Volume-3 Issue-4

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SCHOOL OF ENGINEERING

SOE-BULLETIN

The Official Newsletter of **School of Engineering**

APRIL 2025

www.dsu.edu.in

SCHOOL OF ENGINEERING

Vision

Transform lives through excellence in engineering education, research and innovation with an emphasis on sustainability, inclusive technologies and global needs.

Mission

1. Design and deliver contemporary engineering curricula to address regional and global needs while emphasizing ethics, values, integrity and regional relevance.
2. Carryout high impact academic research, industry projects and innovation activities with active student engagement to advance science and engineering knowledge and state-of-the-art industry practices.
3. Develop regional and national leaders to advance the society and economy.

INDEX

SCHOOL OF
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INTERNATIONAL ACTIVITIES

Guest Lecture on “Leveraging the Power of AI with Innovative Applications”

The Department of CSE (AI&ML) hosted an enlightening guest lecture on “Leveraging the Power of AI with Innovative Applications” by Dr. Safak Dogan from Loughborough University London, U.K., on April 4th, 2025. The session commenced with a warm welcome address by chairperson Dr. Jayavrinda Vrindavanam, who set the tone for the event with an inspiring message on the importance of AI in today’s world. Following this, Dr. Mude Nagarjuna Naik, Assistant Professor introduced the guest speaker, highlighting Dr. Dogan’s academic journey, research expertise, and impactful contributions in the field of Artificial Intelligence and Human Body Communication.In his talk, Dr. Dogan explored the dynamic potential of AI across various industries, focusing on novel, real-world applications, and interdisciplinary approaches. The lecture provided valuable insights into emerging AI-driven technologies and how they are shaping future innovations.The session concluded with a formal felicitation of Dr. Dogan by Professor Bahubali and Chairperson Dr. Jayavrinda Vrindavanam, acknowledging his valuable time and contribution. The event wrapped up with a vote of thanks, expressing gratitude to the chief patrons, patrons, conveners, speaker, organizers, and attendees for making the lecture a success. The talk was both informative and inspiring, leaving the audience with a deeper appreciation for the transformative power of AI.


automated tasks using intelligence
Has two key components
that can do intelligent things


Targeted Audience:
4th Semester AIML


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Collaborating with “Wefaa Robotics, Singapore”

The Department of Artificial Intelligence and Robotics organized a collaborative interaction with Wefaa Robotics, a leading Singapore-based robotics company, on April 02, 2025. The session was facilitated through Skandish, serving as a platform for potential academic-industry partnerships in the field of robotics and intelligent systems. During the meeting, representatives from Wefaa Robotics presented a comprehensive overview of their technological offerings, ongoing projects, and innovations in the robotics domain. The company highlighted its key areas of expertise, which include autonomous systems, humanoid robotics, and AI-driven automation solutions. A significant part of the discussion focused on Wefaa Robotics’ current engagements with Indian universities. These include collaborative research projects, student internship programs, faculty training, and co-development of robotics-based educational tools. The dialogue emphasized mutual areas of interest and explored opportunities for future joint initiatives, such as curriculum development, innovation labs, and industry-oriented workshops.The interaction concluded with a positive outlook towards forming a strategic partnership aimed at fostering innovation, enhancing research capabilities, and bridging the gap between academia and the robotics industry.

SCHOOL OF
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WORKSHOPS / SKILL DEVELOPMENT PROGRAMS

IEEE-Sponsored Five-Day Workshop on "Emerging Trends in Wireless Communication and Applications"

From 07–12 April 2025, the Departments of Aerospace Engineering (ASE), Electronics and Communication Engineering (ECE), and the Centre for Space Science and Technology (CSST) at Dayananda Sagar University organized a five-day IEEE-sponsored workshop on “Emerging Trends in Wireless Communication and Applications” at the School of Engineering, Harohalli Campus. The workshop drew over 250 participants, including students, faculty, researchers, and industry professionals. The event was inaugurated by Dr. V. Senthil Kumar, Group Director, URSC–ISRO, and featured expert talks by prominent speakers from institutions such as ISRO, Alcatel Lucent, PES University, Skynetics, and CHRIST University. The workshop covered cutting-edge topics including RF, optical, and quantum communications, CubeSat systems, 5G technology, and EMI/EMC in aerospace systems. Participants also took part in hands-on sessions on antenna design and testing led by ISRO experts and Technilab engineers. Technical visits were conducted to the Indian Deep Space Network (IDSN) in Byalalu and the CSST Ground Station at DSU Kudlu Campus.


TECHNILAB
Innovative Technology

Workshop on “Latex- fundamentals : Crafting research articles”

The 3–day workshop titled “LaTeX – Fundamentals: Crafting Research Articles, Presentations, and Reports” was organized by the Department of Computer Science and Engineering from 07-04-2025 to 09-04-2025. The workshop was led by Dr. Savitha Hiremath, a LaTeX expert, who brought valuable insights into the art of scientific writing and technical documentation. The event was inaugurated by Dr. Rajesh T.M., who emphasized the significance of LaTeX in academic and research communication, encouraging students to embrace such tools to enhance the quality of their work. Throughout the workshop, Dr. Savitha Hiremath provided hands-on training on LaTeX essentials, covering document structuring, typesetting mathematical equations, managing references, and designing professional presentations using Beamer. She also guided participants through the creation of well-formatted research papers and reports. The workshop concluded with an address by Dr. Girisha G.S., Chairperson of the CSE Department, who appreciated Dr. Savitha Hiremath’s contribution and noted how the workshop empowered students with a vital research skill. The workshop left a lasting impression, inspiring attendees to embrace document preparation with precision, creativity, and a structured approach.


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Industry Partnered Competitive Programming Training on “Veranda | Six Phrase | Talentely – Competitive Programming Training & Product Placements Support”

Veranda, in association with Six Phrase and Talentely, successfully conducted a week-long from 21st April 2025 to 26th April 2025 “Industry Partnered Competitive Programming Training” at Dayananda Sagar University by Department of Placement and Training with Department of CSE. The event was tailored specifically for 3rd-year B.Tech students, aiming to equip them with advanced problem-solving techniques, algorithmic thinking, and exposure to industry practices in software product development. The collaboration between Veranda, Six Phrase, Talentely, and Dayananda Sagar University stands as a strong example of industry-academia synergy aimed at talent development.

Five-Day Workshop on “VLSI Design Flow Digital, Testing and Verification Essentials Using Cadence”

The Department of Electronics and Communication Engineering at Dayananda Sagar University organized a five-day hands-on workshop titled “VLSI Design Flow – Analog, Digital, Testing and Verification Essentials using Cadence” from April 7–12, 2025. Held at the VLSI Lab, the event engaged 60 sixth-semester ECE students in practical sessions on analog and digital VLSI design, testing methodologies, and industry-standard Cadence® EDA tools. The workshop began with an inauguration led by Dr. Udaya Kumar Reddy, Dean–SOE, with Dr. C. P. Ravikumar, Former Director of Talent Development at Texas Instruments and retired IIT Delhi professor, delivering expert sessions over the first three days. Topics included Verilog-based design, System Verilog, fault modeling, ATPG, scan-based and BIST testing, as well as analog and mixed-signal testing techniques. The last two days were conducted by Dr. Gayathri K M, Associate Professor, DSU, who covered analog design flow using Cadence Virtuoso, layout processes, and FINFET-based design.

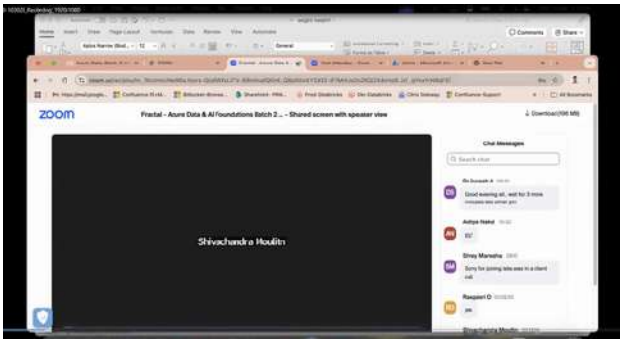

Galaxy S22

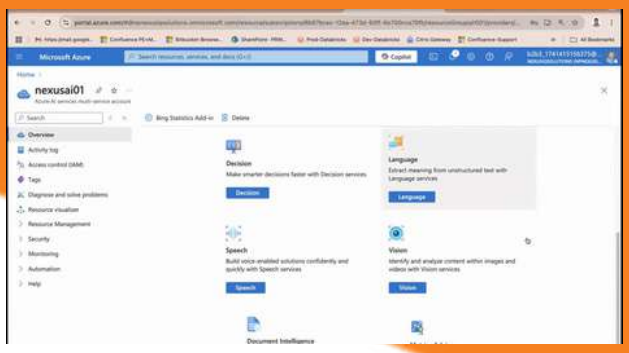
“Fractal Analytics Corporate Training Program”

Dr. Suresh Arumugam, Associate Professor at Dayananda Sagar University, successfully conducted a 14-hour corporate training program for Fractal Analytics, securing ₹56,000 in funding. Designed with 60% hands-on learning, the program provided in-depth training on Azure Data Factory, Synapse Analytics, Databricks, and Azure Cognitive Services. The course began with a foundational session on Azure and ADF, where participants built ETL pipelines and performed data transformations. This was followed by a deep dive into Synapse Analytics, including SQL and Spark pool usage, data querying, and Power BI integration. The Databricks module introduced big data processing through PySpark, Delta Lake, and Azure Data Lake. The final segment explored Azure Cognitive Services, featuring practical labs in sentiment analysis, OCR, and speech-to-text conversion. Blending theory with real-world lab exercises, the training enhanced participants’ skills in cloud-based data engineering and AI integration. Dr. Suresh’s expert guidance and structured content delivery were instrumental in the program’s strong engagement and learning outcomes.


Nexus SOLUTIONS

CERTIFICATE OF COMPLETION AND APPRECIATION






INVOICE

SCHOOL OF
ENGINEERING

WEBINARS / SEMINARS / TECHNICAL TALKS

Career guidance talk “Advance your career with john hopkins MS/MBA Programs”

The Department of CSE (AI & ML), Dayananda Sagar University, hosted an insightful session on April 28, 2025, for pre-final and final year students. The event was also attended by a few second-year students who are planning to pursue higher studies abroad. The program focused on guiding students through the process of applying for MS/MBA programs overseas. The session featured Mr. Nagaraju G, Manager – Offline Marketing (South) at Great Learning, an expert in international education with over 13 years of experience. The program began with a warm welcome by Dr. Jayavrinda Vrindavanam, followed by the speaker's introduction by Prof. Trupthi Rao. Mr. Nagaraju walked the students through the entire application journey—from GRE/TOEFL exams, SOPs, and LORs to professor outreach, funding opportunities, and various international courses available at various top universities in the US. The event concluded with a vote of thanks by Prof. Ankita Thakkar.


Great Learning
Discover your Academic Potential with Great Learning Study Abroad
EXPLORE STEM MBA AND MS PROGRAMS FROM TOP UNIVERSITIES
JOHNS HOPKINS
Ties College of Management
CLARK
DATA SCIENCE
AI & MACHINE LEARNING
MBA
GPS Map Camera
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OGRAMS FROM TOP UNIVERSITIES


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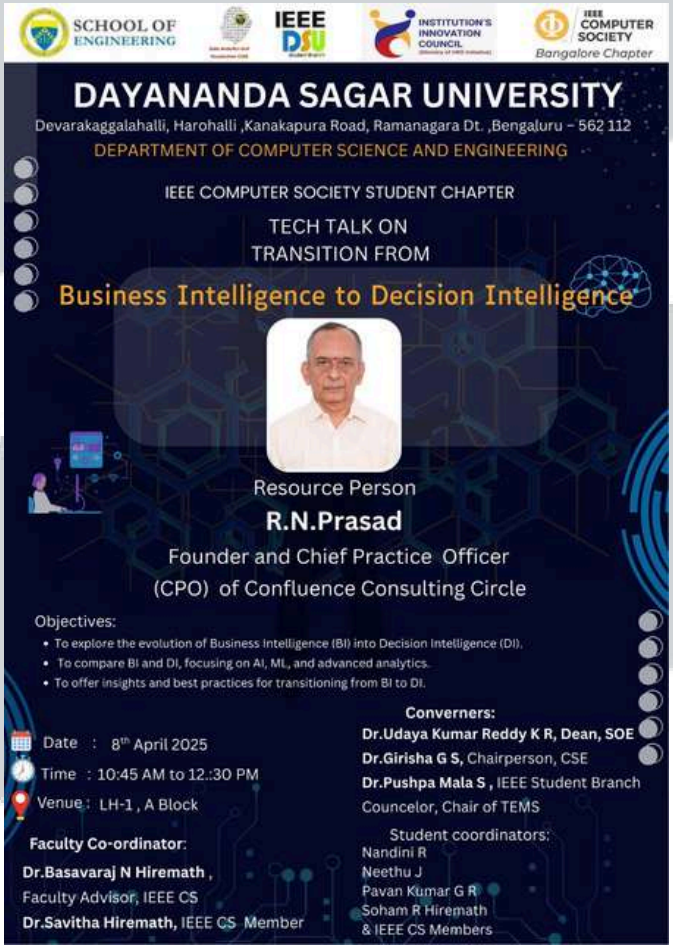
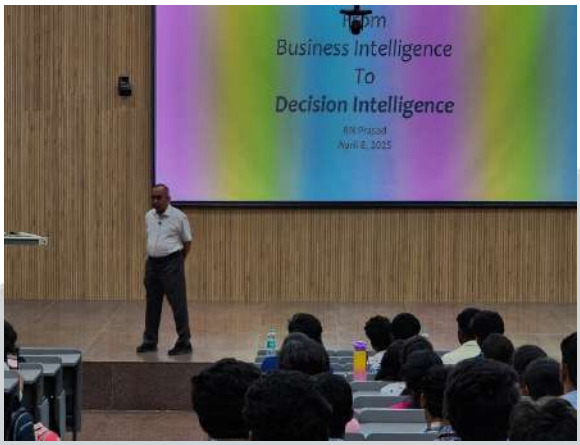
Webinar on “Innovation Lab Setup and CoE Design in the cybersecurity domain”

Mr. Teja Chintalapati, Senior Program Manager, Semiconductor Security Division, Data Security Council of India (DSCI), New Delhi, visited the School of Engineering, DSU, to deliver a thought-provoking session on "Innovation Lab Setup and CoE Design in the Cybersecurity Domain” on 16.04.2025. He shared key insights into establishing state-of-the-art innovation labs and Centers of Excellence (CoEs) tailored for cybersecurity research and development. He emphasized the strategic role such initiatives play in strengthening India’s cybersecurity ecosystem and fostering industry-academic collaboration. This served as a valuable platform for knowledge exchange and future collaborations in the rapidly evolving field of cybersecurity.

TECH TALK on “Transition from Business Intelligence to Decision Intelligence”

The Department of Computer Science and Engineering organized a Tech Talk on "Transition from Business Intelligence to Decision Intelligence" on 08/04/2025. Delivered by industry expert Mr. R N Prasad, the session explored how AI and Decision Intelligence (DI) are revolutionizing data-driven decision-making in the modern workplace. Mr. Prasad highlighted the shift from intuition-based to evidence-based strategies, emphasizing the growing importance of integrating AI with human judgment. He discussed how the IT and software industries are adopting agile, efficient models post-COVID-19, with data remaining central to this evolution. A key highlight was a video presentation demonstrating real-world applications of DI, showcasing how it reduces human error, enhances workflow efficiency, and enables real-time, intelligent decision-making. Aligning with UN Sustainable Development Goal 9 (Industry, Innovation, and Infrastructure), the event underscored the role of innovative data technologies in driving sustainable growth and smarter leadership across industries.




From
Business Intelligence
To
Decision Intelligence


R.N.Prasad
Founder and Chief Practice Officer
(CPO) of Confluence Consulting Circle


From
Business Intelligence
To
Decision Intelligence

World Health Day 2025
Awareness Session on “Healthy Beginnings, Hopeful Futures”

On World Health Day 2025, the Department of Computer Science and Engineering organized a session titled “Healthy Beginnings, Hopeful Futures” on 07/04/2025. The event aimed to raise awareness among students about maintaining good health, especially during the summer months. Dr. Raghu R V, Assistant Professor of Internal Medicine at CDSIMER, served as the guest speaker. Dr. Raghu delivered an engaging talk covering essential aspects of physical health, including hydration, balanced nutrition, and adequate rest, highlighting their role in preventing common summer ailments like dehydration and fatigue. He also provided practical lifestyle tips to help students stay healthy and energized during the hot season. Mental well-being was another key focus, with Dr. Raghu addressing the impact of academic stress and emotional strain on students. He shared effective coping strategies to manage anxiety, improve sleep, and build resilience. The session was successfully coordinated by Dr. Basavaraj N. Hiremath, Faculty Advisor of the IEEE Computer Society, and Dr. Savitha Hiremath, IEEE CS Member.


DAYANANDA SAGAR UNIVERSITY
Healthy Beginnings, Hopeful Futures

TECH TALK on “NEXTGEN ORACLE - R&D CONNECT”

The Department of Computer Science and Engineering (Data Science) successfully hosted the TechTalk: NextGen Oracle – R&D Connect on 9th April 2025 at LH2, A-Block, School of Engineering. Running from 10:00 AM to 4:00 PM, the event brought together over 150 students, professionals, and tech enthusiasts for a deep dive into Oracle’s latest research and development innovations. Led by Ashutosh Naik, Director of Software Development at Oracle, and N. Naveen Kumar, Senior Member of Technical Staff, the sessions provided valuable insights into cutting-edge developments in AI, cloud computing, data science, and enterprise technology. Interactive discussions and Q&A segments encouraged active participation and deepened understanding of emerging trends. The event aimed to strengthen technical knowledge, bridge academic-industry gaps, and inspire innovation among students. It successfully fostered meaningful dialogue around the future of intelligent technologies and real-world data science applications. The talk was coordinated by Prof. Manjula M, Prof. Sindhu A, Dr. Suresh Arumugam, and Prof. Godhandaraman T, and marked a significant step in promoting industry-academia collaboration.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NextGen Oracle:R&D Connect
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TECH TALK
on
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Expert talk on “Entangled Intelligence: Innovations in Quantum Computing for the Next Tech Era”

The expert talk on "Entangled Intelligence: Innovations in Quantum Computing for the Next Tech Era" was organized by the Department of Computer Science & Technology for the School of Engineering on 11th April 2025 from 11 AM to 1 PM. The session was led by Ms. Smruthi Jain, Technical Program Manager at Google, who shared valuable insights into the emerging field of quantum computing and its transformative potential. A total of 104 participants from the School of Engineering attended the session, engaging in thought-provoking discussions and gaining exposure to the latest advancements in the domain.


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Tech Talk on “Connected AI In Trucks & Buses”

The Department of Artificial Intelligence and Robotics (AIR) at Dayananda Sagar University hosted a seminar-tech talk on “Connected AI in Trucks & Buses” to explore how AI is transforming transportation. The session began with opening remarks from Dr. Pramod Kumar Naik, Chairman of AIR, who spoke on the role of ADAS in modern vehicles. The keynote was delivered by Mr. Jayaprakash Govindaraju, a distinguished leader from Daimler Truck Innovation Centre, India. He offered deep insights into emerging AI trends, challenges, and career prospects in the automotive industry. The event was organized by Dr. Gangadhar T G, Dr. Rupam Bhaduri, and Dr. Bharath Kumar S, who facilitated meaningful interactions between students and industry professionals. Mr. Govindaraju discussed key applications of AI in transportation, including Enhanced Fleet Management, Predictive Maintenance, Autonomous Driving, Route Optimization, and Environmental Sustainability. He highlighted how AI enables real-time decision-making, improves vehicle reliability, enhances road safety, and supports the shift toward greener mobility. The session also emphasized the importance of interdisciplinary skills in AI, data science, and embedded systems for future careers. Mr. Govindaraju advocated for stronger academia-industry collaboration through internships, workshops, and joint research.


DAIMLER TRUCK
Connected AI
Jayaprakash G


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DAIMLER TRUCK


North America
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Latin America
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SCHOOL OF
ENGINEERING

EVENTS: PROFESSIONAL SOCIETIES / CLUB ACTIVITIES

“Young Innovators Tackle Social Challenges at Eureakathon 2025”

Eureakathon 2025, held on 29th April at Lecture Hall A102 from 9:30 AM to 4:30 PM, provided a vibrant platform for students to showcase innovative solutions to real-world social challenges. The event drew enthusiastic participation from 29 teams across DSU, DSCE, and DSATM, encouraging out-of-the-box thinking beyond traditional academics. The judging panel included Dr. Savitha (Senior Researcher, IBM Watsonx) and Mr. Vinod Shankar (CEO, AIC-DSU Innovation Foundation), with the initial screening conducted by Dr. Bipin Kumar Rai and Dr. Bahubali Shiragapur. Team 27 from DSU — Godhani Ripal and Supreeth M. — won the top prize of ₹12,000 for Caret, an AI-driven platform to boost developer productivity. Team 21 from DSATM earned the ₹9,000 runner-up prize for a Shape Memory Alloy-Based Finger Rehabilitation device for autistic children. Team 11 from DSU secured ₹6,000 as second runner-up for TRIYO – Try Before You Buy, a virtual shopping tool. The event was graced by Dr. Udaya Kumar Reddy, Dean of SoE, and Dr. M. Shahina Parveen, Chairperson, CS&T, among other dignitaries, reflecting DSU’s strong focus on innovation and entrepreneurship.

“The Ultimate Robotics & Automation Quiz, Ideathon”

Organized by IEEE RAS & CIS Society, Dayananda Sagar University.
Robo-Quiz was a two-stage technical competition organized by the IEEE Robotics and Automation Society in collaboration with the IEEE Computational Intelligence Society at Dayananda Sagar University, Bangalore, on 7/4/2025. The event aimed to foster interdisciplinary learning in robotics, AI, and automation while encouraging teamwork and innovation. It featured a Quiz Round with MCQs and short-answer questions covering robotics fundamentals, automation, and computational intelligence, with 43 teams participating. Shortlisted teams advanced to the Ideathon Round, where they proposed creative solutions to real-world robotics challenges. Judging focused on creativity, feasibility, and technical depth. The event was marked by high enthusiasm and strong collaboration between IEEE RAS and CIS. Participants appreciated the challenging quiz and the open-ended nature of the ideathon, also suggesting the inclusion of hands-on workshops in future editions. Robo-Quiz successfully blended theoretical knowledge with practical innovation, showcasing the potential of young minds in solving real-world problems through robotics and automation.


IEEE
Computational
Intelligence
Society
IDEATHON
ROBO - QUIZ


ROBO - QUIZ

DSU TechFlix “Wild Canvas: Digital Art Competition”

Wild Canvas is an engaging Digital Art Competition hosted as part of TechFlix 2025 by the Department of Computer Science and Engineering, Dayananda Sagar University, on 25th April 2025. The event is designed to spark creativity and innovation among students passionate about digital art and design, bringing together talent from colleges and universities across diverse backgrounds in a competitive, tech-driven setting. The competition unfolds over three dynamic rounds—Logo Design, Logo Animation, and Poster Design—each aimed at testing different dimensions of digital artistry. A surprise theme, revealed at the start of the event, adds an element of spontaneity and challenges participants to think critically and creatively in real time. This structure not only ensures originality in submissions but also helps students develop a wide range of design skills, from static visuals to animation and visual storytelling. With a total cash prize of ₹10,000, Wild Canvas offers both excitement and incentive, giving students a platform to demonstrate their skills and gain recognition.


