Volume 03
Issue 02

DAYANANDA SAGAR UNIVERSITY

SCHOOL OF ENGINEERING

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING (DATA SCIENCE)

DATA GLIMPSE

JULY 2024 - DECEMBER 2024

BI - ANNUAL NEWSLETTER

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

VISION AND MISSION DSU

Vision:

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

Mission:

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

VISION AND MISSION Data Science

Vision:

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

Mission:

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

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

DEAN'S MESSAGE

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

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

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

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

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

CHAIRPERSON'S MESSAGE

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

It gives me immense pleasure and pride to introduce the Volume 3 Issue 2 of the Newsletter DATA GLIMPSE from the Department of Computer Science & Engineering (Data Science). The Data Science is designed to bridge the industry gaps in terms of research and development using cutting-edge technologies. The program aims to meet the requirements of various job roles in Data Science.

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

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

ABOUT THE PROGRAM

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

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

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

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

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

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

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

AGENDA

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FACULTY LIST

Dr. Shaila S G
Professor & Chairperson

Dr. Shaila S G has earned her Ph.D in Computer Science from NIT, Trichy, Tamil Nadu for her thesis on Multimedia Information Retrieval in Distributed System. She has 17 years of experience in teaching & research in the concerned field. She has worked for CPRI, Bangalore as a Trainee Engineer. Later, she worked as a Research Fellow for a DST project, India for a period of 3 years. She has also worked in Indo-US collaborated project for "Obama-Singh Knowledge Initiative Program" in the University of Nevada (UNLV), Las Vegas, United States. She is a certified IBM trainer for the Business Intelligence. Her research areas are Data mining, Information Retrieval, Image Processing and Computational Neuroscience. She has published more than 50 research articles in reputed Journals and Conferences, books and book chapters. She has 11 Indian Patents and 2 Australian Patents.

Dr. Santhosh Kumar G
Associate Professor

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

Dr. Suresh Arumugam
Associate Professor

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

Dr. U Pavan Kumar
Assistant Professor

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

FACULTY LIST

Prof. Shivamma D
Assistant Professor

Shivamma D is working as an Assistant Professor in the Department of Computer Science and Engineering (Data Science). She is pursuing Ph.D in Dayananda Sagar University, Bengaluru. She completed her M.Tech from Birla Institute of Technology and Science (BITS), Pilani (Rajasthan). She has an extensive experience of 10+ years in the field of Teaching and Research. She has worked as an IT Officer/IT Programmer/Data Analyst at National Institute of Mental Health And Neuro Science (NIMHANS), An Institute of National Importance, Government of India located at Bangalore. Her research interests are in the area of Technology Enabled Digital Learning, Machine Learning, Image Processing, Computational Neuroscience, Big Data Analytics and Data Science.

Prof. Monish L
Assistant Professor

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

Prof. Sindhu A
Assistant Professor

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

Prof. Manjula M
Assistant Professor

Manjula M is working as an Assistant Professor in the Department of Computer Science & Engineering (Data Science). She is pursuing PhD 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.

FACULTY LIST

Prof. Mahendra M K
Assistant Professor

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

Prof. Godhandaraman T
Assistant Professor

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

Prof. Chandrakala L
Assistant Professor

Chandrakala L is working as an Assistant Professor in the Department of Computer Science & Engineering (Data Science). She has completed M.Tech from National Institute of engineering , mysuru and 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 part-time Lecturer in the department of CSE at Government Engineering college, Chamarajanagara.

Prof. Prapti Bhattacharjee
Assistant Professor

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

SUPPORTING STAFF

Shivabashayya Puranik math
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Divya R
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ARTICLES

SOCIAL NETWORKS ANALYSIS FOR SARCASTIC SENTENCES POLARITY CLASSIFICATION USING CLAUSE PATTERNS

Twitter is one of the biggest social network platforms for people to express their opinions, share their thoughts and report on real-time events, etc. For instance, people use Twitter and other social network sites to get opinion on products on which they are interested when they are looking for buying a product. Users use the survey, comments and reviews on the products to take a decision whether to buy the product or no. Most of the companies relied in these data for understanding the opinion of people on various topic of subjects like political events, popular products or movies, etc. The readers/users express their emotional quotient by voting mechanism, which has predefined emotional tags. Later, this helps in estimating the positive and negative sentiments of the user on the products/articles/topics. The sentences can be sarcastic and non-sarcastic Sarcastic sentences used in social media sites hold figurative language which includes sarcasm, irony and metaphor. Sentiment analysis in sarcastic sentences is a hard problem. In real time applications, to analyze and detect irony is completely dependent on the social factors such as belief, intentions, and sentiments. In general, sarcasm is very common, however, difficult to recognize. In Twitter, sarcastic texts are very common. The appearance of the text might be misleading and can be considered as a compliment or sarcastic. This type of text patterns are tends to be widely used as opinions, ideas and events shared in social networks. Most of the time, People also use social media platforms to make jokes, criticize or make remarks about ideas, persons or events sarcastically. However, sarcasm is a deeper concept, highly language specific, and to the common knowledge. Also, sarcasm is considered to be common, however, it's difficult to recognize in its original form. It is well known that informal language used in tweets and limitation of characters per tweet is challenging in understanding the opinions. Further, the polarity classification in sarcastic sentence are quite difficult. The reason is that the sarcastic and irony sentences are hard to recognize either for humans or for machines. In the context of sentiment analysis when a sarcastic sentence is detected as positive, it likely means for negative situation and vice versa. Therefore, it is necessary to come up with an approach to automatically detect sarcastic messages/texts/patterns. This article discusses the technique for identifying and grading the sarcasm in the sentence patterns. The approach considered the sentence patterns at clause level and classifies the sentences into four categories Simple Sentences, Compound Sentences, Complex Sentences and Compound Complex Sentences. The Simple Sentences and Complex Sentences are considered for analyzing and identifying the sarcasm patterns. The decision tree and neuro fuzzy rules are used on Sentence structures to classify them into sarcastic and non-sarcastic patterns. The linguistic grading is used for grading the sarcastic patterns. Weighing mechanism is proposed based on the fuzzy linguistic grades for polarity classification in Sarcasm. Experimental evaluation of the proposed approach is done using Twitter dataset. The experimental results are promising with good classification accuracy

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

ARTICLES

SENTIMENT ANALYSIS AND POLARITY CLASSIFICATION OF TEXT USING PHRASE PATTERNS IN SOCIAL MEDIA

There is an enormous amount of data available in WWW and also growing progressively. The data includes online learning, exchanging ideas and opinions, etc. People use social networking websites such as Twitter, Facebook, Instagram, and Google+ as a common platform for all these. These platforms have become very popular as they permit people to share and exchange their views about any topics/events and have considered by the researchers for sentiment analysis, opinion mining, question answering and text summarization etc. Nowadays, emotions/sentiments expressed by human are important and is a study of psychology and other related research areas. The emotional state represents mental and physical status of a person.These emotions are captured visually from facial expressions. In contrast, emotions can also be expressed in the form of text and plays an important role in various fields such as Human Computer Interaction (HCI), Cognitive Analytics, Human intelligence, social media analysis, etc. The textual emotion gives us opinion, attitudes, question-answering, etc. and can be used for the applications such as market analysis, opinion mining on a product or debate in social media. Most of the news channel and social media invites reviews and opinions from the users to express their view. There is intensive research by Natural Language Processing (NLP) researchers to estimate the degree of emotion in text to understand the human cognitive capabilities. while expressing sentiments in social media networks. The sentiment analysis in non-sarcastic sentences is straight forward and can be easily classified in terms of their polarities. Most of the existing emotion estimation approaches detects the direct expressions using knowledge based classification schemes. The article discusses phrase-level emotion patterns using Neuro-Fuzzy model. At the initial stage, the emotional patterns at phrase level are obtained using POS Tags and EMOT_Actifiers, which results into 16 patterns. These patterns works well with the sentences having single emotion and classifies them either as Positive or Negative polarities. However, it is observed that these patterns unable to define the exact boundary between positive and negative polarities of these sentence patterns. Thus, this issue affects the classification accuracy due to imprecise boundary between the sentences. Mixed emotions exist in long sentences with multi phrases and thus the sentences are broken at Phrase-level.The patterns are extracted at phrase-level and converted as fuzzy rules for the classification of mixed emotion patterns. Intensity grades are calculated for the patterns based on the features of phrases and their structure in the sentence. These intensity grades classify the patterns at phrase level into positive and negative emotions. Based on the intensity grades, a suitable weighing mechanism is proposed for the multi phrasal sentence structure which decides the degree of positive and negative polarities of emotion in a sentence. Higher weighted phrasal pattern decides the positive and negative polarities of emotion in a sentence. Proposed approach performs well and achieves good F-Scores compared with other comparative approaches on benchmark datasets.

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

ARTICLES

Cloud Data Engineering Tools: Enabling Efficient Data Pipelines

In the era of digital transformation, cloud data engineering tools have become essential for organizations to efficiently manage, process, and analyze the vast volumes of data they generate daily.Cloud data engineering tools have become an essential part of modern data management, enabling organizations to collect, process, and analyze vast amounts of data seamlessly. These tools leverage the scalability, flexibility, and power of cloud platforms to provide comprehensive solutions for big data challenges. Popular cloud data engineering tools include Amazon Web Services (AWS) Glue, Google Cloud Dataflow, and Microsoft Azure Data Factory. AWS Glue simplifies data integration tasks through its serverless architecture, automating the ETL (Extract, Transform, Load) process. Google Cloud Dataflow offers real-time and batch data processing capabilities, making it ideal for dynamic workloads.

Cloud data engineering tools are utilized in a diverse range of applications. In business intelligence, they enable companies to extract actionable insights from structured and unstructured data. Organizations leverage these tools for predictive analytics, which drive decisions in fields like retail, healthcare, and financial services. Real-time processing capabilities are used in sectors like e-commerce and telecommunications to offer personalized customer experiences. Furthermore, industries like transportation and logistics rely on cloud tools for optimizing routes and reducing operational inefficiencies. Cloud-based pipelines also support machine learning workflows, enhancing the development, training, and deployment of AI models. In research and education, cloud data tools simplify the management of vast academic datasets, contributing to faster, more collaborative discoveries.

Data security and privacy are major concerns, as sensitive information is often processed and stored in cloud environments. Ensuring compliance with regulations such as GDPR and HIPAA adds complexity to their implementation. Cost management is another issue, as the pay-as-you-go pricing model of many cloud services can lead to unexpectedly high expenses if not carefully monitored. Moreover, integrating these tools with legacy systems can be difficult, requiring significant resources and expertise. Cloud data engineering tools are pivotal in transforming the way organizations manage and process data. By leveraging the scalability, flexibility, and high performance of cloud platforms, these tools enable the creation of efficient and reliable data pipelines that handle large-scale data processing, storage, and analysis. Whether through automation, advanced analytics, or seamless integrations, cloud data engineering tools ensure that businesses can deliver real-time insights while maintaining data quality and security. As cloud technology continues to evolve, the future of data engineering promises even more robust, streamlined solutions that will help organizations optimize their data workflows and make data-driven decisions with greater efficiency and agility.

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

Leveraging the Power of Generative AI in Data Science

Generative AI (GenAI) is revolutionizing the field of data science by introducing transformative capabilities that address critical challenges and open new possibilities. Unlike traditional AI, which primarily focuses on analyzing and interpreting data, GenAI generates novel content, including text, images, and synthetic data. This unique ability addresses issues such as data scarcity and biases in datasets, enabling the creation of diverse and high-quality training data. By simulating complex real-world scenarios, GenAI enhances the robustness and reliability of predictive models, making it an invaluable tool for data scientists.

The integration of GenAI into data science workflows has significantly streamlined processes and enhanced productivity. It automates routine tasks such as data preprocessing, feature extraction, and exploratory data analysis. Additionally, GenAI-powered tools can generate code snippets, create detailed summaries, and even suggest predictive models based on natural language inputs. This automation reduces the time and effort required for data-driven decision-making, allowing professionals to focus on strategic analysis and innovation.

Beyond its technical contributions, GenAI is democratizing data science by making advanced analytics accessible to non-technical users. Through user-friendly interfaces and conversational AI tools, individuals can request insights or execute complex analyses without requiring deep expertise in programming or statistics. This democratization empowers businesses to make data-driven decisions more effectively, fostering collaboration across departments and enhancing organizational agility.

However, the widespread adoption of GenAI also brings challenges that require careful consideration. Issues such as data privacy, ethical use of AI-generated content, and the high computational demands of GenAI systems must be addressed to ensure responsible deployment. Developing robust governance frameworks and best practices will be critical for mitigating risks and maximizing the benefits of this technology.

As GenAI continues to evolve, it is poised to redefine the future of data science. By combining creativity with computational power, GenAI not only enhances traditional analytics but also unlocks new opportunities for innovation across industries. Its transformative potential makes it a cornerstone of modern data science and a key driver of digital transformation in the years ahead.

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

The Explosion of Deepfake Technology: Opportunities and Challenges

In recent years, the development of deepfake video and audio technology has exploded, becoming both a fascinating technological achievement and a growing societal concern. While the ability to create realistic, AI-generated media has opened new doors in entertainment, education, and innovation, it has also presented significant ethical and security challenges. Deepfakes utilize deep learning algorithms, primarily generative adversarial networks (GANs), to create hyper-realistic videos or audio recordings. These algorithms can convincingly swap faces, mimic voices, and produce entirely synthetic media. Applications of this technology range from creating visual effects in films to generating personalized video messages or voiceovers.

Deepfakes have revolutionized film and television, enabling actors to de-age, appear in scenes posthumously, or perform impossible feats without physical strain. Institutions can use deepfake technology to bring historical figures to life, create immersive language-learning experiences, or enhance virtual reality training simulations. Custom voice generation using deepfake technology can help individuals who have lost their ability to speak.

Deepfake audio technology can mimic voices to bypass authentication systems or conduct fraud, such as persuading an employee to transfer funds by imitating a senior executive. Non-consensual deepfake content, such as altered pornography or identity theft, raises significant ethical and legal issues. Moreover, as deepfake capabilities improve, the reliability of audio-visual evidence could diminish, leading to a societal shift in how we perceive truth.

Deepfake technology represents both an extraordinary tool for creativity and a potential threat to societal trust. To navigate this duality, stakeholders must collaborate to ensure ethical standards, robust detection methods, and public awareness. With thoughtful regulation and collective vigilance, the risks of deepfakes can be mitigated while embracing their constructive potential.

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

Human-Computer Interaction: Shaping the Future of Technology

Human-Computer Interaction (HCI) is a multidisciplinary field focused on designing and optimizing the ways humans interact with technology. From the early days of basic command-line interfaces to today's sophisticated systems, HCI has constantly evolved to make technology more accessible, intuitive, and effective. Whether through touch screens, voice commands, or gesture recognition, HCI has transformed the way we live, work, and communicate in an increasingly digital world. The integration of artificial intelligence (AI) has been a game-changer in HCI, enabling systems to understand, learn from, and adapt to user behavior. AI-powered tools like Siri, Alexa, and Google Assistant rely on natural language processing to interpret and respond to human commands conversationally. Similarly, personalized recommendation systems on platforms like Netflix or Spotify analyze user preferences to deliver tailored experiences. In smart homes, AI enables devices to anticipate needs, automating tasks to simplify daily routines. Emerging technologies like augmented reality (AR) and virtual reality (VR) are further expanding the scope of HCI. These immersive technologies create dynamic interactions, blending the physical and digital worlds for applications in gaming, education, and remote collaboration. For instance, AR overlays virtual elements onto real-world environments, while VR transports users into entirely simulated spaces, opening up new possibilities for training and entertainment. The rapid advancement of HCI brings challenges. Privacy concerns are at the forefront, as systems collect vast amounts of data to enhance functionality. Ensuring that these systems are inclusive and accessible to users of all abilities is also crucial. Ethical considerations must guide the design and implementation of HCI technologies to foster trust, security, and fairness in human-technology interactions. Looking ahead, the future of HCI lies in creating multimodal systems that combine touch, voice, gestures, and even biometric inputs for seamless and natural interactions. Eye-tracking technology, haptic feedback, and adaptive interfaces are on the horizon, promising to make technology an even more integrated part of our lives. With these advancements, HCI aims to move beyond functionality, creating experiences that feel human-centered and effortless. As technology continues to evolve, HCI will remain at the heart of innovation, shaping a world where interacting with digital systems is as natural and intuitive as engaging with the real world. By addressing challenges and leveraging opportunities, HCI promises to create a future where technology not only enhances productivity and creativity but also becomes a powerful tool for inclusion and empowerment.

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

Transforming the Data Landscape: Ushering in a New Era

The way we use and interpret data is changing fast, bringing about revolutions in industries as well as societies. It's through breakthroughs in technology, evolutions of business priorities, and soaring expectations of consumers that transformations are occurring. From being more than buzzwords, technologies such as AI, big data, and cloud computing are becoming the bases from which to make smarter choices, hence revolutionizing the innovation ways of doing businesses. The transformation of how we collect and process data: Data is everywhere, coming from sources like smart devices, social media platforms, and online transactions. Today, businesses aren't just collecting this data—they're acting on it in real time. Thanks to edge computing, data processing now happens close to where it's generated. This means faster responses and more efficient operations, especially in industries like transportation and healthcare. Cloud services such as Amazon Web Services (AWS) and Microsoft Azure enable easier and cheaper storage and massive data analysis. This game-changing shift from traditional, on-premise systems to these flexible and cloud-based platforms allows teams to communicate and collaborate with each other across the globe while having at their fingertips cutting-edge insight generation tools.

AI and Machine Learning: The Ultimate Game Changers: Artificial intelligence (AI) and machine learning (ML) have made it possible to turn messy, raw data into valuable insights. These technologies are behind the recommendation engines of Netflix and Amazon, the systems that suggest products or shows you're likely to enjoy. They're also helping industries like healthcare make life-saving predictions and diagnoses.

