTS



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

Research Publications

1. Monish, L., Shaila, S. G., **Manjula, M.**, Nandini, S., Sheetal, P., & Rao, G. S. S. (2026). Sustainable data-driven aquatic ecosystem. In Data Science and Big Data Analytics: Proceedings of IDBA 2025 (Vol. 1, pp. 183–191). Springer.
2. Sameia Suha, N. K., Amritha, R., Manjula, M., Monish, L., & Chandrakala, L. (2026). Secure multimedia image encryption via MPHT shuffling and Bogdonov map-driven substitution. In Proceedings of the 2026 9th International Conference on Intelligent Computing and Control.
3. Abhinav, R. B., Begum, D., Monish, L., **Manjula, M.**, Siri, A. K., & Thungashree, I. L. (2026). Enhanced iris recognition framework using hybrid cosine and Hamming similarity measures. In Proceedings of the 2026 International Conference on Smart Electronic Devices and Intelligent Systems.

Book chapters

1. Monish, L., Shaila, S. G., Chundi, R., Sumana, S. G., & **Manjula, M.** (2026). Multi-modal emotion detection system: Fusion of facial, voice, and physiological data for improved emotion understanding. In Affective Artificial Intelligence: Fundamentals, Challenges, and Applications.
2. Monish, L., Shaila, S. G., Chundi, R., Sumana, S. G., Shivamma, D., & **Manjula, M.** (2026). Emotion recognition techniques: Facial expression analysis, speech emotion recognition, physiological signal processing, and multimodal approaches. In Affective Artificial Intelligence: Fundamentals, Challenges, and Applications.

FACULTY ACHIEVEMENTS



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

Research Publications

Conference Proceedings

1. **Sindhu, A.** (2026). An Explainable Framework for Anomaly Detection in Database Query Logs Using Isolation Forest and SHAP. In Proceedings of the Third International IEEE Conference on Trends in Quantum Computing and Emerging Business Technologies (TQCEBT'26). IEEE.
2. **Sindhu, A.** (2026). Multimodal AI Integration: Text, Speech, and Image for Human Interface. In Proceedings of the 2026 2nd International Conference on Cognitive Computing in Engineering, Communications, Sciences and Biomedical Health Informatics (IC3ECSBHI). IEEE.
3. **Sindhu, A., & Arumugam, S.** (2026). Efficient Secure Aggregation in Federated Learning for Edge Computing. In Proceedings of the 6th International Conference on Image Processing and Capsule Networks (ICIPCN 2026).
4. **Sindhu, A., & Arumugam, S.** (2026). Exploratory Analysis and Temporal Dynamics of Air Pollution in Bengaluru. In Proceedings of the 6th International Conference on Communication, Computing & Industry 6.0. IEEE.
5. **Sindhu A**(2026). An Integrated Dual-Headed CNN-LLM Framework for Simultaneous Alzheimer's Stage and Brain Tumor Classification from MRI Scans. In Proceedings of the 2026 International Conference on Computing Theory and Wireless Communications (ICCTWC). IEEE.

Patents

1. IoT-Based Smart Irrigation Optimization System for Efficient Water and Power Utilization (Application No. 202641025673 A, published on 13/03/2026).
2. Agent-Based Generative AI Model for Cost-Aware Automation in Machine Learning Pipelines (Published Indian Patent, June 2026).

FDPs Attended

1. 6 Days National Level Faculty Development Program (FDP) on 'Generative & Agentic AI – Tools & Demo's' organized by Sardar Vallabhbhai National Institute of Technology (SVNIT), Surat (16th to 21st February 2026).