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WILD CANVAS


WILD CANVAS
1,000

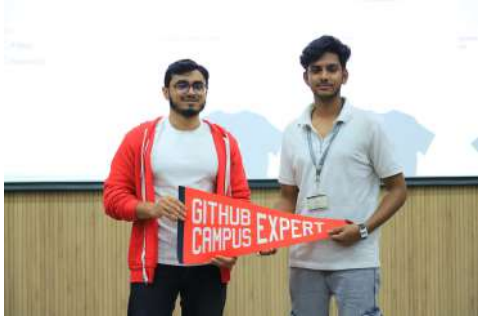
DSU TechFlix “The great holmes hunt (treasure hunt) Competition”

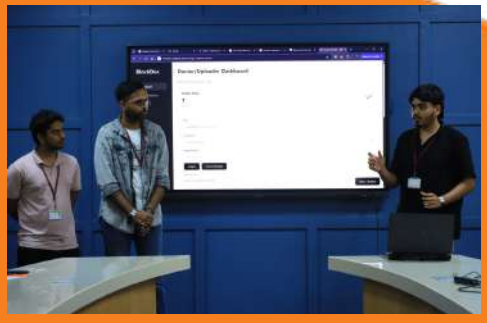
The Great Holmes Hunt was a thrilling Treasure Hunt Competition organized under TechFlix 2025 by the Department of Computer Science and Engineering, Dayananda Sagar University, on 25th April 2025. Inspired by Sherlock Holmes, the event tested students’ detective instincts through a fast-paced, team-based adventure that saw participation from over 120 students across departments. The hunt featured six progressive rounds, dubbed “Case 1” to “Case 6,” each with mystery-themed puzzles and deduction tasks of increasing difficulty. Teams of 3–5 members competed under tightening time constraints, with eliminations starting from Round 3. Participants were evaluated on speed and accuracy, keeping the excitement high throughout the event. The campus buzzed with energy as students raced to solve clues, celebrating moments of triumph and tension. Sherlock Holmes-themed keychains and TechFlix wristbands were given to all, adding a keepsake to their memorable experience. In a fierce competition, two teams emerged victorious, winning cash prizes of ₹12,000 and ₹3,000. Aligned with SDG 4: Quality Education, the event fostered critical thinking, teamwork, and real-time problem-solving, offering a hands-on learning experience and making it one of the most unforgettable highlights of TechFlix 2025.


TECHFLIX
THE GREAT
HOLMES HUNT

DSU TECHFLIX - “Hack’ in Bad - 24-hours National level Hackathon”

TECHFLIX - Hack’ in Bad, a 24-hour National Level Hackathon Competition organized by DSU-ACM Student chapter under TechFlix 2025 by the Department of Computer Science and Engineering, Dayananda Sagar University, from 25th April 2025 to 26th April 2025. Hack’ in Bad, a 24-hour National Level Hackathon, bringing together some of the brightest and most creative minds from across the country. This event is designed to ignite innovation, inspire problem-solving, and foster collaboration among budding tech enthusiasts. Hack’ in Bad is not just a hackathon—it’s a marathon of creativity, coding, and collaboration. Over the span of 24 intense hours, participants will work in teams to design, develop, and deploy innovative tech solutions to real-world challenges across various domains. This event encourages original thinking, rapid prototyping, and a passion for building technology that makes an impact. A multi-round hackathon competition designed to test participants' skills through progressively challenging stages. Each round eliminated contestants, leading to an intense semi-final and final showdown where the best compete for the grand prize.






DSU TECHFLIX
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
Hack'in Bad
24-Hour National Level Hackathon
WINNER


DSU TECHFLIX
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
Hack'in Bad
24-Hour National Level Hackathon
1st-RUNNER-UP


DSU TECHFLIX
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
Hack'in Bad
24-Hour National Level Hackathon
2nd-RUNNER-UP

DSU TECHFLIX - “The Triwizard CTF”

The Triwizard CTF Competition was organized by the DSU-ACM Student chapter under TechFlix 2025 by the Department of Computer Science and Engineering, Dayananda Sagar University, on 24 April 2025. A jeopardy-style capture the flag (CTF) competition where teams tackle progressively harder cybersecurity challenges, only the sharpest minds will claim victory. Prepare for a thrilling cybersecurity challenge that will push your skills, strategy, and teamwork to the limit. Challenge - five beginner-friendly tasks Journey begins with The Dragon's testing your core cybersecurity skills like encryption and vulnerability detection. Next, dive into The Lake of Secrets-10 intermediate puzzles involving reverse engineering, cryptography, and network security. Finally, face The Maze of Mayhem a real-world attack simulation requiring penetration testing, malware analysis, and incident response.


SCAN QR AND REGISTER
YOUR TEAM IN CTH


DSD TECHFLIX
SAI JADHAV
SAMRDHE


WINNER

“World Earth Day Celebration”

The Department of Computer Science and Engineering, School of Engineering, Dayananda Sagar University, celebrated Earth Day on 22nd April 2025 with great enthusiasm and a profound sense of responsibility towards our planet. This meaningful event was organized as an initiative to create awareness among students and staff about the importance of environmental conservation and sustainable living practices. As part of the celebrations, a Poster Exhibition was conducted, showcasing the creativity and concern of our students for environmental issues. The exhibition served as a powerful medium to communicate vital messages about protecting nature, conserving resources, and adopting eco-friendly lifestyles.

Awareness Program on “World Health Day”

The DataScience@DSU Club, under the Department of CSE (Data Science), organized an awareness program on "World Health Day" held on 07th April 2025, from 10:00 AM to 02:00 PM at T. Hosahalli, Kanakapura Road. The event was coordinated by Dr. Shaila S G, Professor and Chairperson (DS), along with Dr. Santhosh Kumar G, Associate Professor, Dr. U. Pavan Kumar, and Prof. Shivamma D, Assistant Professor, Dept. of CSE (Data Science). The program was successfully conducted with support from Dr. K.S. Bhagyajyothi, Assistant Director of Physical Education, DSU. World Health Day, celebrated globally on 7th April each year, aims to raise awareness about health and well-being. The program was designed to educate participants on the importance of maintaining good health, adopting preventive measures, and making informed lifestyle choices. The target audience for the program included local residents, school students, and office workers, ensuring a diverse group of participants. The event featured a variety of activities aimed at fostering engagement and raising awareness among attendees.


Dayananda Sagar
University


CD SIMER

Awareness Program on “Water Conservation”

The DataScience@DSU Club, under the Department of CSE (Data Science), organized an “Awareness Program on Water Conservation” on 08th April 2025, from 10:00 AM to 02:00 PM at T. Hosahalli, Kanakapura Road. The program was coordinated by Dr. Shaila S G, Professor and Chairperson (DS), along with Dr. Santhosh Kumar G, Dr. U. Pavan Kumar, and Prof. Shivamma D, with support from Dr. K.S. Bhagyajyothi, Assistant Director of Physical Education, DSU. Given the growing global water crisis, the program aimed to highlight the importance of water conservation and promote sustainable usage. Key objectives included educating the community on water conservation, encouraging sustainable practices, demonstrating practical methods to reduce wastage, and engaging participants in discussions about local water issues. The event catered to a diverse audience, including residents, students, community leaders, activists, and office workers. Activities included expert-led presentations on global and local water challenges, hands-on workshops on rainwater harvesting and water-saving techniques, and distribution of informative posters and flyers.


GPS Map Camera
T.hosahalli, Karnataka, India
Jfp5+5j8, T.hosahalli, Karnataka 562121, India
Lat 12.635486° Long 77.459111°
07/04/2025 11:00 AM GMT +05:30
Google


WATER CONSERVATION


GPS Map Camera
Ramanagara, Karnataka, India
Dayananda Sagara Mdc, Karnataka 562112, India, Ramanagara, Karnataka 562112, India
Lat 12.662175° Long 77.450789°
08/04/2025 10:25 AM GMT +05:30
Google

“TUBERCOLOSIS Awareness Program” - NSS Activity

The students from the Department of Aerospace Engineering at Dayananda Sagar University actively participated in a Tuberculosis awareness program on 23rd April 2025 as part of an NSS activity at Kiranagere, near the DSU main campus. The students conducted a door-to-door awareness campaign, visiting individual houses in Kiranagere to spread awareness about tuberculosis.

“Tuberculosis Awareness drive”

The Department of Student Affairs organized a “Tuberculosis Awareness Drive” on 23rd April 2025 from 10:00 AM to 02:00 PM at M. Maniyambal, Kanakapura Road. The event was supported by faculty from the Department of CSE (Data Science), including Dr. Shaila S G, Dr. Santhosh Kumar G, Dr. U. Pavan Kumar, Prof. Prapti B, Mr. Kiran Kumar H L, and Dr. K.S. Bhagyajyothi, Asst. Director of Physical Education. The drive aimed to educate the community about TB causes, symptoms, prevention, and treatment, while also promoting early diagnosis, adherence to medication, and awareness of government health schemes. The event included expert-led sessions highlighting TB symptoms like persistent cough and fever, and the importance of completing treatment to avoid drug resistance. Targeting local residents and office workers, the program effectively raised awareness, reduced stigma, and encouraged healthier practices. It marked a positive step toward fostering a TB-free community.


Ramanagara,Karnataka,India
Konanakunte Main Road, Harohalli,
Ramanagara, Karnataka 562121, India
Lat 12.577154, Long 77.488653
04/23/2025 11:56 GMT+05:30
Note : Captured by GPS Map Camera


Ramanagara,Karnataka,India
Konanakunte Main Road, Harohalli,
Ramanagara, Karnataka 562121, India
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04/23/2025 11:47 GMT+05:30
Note : Captured by GPS Map Camera


Ramanagara,Karnataka,India
Konanakunte Main Road, Kanakapura,
Ramanagara, Karnataka 562117, India
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Note : Captured by GPS Map Camera


GPS Map Camera
Ramanagara,Karnataka,India
Konanakunte Main Road, Kanakapura,
Ramanagara, Karnataka 562117, India
Lat 12.576820, Long 77.488563
04/23/2025 12:31 GMT+05:30
Note : Captured by GPS Map Camera

“NSS Activity on TB Awareness Program at Jakkasandra Village”

The NSS unit of the Department of Computer Science and Technology, Dayananda Sagar University, organized a one-day TB Awareness Program at Jakkasandra village. The event was part of our community outreach initiative aimed at promoting health education and creating social responsibility among students. Around 30 NSS student volunteers actively participated in the program. The team prepared educational posters, pamphlets in Kannada, and interactive presentations to effectively communicate the message to the villagers. The TB Awareness Program was a successful NSS initiative by the CST department students of DSU. It not only helped in educating the villagers but also instilled a sense of responsibility among the students to contribute towards public health and well-being. The event received positive feedback from the villagers and local authorities.


Kanakapura, Karnataka, India
Jcxq+cw9, Kanakapura, Karnataka 562117, India
Lat 12.648753° Long 77.439605°
23/04/2025 11:32 AM GMT +05:30
Google


Kanakapura, Karnataka, India
Jcxq+cw9, Kanakapura, Karnataka 562117, India
Lat 12.648898° Long 77.440658°
23/04/2025 11:22 AM GMT +05:30
Google


Ramanagara, Karnataka, India
7, Kanakapura Main Rd, Karnataka 562112, India, Ramanagara, Karnataka 562112, India
Lat 12.650261° Long 77.439722°
23/04/2025 11:39 AM GMT +05:30
Google

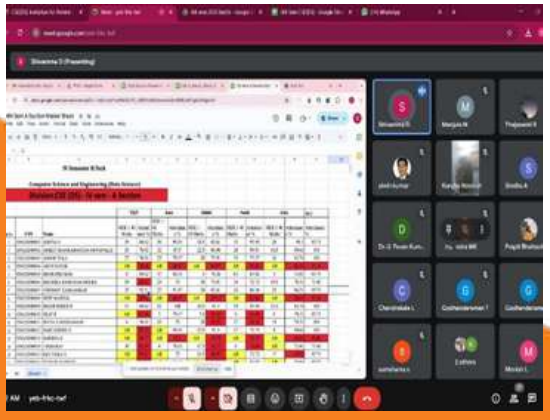

Jakkasandra, Karnataka, India
Mc2r+23f, Jakkasandra, Karnataka 562121, India
Lat 12.650171° Long 77.440109°
23/04/2025 11:35 AM GMT +05:30
Google

“Tuberculosis Awareness Campaign in Gottigehalli Village”

On April 23, 2025, 4th semester students from the Department of Artificial Intelligence and Robotics at Dayananda Sagar University conducted a Tuberculosis Awareness Campaign in Gottigehalli Village. The initiative aimed to educate residents on TB symptoms, treatment, and prevention, while promoting public health awareness. Students engaged with villagers through interactive sessions, distributed informative pamphlets in local languages, and addressed common misconceptions about TB. They emphasized early diagnosis, the importance of completing treatment, and preventive measures like hygiene and ventilation. The campaign not only informed the community but also gave students valuable insights into rural healthcare challenges. The warmth and receptiveness of the villagers made the experience impactful. This initiative underscored the importance of rural health education and the power of combining academic learning with community service.

“Parent Teacher Meeting” - CSE (DS)

The Parent-Teacher Meeting (PTM) for the Department of CSE (Data Science) was held on 26th February 2025 and inaugurated by Dr. Shaila S G, Professor and Chairperson. Class advisors Prof. Shivamma D, Prof. Godhandaraman T, Prof. Monish L, and Prof. Manjula M, along with other faculty members, attended the session. Around 40 parents participated.
The agenda covered key points such as attendance requirements (minimum 85%), detaining policies, remedial classes for slow learners, and details of the upcoming MSE-2 examination. Advisors also discussed placement updates, project-based learning, career guidance, CTS learning, academic performance (MSE-I and previous semester results), and ongoing placement training for 3rd and 5th-semester students. Parents expressed satisfaction with the department’s initiatives and suggested holding online sessions on Saturdays due to availability concerns. They also requested access to student portals with credentials for better academic tracking.



“Parent Teacher Meeting” – CST

The Parents-Teachers Meeting (PTM) began as scheduled, with the class advisor welcoming attendees and emphasizing the importance of PTMs at the university level. Two parents attended in person, and eight joined online. The class advisor explained the 85% minimum attendance requirement, noting that students falling short would be ineligible for the Semester End Examinations (SEE). Parents were informed of their ward’s attendance, MSE-1 marks, and the 60:40 CIA split-up for both integrated and non-integrated courses, including the 40% minimum pass requirement and the summer term policy. The advisor highlighted initiatives like remedial support for slow learners and encouragement for fast learners, while also guiding parents on using the ERP portal and DSU CST department website to access key academic details like attendance, IA marks, CGPA, timetable, and updates on department activities. Parents were updated on placement activities and were encouraged to advise their wards to maintain a strong CGPA. The meeting also covered CST department activities, student participation, and the CTS special training programs designed to enhance programming skills and soft skills in preparation for upcoming placements.

SCHOOL OF
ENGINEERING

INDUSTRIAL VISIT

INDUSTRIAL VISIT to “Indian Deep Space Network (IDSN), Byalalu”

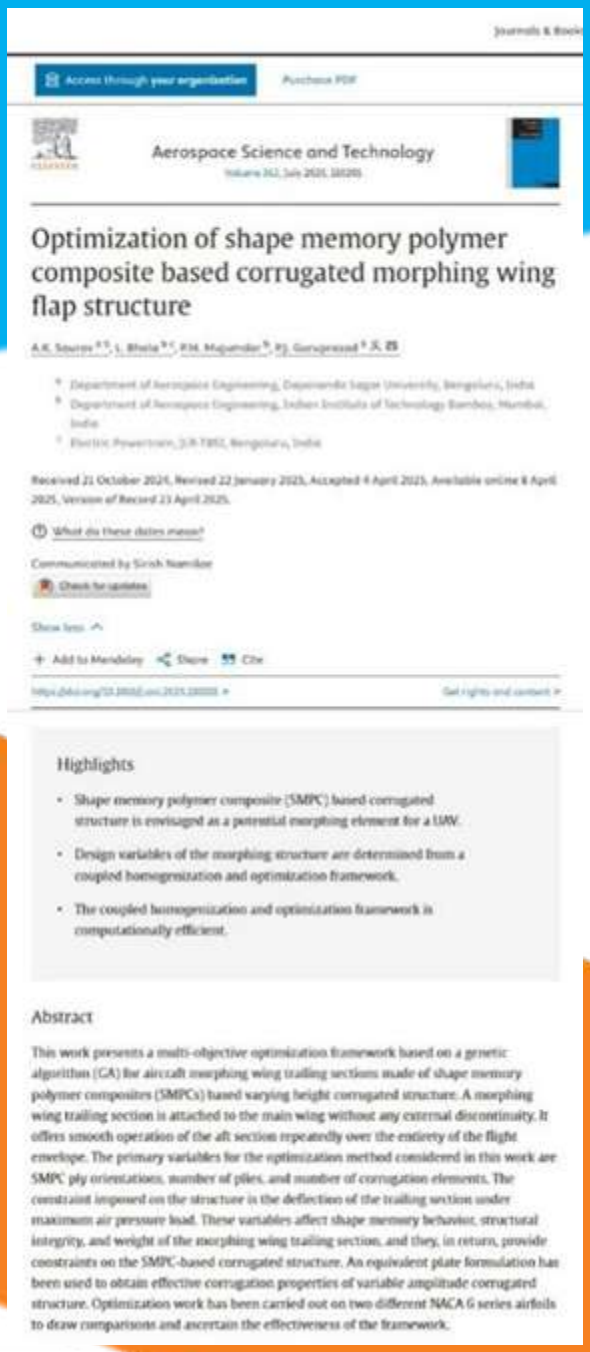
On 11th April 2025, an industrial Visit to Indian Deep Space Network (IDSN), Byalalu was organised as a part of workshop on “Emerging Trends in Wireless Communication and Applications” the students from the department of aerospace engineering participated actively in this visit.

SCHOOL OF
ENGINEERING

FACULTY ACHIEVEMENTS

Dr. Avinash Kumar Saurav
Assistant Professor
Department of AE

- Dr. Avinash Kumar Saurav Assistant Professor in the Department of Aerospace Engineering at Dayananda Sagar University published a paper on “Optimization of shape memory polymer composite based corrugated morphing wing flap structure”.



Aerospace Science and Technology

Optimization of shape memory polymer composite based corrugated morphing wing flap structure

Highlights

- Shape memory polymer composite (SMPC) based corrugated structure is envisaged as a potential morphing element for a UAV.
- Design variables of the morphing structure are determined from a coupled homogenization and optimization framework.
- The coupled homogenization and optimization framework is computationally efficient.

Abstract

This work presents a multi-objective optimization framework based on a genetic algorithm (GA) for aircraft morphing wing trailing sections made of shape memory polymer composites (SMPCs) based varying height corrugated structure. A morphing wing trailing section is attached to the main wing without any external discontinuity. It offers smooth operation of the aft section repeatedly over the entirety of the flight envelope. The primary variables for the optimization method considered in this work are SMPC ply orientations, number of plies, and number of corrugation elements. The constraint imposed on the structure is the deflection of the trailing section under maximum air pressure load. These variables affect shape memory behavior, structural integrity, and weight of the morphing wing trailing section, and they, in return, provide constraints on the SMPC-based corrugated structure. An equivalent plate formulation has been used to obtain effective corrugation properties of variable amplitude corrugated structure. Optimization work has been carried out on two different NACA 6 series airfoils to draw comparisons and ascertain the effectiveness of the framework.

Dr. Suryanarayana GK
Professor
Department of AE

- Dr. Suryanarayana G K, Professor in the Department of Aerospace Engineering at Dayananda Sagar University, presented an Invited Talk at the MSR University of Advanced Studies on the occasion of a “Symposium on Advances and Frontiers in Fluid Mechanics”.

Dr. Durbadal Chattaraj
Associate Professor & Chairperson
Department of CSE(CY)

- Dr. Durbadal Chattaraj has successfully participated in the Faculty Training Session on “Software Engineering Using LLM’s- Developing a Forecasting Solution” conducted on 12th March 2025 at Dayananda Sagar University.

DAYANANDA SAGAR UNIVERSITY
Devarakaggalahalli, Harohalli Kanakapura Road, Dt, Ramanagara, Karnataka 562112
School of Engineering
Department of Computer Science & Engineering
(Artificial Intelligence and Machine Learning)
Center of Research and Innovation in AI (CRIA)
In Association with
School of Computer Applications

CERTIFICATE

OF APPRECIATION

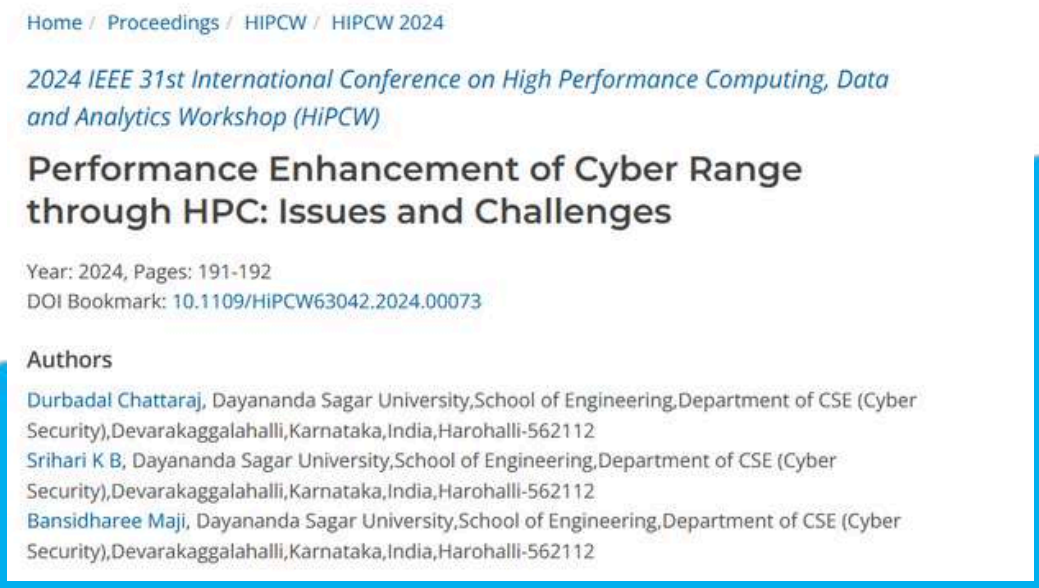
Dr. Durbadal Chattaraj

has successfully participated in the Faculty Training Session on " Software Engineering Using LLM's- Developing a Forecasting Solution" conducted on 12th March 2025 at Dayananda Sagar University.
This session was facilitated by Dr. J.B. Simha, CTO, Abiba Systems, Bengaluru, and focused on the transformative applications of Large Language Models (LLM'S) in Software engineering and forecasting solutions.
We appricate your valuable participation in this knowledge-sharing event.

Dr. Jayavrinda Vrindavanam
Professor & Chairperson, CSE(AIML), SoE, DSU

Dr. Udaya Kumar Reddy K. R.
Dean, SoE, DSU

- Dr.Durbadal Chattaraj, along with students Mr.Srihari K B(ENG21CY0043) and Mr.Bansidharee Maji(ENG22CY0006) published an IEEE conference paper titled “Performance Enhancement of Cyber Range through HPC: Issues and Challenges” in Proceedings of the IEEE International Conference on High Performance Computing, Data, and Analytics Workshops, HiPCW.