Another advancement is in natural language processing (NLP). This technology lets us interact with data using plain language through tools like chatbots or voice assistants. By removing technical barriers, NLP ensures that more people can make data-driven decisions without needing specialized skills. Making Data Accessible Through Visualization: In an actual way, complex data has little or no value without it being understood. Where those tools come into use to give that value-added change; these can convert rows and rows of number crunching into more crystal clear, interactive pieces, say, charts or even a dashboard. More impressive is augmented analytics, which combines AI with data visualization. It automatically points out key insights, saving time and reducing the chances of human error. Businesses can now respond to market changes faster than ever before.

However, AI also presents challenges like biased algorithms that may result in unfair outcomes. For instance, if a hiring algorithm is trained on biased data, it might unfairly exclude qualified candidates. That is why responsible AI practices are important. Organizations have to ensure that their systems are accurate, inclusive, and accountable.

Where Data Is Making an Impact:

The Future: Data does have a bright and promising future. New technologies such as quantum computing may provide an even greater avenue for supercharged data-processing capabilities, while decentralized systems could provide much-needed security and autonomy. Ultimately, this shift in the data landscape marks a move from reacting to problems to anticipating and solving them proactively. Businesses that embrace these tools will not only stay competitive but also help create a more sustainable and innovative future for everyone.

HIRVI THAKKAR
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3rd Semester A Sec
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The Role of Quantum Computing in Data Science

Quantum computing, a revolutionary technology leveraging the principles of quantum mechanics, is poised to transform the field of data science. Traditional computing, limited by binary processing (0s and 1s), struggles to efficiently solve complex problems involving massive datasets. Quantum computing, with its ability to process information in quantum bits (qubits), introduces the concepts of superposition and entanglement, enabling parallel computation on an unprecedented scale.In data science, quantum computing offers the potential to revolutionize areas such as optimization, machine learning, and cryptography. Optimization problems, often encountered in logistics, finance, and supply chain management, can be solved exponentially faster using quantum algorithms like the Quantum Approximate Optimization Algorithm (QAOA). Similarly, machine learning processes—such as clustering, classification, and dimensionality reduction—can be enhanced through quantum techniques, enabling models to analyze larger and more complex datasets in real time.Moreover, quantum computing promises to strengthen data encryption, addressing critical concerns about data privacy and security.

The unique properties of quantum cryptography, such as quantum key distribution (QKD), ensure that sensitive information is protected from cyber threats.Quantum computers can perform certain computations exponentially faster than classical computers, especially for problems involving large-scale data sets. Algorithms like Grover's search can process unsorted data more efficiently, potentially transforming search operations in massive databases.The ability to solve linear systems is essential for many data science applications, including regression analysis and machine learning. Quantum algorithms like the HHL algorithm provide exponential speedups in solving these equations, making them invaluable for large-scale data analysis

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PROGRAMME EVENTS

DISCUSSION ON "NAVIGATING THE FUTURE: INDUSTRY-ACADEMIA ROUNDTABLE ON TECHNOLOGY TRENDS" 19TH JULY, 2024

Dayananda Sagar University hosted an insightful roundtable discussion on **"Navigating the Future: Industry-Academia Roundtable on Technology Trends" on 19th July from 10:30 to 12:30 pm** at its main campus, Harohalli, Kanakapura Road. The event brought together distinguished industry leaders to share their expertise on the evolving technology landscape. Dr. Udaya Kumar Reddy, Dean SoE, welcomed the guests and participants. Ms. Vaijayanthi B Desai, Director, Communications, Corporate & Government Relations, DSU, introduced all the distinguished speakers of the event.

Key highlights:

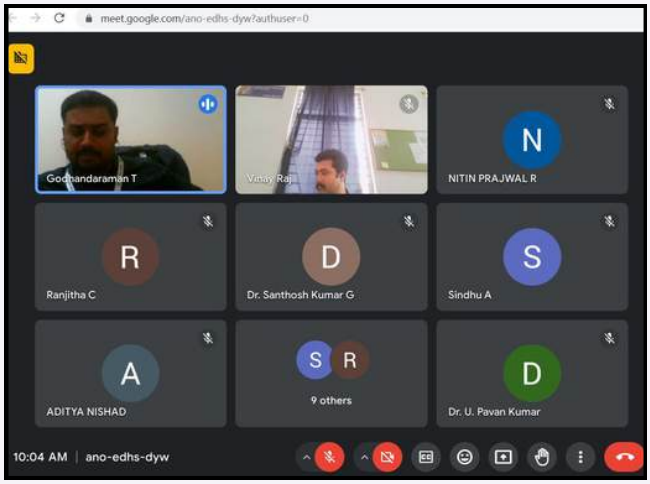
Mr.Balakrishnan Sreenivasan, IBM Distinguished Engineer, discussed about 'Technology evolution in enterprises' and shared the journey of enterprise evolution to industrialised IT and now moving to product centric IT delivery models, and how technology trends are helping business like Generative AI, Small Fit-for purpose models, Future of Quantum and Quantum safe, enterprises rethinking cloud strategy, exploiting data, transforming security to zero-trust models etc.

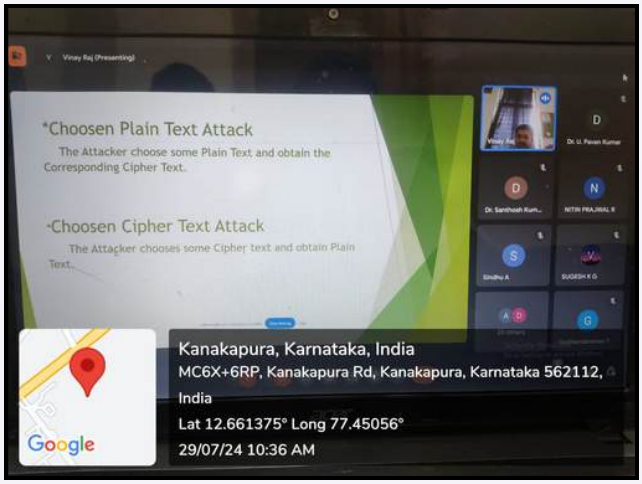
Mr. Jyothish Cherian, Vice President at WellsFargo**,** provided insights on 'The past, present, and future of big data', gave a holistic picture about the types of big data, its use-cases and its applications in enterprises and how it helps Data Science Cloud, and GEN AI dependency on it etc

Dr. Pethuru Raj PhD, SMIEEE, Vice President at Reliance Jio Platforms Ltd., explored the role of 'Edge AI in digital transformation' and gave an insight on what is Edge AI? AI model engineering, evaluation, optimisation, deployment and observability and the potential industrial use cases of Edge AI.

The engaging discussions fostered valuable knowledge-sharing between industry and academia, paving the way for collaborative innovation. Indeed, it was a very insightful and rewarding experience for the faculty of DSU School of Engineering!

WORKSHOP ON "CRYPTOGRAPHY IN ACTION: INNOVATIONS IN ENCRYPTION AND DATA SECURITY" 29TH JULY, 2024





Under the DataScience@DSU club, the Department of CSE (Data Science) organised the **workshop "Cryptography in Action: Innovations in Encryption and Data Security" on 29th July 2024 at 10:00 am to 1:00 pm** aimed to provide participants with an in-depth understanding of the latest advancements in cryptographic techniques and their practical applications in securing data. The event brought together industry experts, researchers, and enthusiasts to discuss the evolving landscape of encryption and data security.

Key Takeaways

1. **Enhanced Encryption Techniques:** The session highlighted significant improvements in both symmetric and asymmetric encryption algorithms. Innovations such as the latest updates to AES and RSA were discussed, emphasizing their increased security and efficiency.
2. **Practical Insights:** Real-world applications of encryption were explored through various case studies, illustrating the critical role of encryption in protecting sensitive information. Participants gained valuable insights into the challenges faced by organizations and best practices for implementation.
3. **Future Directions:** The workshop provided a forward-looking perspective on emerging trends such as post-quantum cryptography and blockchain technology. The discussions on these topics underscored the need for continuous evolution in encryption techniques to stay ahead of potential threats.
4. **Hands-On Experience:** The interactive workshop allowed participants to gain practical experience with encryption tools, enhancing their understanding of how to implement and manage encryption solutions in real-world scenarios.

Conclusion

The workshop "Cryptography in Action: Innovations in Encryption and Data Security" successfully delivered valuable knowledge and practical skills related to modern encryption techniques. The diverse range of topics covered, from current innovations to future trends, equipped participants with a comprehensive understanding of the field. The hands-on sessions further ensured that attendees could apply what they learned in practical settings.

DISCUSSION ON "DATA SCIENCE INNOVATION LAB" 23RD JULY 2024

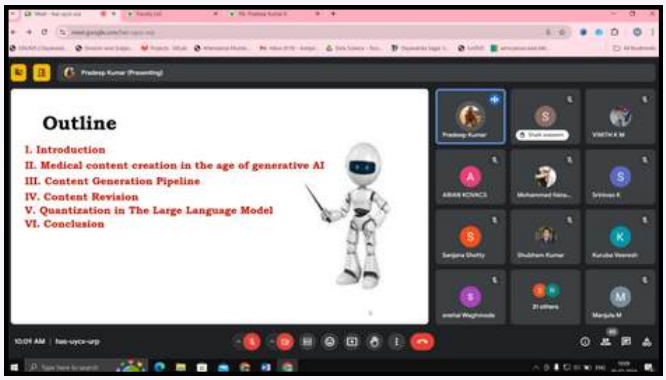
During the discussion, **Dr. Viktor K. Prasanna from the University of Southern California** emphasized the critical role of a Data Science Innovation Lab in fostering interdisciplinary research and practical applications of data science techniques. He highlighted the necessity of providing students and researchers with hands-on experience in areas such as data analytics, machine learning, and big data technologies. Dr. Prasanna advocated for the lab to bridge the gap between theoretical knowledge and practical implementation, preparing students for real-world challenges in the rapidly evolving field of data science.

Dr. Prasanna detailed the essential infrastructure and technological requirements for the lab. He recommended establishing high-performance computing clusters and cloud-based resources to handle large datasets and complex computations. Additionally, he suggested incorporating reconfigurable computing resources to offer flexibility and efficiency in managing diverse data science projects. Dr. Prasanna also stressed the importance of equipping the lab with advanced software tools and platforms, such as Apache Hadoop, Spark, and TensorFlow, to ensure students have access to the latest industry technologies. For curriculum development and research focus, he proposed a comprehensive approach that covers both fundamental and advanced topics in data science, including statistical methods, machine learning, data mining, and data visualization, supplemented by project-based learning and industry collaboration.

Dr. Prasanna underscored the importance of concentrating on emerging research areas, such as the Internet of Things (IoT), healthcare data analytics, smart cities, and cybersecurity, to keep the lab at the forefront of technological advancements and ensure that students are well-equipped to tackle contemporary data science challenges.

Present at the discussion were Dr. Udaya Kumar Reddy, Dean SOE; Dr. Kousalya Govardhanan, Dean of Research; Dr. Ramesh R. Galigekere, Dean (Academic); Dr. Shaila S. G., Chairperson and Professor, Dept. of CSE (DS); along with other department chairpersons and faculty members.

WORKSHOP ON
"EMERGING TRENDS IN AI AND DATA SCIENCE IN HEALTHCARE"
30TH JULY, 2024 TO 31ST JULY, 2024



The DataScience@DSU Club, the Department of CSE (Data Science) organized a **Workshop on "Emerging Trends in AI and Data Science in Healthcare" held on 30th July, 2024 to 31st July 2024** at 10:00 AM- 11:00 AM organized by Dr. Shaila S G, Professor and Chairperson (DS), Prof. Shivamma D, Assistant Professor, Dept. of CSE (Data Science), and Prof. Monish L, Assistant Professor, Dept. of CSE (Data Science). More than 50+ students have been registered for the event.

The event began with an overview of AI-powered tools in medical imaging, such as convolutional neural networks (CNNs), which improve the accuracy and speed of diagnosing conditions like tumors and fractures. In personalized medicine, AI algorithms analyze genetic and clinical data to tailor treatments to individual patients, increasing effectiveness. Data science facilitates predictive analytics for disease outbreaks and patient readmissions, optimizing healthcare resource allocation.

Over 50 students joined the session and learned about AI algorithms in personalized medicine that analyze genetic and clinical data to tailor treatments to individual patients, increasing effectiveness.

Conclusion

In conclusion, the event successfully highlighted the transformative impact of AI and Data Science in healthcare, inspiring participants to explore and contribute to this rapidly evolving field.
The knowledge gained from the session underscored the importance of these technologies in shaping the future of medical care, emphasizing the need for continued innovation and ethical considerations to maximize their benefits.

Resource Person: 1. Dr. Vinutha, Associate Professor, Dept. Of CSE (AIML), SOE, DSU
2. Prof. Pradeep Kumar K , Assistant Professor, Dept. Of CSE (AIML), SOE, DSU

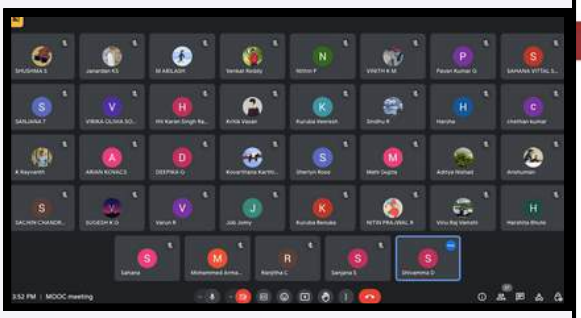
Key Takeaways:

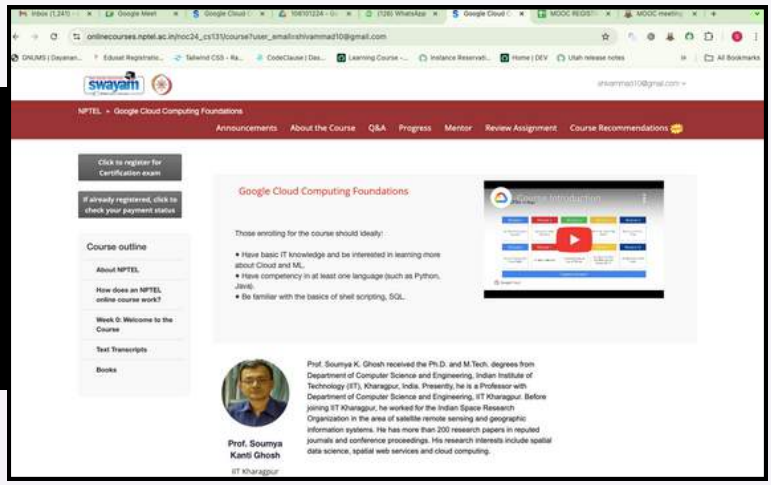
- Students learned how AI-powered tools, such as convolutional neural networks (CNNs), are used to improve diagnostic accuracy and speed in medical imaging.
- Students gained insights into how data science is used for predictive analytics in healthcare, including forecasting disease outbreaks and managing patient readmissions.

Objectives:

- To provide students with a comprehensive understanding of how AI-powered tools, such as convolutional neural networks (CNNs), are utilized in medical imaging for enhancing diagnostic accuracy.
- To illustrate how AI algorithms analyze genetic and clinical data to develop personalized treatment plans, showcasing advancements in individualized medical care.
- To explain the role of data science in predictive analytics for healthcare, including forecasting disease outbreaks and optimizing patient management.

WORKSHOP ON
"NPTEL AWARENESS E-WORKSHOP"
09TH AUGUST, 2024 TO 10TH AUGUST, 2024





The DataScience@DSU Club, the Department of CSE (Data Science) organized a **Workshop on "NPTEL Awareness E-Workshop" held on 09th August, 2024 to 10th August, 2024 at 03:00 PM- 04:00 PM** organized by Dr. Shaila S G, Professor and Chairperson (DS), Prof. Shivamma D, Assistant Professor, Dept. of CSE (Data Science), More than 80+ students have been joined for the event from 3rd sem and 5th Sem Data Science students..

The event aimed to raise awareness among students about the National Programme on Technology Enhanced Learning (NPTEL) and its significant role in online education.

Workshop Overview

The workshop provided an in-depth introduction to NPTEL, covering its mission, objectives, and the diverse range of courses available to students. Prof. Shivamma D. led the sessions, focusing on how students can effectively navigate the NPTEL platform, enroll in courses, and utilize the resources for academic growth and skill enhancement. The workshop also included a discussion on the value of NPTEL certifications in bolstering one's professional profile.

The event saw active participation, with more than 80 students from the 3rd and 5th semesters of the Data Science program joining the sessions. Students were highly engaged, asking pertinent questions and interacting with the facilitators. The workshop fostered a dynamic learning environment where participants could explore the practical aspects of using NPTEL for their academic endeavors.

Conclusion

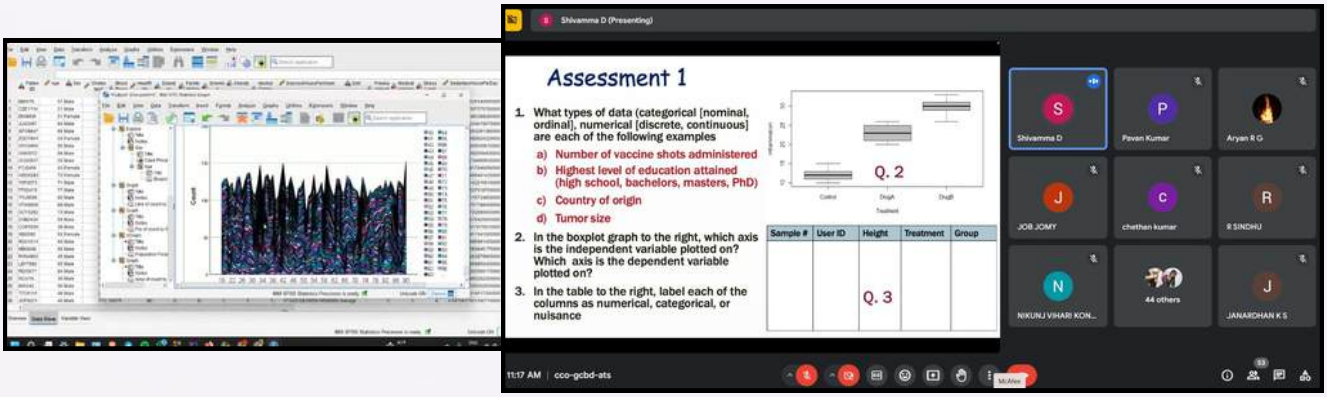
The "NPTEL Awareness E-Workshop" was a resounding success, providing valuable insights and resources to students. Organized by Dr. Shaila S G and Prof. Shivamma D, the workshop effectively empowered students with the tools needed to leverage NPTEL for their academic and professional growth. The positive response from participants underscores the importance of continuing such initiatives to promote online learning.

