

Jan - Jun  
2025

Volume-3  
Issue-1



DAYANANDA SAGAR  
UNIVERSITY



SCHOOL OF  
ENGINEERING

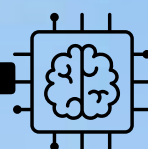
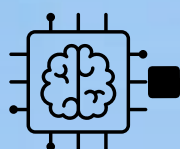


**DAYANANDA SAGAR UNIVERSITY**

**School of Engineering**

DEPARTMENT OF CSE

(ARTIFICIAL INTELLIGENCE & MACHINE LEARNING)



**PRESENTS**

THE

**ML**

**INSIDER**

Official Newsletter of  
CSE-AIML



DAYANANDA SAGAR  
UNIVERSITY



SCHOOL OF  
ENGINEERING



# SCHOOL OF ENGINEERING BLOCK





DAYANANDA SAGAR  
UNIVERSITY



SCHOOL OF  
ENGINEERING



# 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 emphasising ethics,values,integrity and religious relevance.
- 2.Carry out 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.



DAYANANDA SAGAR  
UNIVERSITY



SCHOOL OF  
ENGINEERING



## DEAN'S MESSAGE

Dr. Udaya Kumar Reddy K R  
Dean, School of Engineering, DSU



BE YOU  
BE THE DIFFERENCE!!!

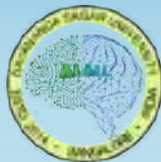
I am delighted that the Department of Artificial Intelligence and Machine Learning, School of Engineering is bringing out a newsletter that can provide beautiful insights for students and faculty fraternity. A lot has been happening in the School of Engineering (AI&ML) over the years. Our graduate students are doing amazing things in many different areas. In the current issue, you'll meet some remarkable students and faculty who are making a difference in the technical aspects and otherwise. We hope to build this endowment with your support, to afford even more opportunities for students to participate in this important component of their graduate education.

I hope this magazine provides the reader with wonderful insights and I thank the editorial team for their wonderful effort in bringing out this newsletter.

Wish you all the best.



DAYANANDA SAGAR  
UNIVERSITY



SCHOOL OF  
ENGINEERING



## DEPT. OF CSE (AI & ML)

### VISION

To produce graduates in Computer Science and Engineering (Artificial Intelligence & Machine Learning) through excellence in education and research with an emphasis on sustainable eco-system that contributes significantly to the society.

### MISSION

The Department Computer Science and Engineering (Artificial Intelligence & Machine Learning) is committed to:

1. Impart quality education through the state-of-the-art curriculum, infrastructure facilities, cutting edge technologies, sustainable learning practices and lifelong learning.
2. Collaborate with industry-academia and inculcate interdisciplinary research to transform professionals into technically competent.
3. Produce engineers and techno-entrepreneurs for global needs.



## CHAIRPERSON'S MESSAGE

**Dr. Jayavrinda Vrindavanam V**  
**Professor & Chairperson,**  
**CSE (AI & ML)**  
**SOE, DSU**



It is with great pleasure that I am writing this message for Volume-3 Issue 01 of the Computer Science and Engineering (Artificial Intelligence & Machine Learning) Program Newsletter for the academic year 2024-2025. Apart from supporting the dissemination of the Departmental initiatives, the newsletters encourage the students to actively contribute and also support in dissemination of their ideas and activities. The contemporary academic world offers tremendous opportunities for exploration, experimentation and collaboration through the joint initiatives of faculties and students. The forums like newsletters provide a visible platform to reach out the on-going activities to wider audiences, especially students. The newsletter also provides a platform to disseminate emerging focus areas and functions as a medium to display expressions. I am sure that the activities organized by the student clubs, competitive forums, and students' extra-curricular and co-curricular initiatives will now receive an added impetus with the introduction of this newsletter.

The CSE(AIML) as hitherto, has been offering a dynamic activity-oriented learning environment to the students backed by our highly qualified and experienced faculties. I am sure that, these activities will be disseminated through such newsletters.

Best wishes.

# DEPARTMENT FACULTY



**Dr. Jayavrinda  
Vrindavanam V**

**Professor & Chairperson**

Dr. Jayavrinda Vrindavanam is the Professor and Chairperson of the Department of Computer Science Engineering (Artificial Intelligence (AI) and Machine Learning (ML)). She has worked extensively in Industry, Research, and Teaching across India and abroad. Her areas of academic research interest are Pattern Recognition, Artificial Intelligence, Image Processing, Machine Learning etc. After completing of B.E from Mangalore University (1997), Prof. Jayavrinda completed M. E Degree from Mumbai University (2007) and Ph.D from NIT, Durgapur in the year 2013. Currently four PhD scholars are working under her guidance.

Prof. Jayavrinda has been functioning as faculty of Computer Science Engineering and Electronics and Communication Engineering at various Institutes across India and abroad and during this period, Prof. Jayavrinda has received research funding from several organisations. She has more than 54 publications in international journals and conferences which include IEEE and Springer. She continues to be a reviewer of IEEE Access, IEEE Conferences Bangalore and Mumbai sections and IJCRT. She is also nominated into advisory Board Member of the Medicon open access Journal. She has delivered quite a few technical talks at different forums in the area of Machine Learning and its Applications, and current trends in Machine learning. Her research interests are ML approach to speech processing, energy forecasting and application of ML in the area of behavioural science.



**Dr. Naveen Babu**  
Associate Dean &  
Professor

Dr. Naveen Babu is a Associate Dean & Professor in the School of Engineering, AI & ML department, with 21 years of experience. His expertise includes Machine Learning, Computer Vision, Wireless Communication, RF and Microwave Theory, and Vacuum Devices. He has published over 35 articles in prestigious journals like IEEE Transactions and PIER, filed five Indian and one international patent, and authored several books and chapters. A recipient of the Indo-Canadian Sastry Award and SERB Travel Grant (2024), he has completed DRDO-sponsored R&D projects and guided 150+ undergraduate, 12 postgraduate, and three PhD students. Dr. Babu is a Fellow of IETE, IEEE Senior Member, and Life Member of ISTE.