Events Organized & Other Roles

1. AI Skills for High-Package Tech Careers: Guidance from Industry Experts.

FACULTY ACHIEVEMENTS



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

Research Publications

Conference Proceedings

1. **Godhandaraman, T.** Nanosatellite and IoT-Enabled Climate-NDVI Data Fusion for Accurate Wheat Yield Prediction (10th International Conference on Communication and Electronics Systems (ICCES-2025))
2. **Godhandaraman, T.** Federated Digital Twin and Blockchain Framework for Lunar/Deep-Space Waste-to Resource Circularity (2025 International Conference on NexGen Networks and Cybernetics (IC2NC))
3. **Godhandaraman, T.** Federated Learning in Agriculture: Current Advances, Open Challenges, and Future Horizons (2025 International Conference on NexGen Networks and Cybernetics (IC2NC))
4. **Godhandaraman, T.** Hybrid 3D Dual-Path Transformer and Residual Attention U-Net for Efficient Brain Tumor Segmentation from MRI Scans (2025 Modern Electronics Devices and Intelligent Communication Systems (MEDCOM))
5. **A Godhandaraman, T.** Quantum Assisted Secure Data Transmission Architecture for Hybrid Classical Quantum Communication Systems (2026 International Conference on Electronic Systems and Intelligent Computing (ICESIC))
6. **Godhandaraman, T.** Hybrid Quantum-Classical Concept Drift Detection Framework for Smart Agriculture Sensor Stream (2026 International Conference on Computer Networks and Inventive Communication Technologies (ICCNCT))
7. **Godhandaraman, T.** Federated Learning with Zero-Knowledge Proofs for Healthcare: A Survey (2026 1st International Conference on AI, Data Science, Cyber Security and Smart Manufacturing for Sustainable Development (ICADCS))

Patents

1. System and Method for Dual-Site Multimodal Workplace Wellness Monitoring (Published 16.01.2026).
2. Autonomous Multimodal Intelligence System with Cross-Modal Attention and Bio-Physiological Root-Zone Digital Twin for Real-Time Rice Yield and Grain Quality Optimization (Published 20.03.2026).
3. A Pattern-Driven Deep Learning Time-Optimized Crop Yield Prediction System (Published 20.03.2026).
4. Method and System for Autonomous Multi-Modal Distress Detection and Secure Forensic Evidence Generation (Published 20.03.2026).
5. Advanced Rail-Road Collision Prevention and Disaster-Aware Transport Safety Network (Published 20.03.2026).
6. Hybrid Edge-Integrated Digital Twin-Based Multimodal Physiological Health Monitoring and Predictive Risk Assessment System and Method thereof (Published 20.03.2026).
7. Adaptive Soft-Robotic ExoSleeve with Multimodal Biofeedback, Neuro-Muscular Digital Twin, and Learning-Based Personalized Rehabilitation Control (Published 20.03.2026).
8. System and Method for Predicting and Preventing Hospital-Acquired Infections using Digital Twin (Published 20.03.2026).
9. System and Method for Adaptive Healthcare Robotics Using Reinforcement Learning, Multimodal Physiological Sensing, and Digital Twin-Validated Intervention (Published 20.03.2026).
10. Autonomous Multi-Terrain Interplanetary Explorer with Reconfigurable Wheel-Leg Mobility (Published 20.03.2026).
11. A Swarm-Intelligence-Based Autonomous Robotic Ecosystem for Predictive Maintenance and Adaptive Self-Repair of Space Infrastructure (Published 20.03.2026).
12. A Self-Optimizing Mechatronic Actuation and Control System with Multi-Sensor Fusion and Self-Healing Mechanisms (Published 20.03.2026).
13. A Soil Breath Analyzer Probe for Real-Time Soil Health and Nutrient Loss Prediction (Published 26.06.2026).

FACULTY ACHIEVEMENTS

Books & Book Chapters

1. Godhandaraman, T. (2026). Prompt to Product: The Generative AI Revolution. VINSA Publishing. ISBN: 978-9374152829.

Events Organized

1. Organizer: Career Readiness & Placement Orientation Program for 6th-semester students (6th February 2026).
2. AI Skills for High-Package Tech Careers: Guidance from Industry Experts



Prof. Chandrakala L
Assistant Professor

Research Publications

1. Bharath Mudanahalli Bhaskarachar, Mala Boppanahalli Appaiah , Pooja Shree Hemalatha Ravikumar, Sharanabasappa Tadkal, **Chandrakala Lingaraju**, S S Ashwini (2026)-"Adaptive Trust-Driven Federated Learning With Blockchain for Secure AI Healthcare Diagnostics". Security and Privacy, 9(4)
2. Sameia Suha, Amritha R, Manjula Maddanna, Monish Lokesh Reddy, **Chandrakala Lingaraju**, Nandini Krishappa (2026)-"Secure Multimedia Image Encryption via MPHT Shuffling and Bogdonov Map-Driven Substitution". 2026 9th International Conference on Intelligent Computing and Control Systems (ICICCS), (), Page 1682 - 1687.