Resource Person: 1. Prof. Shivamma D, Assistant Professor, Dept. Of CSE (DS), SOE, DSU

Objectives:

- To inform students about the National Programme on Technology Enhanced Learning (NPTEL) and the extensive educational resources it offers.
- To guide participants on how to effectively navigate the NPTEL platform, including course selection, enrollment, and accessing study materials.
- To emphasize the value of NPTEL certifications in enhancing academic credentials and improving career prospects.
- To motivate students to incorporate NPTEL courses into their regular study routines for a more comprehensive learning experience

VALUE ADDED COURSE
ON
"SPSS FOR APPLIED DATA SCIENCE"
19TH AUGUST, 2024 TO 21ST AUGUST, 2024



The DataScience@DSU Club, the Department of CSE (Data Science) organized a **Value Added Course on "SPSS for Applied Data Science" held on 19th August, 2024 to 21st August, 2024 at 10:30AM- 1:00PM** organized by Dr. Shaila S G, Professor and Chairperson (DS), Prof. Shivamma D, Assistant Professor, Dept. of CSE (Data Science), and Prof. Monish L, Assistant Professor, Dept. of CSE (Data Science). More than 70+ students have been registered for the event.

Day 1: 19th August 2024

Overview:

The inaugural day emphasized the relevance of data science in modern industries and introduced SPSS as a tool for statistical analysis, fostering participant familiarity with its functionalities.

Session 1: Importance of Data Science in Current Trends and the Role of SPSS

Time: 10:30 AM – 11:30 AM

Speaker: Shivamma D, Assistant Professor, CSE-DS

Highlights:

- Introduction to data science and its industry applications.
- Overview of trends like big data, AI, and ML transforming decision-making.
- Exploration of SPSS for statistical analysis with its user-friendly features.

Session 2: SPSS Basics, Syntax Efficient Data Analysis, and Crafting Import Data

Time: 11:30 AM – 12:30 PM

Speaker: Shivamma D, Assistant Professor, CSE-DS

Highlights:

- Guided tour of the SPSS interface and fundamental functionalities.
- Practical demonstrations on data input, syntax for efficient workflows, and importing datasets from varied sources.

Day 2: 20th August 2024

Session 1: Data Management

Time: 10:30 AM – 11:30 AM

Speaker: Shivamma D, Assistant Professor, CSE-DS

Highlights:

- Techniques for organizing and cleaning data in SPSS.
- Variable management, dataset merging, and splitting for seamless analysis workflows.

Session 2: Data Representation and Graphs

Time: 11:30 AM – 12:30 PM

Speaker: Monish L, Assistant Professor, CSE-DS

Highlights:

- Introduction to data visualization techniques.
- Hands-on graph creation, customization, and exporting for effective communication of insights.

Day 3: 21st August 2024

Overview:

Focused on advanced SPSS applications in data exploration and statistical analysis for meaningful insight derivation.

Session 1: Data Exploration

Time: 10:30 AM – 11:30 AM

Speaker: Shivamma D, Assistant Professor, CSE-DS

Highlights:

- Exploration of data structures and patterns using SPSS tools.
- Techniques for generating descriptive statistics and visualizing data distributions.

Session 2: Statistical Analysis

Time: 11:30 AM – 12:30 PM

Speaker: Monish L, Assistant Professor, CSE-DS

Highlights:

- Application of t-tests, chi-square tests, and ANOVA.
- Interpretation of SPSS-generated outputs for data-driven decision-making.

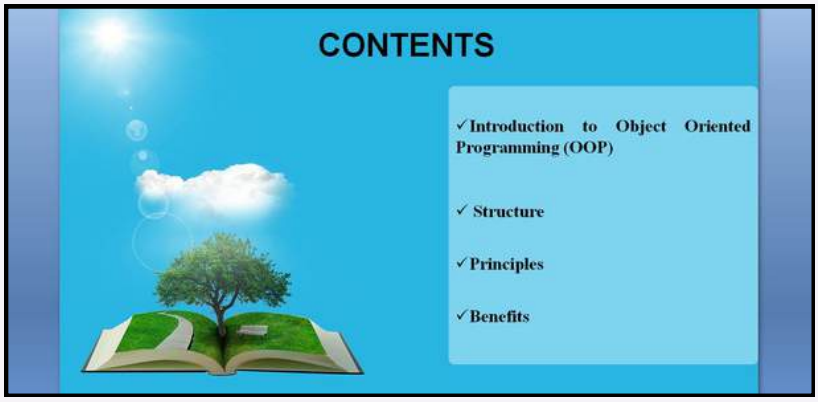
Key Features of the Course:

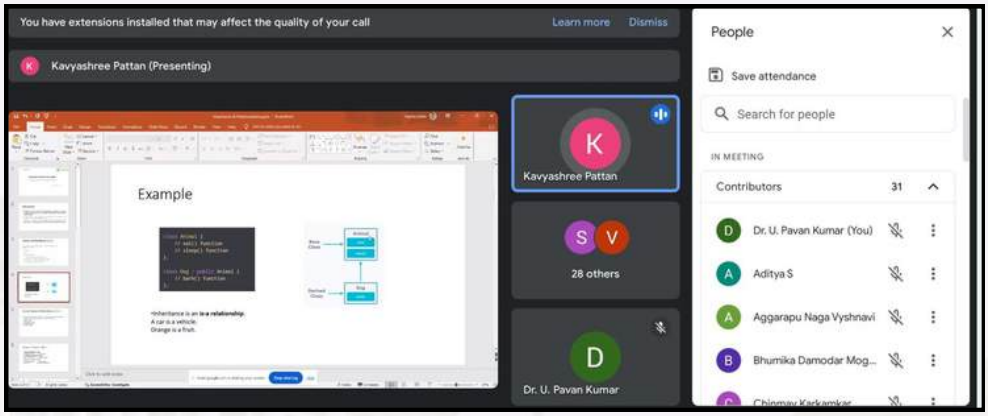
- SPSS Essentials: Interface navigation, data input/output, and manipulation.
- Data Processing: Cleaning and transforming datasets for accurate analysis.
- Statistical Methods: Descriptive and inferential statistics, correlation, and regression.
- Predictive Analytics: Introduction to predictive modeling techniques.
- Real-World Applications: Business use cases for actionable insights.
- Hands-On Projects: Practical exercises to enhance analytical skills.

Course Objectives:

1. Develop SPSS proficiency for advanced data analysis.
2. Master statistical methods for data interpretation and hypothesis validation.
3. Gain practical knowledge through hands-on projects and case studies.
4. Understand predictive modeling techniques for data-driven forecasting.
5. Align competencies with industry standards using SPSS in business and research.
6. Foster analytical thinking to solve real-world problems.

VALUE ADDED COURSE
ON
"EXPLORING C++"
A DETAILED GUIDE TO EFFECTIVE PROGRAMMING
19TH AUGUST, 2024 TO 23RD AUGUST, 2024





DataScience@DSU Club of the **Department of CSE (Data Science)** organized a **Value Added Course** titled "Exploring C++: A Detailed Guide to Effective Programming" from **19th to 23rd August 2024**, between **11:00 AM and 1:00 PM**. The course, coordinated by **Dr. Santhosh Kumar G**, **Dr. U. Pavan Kumar**, and **Prof. Manjula M**, saw participation from over **70 students**.

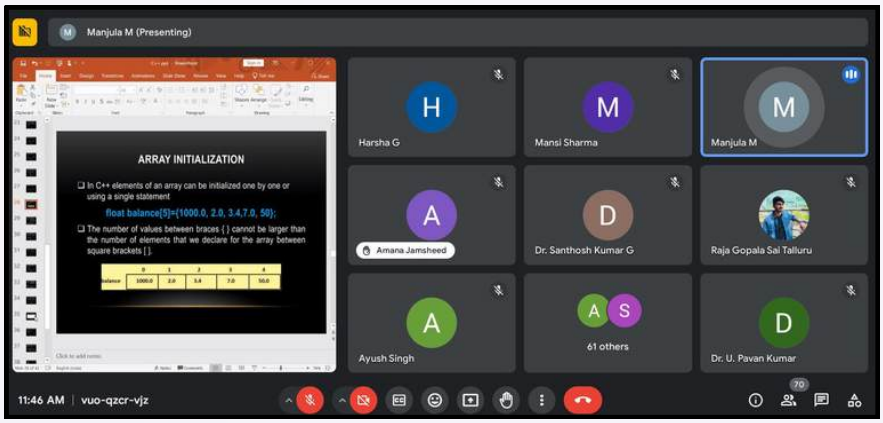
Highlights of the Sessions:

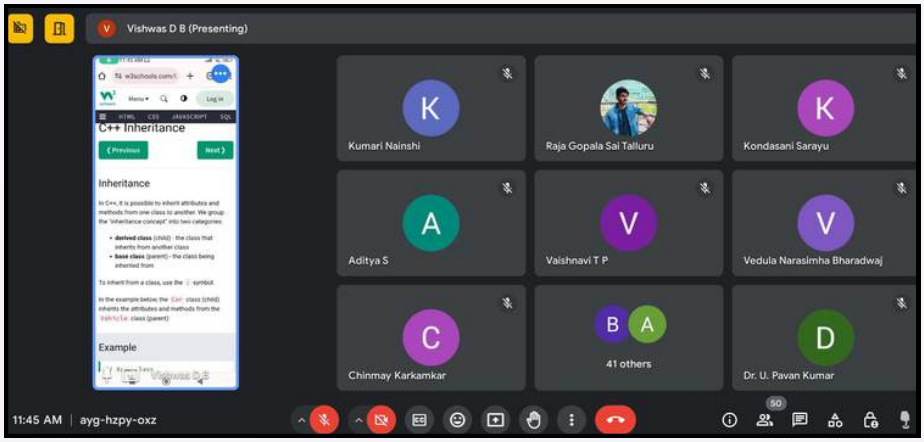
Day 1: Computer Programming Background & OOP Basics

- **Speakers:** Prof. Manjula M and Dr. U. Pavan Kumar, Assistant Professor, CSE (DS)
- **Topics:**
  - Introduction to C++ as a high-performance, object-oriented programming language.
  - Fundamentals of Object-Oriented Programming (OOP): Classes, Encapsulation, Inheritance, Polymorphism, and Abstraction.

Day 2: Functions in C++

- **Speaker:** Prof. Nandini K, Assistant Professor, CSE
- **Topics:**
  - Functions as reusable, modular code blocks for efficient programming.
  - Concepts of abstraction, modularity, and reduced redundancy.





Day 3: Inheritance & Polymorphism

- **Speaker:** Prof. Vishwas D B, Assistant Professor, CSE
- **Topics:**
  - Hierarchical class structures and runtime behavior flexibility through polymorphism.
  - Access controls: public, protected, and private inheritance.

Day 4: I/O Streams

- **Speaker:** Prof. Kavyashree I Pattan, Assistant Professor, CSE
- **Topics:**
  - Use of standard, file, and string streams for flexible data input/output operations.
  - Formatting with manipulators and error handling in streams.

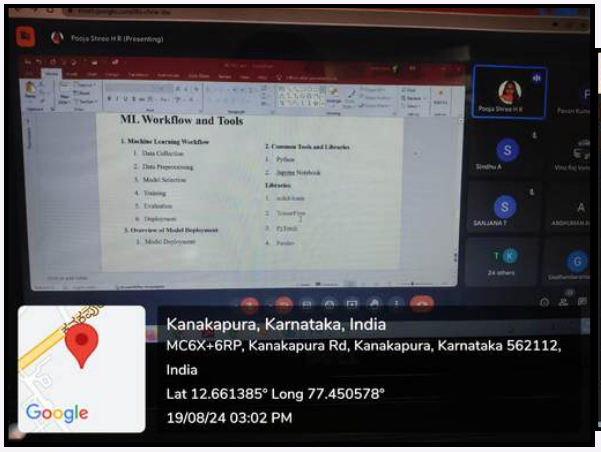
Day 5: Exception Handling

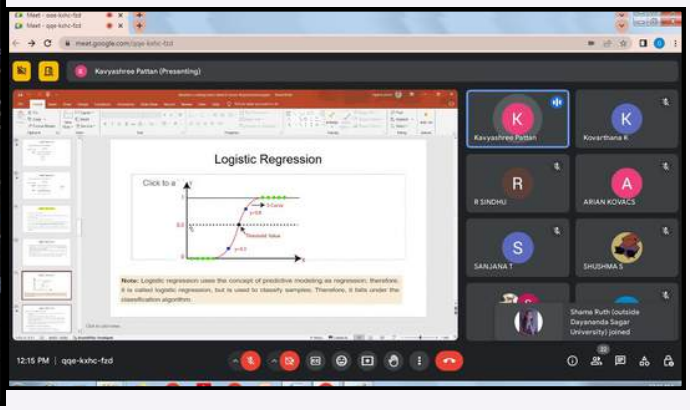
- **Speaker:** Dr. Santhosh Kumar G, Associate Professor CSE (DS)
- **Topics:**
  - Structured handling of runtime errors using try, catch, and throw.
  - Custom exceptions, stack unwinding, and use of noexcept for safer programming.

Objectives:

- Emphasize high-performance, object-oriented, and cross-platform programming.
- Highlight modularity, portability, and the utility of standard libraries.
- Prepare students for practical and scalable software development with C++.

VALUE ADDED COURSE
ON
"MACHINE LEARNING MASTERY: BOOST YOUR SKILLS FROM BASICS TO BRILLIANCE"
19TH-23RD AUGUST, 2024





The Dept. of CSE(Data Science) is happy to share that the Value Added course on **"Machine Learning Mastery: Boost Your Skills from Basics to Brilliance"** was successfully conducted from **19th-23rd Aug 2024**, from 10:00 AM onwards in the online mode.

The main objective of the workshop was to make the participants have a good understanding about the Machine Learning basics.

The resource persons are DSU faculty : Prof. Sindhu A, Prof. Godhandaraman T, Prof. PoojaShree H R, Prof.Kavyashree I Pattan.

The Value Added course was attended by a total of 50 3rd year students, including 2 organizers who helped with various aspects of the event, such as registration, set up and doubts of participants.

The Value Added Coursewas structured into five sections: Basics of Machine Learning , About Dataset, Supervised Learning, Unsupervised Learning & Feature and Model Selection. The participants were encouraged to participate actively and asked questions throughout the session.

The feedback received from the participants was very positive. They appreciated the clear and concise explanations of Value Added Course.

Session Summary:

1. **Day 1:** Introduction to ML and Tools
   - Speaker: Prof. Pooja Shree H R, Assistant Professor, CSE
   - Topics: ML workflow, tools (Scikit-learn, TensorFlow), and real-world applications.
2. **Day 2:** Datasets and Data Preparation
   - Speaker: Prof. Sindhu A, Assistant Professor, CSE (DS)
   - Topics: Using Kaggle, dataset structure, training/testing datasets.
3. **Day 3:** Supervised Learning Techniques
   - Speaker: Prof. Kavyashree I Pattan, Assistant Professor, CSE
   - Topics: Algorithms like Logistic/Linear Regression and SVM with practical applications.
4. **Day 4 (Session 1):** Unsupervised Learning Algorithms
   - Speaker: Prof. Sindhu A, Assistant Professor, CSE (DS)
   - Topics: KNN, K-Means, and Hierarchical Clustering for clustering and pattern detection.
5. **Day 4 (Session 2):** Feature and Model Selection
   - Speaker: Prof. Godhandaraman T, Assistant Professor, CSE (DS)
   - Topics: PCA, LDA, t-SNE, confusion matrix, and optimization strategies like cross-validation.

"TEACHERS DAY CELEBRATIONS"
5TH SEPTEMBER, 2024

The Teachers' Day celebration at the Department of CSE (Data Science) was held with great enthusiasm to honor and appreciate the hard work and dedication of teachers. Organized under the guidance of Dr. Shaila S G, Professor & Chairperson, the event was attended by all faculty and staff members. Teachers' Day, celebrated annually on 5th September, marks the birth anniversary of Dr. Sarvepalli Radhakrishnan, a respected scholar and the second President of India.

The celebration began at 12:30 PM with a warm welcome by the Head of the Department, who expressed heartfelt gratitude to the teachers for their tireless efforts in shaping the future of the students. The head emphasized the indispensable role of educators in fostering knowledge, innovation, and values in their pupils. The event featured a series of engaging activities, including heartfelt speeches by students expressing their appreciation, followed by cultural performances that added vibrancy and joy to the celebration. Teachers were also presented with tokens of gratitude as a gesture of respect and acknowledgment of their invaluable contributions.

The gathering concluded with a group photo session and gathering, fostering camaraderie and mutual respect among faculty and staff. The Teachers' Day celebration was a resounding success, not only highlighting the importance of educators but also strengthening the bond among them, making it a truly memorable occasion.

"INAUGURAL CEREMONY OF IEEE INFORMATION THEORY SOCIETY STUDENT CHAPTER"
23RD SEPTEMBER, 2024

The Inaugural ceremony of the **IEEE Information Theory Society (ITS) Student Chapter** was held on **September 23, 2024, at 10:00 AM at the CDSIMER Auditorium**, located in the F-Block Ground Floor. This highly anticipated event was organized by the Department of Computer Science and Engineering (Data Science), School of Engineering, in collaboration with the IEEE Information Theory Society (ITS). The ceremony aimed to officially launch the IEEE ITS Student Chapter at DSU, providing a platform for students and faculty to engage with one of the most prestigious professional societies in the realm of information theory and technology.