Home / Proceedings / HIPCW / HIPCW 2024

2024 IEEE 31st International Conference on High Performance Computing, Data and Analytics Workshop (HiPCW)

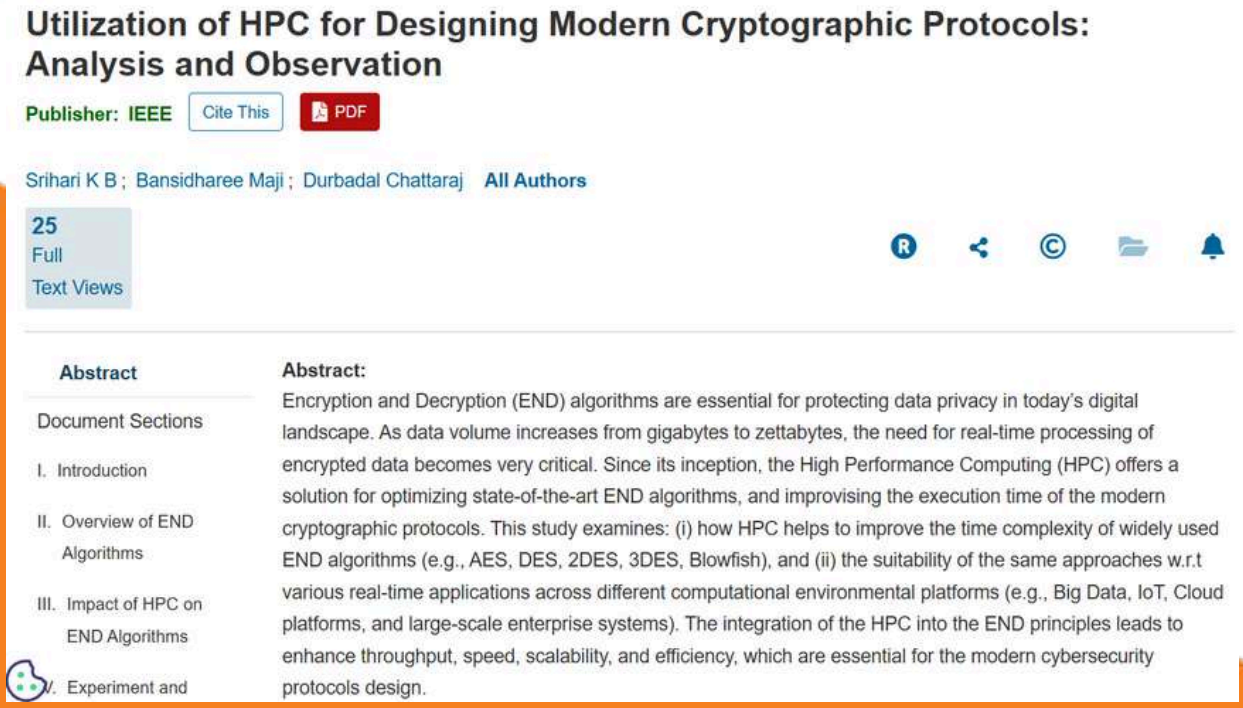
Performance Enhancement of Cyber Range through HPC: Issues and Challenges

Year: 2024, Pages: 191-192
DOI Bookmark: 10.1109/HiPCW63042.2024.00073

Authors

Durbadal Chattaraj, Dayananda Sagar University,School of Engineering,Department of CSE (Cyber Security),Devarakaggalahalli,Karnataka,India,Harohalli-562112
Srihari K B, Dayananda Sagar University,School of Engineering,Department of CSE (Cyber Security),Devarakaggalahalli,Karnataka,India,Harohalli-562112
Bansidharee Maji, Dayananda Sagar University,School of Engineering,Department of CSE (Cyber Security),Devarakaggalahalli,Karnataka,India,Harohalli-562112

- Dr.Durbadal Chattaraj along with students Mr.Srihari K B(ENG21CY0043) and Mr.Bansidharee Maji(ENG22CY0006) Published an IEEE conference paper titled “Utilization of HPC for Designing Modern Cryptographic Protocols: Analysis and Observation” in Proceedings of the IEEE International Conference on High Performance Computing, Data, and Analytics Workshops, HiPCW.



Utilization of HPC for Designing Modern Cryptographic Protocols: Analysis and Observation

Publisher: IEEE | Cite This | PDF

Srihari K B ; Bansidharee Maji ; Durbadal Chattaraj All Authors

25 Full Text Views

Abstract

Document Sections

I. Introduction

II. Overview of END Algorithms

III. Impact of HPC on END Algorithms

IV. Experiment and

Abstract:
Encryption and Decryption (END) algorithms are essential for protecting data privacy in today's digital landscape. As data volume increases from gigabytes to zettabytes, the need for real-time processing of encrypted data becomes very critical. Since its inception, the High Performance Computing (HPC) offers a solution for optimizing state-of-the-art END algorithms, and improvising the execution time of the modern cryptographic protocols. This study examines: (i) how HPC helps to improve the time complexity of widely used END algorithms (e.g., AES, DES, 2DES, 3DES, Blowfish), and (ii) the suitability of the same approaches w.r.t various real-time applications across different computational environmental platforms (e.g., Big Data, IoT, Cloud platforms, and large-scale enterprise systems). The integration of the HPC into the END principles leads to enhance throughput, speed, scalability, and efficiency, which are essential for the modern cybersecurity protocols design.

Dr. D.Sumathi
Professor
Department of CSE(CY)

- Dr. D. Sumathi has successfully participated in the Faculty Training Session on “Software Engineering Using LLM’s- Developing a Forecasting Solution” conducted on 12th March 2025 at Dayananda Sagar University.

DAYANANDA SAGAR UNIVERSITY
Devarakaggalahalli, Harohalli Kanakapura Road, Dt, Ramanagara, Karnataka 562112
School of Engineering
Department of Computer Science & Engineering
(Artificial Intelligence and Machine Learning)
Center of Research and Innovation in AI (CRIA)
In Association with
School of Computer Applications

CERTIFICATE

OF APPRECIATION

D. Sumathi

has successfully participated in the Faculty Training Session on " Software Engineering Using LLM's- Developing a Forecasting Solution" conducted on 12th March 2025 at Dayananda Sagar University.
This session was facilitated by Dr. J.B. Simha, CTO, Abiba Systems, Bengaluru, and focused on the transformative applications of Large Language Models (LLM'S) in Software engineering and forecasting solutions.
We appricate your valuable participation in this knowledge-sharing event.

Dr. Jayavrinda Vrindavanam
Professor & Chairperson, CSE(AIML), SoE, DSU

Dr. Udaya Kumar Reddy K. R.
Dean, SoE, DSU

Dr. Dilip Kumar Jang Bahadur Saini
Associate Professor
Department of CSE(CY)

- Dr. Dilip Kumar Jang Bahadur Saini has participated in the 6th Doctoral Symposium on Computational Intelligence (DoSCI-2025) as a SESSION CHAIR organized jointly by Institute of Engineering and Technology Lucknow, Campus of Open Learning, University of Delhi, Shaheed Rajguru College of Applied Sciences for Women, University of Delhi and University of Calabria, Italy, on 28th-29th March 2025.

DoSCI-2025

UNIVERSITÀ DELLA CALABRIA

Springer

acadroid

6th DOCTORAL SYMPOSIUM ON COMPUTATIONAL INTELLIGENCE
(An International Conference)

Certificate of Appreciation

This is to certify that **Prof./Dr./Mr./Mrs. Dilip Kumar Jang Bahadur Saini** participated in the **6th Doctoral Symposium on Computational Intelligence (DoSCI-2025)** as a **SESSION CHAIR** organized jointly by Institute of Engineering and Technology Lucknow, Campus of Open Learning, University of Delhi, Shaheed Rajguru College of Applied Sciences for Women, University of Delhi and University of Calabria, Italy, on **28th-29th March 2025.**

Prof. Payal Mago
Patron, Director
Campus of Open Learning,
University of Delhi, Delhi

Prof. D.S. Yadav
General Chair
Institute of Engineering and Technology,
Lucknow

Prof. Aboul Ella Hassanien
General Chair
Kuwait University, Kuwait

- Dr. Dilip Kumar Jang Bahadur Saini has been awarded the Certificate of Excellence in Reviewing by the Journal of Experimental Agriculture International.

Certificate No: PRJEAI132157DIL

Journal of Experimental Agriculture International

Certificate of Excellence in Reviewing

awarded to

Dr. Dilip Kumar Jang Bahadur Saini

Dayananda Sagar University, India

in recognition of an outstanding contribution to the quality of the journal.

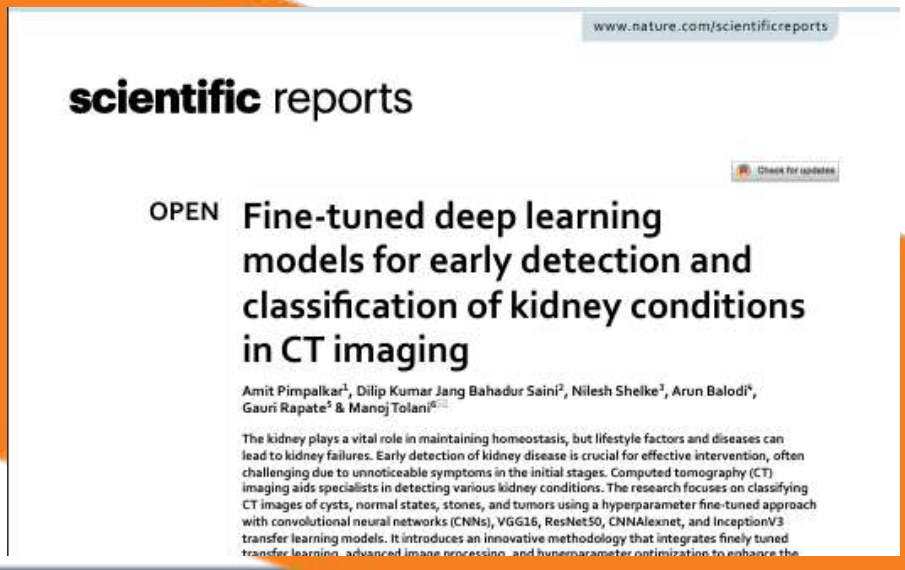
Date: 07.03.2025

Validation Link:
https://reviewer.reviewerhub.org
Username:
DILIPSAINI@GMAIL.COM
Password: dzUkQ8KBBKAx
Please use your login and password to check the authenticity.

Dr. M. B. Mondal
Chief Managing Editor

Reg.Offices
India: Guest House Road, Street no - 1/6, Hooghly, West Bengal, India. Tele: +91 8617752708
UK: Third Floor, 207 Regent Street, London, W1B 3HH, UK. Fax: +44 20-3031-1429

- Dr. Dilip Kumar Jang Bahadur Saini has published a significant open-access research article titled “Fine-tuned Deep Learning Models for Early Detection and Classification of Kidney Conditions in CT Imaging”. The article was published on 28th March 2025 in the prestigious journal Scientific Reports (Nature Portfolio), highlighting a pioneering approach to utilizing deep learning for enhancing diagnostic accuracy in kidney-related conditions through CT imaging.



www.nature.com/scientificreports

scientific reports

OPEN

Fine-tuned deep learning models for early detection and classification of kidney conditions in CT imaging

Amit Pimpalkar[1], Dilip Kumar Jang Bahadur Saini[2], Nilesh Shelke[3], Arun Balodi[4], Gauri Rapate[5] & Manoj Tolani[6]

The kidney plays a vital role in maintaining homeostasis, but lifestyle factors and diseases can lead to kidney failures. Early detection of kidney disease is crucial for effective intervention, often challenging due to unnoticeable symptoms in the initial stages. Computed tomography (CT) imaging aids specialists in detecting various kidney conditions. The research focuses on classifying CT images of cysts, normal states, stones, and tumors using a hyperparameter fine-tuned approach with convolutional neural networks (CNNs), VGG16, ResNet50, CNNAlexnet, and InceptionV3 transfer learning models. It introduces an innovative methodology that integrates finely tuned

Dr. Mubeen Ahmed Khan
Assistant Professor
Department of CSE(CY)

- Dr. Mubeen Ahmed Khan was honored with a Certificate of Presentation at the 2025 4th OPJU International Technology Conference (OTCON 4.0) for the research titled "Gender Classification Based on Machine Learning Models." Held from 9–11 April 2025 at O. P. Jindal University, Raigarh, India, the conference focused on Smart Computing for Innovation & Advancement in Industry 5.0.

- Dr. Mubeen Ahmed Khan has served as a reviewer of the 2025 4th OPJU International Technology Conference on Smart Computing for Innovation and Advancement in Industry 5.0 held at O. P. Jindal University, Raigarh, Chhattisgarh, India from April 9-11,2025.

Prof.V. Vinitha
Assistant Professor
Department of CSE(CY)

- Prof. V. Vinitha has successfully completed an 8 Week NPTEL course titled “Cloud Computing and Distributed systems” during Jan-March 2025.

NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)

Skill India
कौशल भारत - कुशल भारत

This certificate is awarded to

VINITHA V

for successfully completing the course

Cloud Computing and Distributed Systems

with a consolidated score of 48 %

Online Assignments	17.92/25	Proctored Exam	30/75

Total number of candidates certified in this course: 4408

Prof. B. V. Ratish Kumar
Chairman, Centre for Continuing Education
IIT Kanpur

Jan-Mar 2025

(8 week course)

Prof. Satyaki Roy
NPTEL Coordinator
IIT Kanpur

Indian Institute of Technology Kanpur

swayam

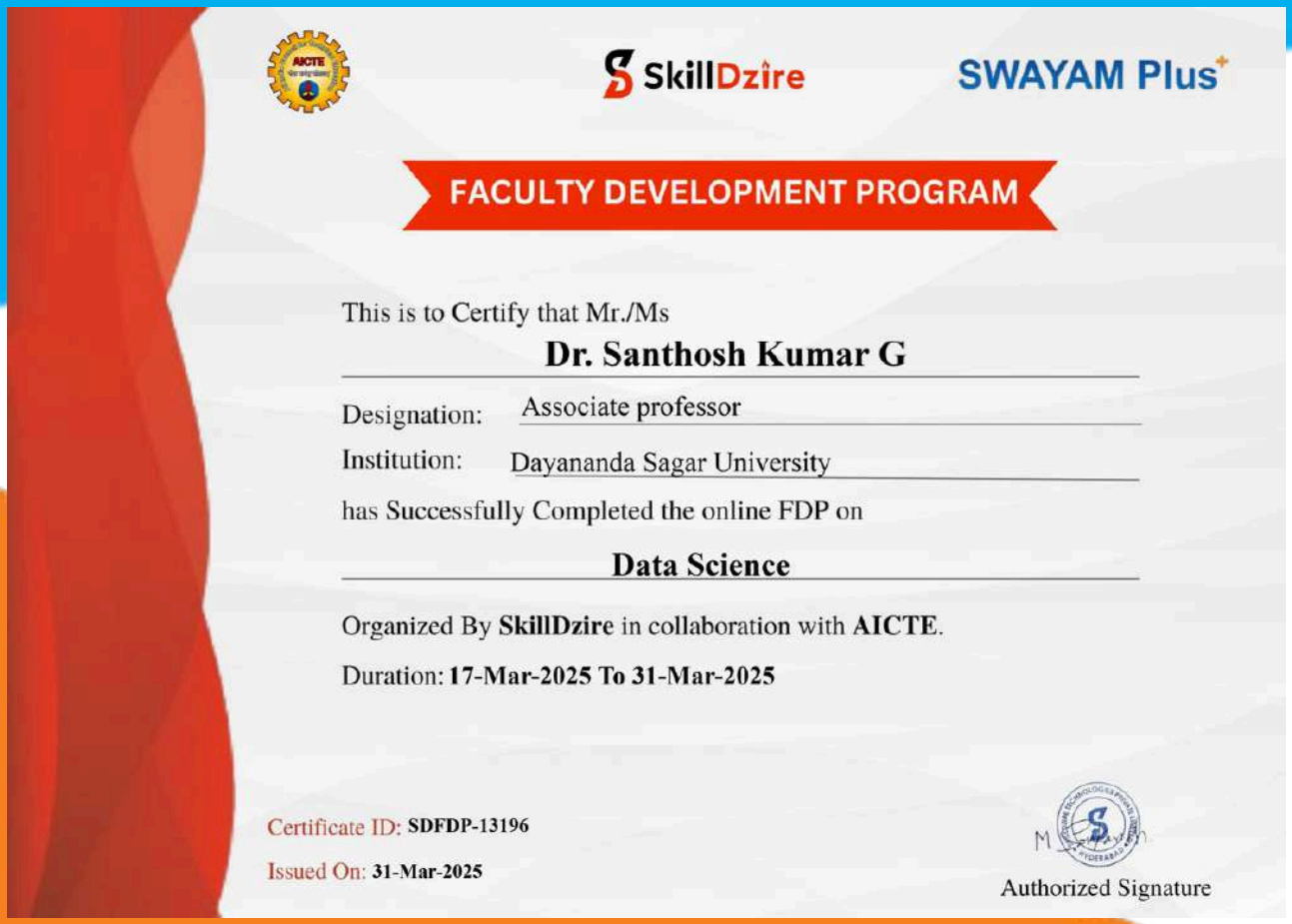
Roll No: NPTEL25CS12S336400666 To verify the certificate No. of credits recommended: 2 or 3

Dr. V. S. Devi Priya
Assistant Professor
Department of CSE(CY)

- Dr.Devi Priya V S has served as a resource person for the session on "Post Quantum Cryptography" as part of the World Quantum Day celebrations on 17th April 2025, organised by Thakur college of engineering and technology, Mumbai.

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

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



SkillDzire SWAYAM Plus

FACULTY DEVELOPMENT PROGRAM

This is to Certify that Mr./Ms

Dr. Santhosh Kumar G

Designation: Associate professor

Institution: Dayananda Sagar University

has Successfully Completed the online FDP on

Data Science

Organized By **SkillDzire** in collaboration with **AICTE**.

Duration: **17-Mar-2025 To 31-Mar-2025**

Certificate ID: **SDFDP-13196**

Issued On: **31-Mar-2025**

Authorized Signature

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

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

SkillDzire SWAYAM Plus

FACULTY DEVELOPMENT PROGRAM

This is to Certify that Mr./Ms

Dr. U. Pavan Kumar

Designation: Assistant Professor

Institution: Dayananda Sagar University

has Successfully Completed the online FDP on

Machine Learning

Organized By **SkillDzire** in collaboration with **AICTE**.

Duration: **17-Mar-2025 To 31-Mar-2025**

Certificate ID: **SDFDP-12331**

Issued On: **31-Mar-2025**

Authorized Signature

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

IEEE BANGALORE SECTION

BITM

Ballari Institute of Technology & Management, Ballari

Autonomous Institute under VTU, Belagavi (A unit of T.E.H.R.D. Trust ® An ISO 9001:2015 Certified Institution)

Certificate of Appreciation

This is to recognise the contribution of

Dr. U. Pavan Kumar

Dayananda Sagar University

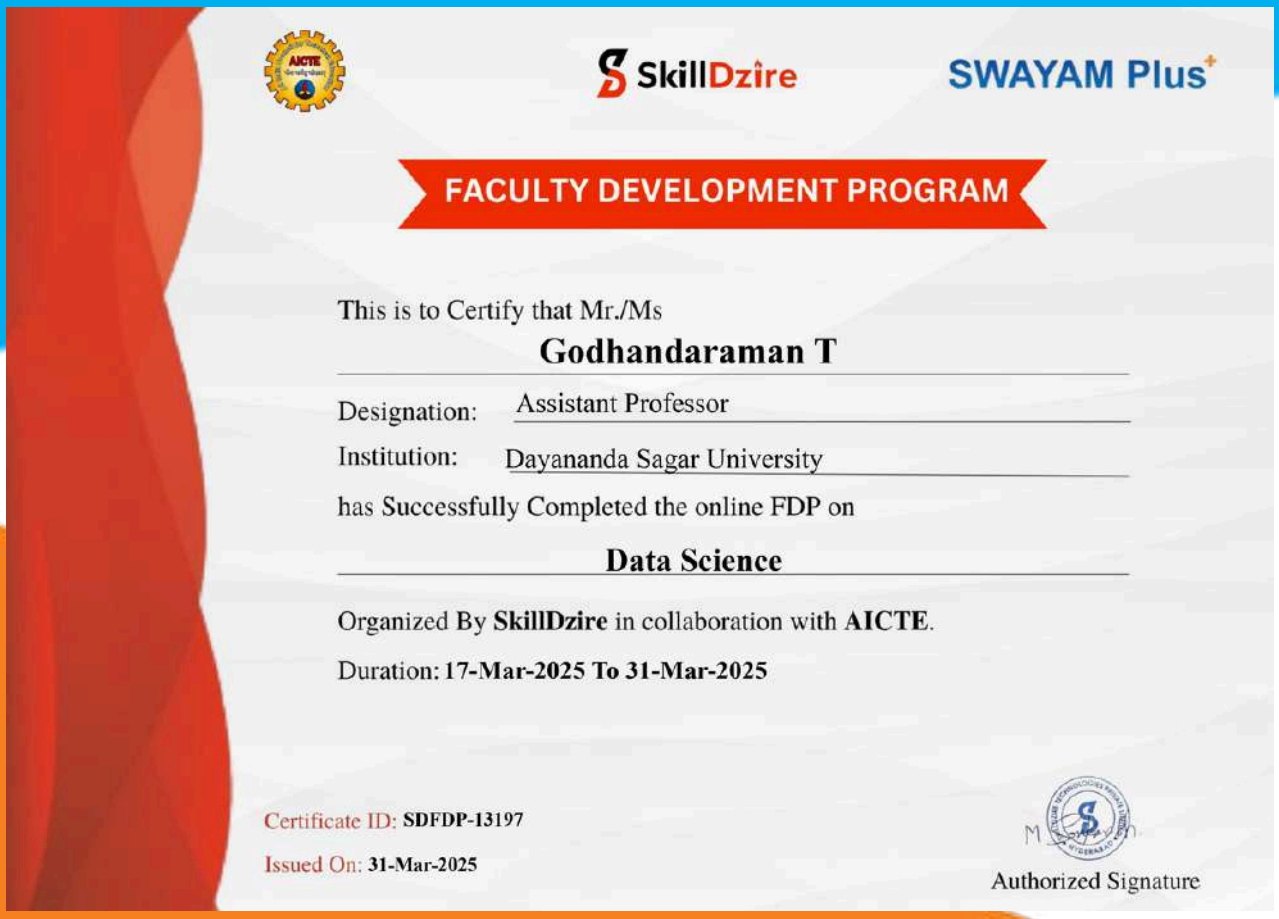
as REVIEWER for 4th IEEE International Conference on Distributed Computing and Electrical Circuits and Electronics (ICDCECE-2025) organized by IEEE SB Ballari Institute of Technology and Management, Ballari, 25-26April, 2025.

Dr. Yadavalli Basavaraj
Principal
BITM, Ballari

Mr. Y.J. Prithviraj Bhupal
Director. BITM, Ballari & Pro Chancellor.
Kishkinda University, Ballari

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

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



SkillDzire SWAYAM Plus+

FACULTY DEVELOPMENT PROGRAM

This is to Certify that Mr./Ms

Godhandaraman T

Designation: Assistant Professor

Institution: Dayananda Sagar University

has Successfully Completed the online FDP on

Data Science

Organized By **SkillDzire** in collaboration with **AICTE**.