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

Research Publications

1. **Prapti, Bhattacharjee** (2026). Contrast Enhancement in Mammogram Images using CLAHE and CNN-based Approaches. In Proceedings of the 2026 6th International Conference on Expert Clouds and Applications (ICOECA).
2. **Prapti Bhattacharjee** (2026). Multimodal AI Integration: Text, Speech, and Image for Human Interface. In Proceedings of the 2026 2nd International Conference on Cognitive Computing in Engineering, Communications, Sciences and Biomedical Health Informatics (IC3ECSEBHI). IEEE.
3. **Prapti Bhattacharjee** (2026). Efficient Secure Aggregation in Federated Learning for Edge Computing. In Proceedings of the 6th International Conference on Image Processing and Capsule Networks (ICIPCN 2026).

Events Organized

1. Co-coordinator: Workshop on 'Azure AI' (19th February 2026).
2. Co-coordinator: Three-Day Hands-on Workshop on Internet of Things (IoT) (2nd to 4th February 2026).

FACULTY ACHIEVEMENTS



Prof. Mithun Kumar
Assistant Professor
Department of CSE (Data Science)

Research Publications

1. **Kumar, M.** (2026). Emotion-Adaptive Intelligent Systems Using Multisensory Data Fusion. In Proceedings of the 2026 International Conference on Intelligent Computing (IConIC).
2. **Kumar, M.** (2026). Energy Efficient TinyML Models for Intelligent Wearable Devices. In Proceedings of the 2026 International Conference on Intelligent Computing (IConIC).

Events Organized

1. AI Skills for High-Package Tech Careers: Guidance from Industry Experts



Prof. Kishor Malakar
Assistant Professor
Department of CSE (Data Science)

Research Publications

1. **Malakar, K.** (2026). An Integrated Dual-Headed CNN-LLM Framework for Simultaneous Alzheimer's Stage and Brain Tumor Classification from MRI Scans. In Proceedings of the 2026 International Conference on Computing Theory and Wireless Communications (ICCTWC). IEEE.
2. **Malakar, K.** (2026). GeoAI Forecasting: ML models for earthquake prediction using satellite data. In Proceedings of the 2026 International Conference on Emerging Trends and Technologies on Intelligent Systems (ETTIS). Springer.

Events Organized

1. Co-coordinator: Workshop on 'Azure AI' (19th February 2026).
2. Co-coordinator: Three-Day Hands-on Workshop on Internet of Things (IoT) (2nd to 4th February 2026).

FDPs Attended

1. Faculty Development Program on 'Data Visualization with Excel and Power BI', conducted under the EICTA Consortium (16th March 2026 to 28th March 2026).

FACULTY ACHIEVEMENTS



Prof. Souramita Bhowmik
Assistant Professor
Department of CSE (Data Science)

Research Publications

Conference Proceedings

1. **Bhowmik, S.** (2026). Multimodal AI Integration: Text, Speech and Image for Human Interface. In Proceedings of the 2nd IEEE International Conference on Cognitive Computing in Engineering, Communications, Sciences and Biomedical Health Informatics (IC3ECSBHI-2026).
2. **Bhowmik, S.** (2026). Water Loss Management: A Study Using Fuzzy Approach. In Proceedings of the 8th International Conference on Engineering & Advancement in Technology (ICEAT 2026).

Events Organized & Attended

1. Organizer: ALUMNI TALK-III: Alumni Tales – A Data Science Journey (5th February 2025).
2. Participant: Tech Talk Session delivered by Mark Verchinko, CEO and Founder, RedDuck, Ukraine (7th April 2026).



Prof. Shashank Shekhar
Assistant Professor
Department of CSE (Data Science)

FDPs Attended

1. Faculty Development Program on 'Data Visualization with Excel and Power BI', conducted under the EICTA Consortium (16th March 2026 to 28th March 2026).

FACULTY ACHIEVEMENTS



Prof. Bhagyalaxmi S Banakar
Assistant Professor
Department of CSE (Data Science)

FDPs Attended

1. Faculty Development Program on "Cyber Security Using AI", conducted under the EICTA Consortium, from 23 March 2026 to 3 April 2026.