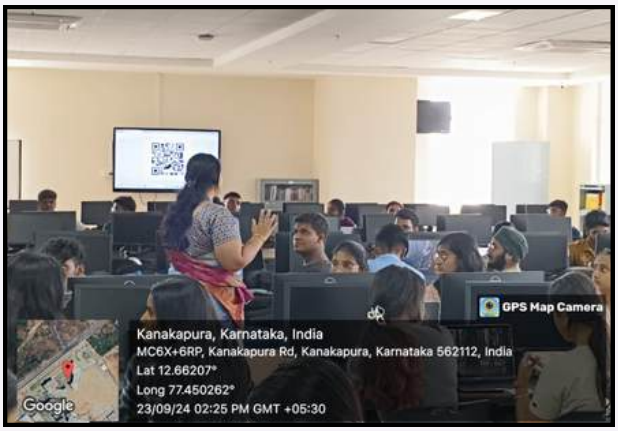
The ceremony was led by key organizers, including Dr. Shaila S G, Chairperson of the CSE - Data Science, Dr. Pavan Kumar U, Faculty Advisor IEEE ITS Student Branch, DSU and Prof. Sindhu A, Faculty Coordinator of the IEEE ITS Student Branch at DSU. The event was further supported by the leadership of Dr. Pushpa Mala S, the IEEE Student Branch Counselor, and Dr. Arun Balodi, Faculty Advisor of IEEE SPS and MTTS, DSU. The student committee played an integral role in managing the event, with Nitin Prajwal R, Chair of IEEE ITS, Pavan Kumar G, Vice-Chair, Janardhan KS, Secretary, and other IEEE ITS members taking the lead in student coordination.

The ceremony's chief guest was **Dr. Premananda B S, Senior Member of IEEE and Associate Professor at RV College of Engineering, Bangalore**. Dr. Premananda's presence added immense value to the event, as he brought with him years of experience and expertise in the field of information theory, making his address a highlight of the ceremony.
The patrons and chief dignitaries of DSU also graced the occasion, including Dr. D. Hemachandra Sagar, Chancellor of DSU, and Dr. D. Premachandra Sagar, Pro Chancellor. Their guidance and support were instrumental in the successful launch of the IEEE ITS Student Chapter, further enhancing the academic standing of DSU.

Outcomes Achieved:

- The event successfully marked the launch of the IEEE ITS Student Chapter, providing students with a dedicated platform to explore information theory and its applications.
- Participants gained valuable insights from the chief guest's speech, particularly regarding the relevance of information theory in fields like AI, data science, telecommunications, and machine learning.
- The event fostered a sense of community and collaboration, with students expressing enthusiasm for future events and activities under the IEEE ITS banner.
- Faculty members and organizers committed to supporting research initiatives and student projects in the area of information theory, ensuring the chapter's growth and sustainability.

"THE LOGO LEAGUE - IEEE INFORMATION THEORY SOCIETY"
23RD SEPTEMBER, 2024



The Logo League competition, organized on **September 23, 2024, at 2:00 pm** by the Department of Computer Science and Engineering (Data Science), in collaboration with the IEEE Information Theory Society (ITS) Student Chapter, was held at Dayananda Sagar University (DSU), A Block, Room A405. The event aimed to foster student creativity through the design of a logo that represents the IEEE ITS Student Chapter.

The Logo League was an event designed to encourage students to participate in the creative process by designing a logo that aligns with the mission and vision of the IEEE Information Theory Society. The event drew students from various disciplines, creating a space for innovation, creativity, and design thinking. The IEEE ITS Student Chapter provided participants with all the necessary tools and materials to successfully produce their designs, offering them a glimpse into the world of branding and logo creation. The event witnessed a good turnout, with students and faculty members actively involved throughout the competition. Participants were then briefed on the rules of the logo design contest, after which they began working on their entries. The competition was followed by the judging process, where the entries were evaluated based on a number of criteria, including creativity, relevance, and alignment with the society's goals.

Organizers: Dr. Shaila S G Chairperson, CSE - Data Science, DSU , Dr. Pavan Kumar U Faculty Advisor, IEEE ITS Student Branch, DSU , Prof. Sindhu A Faculty Coordinator, IEEE ITS Student Branch, DSU.

Jury: Dr Rochna Roy, Assistant Professor, Dept. of English, SOE, DSU

Key Objectives:
The primary objectives of the Logo League were to:

- Encourage student creativity and design thinking.
- Promote a deeper understanding of the IEEE Information Theory Society and its mission.
- Provide a platform for students to engage in logo design and branding activities.

Outcomes:

- The event successfully brought together students from various disciplines, allowing them to express their creativity while learning about information theory and the IEEE ITS.
- The IEEE Information Theory Society was introduced to a wider audience, with participants gaining valuable insights into the role of information processing in modern technology.

MATLAB DAY & WORKSHOP ON "UNLOCKING CREATIVITY: MATLAB FOR THE FUTURE" 25TH SEPTEMBER, 2024

The DataScience@DSU Club, the Department of CSE (Data Science), & IEEE student Chapter-Information Theory Society organized **MATLAB DAY & Workshop on "Unlocking Creativity: MATLAB for the Future,"** held on **25th September 2024, from 09:30 AM to 04:00 PM** in F block Auditorium, DSU, organized by Dr. Shaila S. G, Professor and Chairperson (DS), Prof. Shivamma D, Assistant Professor, Dept. of CSE (Data Science), and Prof. Monish L, Assistant Professor, Dept. of CSE (Data Science). More than 100+ students have been registered and participated in the event.

Details of the Resource Person:

- **Mr. Avinash V,** Application Engineer of MathWorks
- **Mr. Rakshith B S**, Senior Application Engineer for MathWorks products
- **Subhajit Goswami**, Senior Education Customer Success Specialist at MathWorks

Objectives:

- To introduce participants to the advanced features and capabilities of MATLAB that can empower them to leverage the platform for innovative problem-solving in diverse fields such as engineering, data science, and research.
- To provide hands-on training for attendees to learn and apply cutting-edge tools and techniques within MATLAB to unlock their potential in modeling, simulation, data analysis, and other areas.
- To encourage the exploration of new trends and technologies, highlighting MATLAB's role in shaping the future of artificial intelligence, automation, and big data solutions.

Conclusion:

MATLAB's combination of versatility, ease of use, and comprehensive support makes it an invaluable resource for professionals, students, and researchers, driving innovation and efficiency in various domains.

INDUSTRY VISIT TO "HEWLETT PACKARD ENTERPRISE FOR DATA CENTER / TECHNOLOGY" 27TH SEPTEMBER, 2024

Department of CSE (Data Science) Faculties Dr. Shaila S G, Professor and Chairperson, Dr. U. Pavan Kumar, attended **an industry visit to Hewlett Packard Enterprise**, Bengaluru for Data Center/Technology Workshop on **27th September 2024**.

Niraj Kumar (Client Architecture) from Hewlett Packard Enterprise gave a brief idea about to set up High Performance Computing Lab at Dayananda Sagar University, Harohalli.

Objective:

- The primary objective of the visit was to gain insights into Data Center technology adopted by HPE. The HPE Team took us to their research lab and Data centers. The Team discussed the HPC set-up, Equipment, Floor planning, Usage, Projects and innovations. Additionally, the visit aimed to explore potential academic-industry collaborations and gain a deeper understanding of the technologies shaping the future workforce.
- The visit was potentially informative and provided a unique opportunity to bridge the gap between academia and industry. We look forward to fostering a stronger relationship with HPE for setting up HPC-innovation labs and integrating these valuable insights into our academic programs to benefit both faculty and students.
- Setting up a High Performance Computing (HPC) lab involves a combination of hardware, software, networking infrastructure, and system administration expertise.

Key Highlights:

- Presentation by HPE Team
- Visit to Data Centers and Research lab
- Data center set-up plan and its Usage.
- Collaboration and Industry Engagements.

Conclusion

A visit to HPE was a valuable opportunity to explore cutting-edge Data Center technology and gain insights into High Performance Computing (HPC) setups. The discussions with the HPE team highlighted the importance of academic-industry collaboration in shaping the future workforce. This collaboration promises to enhance educational outcomes for faculty and students alike, positioning us at the forefront of technological advancements in the field.

"PRE-PLACEMENT TRAINING: CORPORATE CULTURE"
27TH SEPTEMBER, 2024

The DataScience@DSU Club, the Department of CSE (Data Science) organized **Pre-Placement session on Pre-Placement: Corporate Culture** held on **27th September 2024, from 09:00 AM to 04:00 PM** in A441, SOE, DSU, organized by Dr. Shaila S G, Professor and Chairperson (DS), Prof. Shivamma D, Assistant Professor, Dept. of CSE (Data Science), and Prof. Monish L, Assistant Professor, Dept. of CSE (Data Science). More than 50+ students have been registered and participated in the event.

Resource Person:

- Ms. Roopa Priya JK, Placement Officer, SOE, DSU
- Ms. Ritu, Triner, CIL, SOE, DSU

Objectives:

The objective of the pre-placement talk includes:

- Understanding Corporate Expectations
- Enhancing Adaptability and Flexibility
- Improving Communication and Interpersonal Skills
- Building Professional Identity
- Developing a Global Mindset

Key Takeaways

- Corporate environments are dynamic, often involving change due to market trends, technological advancements, and evolving customer demands. Adapting to these changes is essential for sustained success and growth in a corporate career.
- Understanding corporate culture involves adopting a professional attitude, showing respect for colleagues and superiors, and maintaining a strong work ethic. These traits are highly valued in any organization and are key to career progression.
- Many corporate cultures emphasize continuous learning. By cultivating a mindset of growth and development, employees can stay relevant and contribute to innovation within the organization. Every organization has its own communication norms, whether it is formal or informal, hierarchical or open.
- Understanding these styles helps students navigate their workplace more effectively and build stronger working relationships. Working in multinational corporations or diverse environments requires awareness of cultural differences. Respecting these differences fosters inclusivity and ensures smoother interpersonal interactions.

"EQUIPPING EDUCATION CAMPUSES FOR THE FUTURE: HARNESSING AWS SKILL BUILDER FOR GENAI MASTERY" 04TH OCTOBER, 2024

AWS Skill Builder recently hosted an exclusive in-person event on 04th October 2024, attended by Dr. Shaila S G, Professor and Chairperson, Department of CSE (Data Science) and Dr. Pramod Kumar Naik, Professor and Chairperson, Department of CSE (AI and Robotics). The event aimed to empower academic institutions for the GenAI era through AWS Skill Builder, addressing key challenges in Indian universities such as limited infrastructure, outdated curricula, and a shortage of qualified AI faculty. The sessions emphasized the role of generative AI in driving future innovation, with 93% of corporations expecting to adopt it in the coming years to enhance creativity and automate tasks.

The event showcased AWS Skill Builder's unique capabilities, featuring over 80 digital courses, interactive labs, and real-world problem-solving opportunities. Participants, including Dr. Naik and Dr. Shaila, explored the potential of AWS's tools to bridge industry-academia gaps and integrate AI/ML education into degree programs. The event agenda included discussions with academic leaders, a live demo of the AWS Skill Builder platform, and networking opportunities for attendees to share insights on fostering GenAI skills within academic settings.

Faculties attended: Dr. Shaila S G , Professor and Chairperson, Department of CSE (Data Science)

2-DAY WORKSHOP ON "POWER BI FOR BUSINESS INTELLIGENCE-UNLOCKING DATA DRIVEN DECISIONS" 7TH - 8TH OCTOBER, 2024

The DataScience@DSU Club, Department of CSE (Data Science), organized a **two-day workshop on "Power BI for Business Intelligence – Unlocking Data-Driven Decisions"** on October 7–8, 2024, led by Dr. Shaila S G, Professor and Chairperson, Department of CSE (Data Science), Prof. Godhandaraman T., Prof. Sindhu A, Prof. Manjula M, Assistant Professor, Dept. of CSE (Data Science) and student volunteers. The workshop attracted 150+ participants, including B.Tech students and faculty members from the engineering and technology community.

Day 1 Introduced Power BI Desktop, covering interface navigation, data import and cleaning using Power Query, data modeling, and calculated fields with DAX.
Day 2 Focused on advanced visualizations, creating interactive dashboards with slicers and filters, drill-down reports, and publishing through Power BI Service. Participants engaged in hands-on exercises, ensuring practical skill development.

Resource Person: Dr. Vivek Raj S N, Assistant Professor, VIT, Vellore.

Objectives:

1. Equip participants with a strong foundation in Power BI for data analysis and visualization.
2. Enable the creation of interactive dashboards and data-driven insights.
3. Teach publishing and secure sharing of reports via Power BI Service.

Key Takeaways:

- Hands-on Learning: Participants worked on real-world datasets, reinforcing practical application.
- Enhanced Skills: Gained expertise in building sophisticated dashboards and reports.
- Collaboration: Learned to securely publish and share reports, fostering teamwork.

The workshop provided a comprehensive understanding of Power BI, empowering participants to make data-driven decisions and enhance their professional competencies in business intelligence.

"AYUDHA AARADHANA 2024"
10TH OCTOBER, 2024

The DataScience@DSU Club, Department of CSE (Data Science) organized "**Ayudha Aaradhana 2024 : Ayudha Pooja"** celebration was a vibrant and spiritually uplifting event that brought together students, faculty, and staff to honor the tools of learning, knowledge, and profession. The event, which took place on **10th October 2024,** was a part of the Navaratri celebrations, focusing on showing gratitude towards educational tools and instruments. It aimed to foster a sense of reverence for the materials that aid in academic and professional success, as well as to promote unity among the college community. More than 100+ students have participated in this event for 3rd semester and 5th Semester.

Event Highlights

Pooja Ceremony:

The event began with the Ayudha Pooja ritual, where the college's tools of learning were placed at the center of the altar. Traditional lamps were lit, and a priest or faculty member performed the rituals, invoking blessings for academic and professional growth. Special prayers were offered for the students and staff, seeking divine grace for a successful academic year.

Saraswati Pooja:

Alongside the Ayudha Pooja, a Saraswati Pooja was performed to honor the goddess of wisdom, knowledge, and arts. Books, instruments, and educational tools were placed on the altar, and students, especially those involved in arts and academics, sought blessings for success in their studies and future careers.

Faculty and Student Participation:

Faculty members from various departments took part in the rituals, and students were encouraged to actively participate in the ceremonies. Some students came forward to share their thoughts on the significance of Ayudha Pooja and how it inspires them to respect their studies and professional skills.

Cultural Performances:

Following the rituals, the event featured cultural performances by students, including classical dances, music recitals, and short speeches on the importance of Ayudha Pooja in today's academic and professional world. The performances were well received, adding a festive and joyful spirit to the event.

Distribution of Prasadam:

At the end of the ceremony, traditional sweets and prasadam (offering to the gods) were distributed to all attendees, symbolizing the sharing of blessings and prosperity among the college community.

"NASSCOM - FORGE INDUSTRIES CONNECT"
16TH OCTOBER, 2024

The NASSCOM FORGE (Future-Ready Organizations for Growth and Excellence) Industries Connect event, held on **16th October 2024** brought together key stakeholders from various industries to explore innovative strategies for fostering growth and excellence in a rapidly changing business landscape. The event served as a platform for knowledge sharing, networking, and collaboration.
Dr. Shaila S G, Professor and Chairperson from the Department of CSE (Data Science) has attended NASSCOM FORGE, Bengaluru held on 16/10/2024.

Key Highlights:

1. Digital Transformation
2. Risk Management Strategies
3. Governance Frameworks
4. Sustainability Initiatives
5. Impact of AI and Automation

Key Takeaways:

- Embracing digital transformation is essential for organizations aiming to remain competitive in the FORGE landscape.
- Sustainable practices not only enhance corporate reputation but also contribute to long-term profitability.
- Continuous learning and adaptability are critical for workforce readiness in a rapidly evolving market.

Participants are encouraged to apply the insights gained to their organizational strategies and consider collaboration opportunities discussed during the event. NASSCOM will continue to support the community through resources and follow-up events.

Conclusion:

The NASSCOM FORGE Industries Connect was a significant initiative aimed at empowering organizations to thrive amidst change. The collaboration and insights shared will undoubtedly pave the way for future growth and excellence in various sectors.

"PRE-PLACEMENT TALK: EDGEVERVE SYSTEM"
24TH OCTOBER, 2024

EdgeVerve Systems, a subsidiary of Infosys, left a memorable mark as the first company to visit and deliver a **"Pre-Placement Talk"** at Dayananda Sagar University's (DSU) Harohalli campus for the 2026 batch placement drive on **October 24, 2024 from 11:30 am to 02.00 pm.** The EdgeVerve team provided valuable insights into the company's vision, broad career pathways, and diverse roles, along with an in-depth overview of their recruitment process for both internships and full-time positions, sparking strong enthusiasm among students.

Experts: Mr. Rajeshwar Rao (Head of Talent Acquisition), Mr. Karthik V R (Business Manager, Learning), and Mr. Arun Kumar (Talent Acquisition) dedicated their time to engage directly with students. The session drew over 1,000 enthusiastic 5th-semester students from DSU's School of Engineering, including more than 50 students from the Department of CSE (Data Science), creating an atmosphere brimming with curiosity and ambition. Through interactive discussions and a Q&A session, students gained a comprehensive understanding of EdgeVerve's culture, innovation-driven projects, and growth opportunities.

This impactful event was meticulously organized by Mr. Vijay Kumar S., Director, Training & Placement Department, Ms. Roopa Priya, Placement Officer, Prof. Shivamma D., Assistant Professor and Dr. Shaila S G, Professor and Chairperson of the Department of CSE (Data Science). Their efforts ensured a seamless, engaging experience, setting an inspiring tone for the placement season. EdgeVerve's visit, coupled with DSU students' enthusiastic participation, underscores the university's commitment to preparing top-tier talent for careers in technology and innovation.