Duration: **17-Mar-2025 To 31-Mar-2025**

Certificate ID: **SDFDP-13197**

Issued On: **31-Mar-2025**

Authorized Signature

Prof. Manjula M
Assistant Professor
Department of CSE(DS)

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

MeitY

E & ICT Academy, IIT Kanpur

(A Joint initiative of MeitY & IIT Kanpur)

Certificate

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

Date of Issue: 10-03-2025

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

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

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

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

Prof. Monish L
Assistant Professor
Department of CSE(DS)

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

AJAY KUMAR GARG ENGINEERING COLLEGE

NGISE 2025

28 - 29 March, 2025

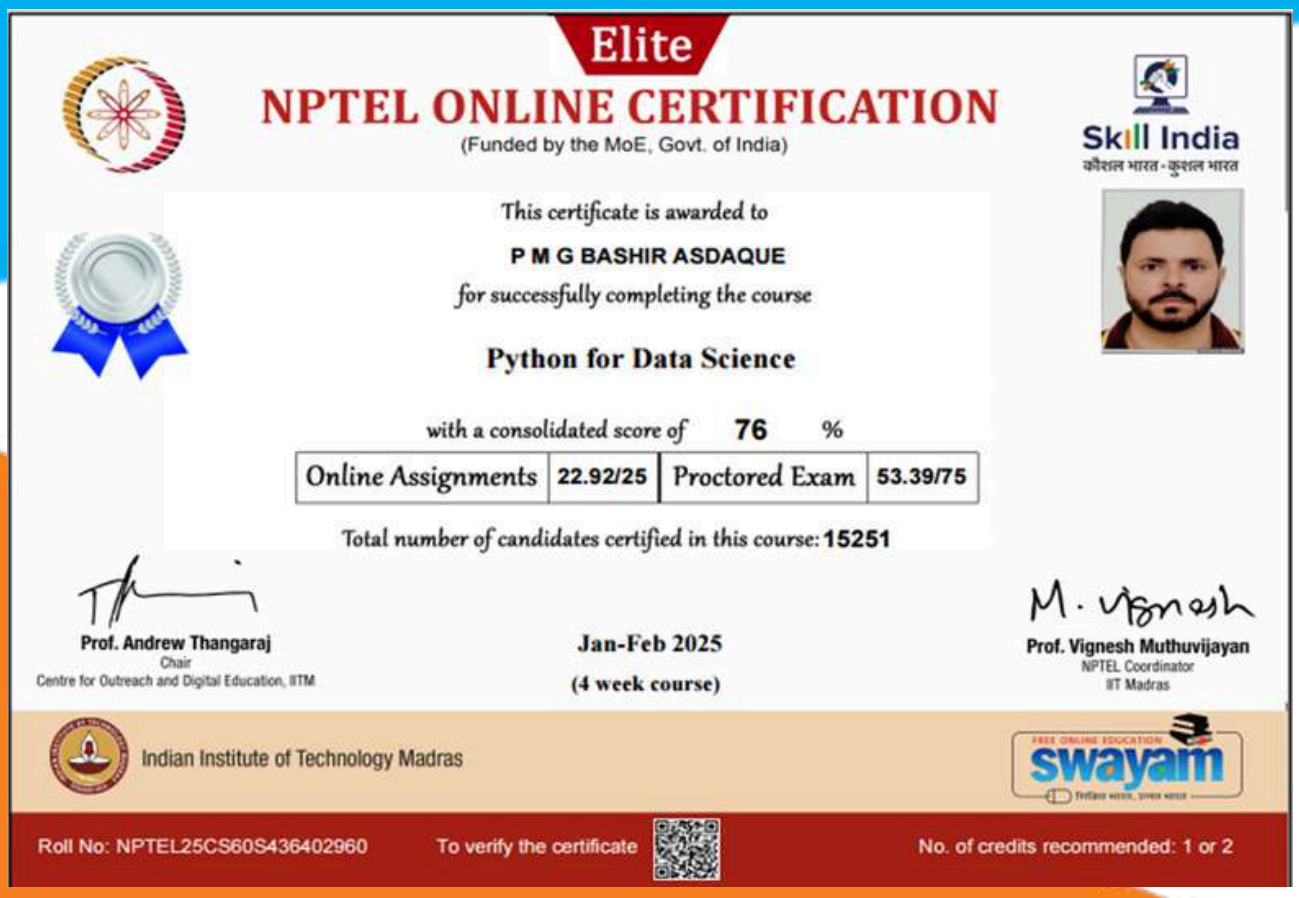
CERTIFICATE OF PARTICIPATION

This is to certify that Dr./Mr./Ms. Shivamma D of Davananda Sagar University, Bengaluru has presented paper titled Speech Audio Analytics Based Classification of Human Emotions using Machine Learning and Deep Learning Models in the IEEE International Conference On Next Generation Information System Engineering (NGISE 2025) organized by the Department of Information Technology, Ajay Kumar Garg Engineering College, Ghaziabad, India.

Dr. Anupama Sharma, Organizing Chair
Dr. Dirk Draheim, General Chair
Dr. Rahul Sharma, General Chair
Dr. R K Agarwal, Honorary General Chair

Dr. P. M. G. Bashir Asdaque
Assistant Professor
Department of ME

- Dr. P. M. G. Bashir Asdaque, Assistant Professor in the Department of Mechanical Engineering at Dayananda Sagar University, Bengaluru, has successfully completed the NPTEL Online Certification Course in Python for Data Science.



Elite

NPTEL ONLINE CERTIFICATION

(Funded by the MoE, Govt. of India)

Skill India
कौशल भारत-कुशल भारत

This certificate is awarded to

P M G BASHIR ASDAQUE

for successfully completing the course

Python for Data Science

with a consolidated score of 76 %

Online Assignments	22.92/25	Proctored Exam	53.39/75

Total number of candidates certified in this course: 15251

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

Jan-Feb 2025
(4 week course)

Prof. Vignesh Muthuvijayan
NPTEL Coordinator
IIT Madras

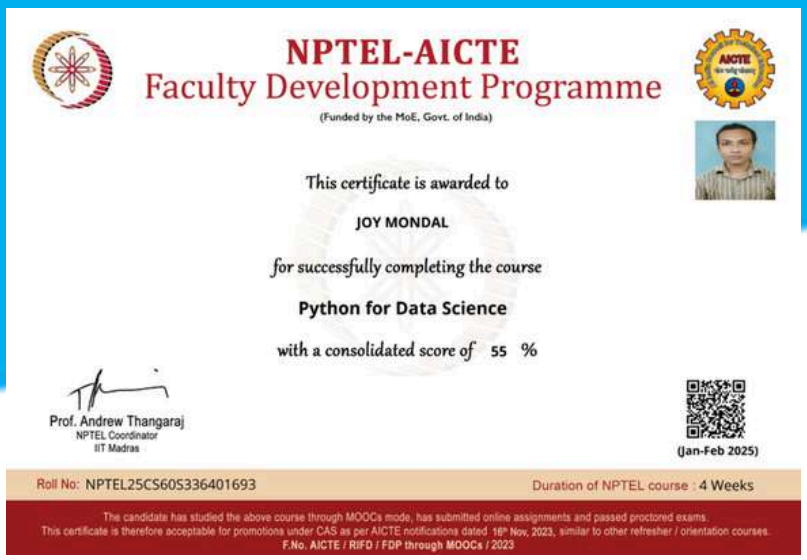
Indian Institute of Technology Madras

swayam

Roll No: NPTEL25CS60S436402960 To verify the certificate No. of credits recommended: 1 or 2

Dr. Joy Mondol
Assistant Professor
Department of ME

- Dr. Joy Mondal, Assistant Professor, Department of Mechanical Engineering, Dayananda Sagar University, Bengaluru, has successfully completed the NPTEL Online Certification Course in Python for Data Science.



Dr. Santhosh Kumar J
Associate Professor
Department of CST

- Dr. Santhosh Kumar J, Associate Professor, visited BNM Institute of Technology to serve as an external reviewer for the final year students' project exhibition, 'Capstone Project Expo 2024-25,' held on April 12, 2025, in the Department of Artificial Intelligence and Machine Learning.

Dr. A. Senthil Kumar
Professor
Department of CSE

Dr.Gokulakrishnan S
Assistant Professor
Department of CSE

- Dr. Senthil Kumar A, Professor, Dr. Gokulakrishnan S, Assistant Professor, Department of CSE presented a paper titled "A Comprehensive Deep Learning Framework for Physical Vehicle Fitness testing and Document Validation" in the Springer Nature 9th International Conference on Information and Communication Technology for Intelligent Systems (ICTIS), Thailand 2025 during 4th to 6th April 2025.

ICTIS
THAILAND 2025

9th Edition ICTIS 2025

CERTIFICATE

This is to certify that

Senthil Kumar A, Senthilkumar J, Selvaraj Kesavan, Gokulakrishnan S, Nagaraj S

has contributed a paper titled

A Comprehensive Deep Learning Framework for Physical Vehicle Fitness Testing and Document Validation

in the

9th International Conference on

Information and Communication Technology for Intelligent Systems

The paper has also been selected for publication in the (ICTIS) Conference as per fulfilment of guidelines issued by Springer.

NILANJAN DEY, Ph.D
TPC CHAIR

TACHANUN KANGWANTRAKOOL, Ph.D
LOCAL CONFERENCE CHAIR

AMIT JOSHI, Ph.D
CONFERENCE STEERING COMMITTEE CHAIR

4 - 6 APRIL 2025 | BANGKOK, THAILAND

DIGITAL PLATFORM : ZOOM

Local Organization Partner | International Organization Partner | International Managing Partner | Publication Partner

Dr.Gokulakrishnan S
Assistant Professor
Department of CSE

- Dr. Gokulakrishnan S, Assistant Professor, Department of CSE presented a paper titled “Designing a Custom Linux Distribution for Improved Accessibility” in the Springer Nature International Conference on Web Intelligence and Human Machine Interaction (ICWIHI 2025) organized by R P Sarathy Institute of Technology, Salem, Tamil nadu, India on 8th to 9th April 2025.

R P Sarathy Institute of Technology
An Autonomous Institution

Springer

CERTIFICATE OF PRESENTATION

This is to certify that

S Gokula Krishnan

has sucessfully presented a paper entitled

Designing a Custom Linux Distribution for Improved Accessibility

at the

International Conference on Web Intelligence and Human-Machine Interaction (ICWIHI 2025) organised by R P Sarathy Institute of Technology, Salem, Tamil Nadu, India on 8-9 April 2025.

Session Chair

Dr. Munusami Viswanathan
General Chair

Dr. R. Vasanthi
Conference Chair

Dr. Bipin Kumar Rai
Professor
Department of CSE

- Dr. Bipin Kumar Rai, Professor, Department of CSE served as a Session Chair at the 2025 Seventh International Conference on Computational Intelligence and Communication Technologies (CCICT), 11-12 April, 2025 organized by BM Institute of Engineering & Technology, Sonipat, Haryana.

Prof. Shreekant Salotagi
AssistantProfessor
Department of CSE

- Dr. Shreekant Salotagi, Assistant Professor, Department of CSE has successfully published a research paper in the IEEE with the title “Hybrid Approach of TabNet and Transformer-XGBoost for Predicting Traffic Flow in Smart Cities” presented in the 2025 IEEE 1st International Conference on Smart and Sustainable Developments in Electrical Engineering (SSDEE) during 25th April 2025.

Hybrid Approach of TabNet and Transformer-XGBoost for Predicting Traffic Flow in Smart Cities

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6th Mude Nagarjuna Naik
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***Abstract*—A smart city's transportation system can be enhanced if there is an accurate prediction of the traffic flow which develops in an area as time goes on. This article investigates the relative accuracy of predicting traffic flow at target intersections in a city, taking advantage of two models: TabNet and a hybrid Transformer-XGBoost. Several metrics including Mean Squared Error (MSE) and Coefficient of determination (R^2 score) among others were employed to evaluate the models employed. A sequential deep learning model known as TabNet triumphing in the competition with MSE, RMSE, and MAE being 34.48, 5.87, and 3.73 respectively, and R^2 score as high as 0.917, although performing well while enhancing identification of features such as year and junction. On the other hand, while reporting similar R^2 score as low as 0.184, the Transformer-XGBoost hybrid model had structuring limitations where complex interdependencies and time variations were involved recording MSE, RMSE and MAE as 338.52, 18.40 and 13.24 respectively. The graphs of residuals and QQ plots served to uncover that the hybrid model failed making a right prediction during high traffic volume days, as general tabnet results shown in the final graphs are more stable. Following investigation of the models in this study, the researchers suggest implementing TabNet as a better option for traffic management explaining its high accuracy and providing valuable guidance for cities. This would result in improvement of the traffic flow prediction, which is highly needed for effective urban mobility solutions.**

***Index Terms*—TabNet, Transformer-XGBoost, Traffic Flow Prediction, Smart Cities, Urban Traffic Management.**

I. Introduction

The prediction of traffic patterns and their dynamics has increasingly been becoming a very important aspect for the progression of smart cities. Traffic flow predictions go a long way in facilitating better road network management, reduction of road congestion and city evolution in general. However, traditional methods, like linear regression models, are often unable to fully capture the complex and time-varying traffic situations. This was contrary to modern machine learning models that have substantial datasets and discover intricate patterns which have potential in reversing this situation.

TabNet is selected for the reason that it is able to continually focus on such features which are crucial at a particular time during the model development, an important aspect when traffic prediction is involved as factors such as time, geographic region and climatic conditions are not uniform. This type of adaptability in terms of features comes in handy in smart cities where traffic changes constantly due to the occurrence of local events, seasonal variations or random occurrences. By emphasizing the most significant variables for every predicition, TabNet seems to augment interpretability and urban planners are given clearer pointers. Its attention mechanism from transformer architectures provides it with ability to bear complex structure of data enabling it as the best model for predicting real time traffic. On the other hand, Transformer-XGBoost hybrid model is chosen for its effectiveness at completing time series and sequence type data

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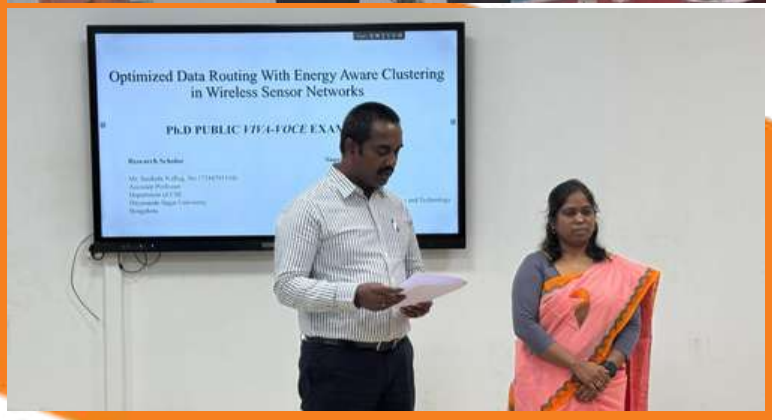
2025 IEEE 1st International Conference on Smart and Sustainable Developments in Electrical Engineering (SSDEE) | 979-8-3315-4210-8/25/$31.00 ©2025 IEEE | DOI: 10.1109/SSDEE64538.2025.10968571

Prof. Sasikala N
Assistant Professor
Department of CSE

- Prof. Sasikala Nagarajan, Assistant Professor, Department of CSE has successfully defended her viva on the research work titled "Optimized Data Routing with Energy-Aware Clustering in Wireless Sensor Networks", under the guidance of Dr. S Pavalarajan, Professor and Head, CSBS, PSNACET, Dindigul and has received the recommendation for the award of the Ph.D. degree from Anna University, Chennai.



Prof. Nandini K
Assistant Professor
Department of CSE

- Prof. Nandini K, Assistant Professor, Department of CSE has successfully presented paper entitled “Multiple Sclerosis Diseases Detection using Machine Learning approaches for Medical Imaging” in 2025 International Conference on Advancement in Communication & Computing in Technology (INOACC), jointly organised by Departments of CSE, ISE, ECE, CSE (AI & ML), CSE (DS) at Sai Vidya Institute of Technology, Bengaluru, India held during 4th– 6th April, 2025.

Sri Sai Vidya Vikas Shikshana Samithi ®

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IEEE IEEE BANGALORE SECTION

International Conference on Advancement in Communication & Computing in Technology (INOACC-2025)

Certificate

This is to certify that Dr./Prof./Mr./Ms. Nandini K has presented paper entitled Multiple Sclerosis Diseases Detection using Machine Learning approaches for Medical Imaging in 2025 International Conference on Advancement in Communication & Computing in Technology (INOACC), jointly organised by Departments of CSE, ISE, ECE, CSE (AI & ML), CSE (DS) at Sai Vidya Institute of Technology, Bengaluru, India held during 4th– 6thApril, 2025.

Dr. Shantakumar B Patil
Secretary and Outreach Chair

DR. M S Ganesha Prasad
General Chair

Dr. George Fernandez I
Associate Professor
Department of CSE

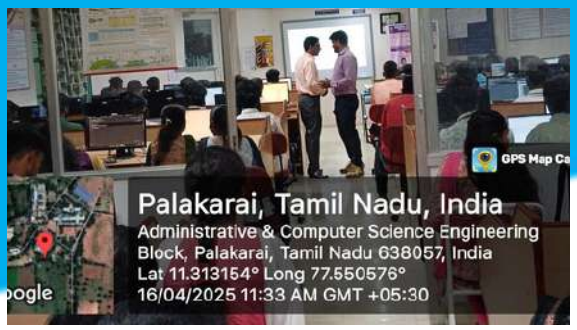
- Dr. George Fernandez I, Associate Professor, Department of CSE served as a National advisory and Technical Committee member in the International Conference on Computer, Communication and Informatics (PERI ICCCI'25) organized by Department of Computer Science and Engineering and Department of Computer Technology, PERI Institute of Technology, Chennai, Tamilnadu during 16th April 2025.

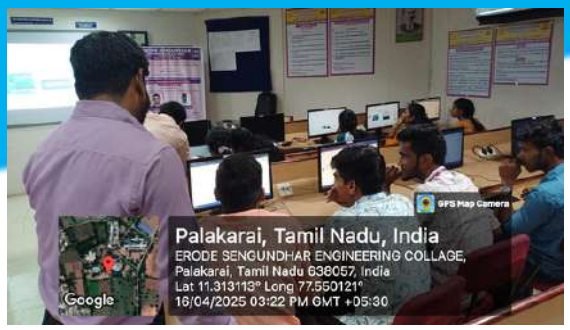
Prof. Mala B A
Assistant Professor
Department of CSE

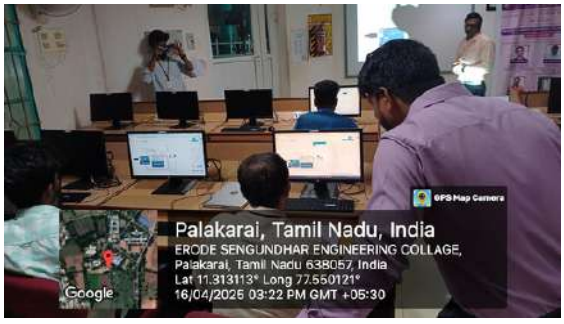
- Prof. Mala B A, Assistant Professor in the Department of Computer Science and Engineering, served as the resource person for a one-day workshop on “Enhancing Cybersecurity with Blockchain Technology” on 7th April 2025 at Brindavan College of Engineering, Bengaluru.

Prof. Bharath M B
Assistant Professor
Department of CSE

- Prof. Bharath M B, Assistant Professor, Department of CSE, served as a resource person for a three-day national workshop on “Advanced Automotive Technology for E-Mobility in xEVs” from 15th to 17th April 2025 at Erode Sengunthar Engineering College, Tamil Nadu.







Dr. Jayavrinda Vrindavanam
Professor & Chairperson
Department of CSE(AIML)

- Dr. Jayavrinda Vrindavanam, Professor and Chairperson, CSE(AIML) Department, has published a paper titled " A Review of Block Ciphers and its Post-Quantum Considerations " in IEEE Access (Q1 Journal). The journal is indexed in Web of Science (WoS) and has a high Impact Factor of 3.4. with SCImago Journal & Country Rank (SJR) of Q1.

This article has been accepted for publication in IEEE Access. This is the author's version which has not been fully edited and content may change prior to final publication. Citation information: DOI 10.1109/ACCESS.2025.3604602

IEEE Access

Date of publication xxxx 00, 0000, date of current version xxxx 00, 0000.

Digital Object Identifier 10.1109/ACCESS.2017.DOI

A Review of Block Ciphers and its Post-Quantum Considerations

CHETHANA R V[1], JAYAVRINDA VRINDAVANAM[2], SUBARNA ROY[3], P. C. DESHMUKH [4].

[1]Department of Computer Science and Engineering, Dayananda Sagar University, Devarakaggalahalli, Harohalli Kanakapura Road, Ramanagara Dt. Karnataka 562112, India (e-mail: chethanarv-rs-cse@dsu.edu.in)

[2]Department of Computer Science and Engineering (Artificial Intelligence and Machine Learning), Dayananda Sagar University, Devarakaggalahalli, Harohalli, Kanakapura Road, Ramanagara Dt. Karnataka 562112, India (e-mail: jayavrinda-cse@dsu.edu.in)

[3]Chief Data Scientist and Quantum Ambassador, Bengaluru, IBM India (e-mail: subarna.roy259@gmail.com)

[4]Centre for Quantum Sciences and Technologies, School of Computer Science and Engineering, RV University, Bengaluru and CAMOST (IIT Tirupati and IISER Tirupati), Tirupati (e-mail: pdeshmukh@rvu.edu.in)

Corresponding author: Chethana R V (e-mail: chethanarv-rs-cse@dsu.edu.in).

"This work was supported by RV University, Bengaluru through their Open Access Publication Initiative."

ABSTRACT Recent advances in cryptography aim to address threats posed by quantum computers. However, these advances have focused disproportionately on asymmetric schemes, while symmetric primitives like block ciphers have received less attention. The common assumption is that doubling block cipher key sizes provides adequate quantum resistance, but this oversimplifies the challenge. This paper provides a systematic examination of block cipher security in the quantum computing era. The paper first establishes a formal framework for understanding block cipher security, covering their mathematical foundations and essential security properties. Building on this foundation, we examine how quantum computing fundamentally challenges these security assumptions, going beyond the simple impact on key lengths. Our review of recent research reveals that quantum attacks can exploit structural vulnerabilities in block ciphers and their modes of operation, requiring more comprehensive defenses than key length adjustments alone. We analyze emerging approaches in quantum-resistant design and identify critical areas requiring further research to ensure block cipher security in a post-quantum world.

INDEX TERMS Advanced Encryption Standard (AES), block ciphers, cryptographic modes, cryptography, Feistel networks, Grover's algorithm, Simon's algorithm, post-quantum cryptography, quantum computing, quantum cryptanalysis.

I. INTRODUCTION

Block ciphers are fundamental components of symmetric key cryptography, which transforms plaintext data blocks into ciphertext using a shared secret key. Although these ciphers have demonstrated strong security against classical attacks, the emergence of quantum computing poses new challenges to their underlying security assumptions.

A. SCOPE AND STRUCTURE

This is a review of block ciphers primarily and the effect of quantum computers on them. We leave out any detailed treatment of cryptanalysis in lieu of a simple introduction, as well as any discussion of other forms of cryptography and any latest advances in quantum cryptography that are unrelated to block ciphers.

The purpose of this review is to provide an entry point for ciphers. In Section II, we define and formulate the basic objectives of cryptography and provide a brief background to motivate the rest of the paper.

In Section III, we define block ciphers mathematically, state the desired properties of ideal block ciphers and consider practical additions to it. Section III.C lists and explains components that all block and stream ciphers to provide effective security. Section III.D details the iteration process used in most modern block ciphers and provides examples of practical ciphers. Section III.E then follows with additional modifications needed to handle variable block lengths, which are called *operating modes* in the literature. All modes are treated formally and with mathematical definitions. Stream ciphers are also introduced. We conclude with a very brief overview of security considerations in Section III.F by reviewing cryptanalysis techniques.

In Section IV, we provide an introduction to quantum computing, focused on its applicability to block ciphers.

Dr. Shreyas Rajendra Hole
Assistant Professor
Department of CSE(AIML)

- Dr. Shreyas Rajendra Hole, Assistant Professor, Dept. of CSE (AI&ML), published a conference paper titled “Design of an Efficient Model for DC–DC Converter Topologies and Grid Integration in Electric Vehicles” under the track Control Applications in Modern Power Systems at EPREC 2024, organized by NIT Jamshedpur. The paper is published in Lecture Notes in Electrical Engineering, Vol. 1304 by Springer, Singapore.