STUDENT ACHIEVEMENTS

National Competitions & Hackathons

National Innovation Challenge for Drone Application and Research (NIDAR):

- Shashi Kumar C (ENG23DS0034), Shreya Pravin, Nainshi Tejashree, Ronak Soni, and Ridhima Jain participated in NIDAR held at Gautam Buddha University from January 10-16, 2026. Under the mentorship of Dr. S. G. Shaila, Avinash Kumar Saurav, and K. Sudha Deepthi, the team successfully demonstrated an advanced post-disaster UAV mission involving computer vision-based survivor detection, geo-tagging over a 2-3 acre area, and a 200g payload delivery. They secured top positions in the business strategy pitch, jury appreciation for best design and in-house carbon fiber development, and received ₹50,000 vouchers from Passenger Drone Research Ltd. (PDRL) along with complimentary professional certification access to Hexagon software.



RoboEdge Event (Celestia TechFest):

- An interdisciplinary student team named 'Roxx Power Bots' secured 1st place in the RoboEdge Event during Celestia, mentored by Dr. S. G. Shaila, Dr. K. Sudha Deepthi, and Dr. Avinash Kumar Saurav. The team dedicated nearly 48 hours of continuous effort to design, test, and refine models for the Obstacle Course, Robo Soccer, and Robo Race challenges. The awardees included:
 - Shashi Kumar C (ENG23DS0034) - Data Science
 - Hansika - Data Science
 - Akshay M (ENG23DS0051) - Data Science
 - Sucheta Rout (ENG23AM0199)
 - Pritam Wani (ENG23AM0262)
 - Khushi Kumari (ENG24DS0118)
 - Sahanaganga H P (ENG25DS1005)
 - Arighna Chowdhury (ENG23CS0265)
 - Shreyas R (ENG23CS0461)
 - Dhruva Kumar T R (ENG24AM0167)
 - Lekh Rathod (ENG25RA0044)

STUDENT ACHIEVEMENTS

Techflix Season 2 (La Casa De Code):

- Students from the Department of Computer Science and Engineering (Data Science) representing Team 'Entropy Engineers' secured the First Runner-Up position at this national-level hackathon organized by Reskill on April 17, 2026. The team won a cash prize of ₹45,000. Team members included:
 - Gracey Dugar (ENG24DS0103)
 - Dhanush N (ENG24RA0032)
 - Disha Jain (ENG24CS0410)

CODESANGRAM Hackathon (36-Hour Challenge):

- Virika Olivia Soans (ENG22DS0024) successfully participated in the 36-hour CODESANGRAM Hackathon organized by the Alliance School of Advanced Computing from February 19-21, 2026. The team was honored with the Special Award for SDG Innovation along with a cash prize of ₹10,000 for showcasing technical skills and teamwork.



EUREKATHON 3.0:

- Sagar M (ENG23DS0029), Manjunath M Soudi (ENG23DS0019), and Ameeth S Munavalli (ENG23DS0029) attended EUREKATHON 3.0 organized by the Department of CST and won the 'Best in AgriTech Track' prize worth ₹1,500 in February 2026.



STUDENT ACHIEVEMENTS

Technical Exhibitions & Project Expos

Techzibition (Celest AI Techfest - First Place Winners):

- Team 'MOTIV8' secured the First Place (Winner) position in the Techzibition competition during the Celest AI Techfest held on April 23, 2026. The team was represented by:
 - Pavan Kumar G (ENG22DS0040)
 - Rahul V (ENG22AM0189)

Techzibition (Celest AI Techfest - First Runner-Up):

- Team 'Synergy' secured the First Runner-Up position in the Techzibition competition during the Celest AI Techfest on April 23, 2026. The team was represented by:
 - Jashwanth R (ENG24DS0018)
 - K Sai Suchith (ENG24DS0019)

Professional Global Certifications

- Microsoft Certified: Fabric Data Engineer Associate: **Vedeshwari Nakate** (USN: ENG23DS0075) successfully earned the professional global certification, demonstrating deep proficiency in data engineering concepts and Microsoft Fabric technologies in April 2026.