"PLANTATION OF PLANTS FOR GOOD HEALTH"
25TH OCTOBER, 2024

The DataScience@DSU Club, the Department of CSE (Data Science) organized **Awareness program on "Plantation of plants for Good health" held on 25th October 2024**, from **11:00 AM to 12:30 PM** in DSU campus, organized by Dr. Shaila S G, Professor and Chairperson (DS), Dr. Santhosh Kumar G, Associate Professor, Prof. Mahendra M K, Assistant Professor, Dept. of CSE (Data Science), and Prof. Chandrakala L, Assistant Professor, Dept. of CSE (Data Science), Dr. K S Bhagyajyothi, Assistant Director of Physical Education, and NSS Co-Ordinator, DSU supported to complete the program successfully. More than 50+ students from 3rd Sem, 5th Semester have participated in this event.

Objectives:

The plantation of plants is a vital component in promoting ecological balance and mitigating the effects of climate change. This report examines the significance of planting initiatives, effective practices for successful cultivation, and the myriad benefits associated with increasing green spaces. It emphasizes the necessity of collaborative efforts in promoting plant cultivation for a sustainable future.
The pressing challenges posed by climate change, habitat destruction, and urbanization have highlighted the urgent need for environmental action. Planting trees and other vegetation not only enhances biodiversity but also contributes to healthier ecosystems. This report explores the multifaceted benefits of planting, alongside best practices for effective implementation.

1. Environmental Significance
   - Carbon Sequestration
   - Air Quality Improvement
   - Soil Conservation
2. Economic Benefits
   - Resource Provision
   - Job Creation
3. Social and Psychological Benefits
   - Community Well-being
   - Mental Health

Conclusion

The plantation of plants is a critical action toward fostering environmental sustainability and resilience. By implementing effective planting strategies and promoting community involvement, we can significantly enhance our ecosystems, improve air quality, and support economic growth. It is imperative that individuals, organizations, and governments collaborate to prioritize planting initiatives for the benefit of current and future generations.

"E–WASTE AND WET WASTE MANAGEMENT"
25TH OCTOBER, 2024

The DataScience@DSU Club, the Department of CSE (Data Science) organized **Awareness program on "E - waste management"** held on **25th October 2024, from 1:30 PM to 4:00 PM** in Cheeluru village and Paduvanagere village, organized by Dr. Shaila S G, Professor and Chairperson (DS), Dr. Santhosh Kumar G, Associate Professor, Prof. Mahendra M K, Assistant Professor, Dept. of CSE (Data Science), and Prof. Chandrakala L, Assistant Professor, Dept. of CSE (Data Science), Dr. K S Bhagyajyothi, Assistant Director of Physical Education, and NSS Co-Ordinator, DSU, supported to complete the program successfully. More than 50+ students from 3rd Sem, 5th Semester have participated in this event.

Objectives:
The rapid advancement of technology has led to a significant rise in electronic waste (e-waste), while growing urban populations have increased the volume of wet waste, primarily organic materials. Both types of waste present unique challenges and opportunities for sustainable management. The effective management of e-waste and wet waste has become essential for environmental sustainability.
E-waste refers to discarded electrical and electronic devices, such as computers, mobile phones, televisions, and household appliances. As technology evolves, older devices are often replaced, leading to a substantial accumulation of e-waste.
Wet waste primarily consists of organic materials, including food scraps, garden waste and other biodegradable items. This type of waste is often heavy and can produce unpleasant odours if not managed properly.

Environmental and Health Impacts of E-waste
- Toxicity: E-waste contains hazardous materials like lead, mercury, and cadmium, which can leach into the environment, posing serious health risks to humans and wildlife.
- Resource Depletion: Valuable metals and materials are lost when e-waste is not recycled, contributing to the depletion of natural resources.
- Greenhouse Gas Emissions: Improper disposal contributes to emissions during the manufacturing and transport of replacement devices.

Environmental and Health Impacts of wet Waste
- Landfill Overflow: Wet waste contributes significantly to the volume of waste in landfills, leading to increased greenhouse gas emissions, such as methane, during decomposition.
- Water Contamination: Improper disposal can lead to leachate, a toxic liquid that can contaminate groundwater and surface water.
- Pest Attraction: Decomposing organic waste can attract pests and create health hazards.

Conclusion
Effective management of E-waste and wet waste is critical for promoting environmental sustainability and protecting public health. By adopting best practices, enhancing community awareness, and advocating for supportive policies, we can mitigate the negative impacts associated with these waste streams. Integrated waste management approaches that address both e-waste and wet waste can lead to significant environmental benefits and resource conservation.

"SWACHH BHARAT ABHIYAN: A CLEAN INDIA INITIATIVE"
25TH OCTOBER, 2024

The DataScience@DSU Club, the Department of CSE (Data Science) organized **Awareness program on " Swachh Bharat Abhiyan: A Clean India Initiative" held on 25th October 2024**, from 1:30 PM to 4:00 PM in Paduvanagere village and Cheeluru village, organized by Dr. Shaila S G, Professor and Chairperson (DS), Dr. Santhosh Kumar G, Associate Professor, Prof. Mahendra M K, Assistant Professor, Dept. of CSE (Data Science), and Prof. Chandrakala L, Assistant Professor, Dept. of CSE (Data Science). Dr. K S Bhagyajyothi, Assistant Director of Physical Education, and NSS Co-Ordinator, DSU, supported to complete the program successfully. More than 50+ students from 3rd Sem, 5th Semester have participated in this event.
Swachh Bharat Abhiyan (Clean India Mission) is a nationwide campaign initiated by the Government of India. Launched on October 2, 2014. Its primary objective is to promote cleanliness, hygiene, and sanitation across the country, aiming to eliminate open defecation and improve solid waste management.

Key Objectives

1. Elimination of Open Defecation: By promoting the construction of toilets and encouraging communities to adopt hygienic practices.
2. Waste Management: Enhancing waste segregation, recycling, and proper disposal mechanisms to maintain clean surroundings.
3. Awareness and Education: Educating citizens about the importance of cleanliness and encouraging public participation through campaigns and workshops.

Achievements

1. Toilet Construction: The program has led to the construction of over 100 million toilets, significantly reducing the prevalence of open defecation across rural India.
2. Community Engagement: The campaign has successfully mobilized communities to participate in cleanliness drives and educational initiatives, fostering a sense of ownership and responsibility.
3. Health Improvements: Enhanced sanitation facilities have contributed to a decline in waterborne diseases, improving overall public health.

Challenges Despite notable progress, the initiative faces several challenges:

- Sustainability of Infrastructure: Maintaining and ensuring the proper use of constructed toilets remains a critical issue.
- Behavioral Change: Transforming long-standing habits related to sanitation and hygiene is an ongoing challenge.
- Urban Waste Management: Rapid urbanization has created complexities in managing waste effectively, leading to increased pollution and health risks.

Future Directions To build on the successes of the Swachh Bharat Abhiyan, the following strategies are recommended:

1. Innovative Waste Management Solutions: Embracing technology and innovative practices to enhance waste processing and recycling efforts.
2. Strengthening Community Participation: Encouraging local bodies and NGOs to play a more active role in promoting cleanliness and sustainability.
3. Monitoring and Evaluation: Implementing robust mechanisms to assess the impact of initiatives and ensure accountability.

Conclusion: Swachh Bharat Abhiyan has made remarkable strides toward a cleaner India, but sustained efforts and community involvement are essential for long-term success. As we move forward, let us commit to the principles of cleanliness and hygiene, ensuring a healthier environment for future generations.

"EIGHTH ANNUAL CONVOCATION"
28TH OCTOBER, 2024

The **Eighth Annual Convocation of Dayananda Sagar University** was held on **Monday, 28th October 2024**, celebrating the achievements of its graduating students with great enthusiasm and dignity.

The ceremony was graced by **Prof. Debabrata Das**, Director of the International Institute of Information Technology, Bangalore, as the Chief Guest. The Guests of Honour were:

- **Mr. Jonas Brunschwig**, CEO of Swissnex in India & Consul General of Switzerland to South India.
- **Dr. D. Premachandra Sagar**, Hon'ble Pro-Chancellor, Dayananda Sagar University.

The event was presided over by **Dr. D. Hemachandra Sagar**, Hon'ble Chancellor of Dayananda Sagar University, along with members of the Board of Governors, Board of Management, and Academic Council.

The convocation was particularly momentous for the Department of CSE (Data Science), which celebrated the graduation of 46 students. The certificates were presented by **Dr. Uday Kumar Reddy**, Dean of the School of Engineering, and **Dr. Shaila S G**, Chairperson of the Department of CSE (Data Science). This marked the culmination of the students' hard work, dedication, and perseverance.

The event highlighted the importance of academic excellence and the university's role in shaping future leaders. The inspiring speeches from the dignitaries emphasized innovation, contribution to society, and lifelong learning as core values.

As the graduates embark on their professional journeys, the university and its faculty remain confident in their ability to bring impactful contributions to their fields and society.

We congratulate all our graduates and wish them tremendous success, fulfillment, and happiness in their future endeavors.

"PARTICIPATION IN THE ZERODHA VARSITY QUIZ EVENT" 06TH NOVEMBER, 2024

On November 6, 2024, a group of motivated and talented students from Dayananda Sagar University (DSU), specifically from the Computer Science and Engineering (CSE) Data Science participated in the **"Zerodha Varsity Quiz" – Bangalore's premier finance quiz** at Gallery Hall 1, 2, and 3, City Campus, Dayananda Sagar University (Kudlu Gate).
This event was made possible by the dedicated coordination and support of Dr. Pavan Kumar U, a respected professor at DSU, who oversaw the organization, team registrations, and preparations. His guidance ensured that the students were well-prepared and fully equipped to compete in this prestigious event.

Event Summary:
The Zerodha Varsity Quiz, conducted in partnership with QShala, consisted of two challenging rounds: an initial written Preliminary Round and an intense Grand Finale. With cash prizes totaling INR 25,000, the competition tested the students on a range of topics, including Economics, Wealth Management, Business, and Investing, primarily based on the educational content provided by the Zerodha Varsity platform. The quiz aimed to boost financial literacy, providing an invaluable experience for DSU students as they engaged with complex concepts in finance.

Participants:
The students representing DSU were from the 5th semester, 3rd year from the Department of CSE (DS). They showcased strong analytical and critical thinking skills, which reflected their technical education background. Guided by Dr. Pavan Kumar U, these students approached the quiz with a strategic mindset and demonstrated excellent teamwork. The participants included Pavan Kumar G, Shushma S, Kuruba Veeresh, Hifza Ahmed, Thanya U Ganiga, Shama, Nitin Prajwal R, Janardhan, R Sindhu, Venkat Nivas Reddy, Sherlyn Rose, Job Jomy, Harshita Jeetendra Bhute, Sanjana S, Kovarthana, Sujeeth Kumar and Virika. Their combined expertise in Computer Science and Data Science added a unique edge to their approach in the finance quiz.

Highlights of the Quiz:
The event commenced at 9:00 AM with an introduction from the organizers and a briefing on the quiz structure. In the Preliminary Round, DSU students tackled questions on fundamental finance concepts, including market cycles, investment risks, and basic principles of entrepreneurship. Displaying analytical rigor and collaborative skills nurtured through their academic backgrounds, they performed commendably in this round. The best-performing teams advanced to the Grand Finale, which featured more sophisticated questions on wealth management, global financial trends, and entrepreneurial insights, demanding quick thinking and a deep understanding of finance.

Achievements:
Although only the top three teams received the cash prizes, DSU students gained invaluable insights and experience in financial literacy. Their participation underscored the importance of financial education as a complementary skill for tech professionals, highlighting the synergy between technical expertise and financial acumen. This experience has equipped them with practical knowledge they can carry forward in their careers.

Conclusion:
Participation in the Zerodha Varsity Quiz provided DSU students with an exceptional opportunity to apply their analytical skills to financial concepts, bridging the gap between technology and finance. With the dedicated support of Dr. Pavan Kumar U, these students gained exposure to financial literacy in a way that expanded their academic and professional horizons. Their performance in the quiz demonstrated the benefits of integrating finance into their tech-focused education, preparing them for a versatile future that blends technical knowledge with financial insight.

ORIENTATION: "NTT DATA AT DSCE"
7TH NOVEMBER, 2024

An orientation session organized by **NTT DATA** was held on **7th November 2024** at Dayananda Sagar College of Engineering (DSCE) for the 16 students from 5th Semester, Dept of CSE (DS) selected for training with the company. This session provided the students with insights into NTT DATA's organizational culture, expectations, and onboarding process, preparing them for the training phase and the start of their professional journey.

The orientation was attended by Prof. Shivamma D. Assistant Professor, Department for CSE (Data Science) the Single Point of Contact (SPOC) for NTT DATA at Dayananda Sagar University (DSU), as well as Dr. Rashmi S., Associate Professor and I/C HOD Department for CSE (Data Science), DSCE, Mr. Guru Venkatesh, Director, Placement Cell and representatives from the NTT DATA team.

The collective presence of these stakeholders underscored the institution's commitment to supporting the students selected for training, marking an important milestone in their preparation for a successful career with NTT DATA.

"PARENTS TEACHERS MEETING" - 3RD, 5TH, 7TH SEMESTER 9TH NOVEMBER, 2024

The PTM was inaugurated by Dr. Shaila SG, Professor and Chairperson, Dept. of CSE (Data Science), Prof. Shivamma D, Class Advisor of 3rd Sem A Section, Prof. Godhandarman T, Class Advisor of 3rd Sem B Section, Prof. Monish L, Class Advisor of 5th semester A Section, Prof. Manjula M, Class Advisor of 7th semester, along with other faculties who were present in the department. Around 40 parents were joined in the meeting. Chaipersons, followed by the class advisors, took up the agenda points listed below

Agenda:

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

1. Discussion on effect of less attendance:
2. Minimum attendance requirement: 85%
3. Detaining policy for not meeting the attendance requirements- not allowed for SEE exams
4. Discussion on CIA and SEE weightage: 60:40, passing marks (40%), attending summer term exam if failed
5. Discussion on role of parents to invest their time on their wards
6. Mention about ERP and ask them to collect info from their wards through ERP
7. Knowing their time table, IA marks, college timings, attendance, CGPA of previous semester and backlogs, SMS alert of the attendance through ERP
8. Knowing the SEE TT announcement through DSU website
9. Visiting the dept periodically to know their progress
10. Discussion on updating their contact no and email-ids in ERP through student login.
11. Inform about remedial classes conduction for slow learners/performers.
12. Mention about mentoring – ask them to be in touch with mentor. Share the mentor details
13. Disciplinary measures at DSU: Dress code, Wearing Id card is must, Tell the parents to advice students not use mobiles in class room, if found using, inform them about mobile confiscating
14. Upcoming examination MSE2
15. Discussion on placement: Best Practices: Adopted project-based learning, carrier guidance.

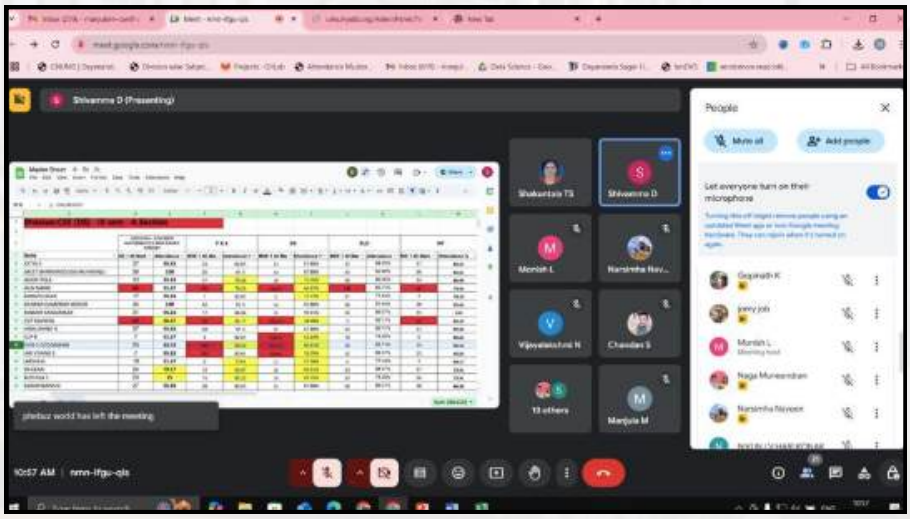
- Inform about CTS learning.
- Show the marks secured by student in MSE I
- Show the results of Previous semester.
- Show the Attendance status of the student.
- Current status of 7th semester placement
- On going placement training for 5th and 3rd semester and future plans

Opinion of the parents:

1. Parents were well satisfied by the Institution and its policies. The parents congratulated the department for its achievements.
2. Parents suggested to keep the online classes on Saturdays as they are facing it difficult to attend on Saturday.
3. Parents also requested to provide them access with credentials to them.
4. Parents also mentioned that there was an issue in Fee payment via ERP.

CONTD


SCHOOL OF ENGINEERING
DAYANANDA SAGAR UNIVERSITY
DAYANANDA SAGAR UNIVERSITY
School of Engineering
Dept. of CSE (Data Science)
PTM- 2024



"LAKSHMI POOJA CELEBRATION 2024"
20TH NOVEMBER, 2024

The DataScience@DSU Club of the Department of CSE (Data Science) organized the **Lakshmi Pooja Celebration 2024 on 20th November 2024** at 11:30 pm as part of the Navaratri festivities organised by Dr. Shaila S G, Professor and Chairperson, Prof. Shivamma D and Prof. Monish L, Assistant Professor, Dept. of CSE (DS). This spiritually enriching event brought together students, faculty, and staff to honor Goddess Lakshmi, the deity of wealth, prosperity, and well-being.
The event emphasized gratitude for blessings received and sought divine grace for continued academic, personal, and professional success.