Design of an Efficient Model for DC–DC Converter Topologies and Grid Integration in Electric Vehicles

Agam Das Goswami and Shreyas Rajedra Hole

Abstract The need for advancing converter topologies and efficiency enhancement methodologies tailored for electric vehicle (EV) integration with the grid has become increasingly imperative. Existing approaches suffer from suboptimal efficiency, lack of proactive grid interaction, and limited flexibility in bidirectional power exchange. In response, this paper proposes three innovative methodologies to address these challenges. The Interleaved Boost Converter with Adaptive Control harnesses adaptive control algorithms to distribute power across parallel channels, mitigating current ripple and switching losses. This approach demonstrates targeted efficiency improvements of 5–10% alongside reductions in transient overshoot and settling time by 20–30%, making it a promising solution for EV power conversion. Secondly, integrating Predictive Energy Management with Vehicle-to-Grid (V2G) Control offers proactive decision-making for efficiency enhancement. By optimizing power flow between EVs and the grid, coupled with V2G control, a substantial revenue generation potential of $200–$300 per vehicle annually is unlocked while bolstering overall system efficiency by 8–12%. Lastly, the Bidirectional Dual Active Bridge Converter with Smart Grid Communication ensures high efficiency and flexibility for bidirectional power exchange. Through seamless integration of smart grid communication protocols, real-time coordination with the grid enables rapid response to grid events and stability during transient events, with efficiency projections exceeding 95%. These methodologies significantly enhance the symbiotic relationship between EVs and the grid, promising substantial efficiency improvements and grid support functionalities. The proposed approaches address the limitations of existing methodologies and pave the way for the widespread adoption of EVs as active participants in the modern grid ecosystem, thereby contributing to the ongoing discourse on sustainable energy integration operations.

A. D. Goswami (✉) · S. R. Hole
VIT-AP University, Amaravati, Andhra Pradesh, India
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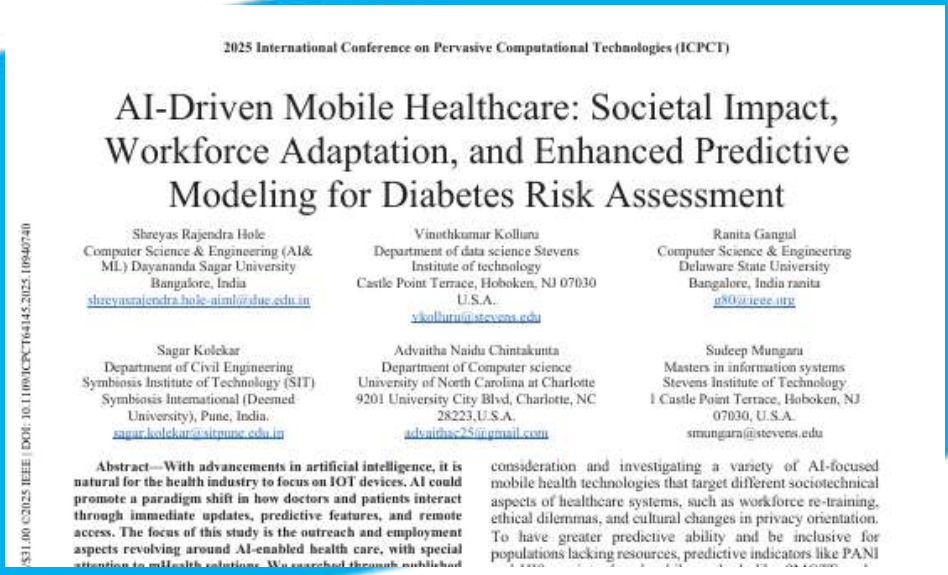
S. R. Hole
Dayananda Sagar University, Bengaluru, Karnataka, India

A. K. Prajapati et al. (eds.), *Control Applications in Modern Power Systems*, Lecture Notes in Electrical Engineering 1304, https://doi.org/10.1007/978-981-96-0104-2_20

- Dr. Shreyas Rajendra Hole, Assistant Professor, Dept. of CSE (AI&ML), has published a conference paper entitled “AI-Driven Mobile Healthcare: Societal Impact, Workforce Adaptation, and Enhanced Predictive Modeling for Diabetes Risk Assessment” in the 2025 International Conference on Pervasive Computational Technologies (ICPCT).



2025 International Conference on Pervasive Computational Technologies (ICPCT)

AI-Driven Mobile Healthcare: Societal Impact, Workforce Adaptation, and Enhanced Predictive Modeling for Diabetes Risk Assessment

Shreyas Rajendra Hole
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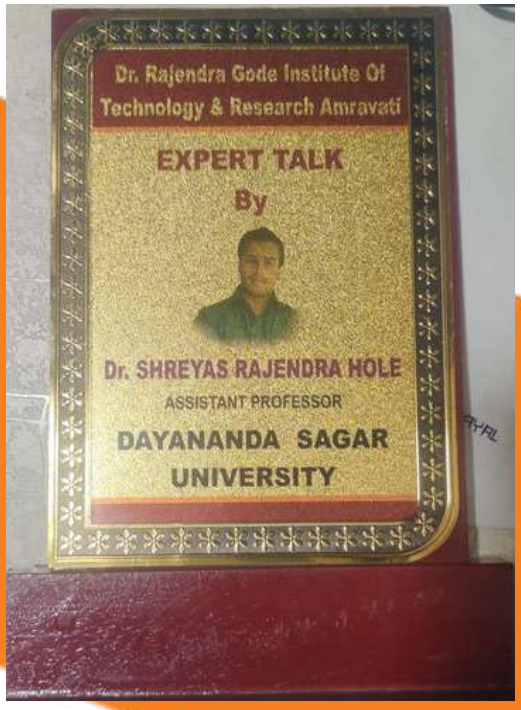
979-8-3315-3531-00 ©2025 IEEE | DOI: 10.1109/ICPCT64345.2025.10940740

Abstract—With advancements in artificial intelligence, it is natural for the health industry to focus on IOT devices. AI could promote a paradigm shift in how doctors and patients interact through immediate updates, predictive features, and remote access. The focus of this study is the outreach and employment aspects revolving around AI-enabled health care, with special

consideration and investigating a variety of AI-focused mobile health technologies that target different sociotechnical aspects of healthcare systems, such as workforce re-training, ethical dilemmas, and cultural changes in privacy orientation. To have greater predictive ability and be inclusive for populations lacking resources, predictive indicators like PANI

- Dr. Shreyas Rajendra Hole, Assistant Professor at Dayananda Sagar University, delivered an expert talk on "Emerging Trends of Renewable Energy Using Artificial Intelligence" on 17th April 2025, organized by the Department of Applied Science & Humanities, Dr. Rajendra Gode Institute of Technology & Research, Amravati.



Dr. Rajendra Gode Institute Of Technology & Research, Amravati

RGITA

CERTIFICATE OF APPRECIATION

THIS IS TO PROUDLY PRESENT TO

Dr. Shreyas Rajendra Hole , Dayananda Sagar University

in recognition of delivering an insightful expert talk on "Emerging Trends of Renewable Energy using Artificial Intelligence" held on 17th April 2025, organized by the Department of Applied Science & Humanities of Dr. Rajendra Gode Institute Of Technology & Research, Amravati, Maharashtra India.

Dr. S.D.Thakre
HOD Applied Science & Humanities

Dr. S. C. Jirapure
Principal

- Dr. Shreyas Rajendra Hole, Assistant Professor, Department of CSE(AI&ML) received a certificate in recognition of his service as a Reviewer during International Conference on Electrical, Electronics and Automation held on 8-9 March 2025 organized by department of Instrumentation and Control Engineering, Dr B R Ambedkar National Institute of Technology Jalandhar, Punjab.

NITJ/ICE/E2ACON/2025/R203

Springer

E2ACON 2025

International Conference on
Electrical, Electronics & Automation

Newcastle University
UK | Malaysia | Singapore

Certificate of Appreciation

This certificate is awarded to

Shreyas Hole, Dayananda Sagar University, India

in recognition of his/her service as a **Reviewer** during International Conference on Electrical, Electronics and Automation held on 8-9 March 2025 organized by department of Instrumentation and Control Engineering, Dr B R Ambedkar National Institute of Technology Jalandhar, Punjab

Dr. Afzal Sikander
Organising Chair

Prof. Dilbag Singh
General Chair

Prof. K S Nagla
General Chair

- Dr. Shreyas Rajendra Hole, Assistant Professor, Department of CSE(AI&ML) received a certification of appreciation in recognition of his invaluable contribution as a resource person for Conducted one day expert talk on "IoT Application", organized by Department of Artificial Intelligence & Data Science, Dr. D Y Patil Institute of Engineering and Management Research, Akurdi, Pune held from 5th April 2025.

CERTIFICATE

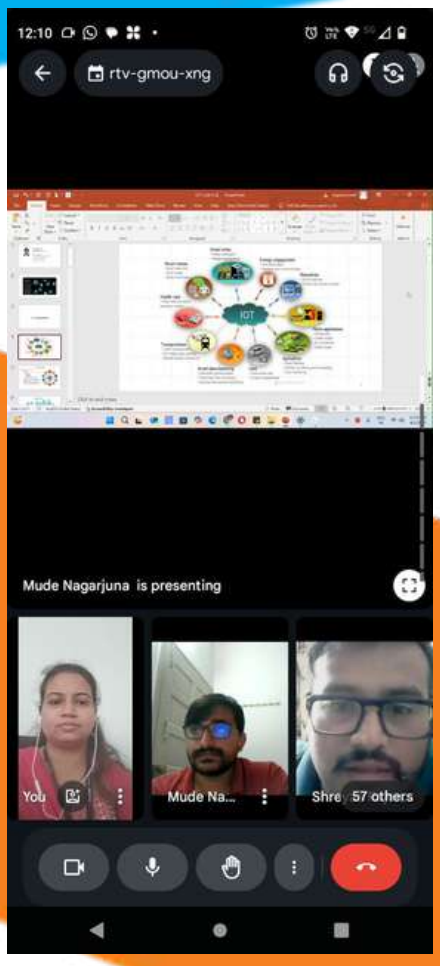
Of Appreciation

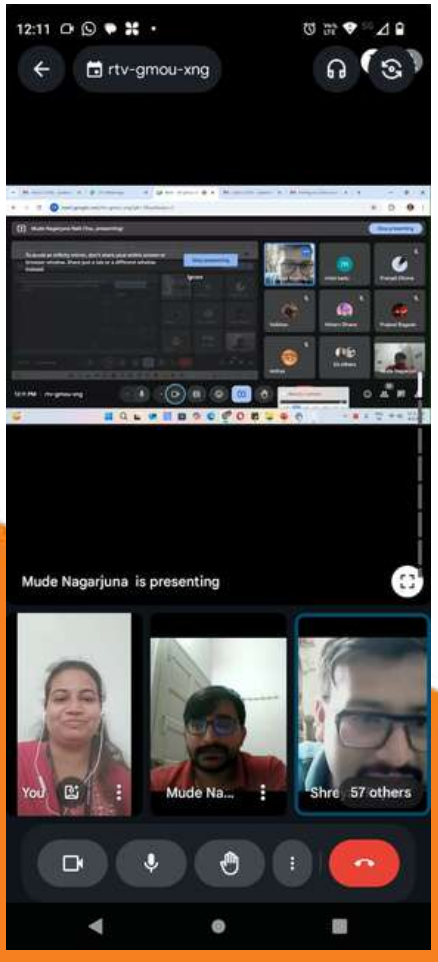
This is to certify that **Dr. Shreyas Rajendra Hole** from **Dayananda Sagar University,Bangalore** in recognition of his invaluable contribution as a resource person for Conducted one day expert talk on "**IoT Application**", organized by Department of Artificial Intelligence & Data Science, Dr. D Y Patil Institute of Engineering and Management Research, Akurdi, Pune held from 5th April 2025.

Mrs. Sneha Kanawade
Program-ordinator

Dr.Suvarna Patil
HOD AI-DS

Dr Anupama V. Patil
Principal





- Dr. Shreyas Rajendra Hole, Assistant Professor at Dayananda Sagar University, delivered an expert talk on the topic "Significance of Research in Academics" on 17th April 2025, organized by the Department of Computer Science and Engineering, Dr. Rajendra Gode Institute of Technology & Research, Amravati, Maharashtra.


Dr. Rajendra Gode Institute Of Technology
& Research, Amravati
RGITA
CERTIFICATE OF APPRECIATION
THIS IS TO PROUDLY PRESENT TO
Dr. Shreyas Rajendra Hole, Dayananda Sagar University
has delivered an expert talk on the topic "SIGNIFICANCE OF RESEARCH IN ACADEMICS" on 17th April 2025 organized by the Department of Computer Science and Engineering of Dr. Rajendra Gode Institute Of Technology & Research, Amravati, Maharashtra India.
Prof. D. S. Kalyankar
Organizer
Dr. A. P. Jadhao
Head of Dept.
Dr. S. C. Jirapure
Principal

- Dr. Shreyas Rajendra Hole, Assistant Professor at Dayananda Sagar University, delivered an insightful expert talk on the topic "From Idea to Protection: Filing Copyright Made Easy" on 16th April 2025. This session was organized by the IPR Cell of Prof. Ram Meghe Institute of Technology & Research, Badnera, Amravati, Maharashtra.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CERTIFICATE

PROUDLY PRESENT TO :

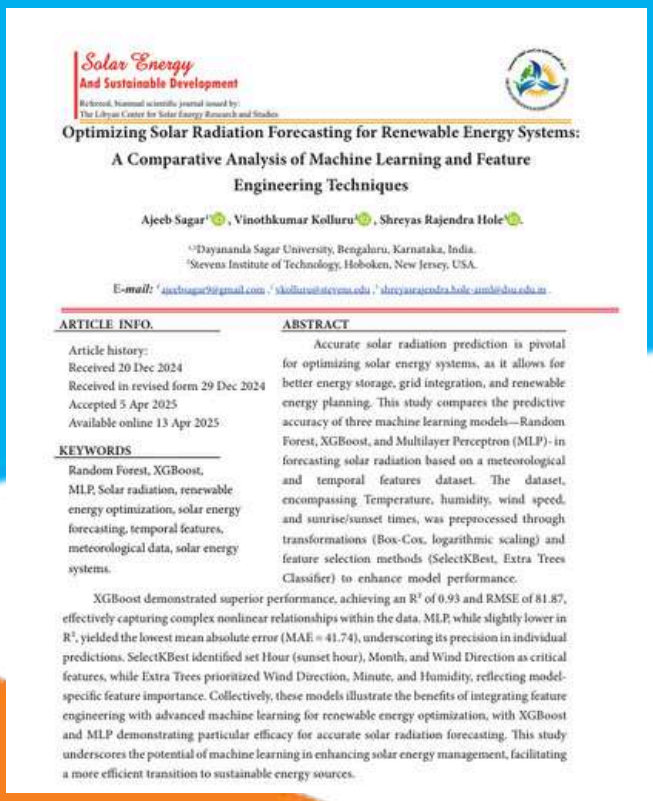
Dr. Shreyas Rajendra Hole,
Dayananda Sagar University

has delivered an expert talk on the topic **"From Idea to Protection: Filing Copyright Made Easy"** on 16th April 2025 organized by the IPR Cell of Prof. Ram Meghe Institute of Technology & Research. Badnera Amravati, Maharashtra India.

DR.G.J.SAWALE
Co-ordinator , IPR Cell
PRMIT&R, Badnera

DR. M.V.MOHOD
Co-ordinator, IPR Cell
PRMIT&R, Badnera

- Dr. Shreyas Rajendra Hole, Assistant Professor and Ajeeb Sagar (ENG22AM0071), 6th semester student from Dept. of CSE (AI&ML) has published a research paper titled "Optimizing Solar Radiation Forecasting for Renewable Energy Systems: A Comparative Analysis of Machine Learning and Feature Engineering Techniques", published in the journal Solar Energy and Sustainable Development, a refereed biannual scientific journal issued by The Libyan Center for Solar Energy Research and Studies.



Solar Energy And Sustainable Development

Refereed, biannual scientific journal issued by: The Libyan Center for Solar Energy Research and Studies

Optimizing Solar Radiation Forecasting for Renewable Energy Systems: A Comparative Analysis of Machine Learning and Feature Engineering Techniques

Ajeeb Sagar[1], Vinothkumar Kolluru[1], Shreyas Rajendra Hole[2]

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[2]Stevens Institute of Technology, Hoboken, New Jersey, USA.

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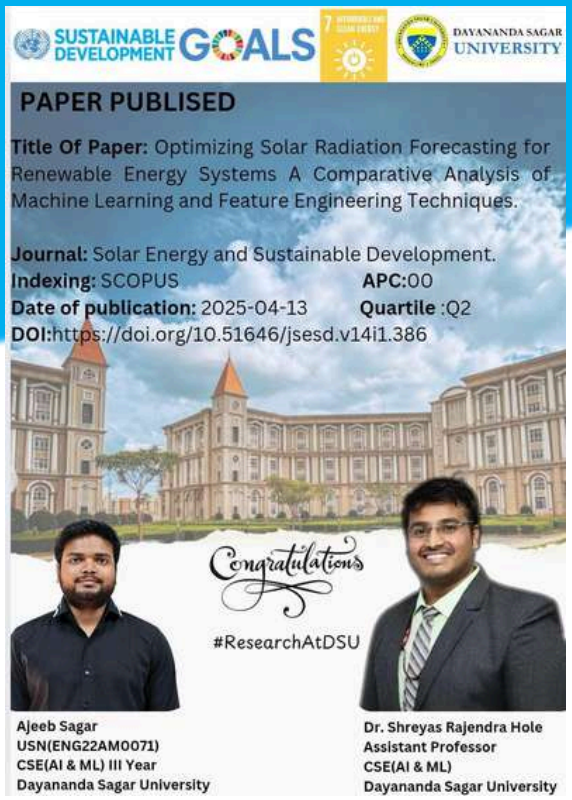
KEYWORDS

Random Forest, XGBoost, MLP, Solar radiation, renewable energy optimization, solar energy forecasting, temporal features, meteorological data, solar energy systems.

ABSTRACT

Accurate solar radiation prediction is pivotal for optimizing solar energy systems, as it allows for better energy storage, grid integration, and renewable energy planning. This study compares the predictive accuracy of three machine learning models—Random Forest, XGBoost, and Multilayer Perceptron (MLP)- in forecasting solar radiation based on a meteorological and temporal features dataset. The dataset, encompassing Temperature, humidity, wind speed, and sunrise/sunset times, was preprocessed through transformations (Box-Cox, logarithmic scaling) and feature selection methods (SelectKBest, Extra Trees Classifier) to enhance model performance.

XGBoost demonstrated superior performance, achieving an R^2 of 0.93 and RMSE of 81.87, effectively capturing complex nonlinear relationships within the data. MLP, while slightly lower in R^2, yielded the lowest mean absolute error (MAE = 41.74), underscoring its precision in individual predictions. SelectKBest identified set Hour (sunset hour), Month, and Wind Direction as critical features, while Extra Trees prioritized Wind Direction, Minute, and Humidity, reflecting model-specific feature importance. Collectively, these models illustrate the benefits of integrating feature engineering with advanced machine learning for renewable energy optimization, with XGBoost and MLP demonstrating particular efficacy for accurate solar radiation forecasting. This study underscores the potential of machine learning in enhancing solar energy management, facilitating a more efficient transition to sustainable energy sources.



Dr. Bahubali Shiragapur
Professor
Department of CSE(AIML)

- Dr. Bahubali Shiragapur, Professor, Dept. of CSE (AI&ML), has successfully completed the 40 hours (3-Credits equivalent) Faculty Development Programme on “Quantum Technologies & Applications” from February 28 – March 22, 2025, jointly organized by various Academies.

DEPARTMENT OF SCIENCE & TECHNOLOGY
MINISTRY OF ELECTRONICS AND INFORMATION TECHNOLOGY
IBM

Electronics & ICT Academies
MNIT Jaipur, NIT Patna, IIT Roorkee, IIT Guwahati, IIITDM Jabalpur, NIT Warangal

Faculty Development Programme on
Quantum Technologies & Applications
February 28 - March 22, 2025

Certificate of Completion

This is to certify that Dr. Bahubali Shiragapur of Dayananda Sagar University, Bengaluru has successfully completed the 40 hours (3-Credits equivalent) Faculty Development Programme jointly organized by various Academies. During the period, we found her / him to be hardworking, sincere and committed. Her / His performance was Excellent. This programme is funded by MeitY and endorsed by DST - NQM / AICTE / UGC .

M. P. Singh, Jt-Principal Coordinator
Sanjeev Manhas, Jt-Principal Coordinator
Dip Prakash Samajdar, Jt-Principal Coordinator
Gaurav Trivedi, Jt-Principal Coordinator
P. Radha Krishna, Jt-Principal Coordinator
Vithal Madyalkar, Program Director IBM-ICE
Mahipal P. Jadeja, Jt-Principal Coordinator
Pilli Emmanuel Shubhakar, Principal Coordinator

MNIT/J/QTA/259/2025

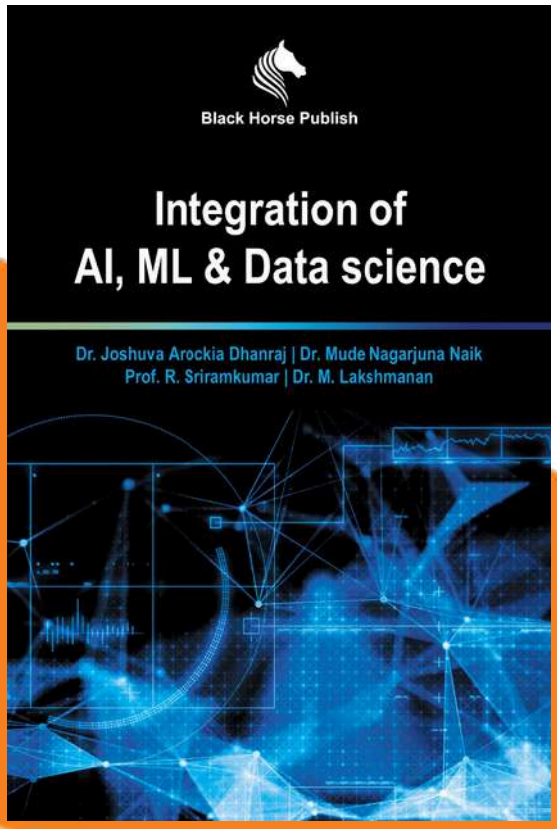
Dr. Joshuva Arockia Dhanraj
Associate Professor
Department of CSE(AIML)

Dr. Mude Nagarjuna Naik
Assistant Professor
Department of CSE(AIML)

Prof. Sriramkumar R
Assistant Professor
Department of CSE(AIML)

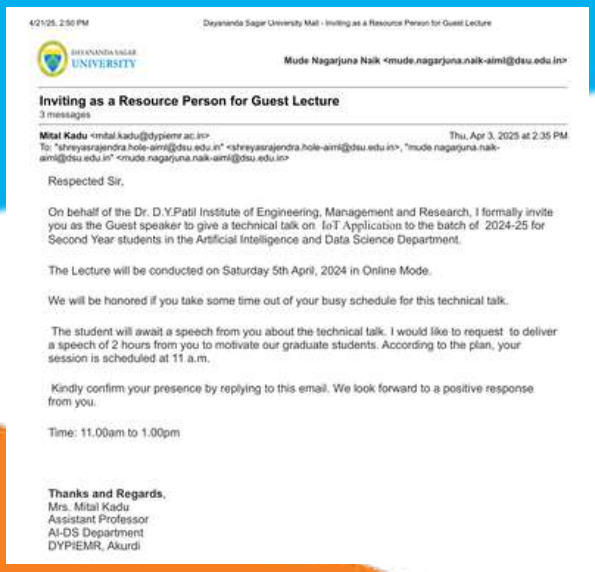
Dr. M Lakshmanan
Assistant Professor
Department of CSE(AIML)

- Dr. Joshuva Arockia Dhanraj, Dr. Mude Nagarjuna Naik, Prof. R. Sriramkumar, and Dr. M. Lakshmanan from the Department of CSE (AI&ML) have co-authored a book titled "Integration of AI, ML & Data Science", published by Black Horse Publishing (ISBN: 9789348460523).