ServiceNow Certified System Administrator (CSA):

- **Valluri Vinesh** (ENG23DS0129) successfully cleared and completed the ServiceNow Certified System Administrator (CSA) certification on February 23, 2026.



STUDENT ACHIEVEMENTS

- The Dynamic Data Science Cricket Team from the Department of CSE - Data Science (Batch 2023-2027) secured the Runner-Up position in the SOE Inter-Branch Sagar Cricket Cup 2026 after an outstanding performance throughout the tournament. Led by Captain Prasanna Gowd, the team displayed exceptional teamwork, determination, and sportsmanship, earning a well-deserved place in the finals. Team Members: Prasanna Gowd (Captain), Shiva Kumar, Raja, Mokshith, Sanjan Suresh, Sai Charan, Manoj, Shahidulla, Hemanth Reddy, Thejas, Dileep, Manjunath, and Monith. The team expressed heartfelt gratitude to Dr. Shaila S. G., Head of the Department, CSE - Data Science, for her constant encouragement and support. The Department congratulates the entire team and wishes them continued success in future tournaments.



STUDENT PLACEMENTS

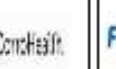
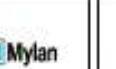
B TECH 2022-2026 BATCH

DSU B.TECH CSE (DS) - 2026 BATCH - TOP PLACEMENT DETAILS

SL NO	USN NO	FULL NAME	COMPANY	CTC
1	ENG22DS0017	Sanjana T	Ruckus CommScope	11
2	ENG22DS0011	RAJAT GOPALKRISHNA SALUNKE	PwC India	9.5
3	ENG22DS0015	SAHANA S M	Nokia	8.25
4	ENG22DS0012	Ranjitha C	Averixis	8
5	ENG22DS0036	Mahi Gupta	Edyufi	7
6	ENG22DS0047	Vinuraj Vamshi	Edyufi	7
7	ENG22DS0036	Mahi Gupta	Commonwealth Bank of Australia	6
8	ENG22DS0010	R SINDHU	Ascent Circuits	6
9	ENG22DS0004	JANARDHAN K S	MathCo	5.5
10	ENG22DS0022	VENKAT NIVAS REDDY K	MathCo	5.5
11	ENG22DS0032	Kovarthana Karthikeyan	Altimetrik	5.5
12	ENG22DS0016	Sahana Vittal Shetty	SkillFlow	5.5
13	ENG22DS0016	Sahana Vittal Shetty	CodeFrontier	5.5
14	ENG23DS1002	Sanjana S	ACCENTURE	5.05
15	ENG22DS0026	ANSHUMAN	Solutionec Private Ltd	5
16	ENG22DS0039	NITIN PRAJWAL R	Serent	5
17	ENG22DS0023	VINITH K M	ICICI BANK	5
18	ENG22DS0019	SUJEETH KUMAR D S	Econz IT	5
19	ENG22DS0035	M ABILASH	Novacis Digital	5

STUDENT ACHIEVEMENTS (PLACEMENTS)