Event Highlights:

Pooja Ceremony
The celebration commenced with the Lakshmi Pooja, where a splendidly decorated altar, adorned with flowers, lamps, and traditional offerings, set the tone for the rituals. Shivamma D. and Monish L led the arrangements for the ceremony, ensuring an authentic and spiritually immersive experience. A priest or faculty member conducted the pooja, invoking Goddess Lakshmi's blessings for prosperity and harmony.

Chanting and Devotional Songs
The rituals were complemented by devotional songs and hymns, including the recitation of Lakshmi Ashtottara Shatanamavali (108 Names of Lakshmi). The melodious chants uplifted the spiritual ambiance, engaging everyone present in a shared moment of reverence.

Student and Faculty Engagement
The event saw enthusiastic participation from over 100 students, primarily from the 3rd and 5th semesters, along with faculty members. Shivamma D. and Monish personally invited attendees to participate in the pooja, fostering a sense of community and shared purpose.

Cultural Performances
Following the pooja, the event featured cultural performances, including devotional dances, musical recitals, and short speeches by students on the significance of Lakshmi Pooja in their lives. The cultural segment was vibrant and inspiring, reflecting the talents and creativity of the DSU community.

Distribution of Prasadam
The event concluded with the distribution of prasadam, including traditional sweets and offerings, symbolizing the sharing of blessings and prosperity among all attendees.

CONTD


Ramanagara, Karnataka, India
MC6X+6RP, Kanakapura Rd, Harohalli, Karnataka 562112, India
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20/11/24 12:08 PM


Ramanagara, Karnataka, India
MC6X+6RP, Kanakapura Rd, Harohalli, Karnataka 562112, India
Lat 12.661374° Long 77.450582°
20/11/24 12:00 PM


Ramanagara, Karnataka, India
MC6X+6RP, Kanakapura Rd, Harohalli, Karnataka 562112, India
Lat 12.661374° Long 77.450582°
20/11/24 01:56 PM


Ramanagara, Karnataka, India
MC6X+6RP, Kanakapura Rd, Harohalli, Karnataka 562112, India
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20/11/24 12:17PM

"DANCE AND SINGING COMPETITION"
20TH NOVEMBER, 2024

The DataScience@DSU Club of the Department of CSE (Data Science), Dayananda Sagar University, organized a spectacular **Dance and Singing Competition on 20th November 2024** from **2:00 pm to 4:00 pm** organised by Dr. Shaila S G, Professor and Chairperson, Prof. Shivamma D and Prof. Monish L, Assistant Professor, Dept. of CSE (DS) for the 3rd and 5th Semester students. The event aimed to showcase the immense talent of students and provide them with a platform to express their creativity, passion, and cultural diversity.

The competition brought together enthusiastic participants from various semesters, supported by an audience of students, faculty, and staff. The event highlighted the importance of extracurricular activities in fostering creativity, confidence, and camaraderie among students.

Event Highlights

Dance Competition

The dance segment saw participation from 5 dynamic teams, each delivering captivating performances across various styles such as classical, contemporary, folk, and fusion. The participants showcased exceptional energy, creativity, and coordination, captivating the audience and judges alike. Performances were judged based on creativity, synchronization, stage presence, and overall impact.

Singing Competition

The singing competition featured 4 talented teams competing in various genres, including classical, folk, pop, and Bollywood. Both solo and group performances enthralled the audience with their melodious and heartfelt renditions. Judges evaluated the performances based on vocal quality, song selection, presentation, and emotional connection with the audience.

Judges Panel

The event featured a distinguished panel of judges comprising Dr. Rochna Roy, Assistant Professor, Department of Basic Sciences who provided valuable feedback to the participants and encouraged them to excel further.

Winners: Dance Competition

1st Place: Thungashree - ENG23DS0041
Shreya Praveen - ENG23DS0037
Siri A K - ENG23DS0038,
Pavithra S -ENG23DS0023

2nd Place: Nikhil T -ENG23DS0112
Prabhu Shiva -ENG23DS0080
Hemanth Hari Teja R -ENG23DS0106
Adarsh B Pawar -ENG23DS0136
Janardhan K S - ENG22DS0004
Sujeeth Kumar D S -ENG22DS0019
Kuruba Veeresh - ENG22DS0034
Pavan Kumar G -ENG22DS0040
Jagapathi Babu S - ENG24DS0109

3rd Place: Jeevitha A M - ENG23DS0061
Kruthika S - ENG23DS0015
Sudhanya Athri K S - ENG23DS0039
Sindhu R - ENG22DS0010

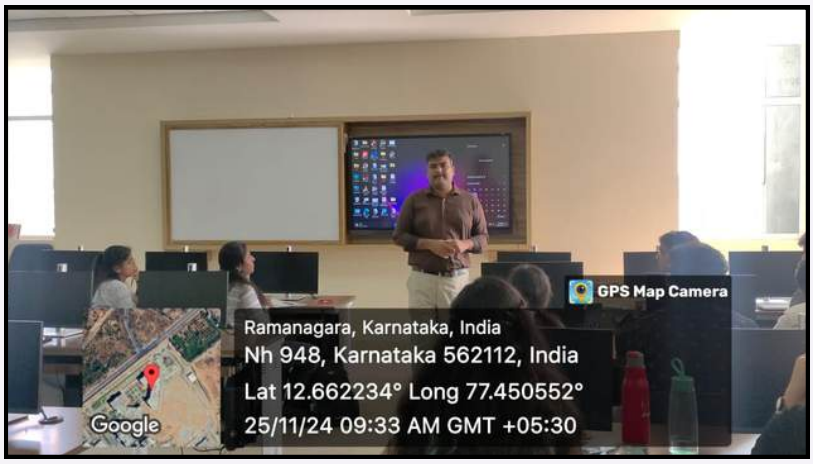
Winners: Singing Competition

1st Place: Gowtami R - ENG22CS0546
Anusha Kogundematt - ENG22CS0529
Sambhram M N - ENG23CS0171

2nd Place: Daksh Balai - ENG23DS0101
Adrija Sarkar - ENG23DS0094

3rd Place: Bhavya Shree - ENG23DS0109

5-DAY VALUE ADDED COURSE "HANDS-ON TRAINING: TO BECOME A MICROSOFT AZURE DATA ENGINEER" 25TH NOVEMBER, 2024 TO 29TH NOVEMBER, 2024



Under DataScience@DSU Club, the 5-day value-added course organised by Dr. Suresh Arumugam, Associate Professor, Department of CSE (Data Science), School of Engineering, Dayananda Sagar University, was held from **25th November 2024 to 29th November 2024 from 9:00 am to 4:00 pm** for the 5th semester students. The demand for cloud-based solutions has surged dramatically, driving the need for skilled professionals in cloud computing. Microsoft Azure, being one of the top cloud platforms, offers a range of certifications and hands-on training to help individuals become proficient in its tools and services. This course provided participants with expert insights and practical experience in leveraging Microsoft Azure for data engineering.

Key Areas Covered in Hands-On Training

1. Azure Fundamentals
- Overview: Introduction to Azure services, architecture, and tools.
- Practical Exercises: Setting up Azure accounts, resource groups, and virtual networks.
- Skills Acquired: Understanding the Azure ecosystem and foundational services like compute, storage, and networking.

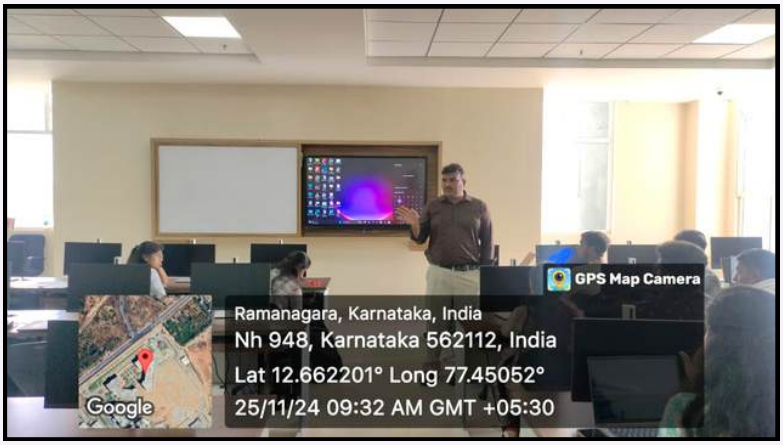
2. Azure Data Storage
- Azure SQL Database: Setting up and managing relational databases.
- Azure Blob Storage: Handling unstructured data like images, videos, and logs.
- Cosmos DB: Working with globally distributed, multi-model databases.
- Practical Exercises: Creating databases, writing queries, and setting up storage accounts.

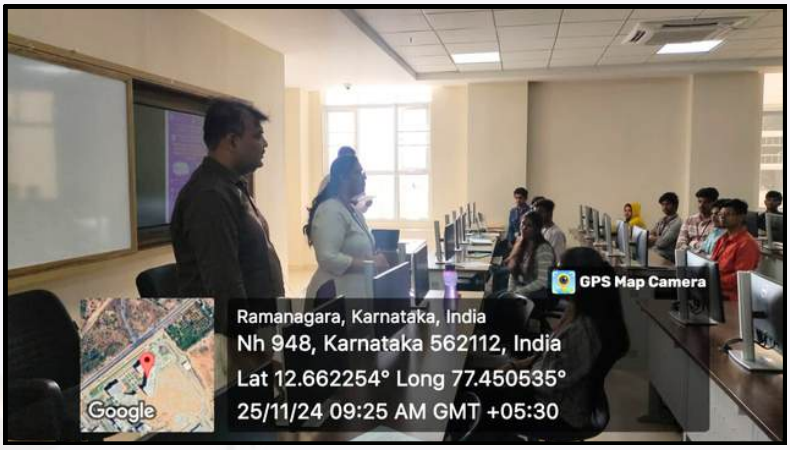
3. Data Integration Using Azure Data Factory
- Overview: Learning to create ETL (Extract, Transform, Load) workflows.
- Hands-On Activities: Building and scheduling data pipelines to integrate disparate data sources.
- Key Features: Utilizing triggers, monitoring pipelines, and optimizing performance.

4. Azure Synapse Analytics
- Purpose: Unified analytics platform for data integration, warehousing, and big data processing.
- Training: Setting up Synapse workspaces, running SQL analytics, and integrating with Power-BI.
- Real-World Applications: Designing enterprise-level data warehouses for business intelligence.

5. Streamlining Data with Azure Stream Analytics
- Real-Time Data Processing: Learning to analyze and process data streams.
- Practical Application: Implementing scenarios like IoT telemetry and social media sentiment analysis.

CONTD





6. Azure Databricks
- Overview: A collaborative platform for big data analytics and AI solutions.
- Hands-On Training: Running Spark-based workloads, creating notebooks, and integrating-machine-learning-models.
- Skills Acquired: Data wrangling, model training, and visualization.

7. Security and Monitoring
- Data Security: Implementing Azure policies, RBAC (Role-Based Access Control), and encryption.
- Monitoring: Using Azure Monitor and Log Analytics for performance tracking and troubleshooting.

Learning Outcomes

Upon-completing-the-training-participants-will:
1. Gain proficiency in designing and managing Azure-based data pipelines.
2. Understand advanced analytics and reporting using Azure Synapse and Power BI.
3. Build robust storage and processing solutions tailored for organizational needs.
4. Be equipped with hands-on skills to appear for the Microsoft Certified: Azure Data Engineer Associate certification exam.

Advantages of Hands-On Training
- Practical Knowledge: Participants work on real-world projects, bridging the gap between theory-and-practice.
- Industry Relevance: Training is aligned with industry standards and demands.
- Collaboration and Networking: Opportunity to work with peers and learn from certified trainers.

THIRTY HOURS VALUE ADDED COURSE ON "AI AND ML IN NURSING & HEALTHCARE"
26TH OCTOBER, 2024 TO 27TH NOVEMBER, 2024

The rapid advancements in Artificial Intelligence (AI) and Machine Learning (ML) are transforming industries, with healthcare being one of the most impacted domains. The integration of AI and ML in nursing and healthcare has opened up avenues for improved diagnostics, personalized treatment, operational efficiency, and patient engagement. Recognizing this potential, a 30-hour hands-on training program was conducted from 26th October 2024 to 27th November 2024, from 6:00 PM to 7:00 PM in Hybrid Mode.

The program, led by Dr. Shaila SG and Prof. Sindhu A from the Department of CSE (Data Science), with coordination by Dr. Jamuna P, School of Nursing aimed to equip participants with foundational and advanced knowledge in AI and ML applications tailored for nursing and healthcare. This course provided participants with insights into machine learning models, neural networks, data analytics, and the Internet of Things (IoT), along with practical examples and case studies to emphasize the impact of AI in healthcare.

Key Areas Covered in Hands-On Training

1. Introduction to Artificial Intelligence (AI) and Machine Learning (ML)
2. Importance and Applications of AI and ML in Nursing & Healthcare
3. Types of Machine Learning and its Classification
4. Neural Networks, Their Types, and Processing
5. Internet of Things (IoT)
6. Data Representation
7. Data Analytics
8. Healthcare Data Analysis
9. Healthcare Datasets - Examples and Case Studies
10. Case Studies and Future Trends in AI Healthcare

Learning Outcomes

 Comprehensive understanding of AI and ML applications in healthcare.
 Skills in designing and implementing ML models for medical use cases.
 Insights into managing and analysing healthcare datasets effectively.
 Familiarity with IoT and its role in remote patient monitoring.

Advantages of Hands-On Training

- Practical Knowledge: Hands-on exposure to tools and techniques.
- Industry Alignment: Focused on real-world healthcare challenges.
- Expert Guidance: Interaction with experienced resource persons.

Conclusion

The training program offered a robust platform to explore AI and ML in the context of nursing and healthcare, emphasizing practical implementation and future trends. It empowered participants with technical expertise and industry-relevant skills, preparing them for innovations in healthcare technology

CONTD.

Agenda

Unit No.	Course Content (Topics and Subtopics)	Hours
1	Introduction to AI and ML: Importance and Applications in Nursing & Healthcare	3
2	Types of ML & Classification: Decision Tree, Bayesian Classifier, Regression	2
3	Neural Networks: Learning Models, Deep Neural Networks, CNNs, RNNs, NLP, Computer Vision	4
4	Internet of Things (IoT): Introduction, Process Flow, Tools, Use Cases, Remote Patient Monitoring	3
5	Data Representation: Introduction, Data Frames, Standardization, Handling Noise/Missing Values, Transformation	4
6	Data Analytics: Tools like R, Python, Statistical and Visualization Tools	4
7	Healthcare Data Analysis: Sources, Pre-processing, Handling, Analysis-ready Datasets	5
8	Healthcare Datasets: Examples and Case Studies	3
9	Case Studies and Future Trends in AI Healthcare	2

"INDUSTRY CONNECT SESSION WITH OPPO"
10TH DECEMBER, 2024

The Generation Green (Gen G) Campaign, an initiative by OPPO India in partnership with AICTE and organized by 1M1B, took place successfully on **December 10, 2024**. The event showcased an exciting cultural program that included a flash mob, skit, and fashion show, along with engaging activities such as a scavenger hunt, ideathon, and face painting. The inauguration was honored by distinguished guests, including Syed Khaja Mohiddin M.E., Senior Environmental Officer at KSPCB, and Ms. Anuka Kumar, Head of CSR at OPPO India. Esteemed speakers, such as Dr. Naveen Babu, Vice Chancellor and Associate Dean, highlighted the significance of sustainability and innovation.

After lunch, the event proceeded with a roundtable discussion where the dean, department chairpersons, and faculty members shared their insights on sustainability. They participated in collaborative conversations with Mr. Syed Khaja Mohiddin M.E. and Ms. Anuka Kumar. During this session, a Memorandum of Understanding (MoU) was signed to promote collaboration in research, organize awareness campaigns, and support initiatives for startups.

Outcome of the event:

The MoU between OPPO and 1M1B will boost innovation and startup opportunities for DSU students. Moreover, the Government of Karnataka's commitment to support and fund projects from the School of Engineering will provide essential resources for growth and research, nurturing a vibrant entrepreneurial ecosystem at DSU.

"SMART INDIA HACKATHON (SIH) 2024"
12TH DECEMBER, 2024

The Smart India Hackathon (SIH) is an annual innovation challenge organized by the Government of India to provide students with a platform to solve real-world problems. SIH 2024 encouraged participants to apply their creativity and technical expertise to develop innovative solutions for societal, industrial, and governmental challenges. The program was held on **12th December 2024**. Three students, Janardhan, Sujeeth & OM Singh along with Mentor Prof. Manjula, participated in SIH 2024.

- Development of innovative solutions to real-world problems faced by industries, government bodies, and society.
- Creation of working prototypes and ideas that have the potential for real-world deployment.
- Addressed challenges in diverse domains such as healthcare, education, agriculture, environment, transportation, and smart cities.

Participation in SIH 2024 provided the following key takeaways:

1. Enhanced technical skills in [specific areas, e.g., AI, IoT, or web development].
2. Real-world problem-solving experience with industry-standard tools and practices.
3. Improved teamwork, leadership, and communication skills.
4. Exposure to working under time constraints in a competitive environment.

Participating in the Smart India Hackathon 2024 was a transformative experience for our team. It provided a unique opportunity to contribute to solving real-world problems, fostered technical growth, and inspired us to innovate further. We look forward to applying these learnings in future endeavors to make a positive impact on society.

"TECHSPARK MATLAB EXPO 2024"
24TH DECEMBER, 2024

The DataScience@DSU Club, along with the Department of CSE (Data Science) and the IEEE Student Chapter - Information Theory Society, organized the **TECHSPARK MATLAB EXPO 2024 on December 24, 2024**, from **10:00 AM to 03:00 PM** in A410, SOE, DSU. The event was led by Dr. Shaila S G, Professor and Chairperson (Data Science), Prof. Shivamma D, Assistant Professor in the Department of CSE (Data Science), and Prof. Monish L, Assistant Professor in the Department of CSE (Data Science). Over 50 students registered and took part in this event.