Dr. Mude Nagarjuna Naik
Assistant Professor
Department of CSE(AIML)

- Dr. Mude Nagarjuna Naik, Assistant Professor, Department of CSE (AI&ML) received a certification of appreciation in recognition of his invaluable contribution as a resource person for Conducting one day expert talk on "IoT Application", organized by the Department of Artificial Intelligence & Data Science, Dr. D Y Patil Institute of Engineering and Management Research, Akurdi, Pune held from 5th April 2025.



4/21/25, 2:50 PM Dayananda Sagar University Mail - Inviting as a Resource Person for Guest Lecture

DAYANANDA SAGAR UNIVERSITY

Mude Nagarjuna Naik <mude.nagarjuna.naik-aiml@dsu.edu.in>

Inviting as a Resource Person for Guest Lecture

3 messages

Mital Kadu <mital.kadu@dypiemr.ac.in> Thu, Apr 3, 2025 at 2:35 PM
To: "shreyasrajendra.hole-aiml@dsu.edu.in" <shreyasrajendra.hole-aiml@dsu.edu.in>, "mude.nagarjuna.naik-aiml@dsu.edu.in" <mude.nagarjuna.naik-aiml@dsu.edu.in>

Respected Sir,

On behalf of the Dr. D.Y.Patil Institute of Engineering, Management and Research, I formally invite you as the Guest speaker to give a technical talk on IoT Application to the batch of 2024-25 for Second Year students in the Artificial Intelligence and Data Science Department.

The Lecture will be conducted on Saturday 5th April, 2024 in Online Mode.

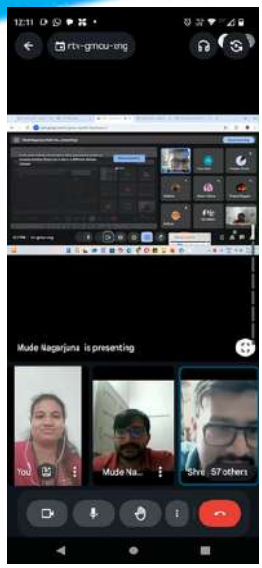
We will be honored if you take some time out of your busy schedule for this technical talk.

The student will await a speech from you about the technical talk. I would like to request to deliver a speech of 2 hours from you to motivate our graduate students. According to the plan, your session is scheduled at 11 a.m.

Kindly confirm your presence by replying to this email. We look forward to a positive response from you.

Time: 11.00am to 1.00pm

Thanks and Regards,
Mrs. Mital Kadu
Assistant Professor
AI-DS Department
DYPIEMR, Akurdi



DYP DR. D. Y. PATIL INSTITUTE OF ENGINEERING, MANAGEMENT AND RESEARCH

CERTIFICATE

Of Appreciation

This is to certify that **Dr. Mude Nagarjuna Naik** from **Dayananda Sagar University,Bangalore** in recognition of his invaluable contribution as a resource person for Conducted one day expert talk on "**IoT Application**", organized by Department of Artificial Intelligence & Data Science, Dr. D Y Patil Institute of Engineering and Management Research, Akurdi, Pune held from 5th April 2025.

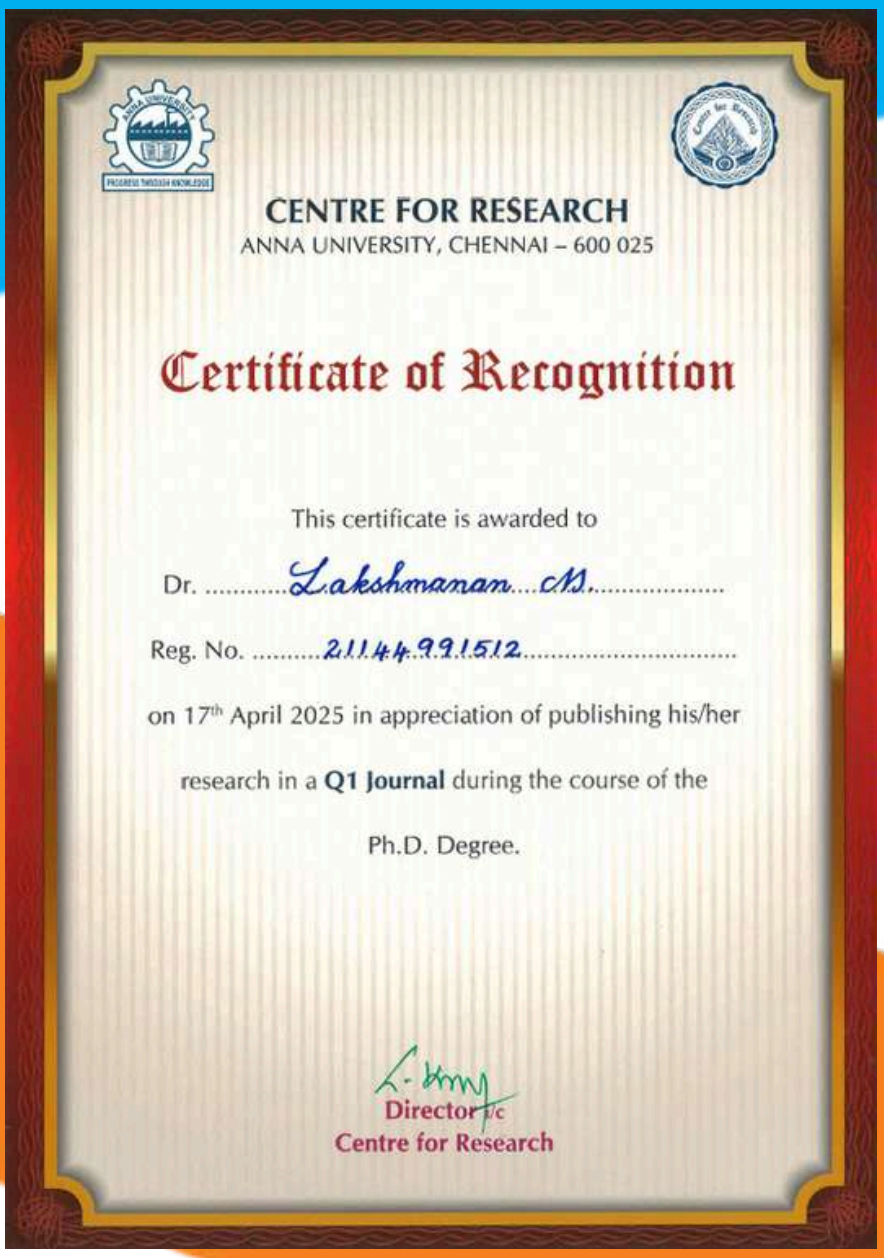
Mrs. Sneha Kanawade
Program-ordinator

Dr.Suvarna Patil
HOD AI-DS

Dr Anupama V. Patil
Principal

Dr. M Lakshmanan
Assistant Professor
Department of CSE(AIML)

- Dr. M Lakshmanan, Assistant Professor, Department of CSE(AI&ML) has awarded the certificate in appreciation of publishing research in a Q1 journal during the course of the Ph.D. Degree (Reg No. 21144991512).



CENTRE FOR RESEARCH
ANNA UNIVERSITY, CHENNAI – 600 025

Certificate of Recognition

This certificate is awarded to

Dr. .....Lakshmanan M.....

Reg. No. .....21144991512.....

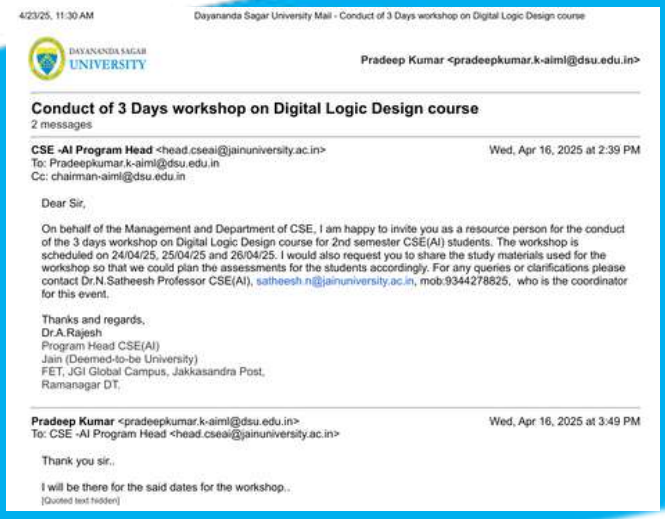
on 17th April 2025 in appreciation of publishing his/her research in a **Q1 Journal** during the course of the Ph.D. Degree.

Director i/c
Centre for Research

Prof. Pradeep Kumar K
Assistant Professor
Department of CSE(AIML)

- Prof. Pradeep Kumar K, Assistant Professor, Department of CSE(AI&ML) has been honored as a distinguished speaker for National Workshop on "Advanced Automotive Technology (AAT) for E-Mobility in xEVs: Innovation and Future Trends," scheduled from April 15-17, 2025, at [CSE Smart Class Room, Erode Sengunthar Engineering College].

- Prof. Pradeep Kumar K, Assistant Professor, Department ofCSE(AI&ML) has been honored as a resource person for the conduct of the 3 days' workshop on Digital Logic Design course for 2nd semester CSE(AI) students in Jain University, Bangalore. The workshop was held on 24/04/25, 25/04/25 and 26/04/25.


4/23/25, 11:30 AM Dayananda Sagar University Mail - Conduct of 3 Days workshop on Digital Logic Design course

DAYANANDA SAGAR UNIVERSITY

Pradeep Kumar <pradeepkumar.k-aiml@dsu.edu.in>

Conduct of 3 Days workshop on Digital Logic Design course

2 messages

CSE -AI Program Head <head.cseai@jainuniversity.ac.in> Wed, Apr 16, 2025 at 2:39 PM
To: Pradeepkumar.k-aiml@dsu.edu.in
Cc: chairman-aiml@dsu.edu.in

Dear Sir,

On behalf of the Management and Department of CSE, I am happy to invite you as a resource person for the conduct of the 3 days workshop on Digital Logic Design course for 2nd semester CSE(AI) students. The workshop is scheduled on 24/04/25, 25/04/25 and 26/04/25. I would also request you to share the study materials used for the workshop so that we could plan the assessments for the students accordingly. For any queries or clarifications please contact Dr.N.Satheesh Professor CSE(AI), satheesh.n@jainuniversity.ac.in, mob:9344278825, who is the coordinator for this event.

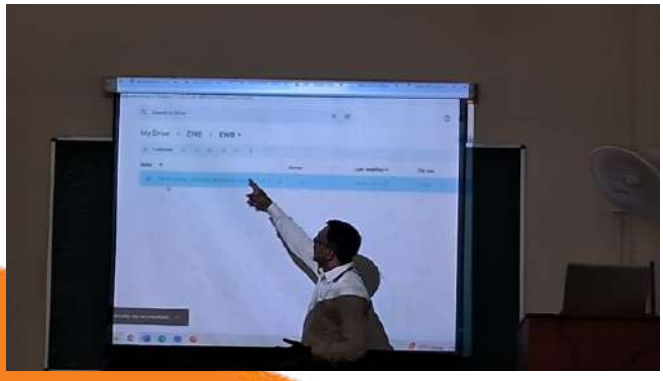
Thanks and regards,
Dr.A.Rajesh
Program Head CSE(AI)
Jain (Deemed-to-be University)
FET, JGI Global Campus, Jakkasandra Post,
Ramanagar DT.

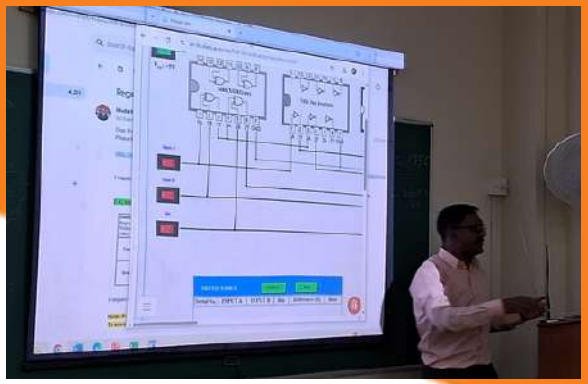
Pradeep Kumar <pradeepkumar.k-aiml@dsu.edu.in> Wed, Apr 16, 2025 at 3:49 PM
To: CSE -AI Program Head <head.cseai@jainuniversity.ac.in>

Thank you sir..

I will be there for the said dates for the workshop..

[Quoted text hidden]





Dr. Vegi Fernando A
Associate Professor
Department of CSE(AIML)

- Dr. A. Vegi Fernando, Associate Professor from the department of CSE(AI&ML) has received a certificate in recognition of outstanding contribution as a "Session Chair" at the International Conference on Recent Research in Computational Sciences & Engineering (ICRRCE - 2025) held on 12* April 2025 organized by Rajarajeswari College of Engineering, Bengaluru-560074.

Moogambigai Charitable And Educational Trust

RAJARAJESWARI COLLEGE OF ENGINEERING

(An Autonomous Institution, Under Visvesvaraya Technological University, Belagavi)

No. 14, Ramohalli Cross, Kumbalagodu, Mysore Road, Bengaluru - 560074

International Conference on Recent Research in Computational Sciences & Engineering (ICRRCE -2025)

BENTHAM SCIENCE

CERTIFICATE OF APPRECIATION

This is to certify that Dr./Prof. A. Veji Fernado

from Dayananda Sagar University, Harohalli in

recognition of your outstanding contribution as a "Session Chair" at the International Conference on Recent Research in Computational Sciences & Engineering (ICRRCE - 2025) held on 12th April 2025 organized by Rajarajeswari College of Engineering, Bengaluru-560074.

Dr. L. Rangaiah
Convener

Dr. R Balakrishna
Conference Chair

- Dr. A. Vegi Fernando, Associate Professor, Department of CSE(AI&ML), has published a conference paper titled “RhinoGuardNet: An Integrated Deep Learning System for Monitoring, Movement Prediction, and Threat Detection in Javan Rhino Conservation” in Proceedings of the International Conference on Machine Learning and Autonomous Systems (ICMLAS-2025). Prawet, Thailand.

Proceedings of the International Conference on Machine Learning and Autonomous Systems (ICMLAS-2025)
IEEE Xplore Part Number: CFP258A9-ART; ISBN: 979-8-3315-0574-5

RhinoGuardNet: An Integrated Deep Learning System for Monitoring, Movement Prediction, and Threat Detection in Javan Rhino Conservation

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***Abstract*— The Javan rhinoceros (Rhinoceros sondaicus), one of the most critically endangered species, faces numerous threats such as poaching, habitat destruction, and limited monitoring capabilities. Traditional conservation methods are often ineffective due to the vast and difficult-to-access nature of rhino habitats. This paper proposes a Hybrid Deep Learning (HDL) framework, combining CNNs, RNNs, and GNNs, to address these challenges and enhance conservation efforts. The proposed system offers a comprehensive solution for real-time rhino monitoring, poacher detection, and habitat preservation. The framework integrates CNNs for image-based monitoring, enabling the detection of rhinos, poachers, and habitat changes using camera trap images, drone footage, and satellite images. RNNs, specifically LSTM networks, are employed to analyze bioacoustic recordings from forest microphones, capturing long-term dependencies in sound data to detect rhino vocalizations and poaching sounds like gunshots or chainsaws. In addition, GNNs are utilized to process GPS tracking data to model spatial-temporal relationships and predict rhino movement, optimizing anti-poaching patrol routes and identifying high-risk zones for poaching. The proposed framework has been assessed using various evaluation metrics such as mAP for object detection, F1-Score for audio classification, and RMSE for movement prediction. The system is designed to be deployed in the field on a cloud-based platform, enabling real-time monitoring and decision-making. Edge computing on drones and sensor devices ensures low-latency processing and immediate action in response to detected threats. This model is expected to significantly enhance Javan rhino conservation by providing accurate, real-time data and actionable insights.**

Keywords*— *Javan rhinoceros, Hybrid Deep Learning, CNNs, RNNs, GNNs, Poacher Detection, Habitat Preservation, Bioacoustic Monitoring, Movement Prediction, Anti-Poaching, Conservation, Machine Learning.

I. Introduction

The Javan rhinoceros (Rhinoceros sondaicus), one of the most critically endangered species in the world, faces the ongoing threat of extinction due to several environmental and human-driven factors. With fewer than 80 individuals left in the wild, all of which reside in Ujung Kulon National Park in Indonesia, the Javan rhinoceros is considered one of the most at-risk mammals on the planet. The main threats to the Javan rhino population include habitat destruction, poaching, climate change, and the lack of effective monitoring and conservation tools. Without intervention, this iconic species may be lost forever, highlighting the urgent need for innovative solutions to protect the remaining population. Historically, conservation efforts for rhinos, including the Javan rhinoceros, have relied heavily on traditional methods such as surveys, field monitoring, and manual tracking. These approaches, though effective to a degree, are becoming increasingly inadequate in the face of modern-day challenges. Poaching, driven by the illegal trade of rhino horns, remains one of the most significant threats to the survival of the species. Field-based efforts to track rhinos manually or with basic GPS systems are labor-intensive and prone to inaccuracies, often leading to delayed responses to poaching or environmental disturbances. The lack of real-time data also complicates the decision-making process for park rangers and conservationists, hindering their ability to effectively allocate resources and intervene in time to prevent poaching or habitat degradation. Moreover, the use of conventional monitoring systems for tracking rhino movements, habitat conditions, and poaching activity can be inefficient and costly. Camera traps, though widely used, often face issues such as limited coverage, poor image quality, and high maintenance. The data they produce must be manually reviewed, which is time-consuming and often leads to missed threats. Similarly, while aerial surveillance with drones or satellites provides a broader

2025 International Conference on Machine Learning and Autonomous Systems (ICMLAS) | 979-8-3315-0574-5/25/$31.00 ©2025 IEEE | DOI: 10.1109/ICMLAS64557.2025.10968938

Dr. Shreyas Rajendra Hole
Assistant Professor
Department of CSE(AIML)

Dr. Jayavrinda Vrindavanam
Professor & Chairperson
Department of CSE(AIML)

- Dr. Shreyas Rajendra Hole & Dr. Jayavrinda Vrindavanam, professor and Assistant Professor from department of CSE(AI&ML) has published a conference paper titled “Hybrid PCA-Based Machine Learning Models for Predictive Analytics in Urban Health Monitoring Systems” 2025 IEEE 1st International Conference on Smart and Sustainable Developments in Electrical Engineering (SSDEE), Dhanbad, India, 2025, pp. 1-8.

2025 IEEE 1st International Conference on Smart and Sustainable Developments in Electrical Engineering (SSDEE) | 979-8-3315-4210-8/25/$31.00 ©2025 IEEE | DOI: 10.1109/SSDEE64538.2025.10967575

Hybrid PCA-Based Machine Learning Models for Predictive Analytics in Urban Health Monitoring Systems

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Dr. Jayavrinda Vrindavanam
Computer Science & Engineering (AI&ML)
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jayavrinda-cse@dsu.edu.in

***Abstract*—In this paper, a hybrid PCA-based approach is proposed for predicting the respiratory imbalance in an urban health monitoring system. To do this, three models namely Random Forest, XGBoost, and Multi-Layer Perceptron (MLP) were integrated into one system to improve the probability of prediction while maintaining the trade-off with the dimension reduction – a common variable in big data tasks (which, this effort is focused on). Several variables regarding the environment and health of the patients were used to form a dataset that was later transformed with the help of PCA meaning the results would get better because models with better dimensionality tend to perform better. The Hybrid PCA + MLP model produced the best accuracy which 99% and AUC – ROC which 0.90, there were also 99% produced by XGBoost but AUC – ROC was 0.83. Random forest produced "slightly" less accurate predictions of 95% with an AUC – ROC of 0.72 however; this proved the best method in terms of the computational burden since the training time recorded was about 0.55 seconds, which was lower than that of XGBoost 0.45 seconds and MLP 0.94 seconds. These findings show that hybrid PCA based models do not only improve the accuracy of predictions made but also reduce the amount of computational resources needed, which is ideal for tasks that occur in real time whereby smart urban health monitoring is a part of a bigger CPS system.**

***Index Terms*—Machine Learning, Dimensionality Reduction, Respiratory Imbalance Prediction , Real-Time Prediction, Urban Health Monitoring**

I. Introduction

With the current rapid urbanization and growth of industries in cities, pollution and population density has increased, resulting in a number of public health problems, including a greater incidence of respiratory disorders. It has become important to monitor and predict potential health complications like respiratory imbalance in urban areas. Respiratory imbalance, which occurs when optimal gas exchange is not achieved, can be induced by multiple environmental and personal health determinants. There is an urgent need within smart city projects to include effective health management capabilities that are able to anticipate these imbalances through advanced cyber-physical systems (CPS). Today, machine learning models have become increasingly important for automatically detecting health-related patterns in data that is seemingly unrelated to human experts. But fusing multiple real-time measurements is difficult for them even if they are capable of instantaneously analyzing a large volume of data since data features tend to be redundant and noisy. This therefore warrants the use of dimensionality reduction techniques such as PCA which simplifies the datasets while preserving only the most critical details. PCA is a technique that reduces a large number of dimensions of data to very few numbers of dimension emphasizing the patterns vital for predicting the outcome accurately.

Health interventions within socio-health perspectives of urban health are driven by cyberspace or distributed urban systems which drastically improve the efficiency for possibilities to obtain secure real time predictions. Deviation from normal patterns concerning respiratory imbalances needs to be accurate because any fault or inaccuracy can greatly damage public health. In this line, coupling machine learning models with PCA makes it more effective since it allows for real time absorption of data and insight that can be useful in healthcare

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Dr. Shreyas Rajendra Hole
Assistant Professor
Department of CSE(AIML)

Dr. Mude Nagarjuna Naik
Assistant Professor
Department of CSE(AIML)

- Dr. Shreyas Rajendra Hole & Dr. Mude Nagarjuna Naik, Assistant Professors from department of CSE(AI&ML) has published a conference paper titled "Hybrid Approach of TabNet and Transformer-XGBoost for Predicting Traffic Flow in Smart Cities," 2025 IEEE 1st International Conference on Smart and Sustainable Developments in Electrical Engineering (SSDEE), Dhanbad, India, 2025, pp. 1-8.

Hybrid Approach of TabNet and Transformer-XGBoost for Predicting Traffic Flow in Smart Cities

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***Abstract*—A smart city's transportation system can be enhanced if there is an accurate prediction of the traffic flow which develops in an area as time goes on. This article investigates the relative accuracy of predicting traffic flow at target intersections in a city, taking advantage of two models: TabNet and a hybrid Transformer-XGBoost. Several metrics including Mean Squared Error (MSE) and Coefficient of determination (R^2 score) among others were employed to evaluate the models employed. A sequential deep learning model known as TabNet triumphing in the competition with MSE, RMSE, and MAE being 34.48, 5.87, and 3.73 respectively, and R^2 score as high as 0.917, although performing well while enhancing identification of features such as year and junction. On the other hand, while reporting similar R^2 score as low as 0.184, the Transformer-XGBoost hybrid model had structuring limitations where complex interdependencies and time variations were involved recording MSE, RMSE and MAE as 338.52, 18.40 and 13.24 respectively. The graphs of residuals and QQ plots served to uncover that the hybrid model failed making a right prediction during high traffic volume days, as general tabnet results shown in the final graphs are more stable. Following investigation of the models in this study, the researchers suggest implementing TabNet as a better option for traffic management explaining its high accuracy and providing valuable guidance for cities. This would result in improvement of the traffic flow prediction, which is highly needed for effective urban mobility solutions.**

***Index Terms*—TabNet, Transformer-XGBoost, Traffic Flow Prediction, Smart Cities, Urban Traffic Management.**

I. Introduction

The prediction of traffic patterns and their dynamics has increasingly been becoming a very important aspect for the progression of smart cities. Traffic flow predictions go a long way in facilitating better road network management, reduction of road congestion and city evolution in general. However, traditional methods, like linear regression models, are often unable to fully capture the complex and time-varying traffic situations. This was contrary to modern machine learning models that have substantial datasets and discover intricate patterns which have potential in reversing this situation.