TOP RECRUITER 2022-2026 BATCH

PLACEMENT DETAILS

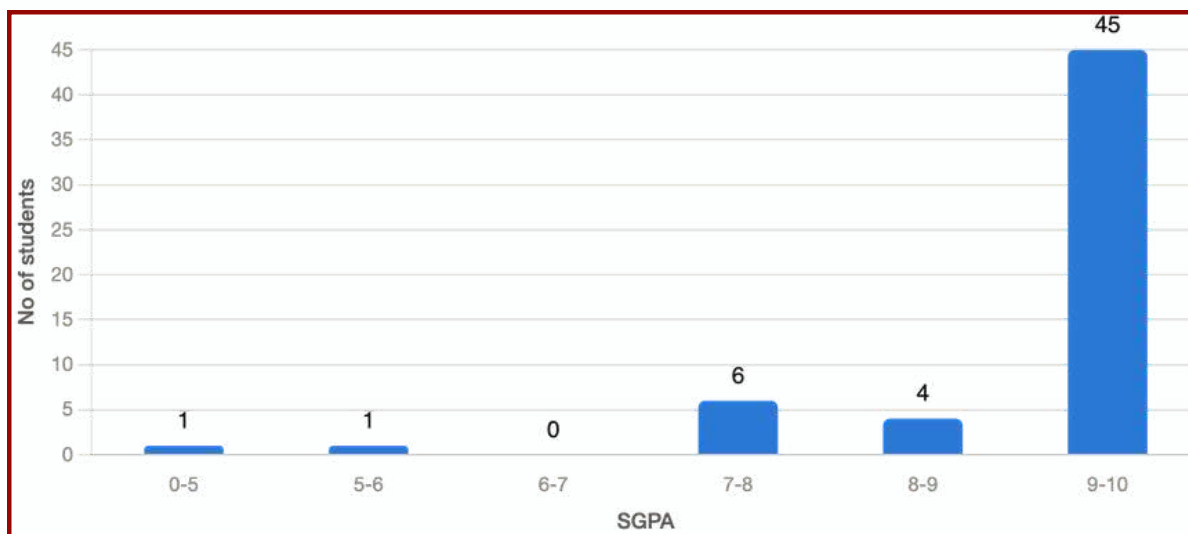
BATCH	REGISTERED	ELIGIBLE	NON ELIGIBLE	HIGHER EDUCATION	TOTAL OFFERS
2022-2026	57	45	12	1	31

DREAM OFFERS

	REGULAR OFFER	DREAM OFFER	SUPER DREAM OFFER
BATCH	UPTO 5 LPA	5 LPA TO 10 LPA	10 TO 20 LPA
2022-2026	12	18	1

RESULTS

RESULT ANALYSIS (2022 BATCH)

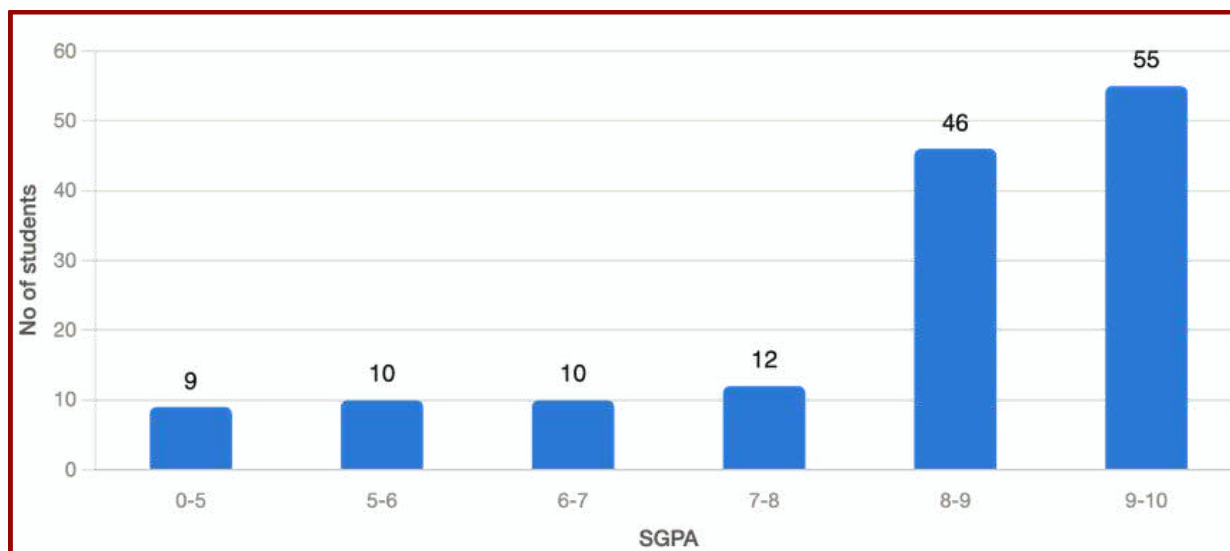


7TH SEMESTER TOPPERS (2022 BATCH)

Sl No	USN	Student Name	SGPA
1	ENG22DS0039	NITIN PRAJWAL R	10
2	ENG22DS0040	PAVAN KUMAR G	10
3	ENG22DS0010	R SINDHU	10
4	ENG22DS0032	KOVARTHANA K	10
5	ENG22DS0002	HARSHA	10
6	ENG22DS0026	ANSHUMAN	10
7	ENG22DS0020	VARUN R	10
8	ENG22DS0013	RICHITHA S	10
9	ENG22DS0024	VIRIKA OLIVIA SOANS	9.8
10	ENG22DS0017	SANJANA T	9.8