Details of the Experts:

- **Dr. Debanand Singdeo,** Senior Engineer in the Education Team at MathWorks India Private Limited (Bangalore)
- **Mr. Rakshith B S,** Senior Application Engineer for MathWorks products at CoreEL Technologies, Bengaluru

The resource persons officially inaugurated the MATLAB EXPO at DSU, marking the start of the event. The program began with a warm welcome to the experts, followed by speeches from distinguished guests who addressed the audience. The event concluded with students actively participating in and enjoying their MATLAB learning experience.

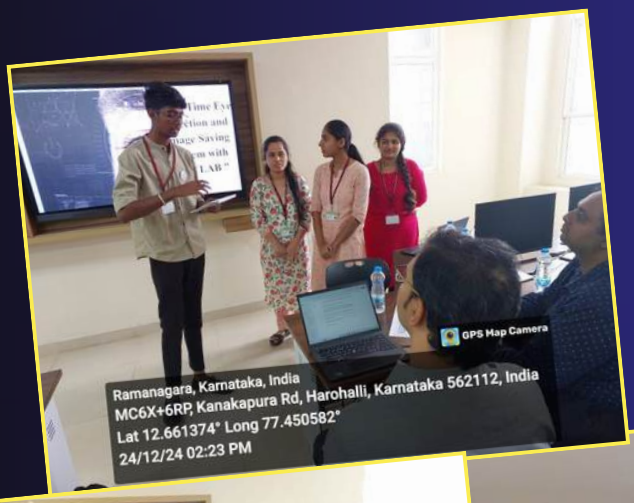
The primary goal is to inspire creativity by demonstrating how MATLAB can be utilized to create future-ready solutions and improve productivity in both academic and industrial applications.

Objectives:

- Showcase Innovation: Highlight the innovative application of MATLAB to tackle real-world problems through creative projects.
- Promote Knowledge Sharing: Offer a platform for students and professionals to exchange knowledge and expertise in MATLAB programming and applications.
- Encourage Collaboration: Foster teamwork and collaboration by involving participants from diverse disciplines in project development.

Enhance Technical Skills: Provide participants with the opportunity to improve their programming, modeling, and simulation skills using MATLAB.

GALLERY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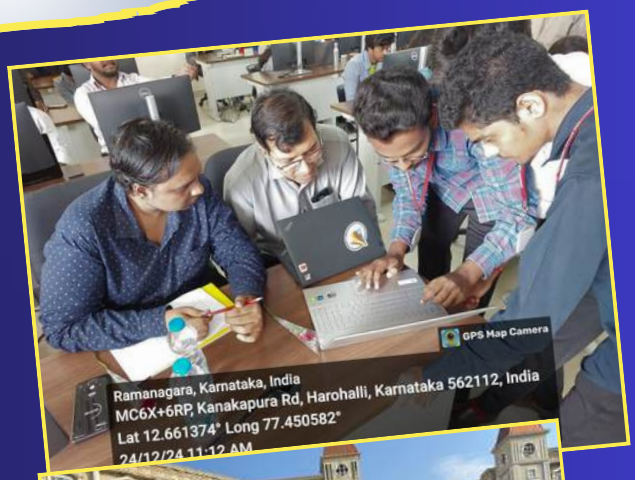
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FACULTY ACHIEVEMENTS

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

Mr. Gurudas V R, Research Scholar, completed his Ph.D in Computer Science and Engineering under the supervision of **Dr. Shaila S G**, Professor and Chairperson, Data Science, on **"Fusion of Morphological and Texture Features Based on the Properties of Inter and Intra group Variance for Early Detection of Breast Cancer"** and was awarded Convocation on 28th October 2024.

Research Publication

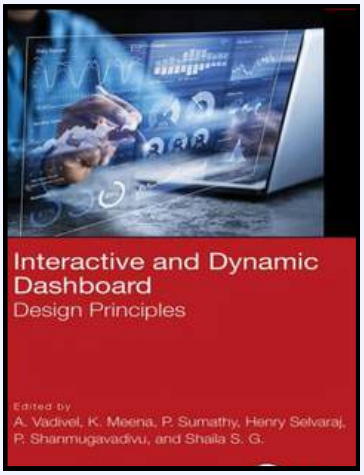
- VR Gurudas, **SG Shaila,** A Vadivel - **"Morphological and Textural Data Fusion for Breast Cancer Classification Based on Inter and Intra group Variances."** International Journal of Intelligent Engineering & Systems 17 (3) on 2024/5/1.

FACULTY ACHIEVEMENTS

- SG, Sumana and Yerva, Manjula and **S G, Shaila** and K, Srinivas and S, Vinuth Gowda **"Complex Facial Expression Analysis and Recognition using Deep Networks,"** 2024 International Conference on Inventive Computation Technologies (ICICT), Lalitpur, Nepal, 2024, pp. 563-567, doi: 10.1109/ICICT60155.2024.10545002

- M Manjula, Kakoli Bora, **SG Shaila**, Skanda N Raj, R Thilak, Akanksha Kanchireddy **"Enhancing Data Privacy through a Secure Data Hiding Approach Integrated with Lossless Compression,"** 2024 International Conference on Inventive Computation Technologies (ICICT), Lalitpur, Nepal, 2024, pp. 1465-1470, doi: 10.1109/ICICT60155.2024.10544914

Dr. Shaila S G, Professor & Chairperson, published a book **Interactive and Dynamic Dashboard: Design Principles** at CRC Press Taylor & Francis Group.

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Nelson Mandela Marg, Vasant Kunj, New Delhi -110070

AICTE Training and Learning (ATAL) Academy

Certificate

It is certified that Dr. Shaila S G, Professor of Dayananda Sagar University Bangalore has successfully participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on Artificial Intelligence in Data Science Applications at MUFFAKHAM JAH COLLEGE OF ENGINEERING AND TECHNOLOGY from 13/12/2024 to 19/12/2024.

Uma N Dulhare
Professor Level (AICTE Institute), Coordinator
MUFFAKHAM JAH COLLEGE OF ENGINEERING AND TECHNOLOGY

Dr. Sunil Luthra
Director & Bureau Head
Training and Learning Bureau, AICTE

Dr. Shaila S G, Professor & Chairperson, has successfully participated in and completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on **Artificial Intelligence in Data Science Applications** at MUFFAKHAM JAH COLLEGE OF ENGINEERING AND TECHNOLOGY from 13/12/2024 to 19/12/2024

FACULTY ACHIEVEMENTS

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

Prof. Santhosh Kumar has successfully completed the Certificate as Facilitator of **"AI for Future Workforce Program"** in India on October 18, 2024

Dr. Santhosh Kumar G participated in the Five Days National Level Faculty Development Programme On **"EXPLORING COMPUTATIONAL INTELLIGENCE (ONLINE)"** organised by School of Computer Science and Engineering, VIT-AP University, Amaravati from 16th July 2024 to 20th July 2024

Dr. Santhosh Kumar G participated in IP **Awareness/Training program** under National IP Awareness Mission (NIPAM) Organized Intellectual Property Office, India on 19th July 2024

FACULTY ACHIEVEMENTS

Dr. Santhosh Kumar G, Associate Professor, attended One Week Online Faculty Development programme on **Emerging Frontiers in AI: From Data Science to Generative AI and its Application** from 09.12.2024 to 13.12.2024 organized by Department of Computer Science and Engineering, Andhra Loyola Institute of Engineering and Technology-Vijayawada.

ANDHRA LOYOLA INSTITUTE OF ENGINEERING AND TECHNOLOGY(AUTONOMOUS)

(APPROVED BY AICTE, RECOGNIZED BY GOVT. OF A.P. & AFFILIATED TO JNTUK)
AN ISO 9001:2015 CERTIFIED INSTITUTE, VIJAYAWADA – 520 008

CERTIFICATE
OF PARTICIPATION

This is to certify that Prof/Dr./Ms./Mr. SANTHOSH KUMAR G
of Davananda Sagar University
has attended One Week Online Faculty Development Programme On Emerging Frontiers in AI: From Data Science to Generative AI and its Applications from 09.12.2024 to 13.12.2024 organized by Department of Computer Science and Engineering, Andhra Loyola Institute of Engineering and Technology -Vijayawada.

DR.L.KANYA KUMARI CONVENOR | DR. O. MAHESH CHAIRMAN | REV. FR. DR. B. JOJI REDDY S.J CHIEF PATRON

ATAL/2024/1732960415

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ALL INDIA COUNCIL FOR TECHNICAL EDUCATION
Nelson Mandela Marg, Vasant Kunj, New Delhi -110070
AICTE Training and Learning (ATAL) Academy

Certificate

It is certified that Dr. Santhosh Kumar G, Associate Professor of Dayananda Sagar University has successfully participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on QuantumVerse: Advancing Knowledge in Quantum Computing, XR, and the Metaverse at A P S COLLEGE OF ENGINEERING from 16/12/2024 to 21/12/2024.

Mithun B N
Professor Level (AICTE Institute), Coordinator
A P S COLLEGE OF ENGINEERING

Dr. Sunil Luthra
Director & Bureau Head
Training and Learning Bureau, AICTE

Dr. Santhosh Kumar G, Participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on **QuantumVerse: Advancing Knowledge in Quantum Computing, XR, and the Metaverse** at A P S COLLEGE OF ENGINEERING from 16/12/2024 to 21/12/2024..

FACULTY ACHIEVEMENTS

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

Dr. Suresh A, Associate Professor, has successfully participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on **Artificial Intelligence in Data Science Applications** at MUFFAKHAM JAH COLLEGE OF ENGINEERING AND TECHNOLOGY from 13/12/2024 to 19/12/2024.

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ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi -110070

AICTE Training and Learning (ATAL) Academy

Certificate

It is certified that Dr. Suresh Arumugam, Associate Professor of Dayananda Sagar University has successfully participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on Artificial Intelligence in Data Science Applications at MUFFAKHAM JAH COLLEGE OF ENGINEERING AND TECHNOLOGY from 13/12/2024 to 19/12/2024.

Uma N Dulhare
Professor Level (AICTE Institute), Coordinator
MUFFAKHAM JAH COLLEGE OF ENGINEERING AND TECHNOLOGY

Dr. Sunil Luthra
Director & Bureau Head
Training and Learning Bureau, AICTE

- **Dr. Suresh Arumugam**, Associate Professor, has achieved a significant milestone by setting up the Oracle Academy Lab at Dayananda Sagar University, marking a major step forward in enhancing academic excellence and industry collaboration.

- **Dr. Suresh Arumugam**, Associate Professor, has been officially appointed as the Faculty Coordinator of the Google Developer Groups.

FACULTY ACHIEVEMENTS

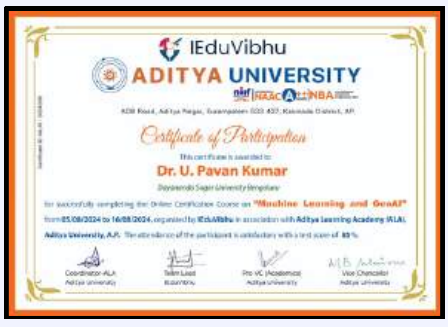
Dr. U. Pavan Kumar
Assistant Professor
Department of CSE (Data Science)

Dr. U. Pavan Kumar Participation in the online Faculty Development Program on **"Latest developments in RF Technologies in 5G and Beyond"** Organized by Rajalakshmi Engineering College in association with IIC/REC and IEEE Communication society/REC between 31/07/2024 and 05/08/2024.

Dr. U. Pavan Kumar Participated in Six days online Faculty Development Program on **"Artificial Intelligences Impact on Transforming Software, Robotics, Electrical, Electronics & Mechanical Fields,"** Organized by Dhaanish Ahamed College of Engineering held from 05/08/2024 to 10/08/2024.

Dr. U. Pavan Kumar Participated a two day online Faculty Development Program on **"Deep Learning and IOT Technologies in Precision Healthcare"** Organized by Kongu Engineering College during 16/08/2024 and 17/08/2024

Dr. U. Pavan Kumar Successfully completing the Online Certification Course on **"Machine Learning and GenAI"** from 05/08/2024 to 16/08/2024, Organized by IEduVibhu in association with Aditya Learning Academy(ALA) , Aditya University, A.P.



FACULTY ACHIEVEMENTS

- Dr. U. Pavan Kumar participated in the Five Days National Level Faculty Development Programme on **"EXPLORING COMPUTATIONAL INTELLIGENCE (ONLINE)"** organised by the School of Computer Science and Engineering, VIT-AP University, Amaravati, from 16th July 2024 to 20th July 2024.
- Dr. U. Pavan Kumar successfully completed the 2-Day Workshop on **"Business Intelligence using Power BI"** Organized by Skill Nation during 31/08/2024 and 01/09/2024.
- Dr. U. Pavan Kumar has successfully completed the online Faculty Development Programme on "Data Science" organised by SkillDzire in collaboration with AICTE from September 2nd 2024 to October 2nd 2024.
- Dr. U. Pavan Kumar has successfully completed the online certificate course on **"Data Visualization with Power BI and Tableau,"** organised by Aditya Learning Academy in collaboration with the Department of AI&ML, Aditya University, A.P., from 23/09/2024 to 04/10/2024.
- Dr. U. Pavan Kumar has successfully completed the certificate as facilitator of the **"AI for Future Workforce Program"** in India on October 18, 2024.
- Dr. U. Pavan Kumar has participated in the ten-day workshop series on **"From Scratch to Deployment: Hands-On Model Building with Keras and TensorFlow,"** organized by the Department of Computer Science and Engineering, Sri Venkateswara College of Engineering, from 14/10/2024 to 25/10/2024.


NPTEL+ Workshop Certificate

This certificate is awarded to

DR U PAVAN KUMAR

for successfully completing the online workshop

AI for Signal Processing

by Ms Shanthi - Senior Online Course Developer, MathWorks

Ms Priyanka - Online Course Developer, MathWorks

Date : 6th July, 2024

Verify

Prof. Andrew Thangaraj
NPTEL Coordinator
IIT Madras

Dr. U. Pavan Kumar participated in the Online Faculty Development Programme on **"AI for Signal Processing"** by NPTEL+ Workshop on 06th July 2024.

Dr. U. Pavan Kumar participated in **IP Awareness/Training program** under National IP Awareness Mission (NIPAM) Organized Intellectual Property Office, India on 19th July 2024


NIPAM

Government of India
Ministry of Commerce and Industry
Department for Promotion of Industry and Internal Trade
Office of the Controller General of Patents, Designs and Trade Marks

CERTIFICATE

This is to certify that, DR. U. PAVAN KUMAR , FACULTY of DAYANANDA SAGAR UNIVERSITY has successfully participated in IP Awareness/Training program under

NATIONAL INTELLECTUAL PROPERTY AWARENESS MISSION

on July 19,2024

Azadi ka Amrit Mahotsav

Organized by:
Intellectual Property Office, India

Date: July 30,2024

FACULTY ACHIEVEMENTS

Dr. U. Pavan Kumar has participated in the **MATLAB EXPO** 2024 workshop organised by the MathWorks during November 13-14,2024

Dr. U. Pavan Kumar has attended webinar for Faculty Development Program on **Principles of Outcome Based Education** Organized by vmedulife software on 26th November 2024

Dr. U. Pavan Kumar has successfully presented the paper titled **"Dynamic Mobility-Based Effective Load Balancing and QoS-Aware Network Selection in UAV Networks"** at the 2024 Asian Conference on Communication and Networks (ASIANComNet), held from October 24–27, 2024, in Bangkok, Thailand. This conference is recognized under IEEE Conference ID 63184.

Dr. U. Pavan Kumar has successfully presented the paper titled **"Detection and Identification of Vehicles SVM Method in Limited Surroundings"** International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET), Vol.13 Issue 11, November 2024.

FACULTY ACHIEVEMENTS


ANDHRA LOYOLA INSTITUTE OF ENGINEERING AND TECHNOLOGY(AUTONOMOUS)
(APPROVED BY AICTE, RECOGNIZED BY GOVT. OF A.P. & AFFILIATED TO JNTUK)
AN ISO 9001:2015 CERTIFIED INSTITUTE, VIJAYAWADA – 520 008

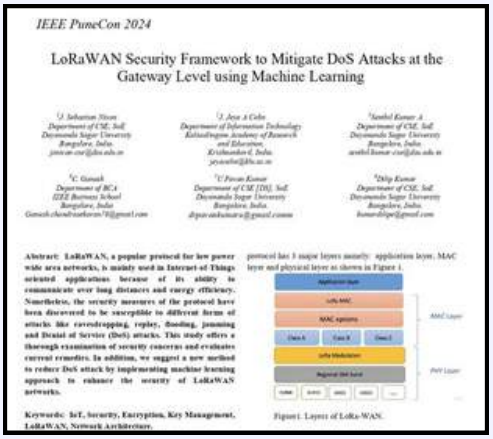
CERTIFICATE
OF PARTICIPATION

This is to certify that Prof/Dr/Ms./Mr. U. PAVAN KUMAR
of Davanunda Sagar University
has attended One Week Online Faculty Development Programme On Emerging Frontiers in AI: From Data Science to Generative AI and its Applications from 09.12.2024 to 13.12.2024 organized by Department of Computer Science and Engineering, Andhra Loyola Institute of Engineering and Technology -Vijayawada.

DR.L.KANYA KUMARI CONVENOR | DR. G. MAHESH CHAIRMAN | REV. FR. DR. B. JOJI REDDY S.J CHIEF PATRON

Dr. U. Pavan Kumar, Assistant Professor, attended One Week Online Faculty Development programme on **Emerging Frontiers in AI: From Data Science to Generative AI and its Applications** from 09.12.2024 to 13.12.2024 organized by Department of Computer Science and Engineering, Andhra Loyola Institute of Engineering and Technology-Vijayawada.

Dr. U. Pavan Kumar, Assistant Professor has participated in the conference for the research paper **"LoRaWAN Security Issues and Proposed a ML Based Mechanism to Mitigate DoS Attacks at the Gateway Level"** in the 7th IEEE International Conference PUNECON 2024 held during 13th - 15th December 2024, jointly organized by the Defence Institute of Advanced Technology (DIAT) and IEEE Pune Section at DIAT Pune, Maharashtra, India.