TabNet is selected for the reason that it is able to continually focus on such features which are crucial at a particular time during the model development, an important aspect when traffic prediction is involved as factors such as time, geographic region and climatic conditions are not uniform. This type of adaptability in terms of features comes in handy in smart cities where traffic changes constantly due to the occurrence of local events, seasonal variations or random occurrences. By emphasizing the most significant variables for every prediction, TabNet seems to augment interpretability and urban planners are given clearer pointers. Its attention mechanism from transformer architectures provides it with ability to bear complex structure of data enabling it as the best model for predicting real time traffic. On the other hand, Transformer-XGBoost hybrid model is chosen for its effectiveness at completing time series and sequence type data

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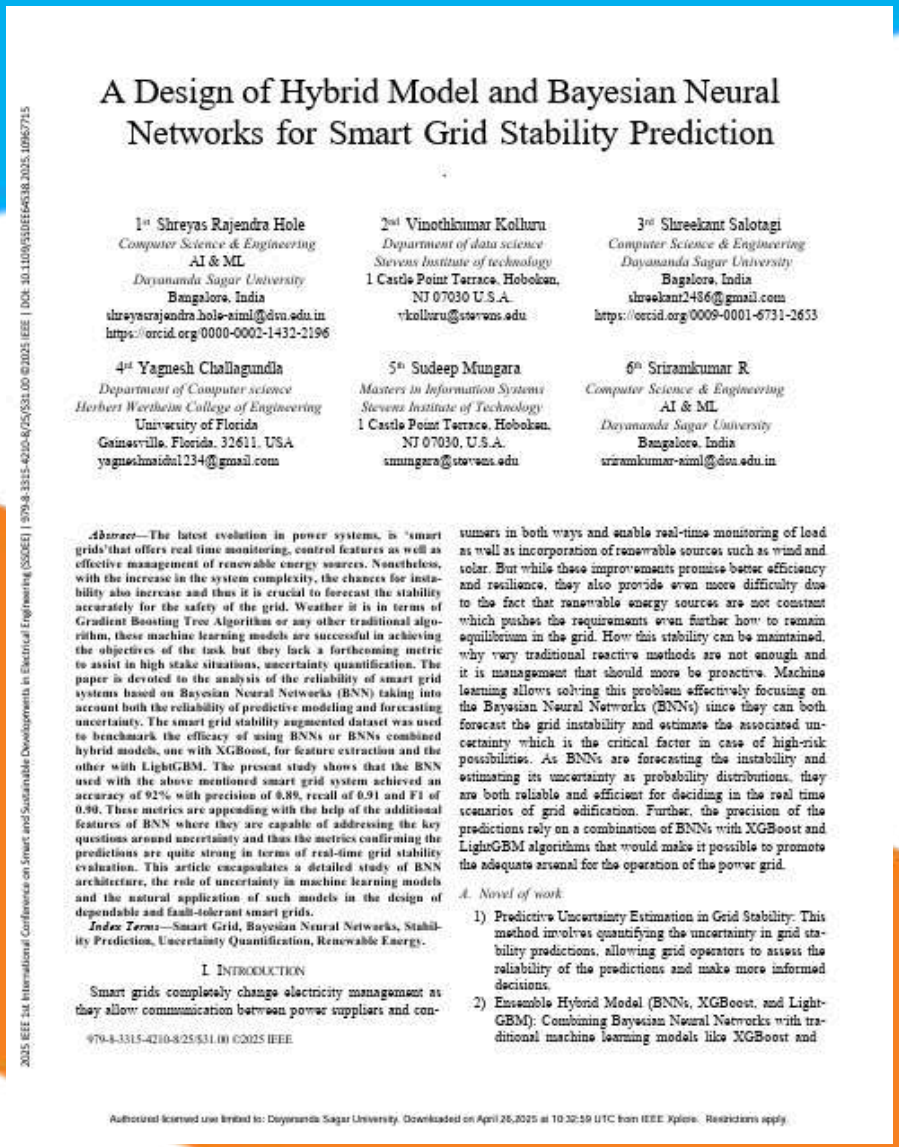
Dr. Shreyas Rajendra Hole
Assistant Professor
Department of CSE(AIML)

Prof. Sriramkumar R
Assistant Professor
Department of CSE(AIML)

- Dr. Shreyas Rajendra Hole & Prof. Sriramkumar R, Assistant Professors from department of CSE(AI&ML) has published a conference paper titled "A Design of Hybrid Model and Bayesian Neural Networks for Smart Grid Stability Prediction," 2025 IEEE 1st International Conference on Smart and Sustainable Developments in Electrical Engineering (SSDEE), Dhanbad, India, 2025, pp. 1-7.



A Design of Hybrid Model and Bayesian Neural Networks for Smart Grid Stability Prediction

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***Abstract*—The latest evolution in power systems, is 'smart grids'that offers real time monitoring, control features as well as effective management of renewable energy sources. Nonetheless, with the increase in the system complexity, the chances for instability also increase and thus it is crucial to forecast the stability accurately for the safety of the grid. Weather it is in terms of Gradient Boosting Tree Algorithm or any other traditional algorithm, these machine learning models are successful in achieving the objectives of the task but they lack a forthcoming metric to assist in high stake situations, uncertainty quantification. The paper is devoted to the analysis of the reliability of smart grid systems based on Bayesian Neural Networks (BNN) taking into account both the reliability of predictive modeling and forecasting uncertainty. The smart grid stability augmented dataset was used to benchmark the efficacy of using BNNs or BNNs combined hybrid models, one with XGBoost, for feature extraction and the other with LightGBM. The present study shows that the BNN used with the above mentioned smart grid system achieved an accuracy of 92% with precision of 0.89, recall of 0.91 and F1 of 0.90. These metrics are appending with the help of the additional features of BNN where they are capable of addressing the key questions around uncertainty and thus the metrics confirming the predictions are quite strong in terms of real-time grid stability evaluation. This article encapsulates a detailed study of BNN architecture, the role of uncertainty in machine learning models and the natural application of such models in the design of dependable and fault-tolerant smart grids.**

***Index Terms*—Smart Grid, Bayesian Neural Networks, Stability Prediction, Uncertainty Quantification, Renewable Energy.**

I. Introduction

Smart grids completely change electricity management as they allow communication between power suppliers and consumers in both ways and enable real-time monitoring of load as well as incorporation of renewable sources such as wind and solar. But while these improvements promise better efficiency and resilience, they also provide even more difficulty due to the fact that renewable energy sources are not constant which pushes the requirements even further how to remain equilibrium in the grid. How this stability can be maintained, why very traditional reactive methods are not enough and it is management that should more be proactive. Machine learning allows solving this problem effectively focusing on the Bayesian Neural Networks (BNNs) since they can both forecast the grid instability and estimate the associated uncertainty which is the critical factor in case of high-risk possibilities. As BNNs are forecasting the instability and estimating its uncertainty as probability distributions, they are both reliable and efficient for deciding in the real time scenarios of grid edification. Further, the precision of the predictions rely on a combination of BNNs with XGBoost and LightGBM algorithms that would make it possible to promote the adequate arsenal for the operation of the power grid.

A. Novel of work

1) Predictive Uncertainty Estimation in Grid Stability: This method involves quantifying the uncertainty in grid stability predictions, allowing grid operators to assess the reliability of the predictions and make more informed decisions.
2) Ensemble Hybrid Model (BNNs, XGBoost, and LightGBM): Combining Bayesian Neural Networks with traditional machine learning models like XGBoost and

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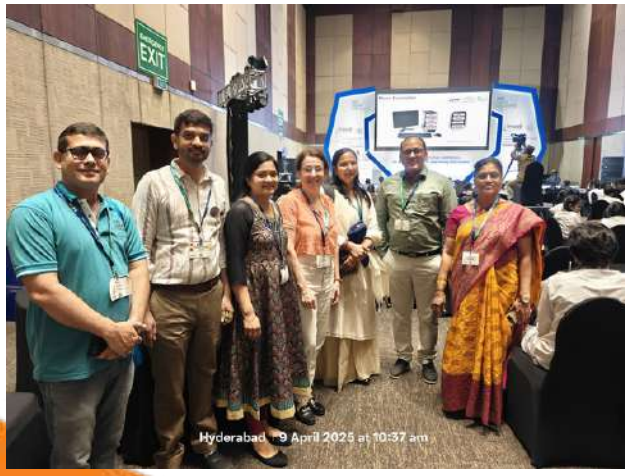
Dr. Bhavana Rikhari
Assistant Professor
Department of Chemistry

- Dr. Bhavana Rikhari published a book chapter titled “Advanced Corrosion Resistance with Metal–Organic Frameworks: Pioneering Solutions beyond Conventional Rust Prevention” in the book Advancing Corrosion Control with Metal–Organic Frameworks: Beyond Rust, published by the American Chemical Society (ACS).

Dr. Arun Balodi
Professor & Chairperson
Department of ECE

- Dr. Arun Balodi, Professor and Chairman, Department of Electronics and Communication Engineering, School of Engineering, Dayananda Sagar University, participated in the IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP 2025) held from April 6–11, 2025, at Novotel & HICC, Hyderabad.



- Dr. Arun Balodi, Professor and Chairman, Department of ECE, Dayananda Sagar University, Bengaluru, was recognized for his role as a Reviewer at the 2nd International Conference on Data Science and Exploration in AI (CODE AI 2025), held on April 7–8, 2025. The event was organized by Manipal Institute of Technology and MAHE, Bengaluru, in collaboration with MAHE Dubai and the MITB ACM Student Chapter.

Certificate of Appreciation

This certificate is proudly presented to

Prof. Arun Balodi

of Dayananda Sagar University, Bengaluru

has been a Reviewer at the Second Edition of International Conference on Data Science and Exploration in Artificial Intelligence, CODE AI 2025 held during 7th and 8th April 2025, organised by Department of Information Technology, Manipal Institute of Technology, Manipal Academy of Higher Education (MAHE) , Bengaluru in collaboration with School of Engineering & IT (SoE-IT) Manipal Academy of Higher Education (MAHE), Dubai, UAE, in association with MITB ACM Student Chapter.

Patron, CODE AI 2025
Manipal Academy of Higher Education

General Chair, CODE AI 2025
Manipal Academy of Higher Education

Program Chair, CODE AI 2025
Manipal Academy of Higher Education

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- Prof. Arun Balodi, Professor and Chairman, Department of ECE, Dayananda Sagar University, Bengaluru, received a Certificate of Appreciation for his role as a Meta-Reviewer at the International Conference on Electrical, Electronics & Automation (E2ACON 2025), held on 8–9 March 2025. Organized by NIT Jalandhar in collaboration with Springer and Newcastle University, the conference recognized his valuable contribution to academic research.

NITJ/ICE/E2ACON/2025/MR8

Springer

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International Conference on
Electrical, Electronics & Automation

Newcastle University
UK | Malaysia | Singapore

Certificate of Appreciation

This certificate is awarded to

Arun Balodi, Dayananda Sagar University, Bangalore

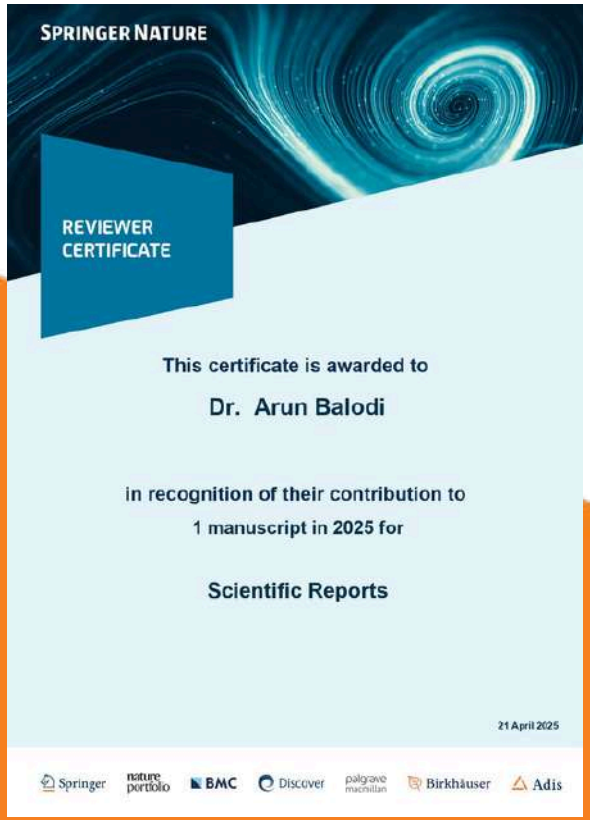
in recognition of his/her service as a **Meta-Reviewer** during International Conference on Electrical, Electronics and Automation held on 8-9 March 2025 organized by department of Instrumentation and Control Engineering, Dr B R Ambedkar National Institute of Technology Jalandhar, Punjab

Dr. Afzal Sikander
Organising Chair

Prof. Dilbag Singh
General Chair

Prof. K S Nagla
General Chair

- Dr. Arun Balodi, Professor and Chairman, Department of ECE, Dayananda Sagar University, Bengaluru, has been acknowledged by Springer Nature for his contribution as a Reviewer for the journal Scientific Reports in 2025.



SPRINGER NATURE

REVIEWER CERTIFICATE

This certificate is awarded to

Dr. Arun Balodi

in recognition of their contribution to
1 manuscript in 2025 for

Scientific Reports

21 April 2025

Springer | nature portfolio | BMC | Discover | palgrave macmillan | Birkhäuser | Adis

Dr. Supraja Eduru
Assistant Professor
Department of ECE

- Dr. Supraja Eduru, Assistant Professor, Department of ECE, Dayananda Sagar University, was recognized for her contribution as a Reviewer at the 3rd IEEE International Conference on Knowledge Engineering and Communication Systems (ICKECS-2025), held on April 28–29, 2025.

|| Jai Sri Gurudev ||
Sri Adichunchanagiri Shikshana Trust (R.)

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IEEE BANGALORE SECTION

Certificate of Reviewer Recognition

This Certificate is recognise to the contribution of Dr. /Mr./Mrs/Ms. SUPRAJA EDURU from DAYANANDA SAGAR UNIVERSITY for being reviewer for "3rd IEEE International Conference on Knowledge Engineering and Communication Systems" held at SJC Institute of Technology in Association with IEEE Bangalore Section on April 28 - 29, 2025.

"Sincere thanks with appreciation for your dedication and exceptional efforts"

Dr. C Rangaswamy
HOD - ECE
Organizing Chair - ICKECS

Dr. Manjunatha Kumar B H
Dean - Academics & HOD - CSE
Technical Program Chair - ICKECS

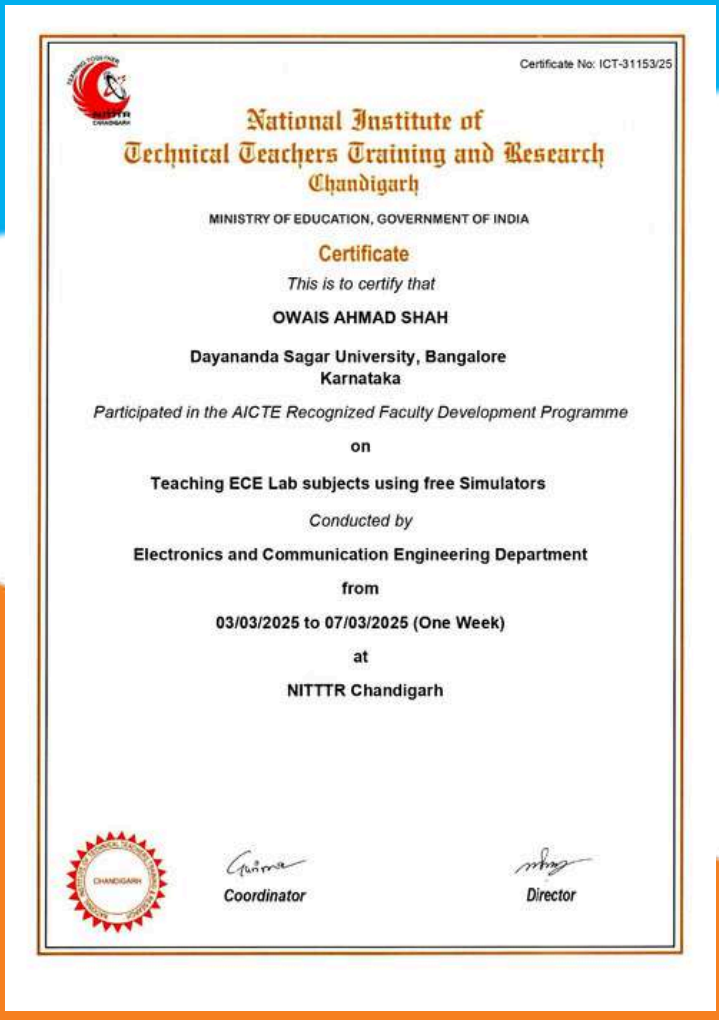
Dr. G T Raju
Principal - SJCIT
General Chair - ICKECS

Dr. Pushpa Mala S
Associate Professor
Department of ECE

- Dr. Pushpa Mala S, Associate Professor from the Department of ECE, Dayananda Sagar University, attended the SEMICON Conclave 2025 held on April 12, 2025, at Intel India, Ecospace Business Park, Bangalore. Organized by the IEEE Bangalore Section, the event focused on “Beyond Moore with Chiplets: Co-Optimization for Next-Gen Semiconductors.”

Dr. Owais Ahmad Shah
AssistantProfessor
Department of ECE

- Dr. Owais Ahmad Shah, Assistant Professor, Department of ECE, Dayananda Sagar University, Bengaluru, participated in an AICTE-recognized FDP on “Teaching ECE Lab Subjects Using Free Simulators”, organized by NITTTR Chandigarh from March 3 to 7, 2025.



Certificate No: ICT-31153/25

National Institute of
Technical Teachers Training and Research
Chandigarh

MINISTRY OF EDUCATION, GOVERNMENT OF INDIA

Certificate

This is to certify that

OWAIS AHMAD SHAH

Dayananda Sagar University, Bangalore
Karnataka

Participated in the AICTE Recognized Faculty Development Programme

on

Teaching ECE Lab subjects using free Simulators

Conducted by

Electronics and Communication Engineering Department

from

03/03/2025 to 07/03/2025 (One Week)

at

NITTTR Chandigarh

Coordinator *Director*

Dr. Vinu R
Associate Professor
Department of ECE

- Dr. Vinu R., Associate Professor, Department of ECE, Dayananda Sagar University, Bengaluru, has successfully published an Indian patent titled "ARM & Kinect-Based Home Automation & Assistance System" on 28th March 2025 (Application No. 202541022633 A). Developed with co-inventors Hariharan, Omkar S, Prajwal S. Kundargi, and Chinmay G. Bhat.

(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :13/03/2025

(21) Application No 202541022633 A
(43) Publication Date : 28/03/2025

(54) Title of the invention : ARM & KINECT-BASED HOME AUTOMATION & ASSISTANCE SYSTEM

(51) International classification	G08B0021040000; G06F0003010000; G06V0040200000; G05B0015020000; H04L0012280000
(86) International Application No	NA
Filing Date	NA
(87) International Publication No	: NA
(61) Patent of Addition to Application Number	NA
Filing Date	NA
(62) Divisional to Application Number	NA
Filing Date	NA

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5)Chinmay G Bhat
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(57) Abstract :
The ARM & Kinect-Based Home Automation and Assistance System is designed with a primary focus on enhancing safety and convenience through gesture-based control and automated monitoring features, particularly for the elderly and individuals with special needs. Rooted in humanitarian concern, the system addresses the challenges of independent living by leveraging the processing efficiency of an ARM microcontroller and the gesture-recognition capabilities of Kinect. This combination enables hands-free interaction, ensuring ease of use and accessibility for all. Key features include real-time fall detection using Kinect's body tracking, unknown person detection through skeletal and visual analysis for enhanced security, and gesture-based home automation to control lights, fans, and other appliances effortlessly. By integrating advanced technology with a focus on safety, accessibility and ease of use, this project aims to improve the quality of life, particularly for vulnerable populations by creating a safer, more inclusive and user-friendly home environment. This project combines the power of ARM microcontrollers and Kinect technology to create a comprehensive home automation system that not only enhances security and convenience but also provides a significant contribution to independent living. It aims to empower individuals, especially the elderly and those with special needs, by providing them with the tools to live more independently while ensuring their safety. By integrating cutting-edge technology with a focus on humanitarian goals, this system promises to improve the quality of life for users and offers a scalable solution to the growing need for accessible, smart home technologies. The system is designed with modularity in mind, allowing for future upgrades and the integration of new technologies, such as additional sensors or enhanced AI capabilities, to address evolving user needs. The true significance of this innovation lies not just in its functionality but in its underlying humanitarian purpose. It embodies our dedication to improving human well-being through technology, driven by compassion, service, and progress. This project stands as a symbol of strength, support, and a collective commitment to helping others, especially in moments of vulnerability. With technology as an ally and driven by a deep sense of purpose, it is affirmed that every life is precious, every restored smile is a victory, and each alert generated by this system reflects a shared mission to enhance lives and uplift the human spirit.

No. of Pages : 11 No. of Claims : 8

Dr. Arun Ananthanarayanan
Associate Professor
Department of ECE

- Dr. Arun Ananthanarayana, Associate Professor, Department of ECE, Dayananda Sagar University, has co-authored a research paper published in the Q2-ranked International Journal of Communication Systems (Wiley). The paper, titled “Advanced Estimation and Feedback of Wireless Channels State Information for 6G Communication via RCWGAN”.

International Journal of Communication Systems WILEY

RESEARCH ARTICLE

Advanced Estimation and Feedback of Wireless Channels State Information for 6G Communication via Recurrent Conditional Wasserstein Generative Adversarial Network

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Received: 10 November 2024 | **Revised:** 24 January 2025 | **Accepted:** 5 February 2025

Funding: The authors received no specific funding for this work.

Keywords: channel state information feedback | recurrent conditional Wasserstein generative adversarial network | sixth generation | wireless channel estimation

ABSTRACT

In this manuscript, an Advanced Estimation and Feedback of Wireless Channels State Information for sixth generation (6G) Communication via Recurrent Conditional Wasserstein Generative Adversarial Network (AEF-WCSI-6G-RCWGAN) is proposed. Deep Learning (DL) based channel estimation algorithm using Recurrent Conditional Wasserstein Generative Adversarial Network (RCWGAN) is estimated the channel parameters in 6G, such as channel gains and delays from received signals, which is crucial for effective communication and resource allocation. The primary purpose of this paper is to discuss key issues and possible solutions in DL-based wireless channel estimation and channel state information (CSI) feedback including the DL model selection, training data acquisition and neural network design for 6G. The deep learning-dependent channel estimator refines the predicted channel output, which is subsequently used for increase the efficacy and dependability of the communication scheme. The proposed AEF-WCSI-6G-RCWGAN is implemented and the performance metrics, like Detection Success Probability, Mean Square Error (MSE), and Normalized Mean Square Error (NMSE) are analyzed. Finally, the performance of the proposed AEF-WCSI-6G-RCWGAN method achieves 30.73%, 28.35%, and 29.62% higher Detection Success Probability, 25.73%, 28.05%, and 24.62% lower MSE when compared with existing methods: towards DL-assisted wireless channel estimate and CSI feedback for sixth generation (WCE-CSI-6G-GAN), an effectual deep neural network channel state estimate for Orthogonal frequency-division multiplexing (OFDM)wireless systems (CSE-WS-BiLSTM), and distributed machine learning dependent downlink channel estimate for reconfigurable intelligent surfaces supported wireless communications (DCE-AWC-HDCENet) methods, respectively.