RESULTS

RESULT ANALYSIS (2023 BATCH)

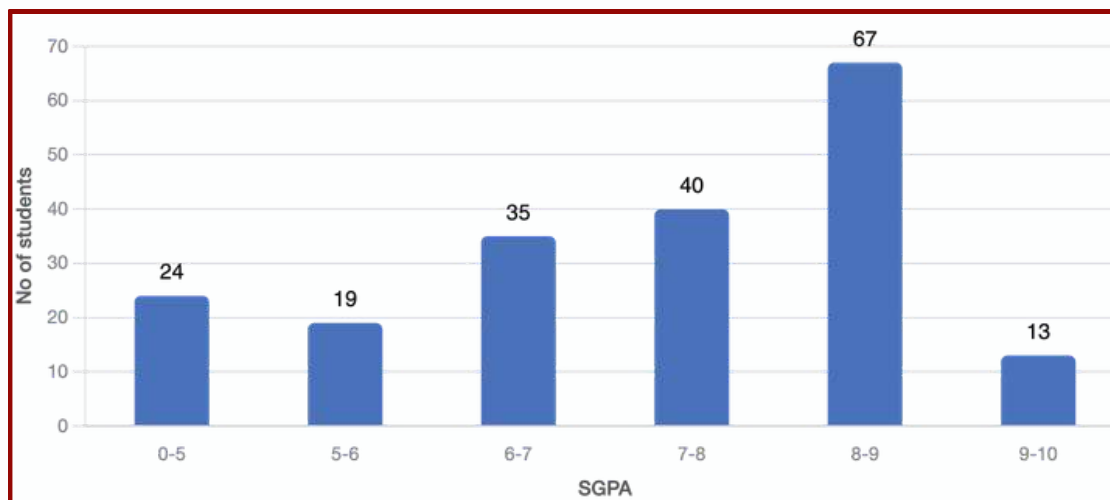


5TH SEMESTER TOPPERS (2023 BATCH)

Sl No	USN	Student Name	SGPA
1	ENG23DS0075	NAKATE VEDESHWARI ANAND	10
2	ENG23DS0058	KEERTHANA B K	9.86
3	ENG23DS0061	JEEVITHA A M	9.73
4	ENG23DS0029	SAGAR M	9.68
5	ENG23DS0037	SHREYA PRAVEEN	9.68
6	ENG23DS0041	THUNGASHREE I L	9.68
7	ENG23DS0125	SOUMYA SINGH	9.59
8	ENG23DS0129	VALLURI VINESH	9.59
9	ENG23DS0073	MEGHANA N	9.59
10	ENG23DS0081	R MANASA PRIYA	9.59

RESULTS

RESULT ANALYSIS (2024 BATCH)



3RD SEMESTER TOPPERS (2024 BATCH)

Sl No	USN	Student Name	SGPA
1	ENG24DS0118	KHUSHI KUMARI	9.86
2	ENG24DS0115	K V L SNEHANKITA	9.55
3	ENG24DS0019	K SAI SUCHITH	9.41
4	ENG24DS0004	ALISHA RAMZAN SHEIKH	9.41
5	ENG24DS0034	NIDHI S MALLYA	9.32
6	ENG24DS0011	DEEPIKA M	9.23
7	ENG24DS0175	ADVAITYA SANDEEP KHURANA	9.14
8	ENG24DS0001	AALAAP SUGAONKAR	9.09
9	ENG24DS0176	ALINA PYNADATH ALIAS	9.09
10	ENG24DS0008	CAROL DAS M	9.09

EDITORIAL COMMITTEE

EDITOR IN CHIEF

Dr. Shaila S G

Professor & Chairperson
Department of CSE (Data Science)
SOE, DSU

FACULTY CO-ORDINATOR

Prof. Shivamma D

Assistant Professor
Department of CSE (Data Science)
SOE, DSU

Prof. Shashank Shekhar

Assistant Professor
Department of CSE (Data Science)
SOE, DSU



**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:

Devarakagalahalli, Harohalli,
Kanakapura Road, Bengaluru South
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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