IEEE PuneCon 2024

LoRaWAN Security Framework to Mitigate DoS Attacks at the Gateway Level using Machine Learning


ATAL/2024/1732960380

Skill India | ATAL | AICTE | MHRD

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION
Nelson Mandela Marg, Vasant Kunj, New Delhi -110070
AICTE Training and Learning (ATAL) Academy

Certificate

It is certified that Dr. U. PAVAN KUMAR, Assistant Professor of Davanunda Sagar University has successfully participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on QuantumVerse: Advancing Knowledge in Quantum Computing, XR, and the Metaverse at A P S COLLEGE OF ENGINEERING from 16/12/2024 to 21/12/2024.

Mithun B N
Professor Level (AICTE Institute), Coordinator
A P S COLLEGE OF ENGINEERING

Dr. Sunil Luthra
Director & Ihareon Head
Training and Learning Bureau, AICTE

Dr. U. Pavan Kumar, Participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on **QuantumVerse: Advancing Knowledge in Quantum Computing, XR, and the Metaverse** at A P S COLLEGE OF ENGINEERING from 16/12/2024 to 21/12/2024.

FACULTY ACHIEVEMENTS

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

Shivamma D participated in the **MATLAB EXPO** 2024 Workshop held on 11th July 2024, organized by MATHWORKS.

Shivamma D participated the workshop **Power of AI at Target Multiplai 2024** held on 19th July 2024 | Bengaluru organised by Target Multiplai

Prof. Shivamma D has participated in the **Digital CoE Data Science** - Faculty Development Program between 24th June 2024 to 6th September 2024 organised by the NTT DATA

Prof. Shivamma D has successfully completed the **Big Data Computing of NPTEL Online Certification** Course of 8 weeks during Aug-Oct 2024.

FACULTY ACHIEVEMENTS

Prof. Shivamma D has participated in the **MATLAB EXPO 2024** workshop organised by the MathWorks during November 13-14,2024.

Prof. Shivamma D has successfully completed the **Learning Analytics Tools** of NPTEL Online Certification Course of 12 weeks during Jul-Oct 2024.

Prof. Shivamma D was a resource person in the Workshop on "**Problem Solving Skills Through Algorithms, Design & Analysis**" organised by Department of Master of Computer Applications, Dayananda Sagar Academy of Technology and Management on 04th October 2024.

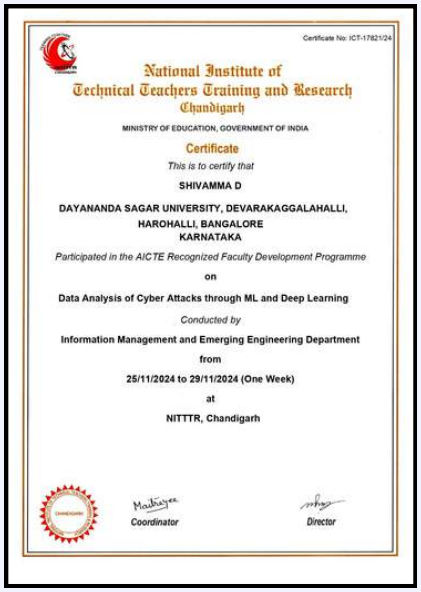
Shivamma D has successfully completed the 5-day Faculty Development Program on **Building Web Development Solutions with Cloud Computing** under the Next Gen Employability Program from 27-08-2024 to 31-08-2024.

FACULTY ACHIEVEMENTS

Prof. Shivamma D selected as **"Galactic Local Mentor"** in the 2024 NASA International Space Apps Challenge organised by NASA at Dayananda Sagar university, on 5th and 6th October 2024.

Shivamma D for successfully completing the course **Introduction to Business Intelligence** on 05th August 2024 Infosys Springboard.

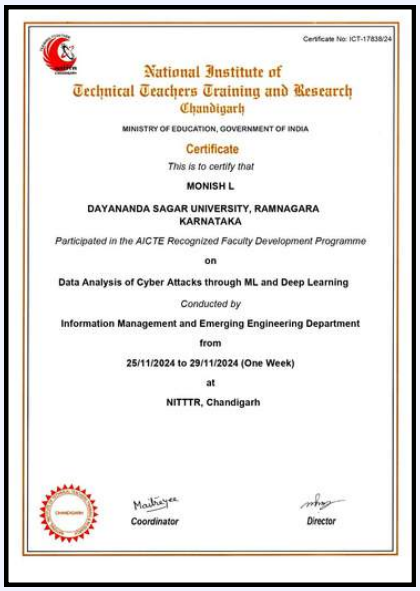
Prof. Shivamma D, Assistant Professor, participated in the AICTE Recognized Faculty Development Programme on **Data Analysis of Cyber Attacks through ML and Deep Learning** conducted by Information Management and Emerging Engineering Department from 25/11/2024 to 29/11/2024 (One Week) at NITTTR, Chandigarh.



FACULTY ACHIEVEMENTS

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

Prof. Monish L, Assistant Professor, participated in the AICTE Recognized Faculty Development Programme on **Data Analysis of Cyber Attacks through ML and Deep Learning** conducted by Information Management and Emerging Engineering Department from 25/11/2024 to 29/11/2024 (One Week) at NITTTR, Chandigarh.



Prof. Monish L, Assistant Professor has successfully completing a free online course **Python Project for Beginners provided** by Great Learning Academy on December 2024.

Prof. Monish L, Assistant Professor has successfully completing a free online course **Prompt Engineering for ChatGPT** provided by Great Learning Academy on December 2024.

FACULTY ACHIEVEMENTS

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

Prof. Sindhu A, Assistant Professor, participated in the AICTE Recognized Faculty Development Programme on **"AI for Future Workforce"** conducted by Computer Science and Engineering Department in collaboration with Intel from 22/07/2024 to 26/07/2024 (One Week) at NITTTR, Chandigarh.

intel digital readiness

NATIONAL INSTITUTE OF TECHNICAL TEACHERS TRAINING AND RESEARCH, CHANDIGARH

CERTIFICATE

This is to certify that

SINDHU A

DAYANANDA SAGAR UNIVERSITY ,BENGALURU, KARNATAKA

Participated in Faculty Development Programme on

"AI for Future Workforce"

conducted by

Computer Science and Engineering Department

In Collaboration with Intel

from

22/07/2024 to 26/07/2024 (1 Week)

at

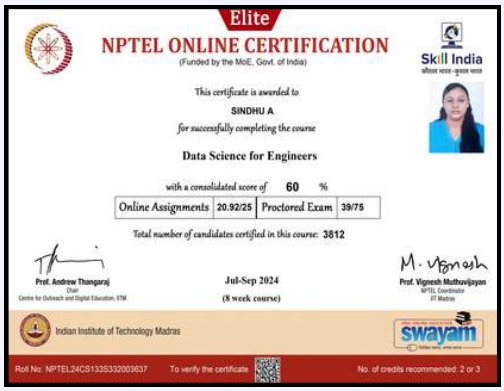
NITTTR, Chandigarh

Prof. C. Rama Krishna, Course Coordinator, NITTTR, Chandigarh

Shweta Khurana, Senior Director – Asia Pacific & Japan, Government Partnerships & Initiatives, Intel Corporation

Prof. (Dr.) B.R. Gurjar, Director, NITTTR, Chandigarh

Sindhu A has successfully completed the NPTEL Online course on **"Data Science for Engineers"** from July to September 2024 (8 week course).



Elite

NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)

Skill India

This certificate is awarded to

SINDHU A

for successfully completing the course

Data Science for Engineers

with a consolidated score of 60 %

Online Assignments	20.92/25	Proctored Exam	39/75

Total number of candidates certified in this course: 3812

Prof. Andrew Thangaraj, Chair, Centre for Outreach and Digital Education, IITM

Jul-Sep 2024

(8 week course)

Prof. Vignesh Muthuvijayan, NPTEL Coordinator, IIT Madras

Indian Institute of Technology Madras

swayam

Roll No: NPTEL24CS133S332003637 To verify the certificate No. of credits recommended: 2 or 3

ATAL/2024/1733417509

Skill India

ATAL

ALL INDIA COUNCIL FOR TECHNICAL EDUCATION

Nelson Mandela Marg, Vasant Kunj, New Delhi -110070

AICTE Training and Learning (ATAL) Academy

Certificate

It is certified that Mrs. SINDHU A, Assistant Professor of Dayananda Sagar University has successfully participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on Artificial Intelligence in Data Science Applications at MUFFAKHAM JAH COLLEGE OF ENGINEERING AND TECHNOLOGY from 13/12/2024 to 19/12/2024.

Uma N Dulhare, Professor Level (AICTE Institute), Coordinator, MUFFAKHAM JAH COLLEGE OF ENGINEERING AND TECHNOLOGY

Dr. Sunil Luthra, Director & Bureau Head, Training and Learning Bureau, AICTE

Prof. Sindhu A, Assistant Professor has successfully participated & completed AICTE Training And Learning (ATAL) Academy Faculty Development Program on **Artificial Intelligence in Data Science Applications** at MUFFAKHAM JAH COLLEGE OF ENGINEERING AND TECHNOLOGY from 13/12/2024 to 19/12/2024.

FACULTY ACHIEVEMENTS

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

Prof. Manjula M, participated as a **Mentor Grand Finale Smart India Hackathon 2024** at NIT Srinagar Jammu & Kashmir during 11-12th December 2024.

FACULTY ACHIEVEMENTS

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

Mahendra M K participated in the Five Days National Level Faculty Development Programme On **"EXPLORING COMPUTATIONAL INTELLIGENCE (ONLINE)"** organised by School of Computer Science and Engineering, VIT-AP University, Amaravati from 16th July 2024 to 20th July 2024 .

Mahendra M K participated in **IP Awareness/Training program** under National IP Awareness Mission (NIPAM) Organized Intellectual Property Office, India on 19th July 2024

FACULTY ACHIEVEMENTS

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

Godhandaraman T Participated in a Five day Faculty Development Program on **"Exploring Machine Learning Cyber Security: Tools and Trends"** Organized by Department of CSE, Sri Venkateswara College of Engineering from 05/08/2024 and 09/08/2024.

Godhandaraman T Participated a two day online Faculty Development Program on **"Deep Learning and IOT Technologies in Precision Healthcare"** Organized by Kongu Engineering College during 16/08/2024 and 17/08/2024.

Godhandaraman T Successfully completing the Online Certification Course on **"Machine Learning and GenAI"** from 05/08/2024 to 16/08/2024, Organized by IEduVibhu in association with Aditya Learning Academy(ALA) , Aditya University, A.P.

Prof. Godhandaraman T has successfully completed the online certificate course on **"Data Visualization with Power BI and Tableau"** organised by Aditya Learning Academy in collaboration with the Department of AI&ML, Aditya University, A.P., From 23/09/2024 to 04/10/2024.

FACULTY ACHIEVEMENTS

Prof. Godhandaraman T has successfully completed the certificate as facilitator of **"AI for Future Workforce Program"** in India on October 18, 2024.

Prof. Godhandaraman T, Assistant Professor, attended One Week Online Faculty Development programme on **Emerging Frontiers in AI: From Data Science to Generative AI and its Applications** from 09.12.2024 to 13.12.2024 organized by Department of Computer Science and Engineering, Andhra Loyola Institute of Engineering and Technology-Vijayawada

Publication:

1. **"A Novel Approach for Detection and Identification of Vehicles Using Single Shot MultiBox Detector (SSD) and Real-Time Analytics**," published in Educational Administration: Theory and Practice, June 13, 2024, 30(6), pages 2767-2775, ISSN: 2148-2403. (Q4)

Faculty Development Programs Attended:

1. Five-Day National Level Faculty Development Programme on **"Exploring Computational Intelligence,"** organized by the School of Computer Science and Engineering, VIT-AP University, Amravati, from July 16 to July 20, 2024.
2. Five-Day Faculty Development Programme on **"AI for Future Workforce,"** conducted by the Computer Science and Engineering Department in collaboration with Intel, NITTTR, Chandigarh, from July 22 to July 26, 2024.
3. Two-Day Faculty Development Programme on **"Deep Learning and IoT Technologies in Precision Healthcare,"** organized by the Computer Science and Application Department, Kongu Engineering College, Tamil Nadu, on August 16 and 17, 2024.

Intellectual Property Rights (IPR):

1. Participated in the **IP awareness/training program** under the National Intellectual Property Awareness Mission on July 19, 2024, organized by the Intellectual Property Office, India.

STUDENT ACHIEVEMENTS

- **Janardhan K S** for successfully completing the course **Data Visualization: Empowering Business with Effective Insights** on 08th August 2024 Forage.
- **Virika Olivia Soans** for successfully completing the course **Data Analytics and Visualization Job Simulation** on 28th August 2024 Forage.

Shashi kumar C has successfully achieved **1st place in the Engineering the Future. Ideathon competition** organized by the club YANTROVE from the department of CSE (AI&ML) ON 18th September, 2024.

Nitin Prajwal R. (USN: ENG22DS0039), **Viriika Olivia Soans** (USN: ENG22DS0024), **Janardhan KS** (USN: ENG22DS0004) of 5th Semester students selected as "**Global Nominee**" under the guidance of **Prof. Shivamma D** in the **2024 NASA** International Space Apps Challenge organised by NASA at Dayananda Sagar University, on 5th and 6th October 2024.

Adithya N (ENG23DS0049), **Meghana N** (ENG23DS0073), **Chintha Deepak** (ENG23RA0029), **Praneeth** (ENG23AM0225), and **Nikhil** (ENG23AM0258) of 3rd Semester students selected as **"Art and Technology Award**" under the guidance of **Prof. Shivamma D** in the 2024 NASA International Space Apps Challenge organised by NASA at Dayananda Sagar University, on 5th and 6th October 2024.

STUDENT ACHIEVEMENTS

Job Jomy (ENG22DS0030) 5th Semester has actively participated in the **"Amazon Web Services Workshop"** held as part of TATHVA'24 conducted by National Institute of Technology Calicut during 25, 26 & 27 October 2024.

Priyanka.M (ENG23DS0026) 3rd semester from the **"Team Evara"** Fashion event won the First Place in the Inter College Fashion event organised by T JohnsInstitute of Technology held on 16/11/2024

Shashi Kumar C (ENG23DS0034) has successfully completed the course **Statistics for Data Science** with Python issued by Coursera authorized by IBM

Shashi Kumar C (ENG23DS0034) has successfully completed the HP LIFE online course Effective Leadership in association with HP Foundation on 21-11-2024.

STUDENT ACHIEVEMENTS

- **S. Nandini** (ENG21DS0034) has been accepted into the **Master of Science program in Data and Computational Science** at University College Dublin, Ireland.

- **Nitin Prajwal R** (ENG22DS0039) has been officially appointed as the **STUDENT LEAD** of the GOOGLE Developer Groups.

Pranjal Mewara (ENG21DS0026) has received an internship offer from **Amazon** as a Business Intelligence Engineer with a monthly stipend of **₹70,000.**

Thejas Gowda T S for successfully completed the course **Math & Optimizations: Introducing Sets & Set Operations** on December 13, 2024 at Infosys Springboard.

Janardhan K, Sujeeth Kumar D S and Om Singh participated in the **Grand Finale Smart India Hackathon 2024** at NIT Srinagar Jammu & Kashmir during 11-12th December 2024.

STUDENT ACHIEVEMENTS

B TECH 2020-2024 BATCH

YASHNA KARKERA
ENG20DS0048
GOLD MEDAL

VEDANTH BALIGA
ENG20DS0044
SILVER MEDAL

ABHIRUCHI S B
ENG20DS0002
SILVER MEDAL

STUDENT ACHIEVEMENTS (PLACEMENTS)

B TECH 2021-2025 BATCH

ABHISHEK A
USN: ENG21DS0002
COMPANY NAME: PEGASYSTEMS
PACKAGE: 15 LPA

MANOJ V BHANDARE
USN: ENG21DS0021
COMPANY NAME: CYWARE
PACKAGE: 12.21 LPA

R PREM KUMAR REDDY
USN: ENG21DS0031
COMPANY NAME: INRY
PACKAGE: 8.54 LPA

PRIYANKA P
USN: ENG21DS0028
COMPANY NAME: HP
PACKAGE: 8.5 LPA

S BHAVANI PRASAD
USN: ENG21DS0008
COMPANY NAME: STONEX
PACKAGE: 8.3 LPA

ARYAN R G
USN: ENG21DS0008
COMPANY NAME: TITAN
PACKAGE: 6.58 LPA

GOLLA PUJARI SOWMYA
USN: ENG21DS0020
COMPANY NAME: INFOGAIN
PACKAGE: 6.35 LPA

ABHISHEK N
USN: ENG21DS0003
COMPANY NAME: MU SIGMA BUSINESS ANALYTICS PVT LTD.
PACKAGE: 5 LPA

DESAI SREENIJA
USN: ENG21DS0016
COMPANY NAME: INFOSYS
PACKAGE:3.63 LPA

USHASHREE N
USN: ENG21DS0045
COMPANY NAME: EY GDS
PACKAGE: 4.83 LPA

VINUTH GOWDA S
USN: ENG21DS0047
COMPANY NAME: KPMG GLOBAL SERVICES
PACKAGE: 5 LPA

NOOR HADIYA
USN: ENG21DS0025
COMPANY NAME: ACCENTURE
PACKAGE: 4.5 LPA

EDITORIAL COMMITTEE

DAYANANDA SAGAR UNIVERSITY

SCHOOL OF ENGINEERING

Department of Computer Science and Engineering
(Data Science)
Dayananda Sagar University
School of Engineering, Devarakaggalahalli, Harohalli,
Kanakapura Road, Ramanagara Dt., – 562 112

PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

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

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

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

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

PROGRAM OUTCOMES (POS)

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

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

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

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

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

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

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

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

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

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

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

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

PROGRAM SPECIFIC OUTCOMES (PSOS)

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

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

CONTACT US

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

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