1 | Introduction

The terahertz (THz) band, ranges from 0.1 to 10 THz is considered as a key spectrum for 6G wireless networks, offering vast bandwidth to meet growing data rate demands. Recent advancements focus on millimeter-wave (mmWave) communications, Multiple-Input-Multiple-Output (MIMO) architecture and network compression to enhance 6G technologies [1–3]. Deep learning is a subset of artificial intelligence methods developed by Legan, Bengio, and Hinton, that have

Prof. Sharanabasavaraj S. R.
Assistant Professor
Department of ECE

- Prof. Sharanabasavaraj S. R., Assistant Professor, Department of ECE, mentored participants during the 30-Day OJT Program for Strides Pharma Science Ltd., held from 13th Feb to 25th Mar 2025 at DSU Harohalli Campus. He also conducted a training session on “CCTV Monitoring System” on 19th Mar, organized by the Mechanical Engineering Department.

DAYANANDA SAGAR UNIVERSITY
DEPARTMENT OF MECHANICAL ENGINEERING
HAROHALLI CAMPUS, BENGALURU.

CERTIFICATE OF APPRECIATION

Presented to ..... Prof. Sharanbasavaraj. S.R .....

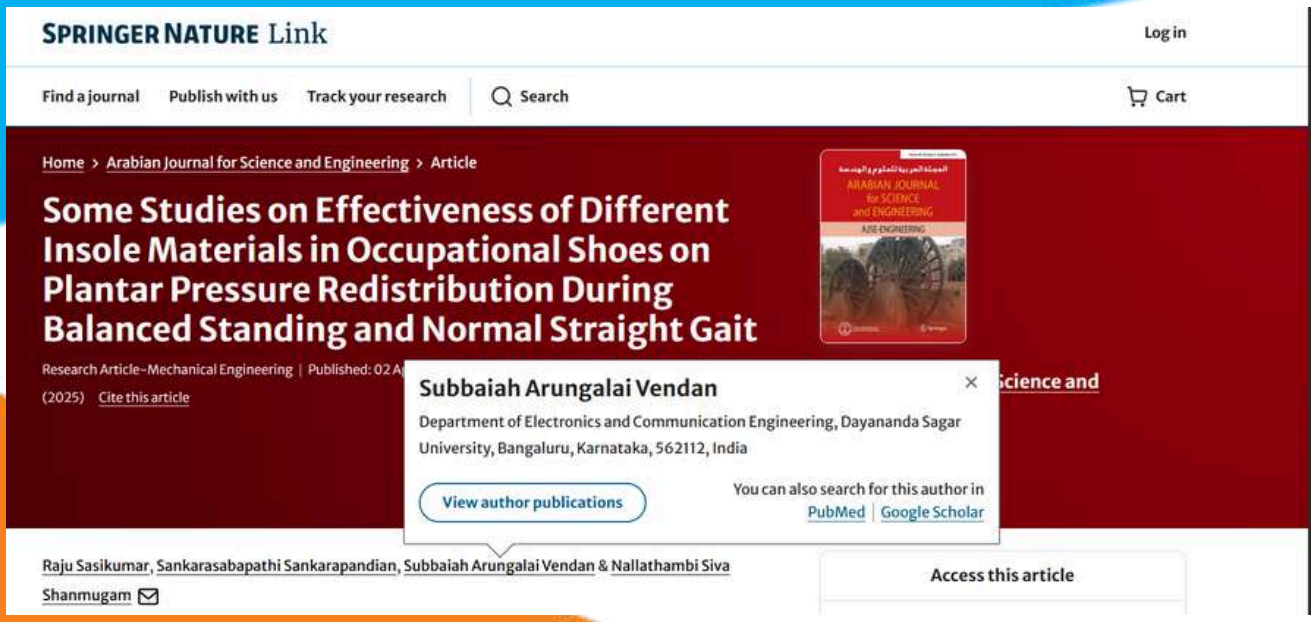
In recognition of your outstanding dedication and meritorious service as a **Mentor** for the trainees of Strides Pharma Science Ltd. during the On-the-job training held from 13 February 2025 to 25 March 2025 conducted by Dayananda Sagar University, Bengaluru. We appreciate your sincere efforts and wish you the best for your future.

Dr. Vinayak B. Hemadri
Chairman – Dept. of Mechanical Engg.
DSU

Dr. Udaykumar Reddy
Dean - SoE,
DSU

Dr S. Arungalai Vendan
Professor
Department of ECE

- Dr. Arungalai Vendan S, Professor, Department of ECE, Dayananda Sagar University, has co-authored a research paper titled “Some Studies on Effectiveness of Different Insole Materials...”, published on April 2, 2025, in the Q1-ranked Arabian Journal for Science and Engineering (Springer).



SCHOOL OF
ENGINEERING

STUDENT ACHIEVEMENTS

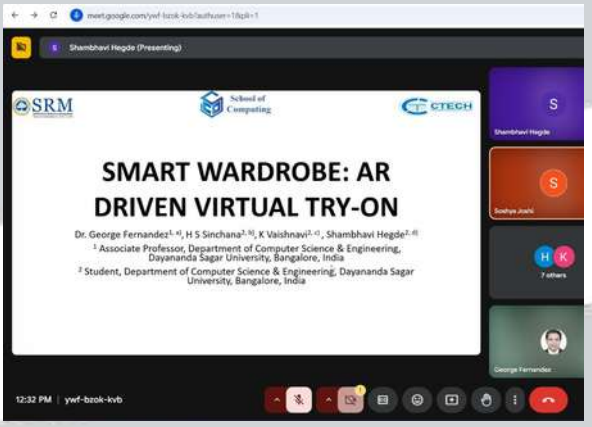
- Ms. Sneha Patra (ENG23AM0195), 4th semester, Dept. of CSE (AI&ML) student has secured 1st place in solo dance event at Samskruthi 2025 - an Intercollegiate Management and Cultural Fest, BMS COLLEGE OF COMMERCE AND MANAGEMENT, held on 4th, 5th & 6th of April 2025.

- Ms. Kara Swathi (ENG22AM0027), 6th semester, Dept. of CSE (AI&ML) student, has successfully cleared the GATE exam 2025.

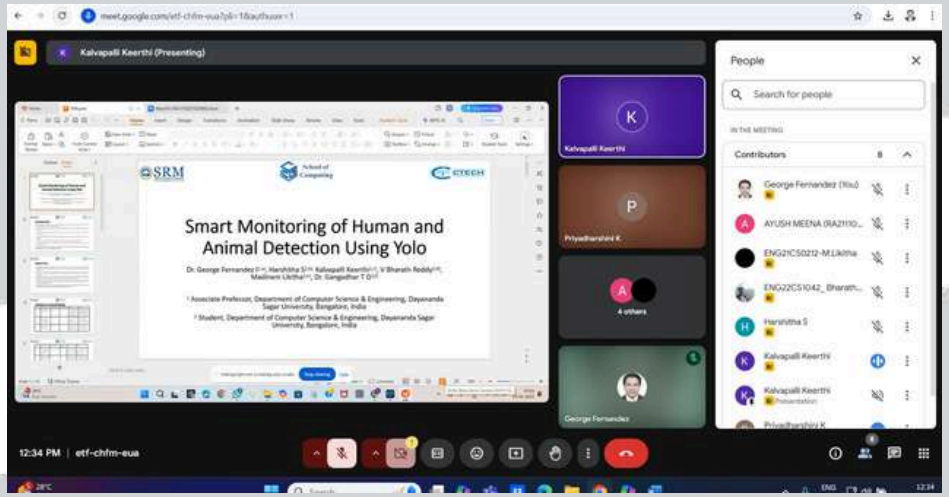
- Ms. R. K. Sowri Priya(ENG23CY0034) has participated in the Robo Quiz Competition conducted by the IEEE Robotics and Automation Society in collaboration with Computational Intelligence Society at Dayananda Sagar University on 7th April 2025.

- Mr. Prajwal N Halvi (ENG22CY0037) has successfully completed the course titled “Tutedude Ethical Hacking” on 19th April 2025.

- Ms. Shambhavi Hegde (ENG21CS0371), Ms. K Vaishnavi (ENG21CS0173) and Ms. H S Sinchana (ENG21CS0143) 8th semester Students, Department of CSE presented a paper titled “Smart Wardrobe: AR Driven Virtual Try - on”, under the guidance of Dr. George Fernandez I, Associate Professor, Department of CSE in the 5th International Conference on Internet of Things -ICIoT 2025, held at SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu, during 2nd to 4th April 2025.



- Ms. Kalvapalli Keerthi (ENG21CS0176), Ms. Harshitha S (ENG21CS0155), Ms. Madineni Likitha (ENG21CS0212) and Mr. V Bharath Reddy (ENG22CS1042) 8th semester Students, Department of CSE presented a paper titled “Smart Monitoring of Human and Animal Detection using yolo”, under the guidance of Dr. George Fernandez I, Associate Professor, Department of CSE in the 5th International Conference on Internet of Things -ICIoT 2025, held at SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu, during 2nd to 4th April 2025.




SRM Institute of Science and Technology
School of Computing
Department of Computing Technologies
5th International Conference on Internet of Things (ICIoT 2025)

CERTIFICATE OF PARTICIPATION

This is to certify that Dr. / Mr. / Ms./ George Fernandez, Dayananda Sagar University
has presented the paper titled Smart Monitoring of Human and Animal Detection Using Yolo
in the 5th International Conference on Internet of Things (ICIoT 2025), held during 2nd to 4th of April 2025, organised by the Department of Computing Technologies, School of Computing, SRM Institute of Science and Technology, Kattankulathur.

Dr. Hemajaa G, Convener - ICIoT 2025, Professor & Head, Department of Computing Technologies, SRMIST
Dr. Pushpalatha M, Associate Chairperson, School of Computing, SRMIST
Dr. Revathi Venkataraman, Chairperson, School of Computing, SRMIST

- Mr. D A Ajay (ENG24CS0052) and Mr. Nithin Katariya V(ENG24CS0151) 2nd semester Students, Department of CSE presented a potential Startup Ideas Heat & Eat project, represented from E-Cell DSU at IIT Delhi, Cyi youth ideathon, selected as top 10 startup's among 50,000 startup's and secured a cash price of ₹1,00,000 during 5th and 6th April 2025.

- Mr. Devesh Mamadapur (ENG22CS0538), Mr. Bilal Ahmed (ENG22CS0032), Mr. Punit Kumar (ENG22CS0126) and Mr. Adrian Ronan Das (ENG22CS0229), 6th Semester, Department of CSE as a team of “CRYPTO BULLS” has achieved the First Runners-Up position at the Colossus 2.0 – 24-hour National Level Hackathon, hosted by Dr. B.R. Ambedkar Institute of Technology, Bangalore on 11th and 12th April 2025. In recognition of their innovative ideas and relentless effort, the team was awarded a cash prize of ₹20,000.

- Mr. Aryan Penukonda (ENG22CS0024), Mr Pramod Gurunath Chitrapur (ENG22CS0122) and Mr. M Naveen (ENG22CS0095)" 6th Semester, Department of CSE as a team “SPAN” on the achievement of Best Business Model at the Colossus 2.0 – 24-hour National Level Hackathon, hosted by Dr. B.R. Ambedkar Institute of Technology, Bangalore on 11th and 12th April 2025. The team has been awarded a cash prize of ₹8,000 for their innovative approach.

- Mr. Sidmal Madhan (ENG23CS0189), Ms. Z Barkath Nisha (ENG23CS0235), Ms. Divya S (ENG23CS303), Ms. Roopa Nagaraj Doddamani (ENG23CS0166) and Ms. Maski Sneha (ENG23CS0109) 4th Semester, Department of CSE, DSU as a team "Tech Tribes" Participated in Xyntra'25 - 36 Hour Inter College Hackathon held on April 12 - 13, 2025 at Rajalakshmi Engineering college, Chennai with the project titled "AI-powered Sign Language Translator" built to help individuals who rely on hand sign language to communicate. The Project idea was recognized as one of the six best Ideas in the hackathon.

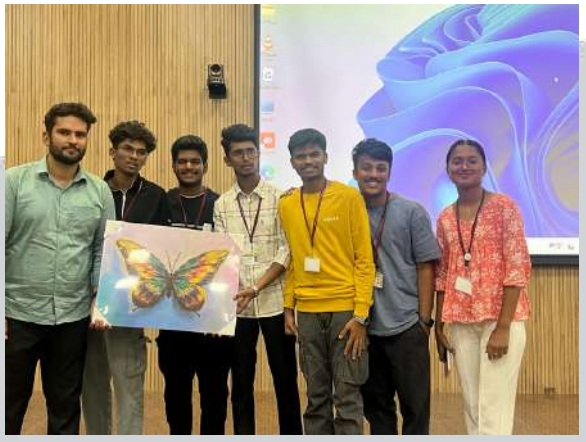
- Mr. Sidmal Madhan (ENG23CS0189), 4th Semester, Department of CSE, DSU, as a team Khatarnakgaming2580, has participated in Image AI thon - Prompt Engineering Challenge of Spring Fiesta organised by Indian Institute of Information Technology (IIIT), Surat on 5th of April 2025.

- Ms. Harini Sri S (ENG22CS0314), a 6th-semester student Department of CSE, got a 2-month Summer Internship at “Google IT Services India Pvt Ltd” with the CTC of Rs 1,65,000 as a Stipend on 15th April 2025.

- Ms. Shivani K (ENG22CS0164), 6th semester student Department of CSE, has been placed in “Vivnovation” with CTC 20 LPA and one year Internship with Rs. 15k per month as Stipend on 15th April 2025.

- Mr. Syed Fuzail (ENG22CS0476), Mr. Yogesh N (ENG22AM0070), Mr. Suhaib Yasir (ENG22CS0189), and Mr. Sathish S (ENG22CS0153) 6th Semester, Department of CSE as a team developed “SahaayAI — a voice-based, emotionally intelligent AI companion designed to help senior citizens navigate digital services, access wellness support, and stay emotionally connected through familiar voices” and secured the Runner-Up position with cash prize of Rs. 8000 at the RoTech Hackathon hosted by BMS College of Engineering, a 12-hour high-intensity app development challenge themed "CRACK THE CODE", during 5th April 2025.

- Mr. D A Ajay (ENG24CS0052), Mr. NMK Chiranth (ENG24CS0539), 2nd Semester CSE Students collaborated with other branch students and participated in the Mini AIML hackathon conducted by AI Works club at Dayananda Sagar University. The challenge focused on key ML concepts like EDA (Exploratory Data Analysis) and Feature Engineering, and secured 2nd Place on 16th April 2025.

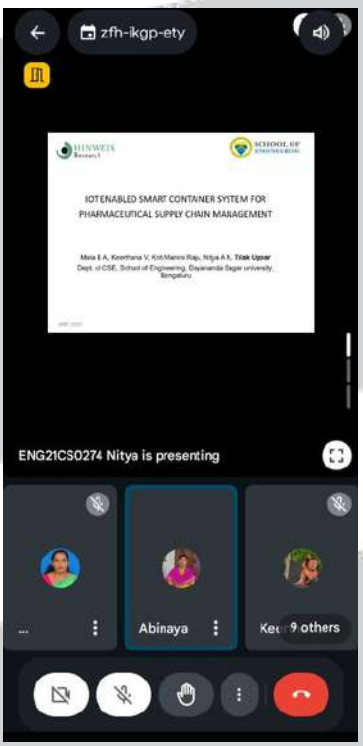


- Mr. D A Ajay (ENG24CS0052), Ms. Diya D Acharya (ENG24EC0012), 2nd semester Students as team participated in the Wild Canvas: Digital Art Competition, organized under TechFlix 2025 by Department of Computer Science and Engineering, Dayananda Sagar University and Secured 1st place with cash price of Rs.7000 on 25th April 2025.

- Mr. Nandeesh P Math (ENG21CS0263), Mr. Samarth S S (ENG21CS0356), Ms. Sree Vibha G (ENG21CS0412) and Mr. Venkatesh P (ENG21CS0471), 8th semester Students, Department of CSE presented a paper titled “A comprehensive analysis on AI and ML techniques for Canine Disease Detection”, under the guidance of Dr. Sasikala N, Assistant Professor, Department of CSE in the Scopus indexed Hinweis Third International Conference on Advanced Research in Engineering and Technology (ARET) Kolkata, India online during 26-27-28 April 2025.

- Mr. Aditya Choudhary (ENG22CS0518), Ms. Rashi Badiya(ENG22CS0406) and Mr. Rohan Jaiswal (ENG22CS0578), 6th semester Students, Department of CSE as a team “CoCo Coders” participated and won 1st place with cash prize of Rs.35000 with the project titled “MindBridge: Path to Cognitive Confidence” in the 24hr Hackathon (Hackin' Bad) organized by ACM student Chapter, DSU Techflix, Department of CSE, Dayananda Sagar University, Harohalli on 25th and 26th April 2025.

- Ms. Keerthana V (ENG21CS0186), Ms. Kriti Manini Raju (ENG21CS0191), Ms. Nitya A N (ENG21CS0274) and Mr. Tilak Uppar (ENG21CS0447) 8th semester Students, Department of CSE presented a paper titled “IoT Enabled Smart Container System for Pharmaceutical Supply Chain Management”, under the guidance of Prof. Mala B A, Assistant Professor, Department of CSE in the Scopus indexed Hinweis Third International Conference on Advanced Research in Engineering and Technology (ARET) Kolkata, India online during 26th to 28th April 2025.



- Mr. Devesh Mamadapur (ENG22CS0538), Mr. Bilal Ahmed (ENG22CS0032), and Mr. Adrian Ronan Das (ENG22CS0229), 6th semester Students, Department of CSE as a team “CryptoBulls” participated and won 1st Runner-Up place with cash prize of Rs.25000 with the project titled “FinVault” in the 24hr Hackathon(Hackin' Bad) organized by ACM student Chapter, DSU Techflix, Department of CSE, Dayananda Sagar University, Harohalli on 25th and 26th April 2025.

- Mr. Samarth Shenoy (ENG22CS0433) and Mr. Suraj S (ENG22CS0425), 6th semester Students, Department of CSE as a team “Team Bingo” participated and won Runner-Up place with cash prize of Rs. 3000 in the Great Holmes Hunt organized by ACM student Chapter, DSU Techflix, Department of CSE, Dayananda Sagar University, Harohalli on 25th and 26th April 2025.

- Mr. Eeshaan Undar Bhat (ENG22CS0539), and Mr. Gagan Nagarjuna (ENG22CS0304), 6th semester Students, Department of CSE as a team " Team B1ngo" participated and won 1st place in the Triwizard Hunt with a cash prize of Rs. 15000, organized by ACM student Chapter, DSU Techflix, Department of CSE, Dayananda Sagar University, Harohalli on 25th and 26th April 2025.

- Mr. Chidwan AD (ENG24CS0378), Mr. Amara Sai Asish (ENG24CS0318) 2nd semester Students, Department of CSE as a team "Team Sterlebom" participated and won 1st place with the cash prize of Rs. 12000 in the Great Holmes Hunt organized by ACM student Chapter, DSU Techflix, Department of CSE, Dayananda Sagar University, Harohalli on 25th and 26th April 2025.

- Mr. Sameer S Katte [ENG22CS0148], Mr.Sai Shravan V [ENG22CS0144] and Ms. Chhavi Sharma [ENG22CS0278] 6th semester Students, Department of CSE as a team " Team papz" participated in the Sentinel Hack 5.0, Hackathon Conducted at KSIT and won Runner Up position with a cash prize of Rs.15K during 28th and 29th April 2025.

- The students from the Department of Aerospace Engineering, Mr. Vatsal (ENG22AS0023) and Mr. Qasim Johar (ENG22AS0039), actively participated in the RoboSoccer 2025 competition organized by the Department of Electronics and Communication Engineering at Dayananda Sagar University on 25th – 26th April 2025. The team was awarded for their excellence in the competition as Obstacle Champions.

- Mr. Sachin Chandram Bhosagi (ENG22DS0014) participated in the 2025 Statewide Engineering IT Quiz TCS Tech Bytes, an inter-college IT quiz organized by TATA Consultancy Services and Board for IT Education Standards, Government of Karnataka on 08th April 2024.

- Mr. Nithin Prjawal-ENG22DS0039 has exhibited exceptional performance during the Microsoft AI Skills Fest 2025. His active involvement in sessions, challenges, and hackathon projects, focused on real-world AI solutions, showcased his technical proficiency and innovation, particularly with tools like GitHub Copilot and Azure AI Foundry

- Mr. Kumar Mukund (ENG23DS0069) has participated in the 2025 Statewide Engineering IT Quiz, TCS Tech Bytes, an Inter-College Quiz on IT organized by TATA Consultancy Services and Board for IT Education Standards, Government of Karnataka on 08th April 2024.

- Mr. Amit Singh (ENG23DS0096) has participated in the 2025 Statewide Engineering IT Quiz, TCS Tech Bytes, an Inter-College Quiz on IT organized by TATA Consultancy Services and Board for IT Education Standards, Government of Karnataka on 08th April 2024.

- Mr. Sai Krishna S (ENG23DS0083) has participated in the 2025 Statewide Engineering IT Quiz, TCS Tech Bytes, an Inter-College Quiz on IT organized by TATA Consultancy Services and Board for IT Education Standards, Government of Karnataka on 08th April 2024.

- Ms. Vedeswari Nakate (ENG23DS0075), Mr. Sai Krishna S (ENG23DS0083), and Mr. Shashi Kumar C (ENG23DS0034) participated in ROBOSOCCER-2025, organized by the Electroblitz Club in association with AIC-DSU, Techflix, MIT Square, and the IEEE Student Branch at Dayananda Sagar University on 25th-26th April 2025.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ROBOSOCCER
CERTIFICATION OF PARTICIPATION
This certificate is proudly presented to
Shashi Kumar C
In recognition of your participation in ROBOSOCCER-2025, organized by the Electroblitz Club in association with AIC-DSU, Techflix, MIT Square, and the IEEE Student Branch at Dayananda Sagar University on 25th - 26th April 2025.
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Dr. Pethanadappa C, Professor and Registrar, DSU, Bengaluru
Dr. Udaya Kumar Reddy K.R, Dean, School of Engineering, DSU, Bengaluru
Dr. Vinod Shankar, Chief Executive Officer, AIC-DSU, Bengaluru
Dr. Arun Balodi, Chairperson,ECE, DSU, Bengaluru
Dr. Divyashree H B, Faculty Advisor, Electroblitz club, ECE, DSU, Bengaluru


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Sai Krishna S
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Dr. Arun Balodi, Chairperson,ECE, DSU, Bengaluru
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ROBOSOCCER
CERTIFICATION OF PARTICIPATION
This certificate is proudly presented to
Vedeshwari Nikate
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Dr. Arun Balodi, Chairperson,ECE, DSU, Bengaluru
Dr. Divyashree H B, Faculty Advisor, Electroblitz club, ECE, DSU, Bengaluru

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

- Mr. NISHANT SREEKUMAR(ENG23RA0039), 4th Sem Student of AI and Robotics has successfully completed the Software Engineering Job Simulation course offered by JPMORGAN CHASE & CO. on April 13th, 2025.


JPMorgan Chase & Co.

Forage
Inspiring and empowering future professionals

Nishant Sreekumar

Software Engineering Job Simulation

Certificate of Completion
April 13th, 2025

Over the period of April 2025, Nishant Sreekumar has completed practical tasks in:

Project Setup
Kafka Integration
H2 Integration
REST API Integration
REST API Controller

Tom Brunskill
CEO, Co-Founder of Forage

- Mr. Nilesh Sarkar (ENG23RA0038) and Mr. Krishna Siddharth (ENG23RA0061) have attended the Google Agent Development Kit Hands-on Workshop at Google Office Bagmane Tech Park, Google Kyoto Block, Bagmane Constellation Tech Park, Marathahalli, Bangalore, organized by Google Cloud on 20 April 2025.

- Ms. Vrinda Katavkar (ENG23RA0024) participated in a flash mob (dance) for TechFlix inauguration on 24th April 2025 near the SOE Main Entrance DSU.

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