**Dr. B. S. Rangaraj**  
Research Professor

Dr. B. S. Rangaraj is a research professor in the CSE (AI & ML) department. He holds a Bachelor's degree in Mechanical Engineering from UVCE-affiliated Bangalore University (1983), a Master's from the Indian Institute of Technology, Madras, and a Ph.D. from Kansas State University, USA (1992). He was a visiting professor and post-doctoral scholar at the University of California, Berkeley (1992-1993). His doctoral research focused on Artificial Intelligence in engineering design. Prof. Rangaraj has mentored over 500 engineers and students in software engineering, specializing in Design Manufacturing, Analysis, and Product Data Management. He served as a visiting professor at VTU Post Graduate Studies (2013-14) in Design Optimization and provided consultancy and training in Advanced Computer Technologies for Fortune 100 companies. His innovative training methods in engineering and software have been applied in projects for Fortune 500 customers. He has delivered invited talks on Automation, Data Management, AI, and Mathematics at institutions like UVCE, BMSCE, and CMR Institute of Technology.

---

# DEPARTMENT FACULTY



**Dr. Hanumanth Sastry  
Sistla,  
Professor**

**Dr. Hanumanth Sastry Sistla is a Professor in the Department of Computer Science Engineering (AI & ML) with extensive experience in academia, industry, and research. He is an invited speaker at prestigious conferences and universities worldwide. His expertise spans AI, ML, Deep Learning, Generative AI, and Quantitative Finance. With a PhD from Andhra University (2016) and degrees from Delhi University, Pondicherry University, and NIELIT, he has served as a Lead Architect in AIML workflows and published over 20 papers in international journals and IEEE conferences. His research focuses on AI, Big Data, Predictive Analytics, and Risk Modelling in FinTech.**



**Dr. Bahubali Shiragapur,  
Professor**

**Dr. Bahubali Shiragapur is a Professor in the School of Engineering, AI & ML department, with 23 years of experience. His expertise spans Machine Learning, Quantum Computing, Wireless Communication, Robotics, IoT, Image and Signal Processing, and Coding Theory. He has published over 40 articles in peer-reviewed journals, filed three Indian patents, authored a book and three book chapters with CRC Press, and completed three R&D-funded projects. He has guided 50+ undergraduate, seven postgraduate, and three PhD scholars graduated and presently two Scholars are working under his guidance. He is also an active member of the Bharath 6G Alliance, GOI.**

**Previously, Dr. Bahubali served as Director at D Y Patil International University and held key roles like Dean R&D and Head of TBI at Ajeenkya DY Patil School of Engineering. A mentor for ABU ROBOCON and IRO competitions, he is a reviewer for journals like IEEE and Springer and a Life Member of ISTE and SDIWC.**



**Dr. Vegi Fernando A  
Associate Professor**

**Dr. Vegi Fernando A is currently an Associate professor in Computer Science & Engineering (AIML) Program at DSU. Before this, she was an Associate Professor at SCAD College of Engineering and Technology at Computer Science & Engineering Department. She has Completed her UG at Manonmaniam Sundaranar University, Tirunelveli, PG from Anna University and her Doctorate of Philosophy (PhD) in the field of Deep Learning at Anna University, Chennai. She has around 17 years of teaching experience in various domains. She has been a resource person at various FDP's, Speaker at various International and National conferences / workshops. Her areas of interest include Deep Learning, Cloud Computing, Programming and analysis of algorithms. Presently she is mentoring two PhD scholars.**

---

# DEPARTMENT FACULTY



**Dr. Abdul Haq Nalband**  
Associate Professor

Dr. Abdul Haq Nalband is an Associate Professor in Computer Science and Engineering (AI & ML) at the School of Engineering, Dayananda Sagar University. He holds a Ph.D. in 5G Technologies from REVA University (2022) and recently completed a Visiting Postdoctoral Fellowship in Cybersecurity at City, University of London, UK. With 11 years of teaching, seven years of research, and one year of industry experience, he has also served as a nodal officer for NBA and NAAC accreditations, focusing on skill development and industry collaboration.

Dr. Abdul Haq has published over 20 research articles, holds three patents (including one international patent), and is currently working on an ISRO-funded project on ultra-massive MIMO architecture. His research interests include 5G and Beyond, AI, IoT Security, and wireless communication. He is a member of IEEE, a Life Member of ISTE, and an Associate Member of IETE, India.



**Dr. Vinutha N**  
Associate Professor

Dr. Vinutha N is currently working as an Associate professor in the Department of Computer Science & Engineering (AIML) at DSU. Before this, she was an Assistant Professor at Hyderabad Institute of Technology and Management in the Computer Science & Engineering (ET). She has Completed her UG from VTU Belgaum, PG from UVCE, Bangalore University, and Doctorate of Philosophy (PhD) in the field of Machine learning at UVCE, Bangalore University, Bengaluru, Karnataka. She has around 10 years of teaching experience and published 11 research papers at various refereed International Conferences and Journals. She has received Best Paper Award in the Fourteenth International Conference on Information Processing (ICInPro), 2018. She has been a resource person at various FDP's, workshop, and speaker at International conferences. Her areas of interest include Machine learning, Bioinformatics, Image Processing, Data Science. Presently she is mentoring three PhD scholars.



**Dr. Joshuva Arockia Dhanraj**  
Associate Professor

Dr. Joshuva Arockia Dhanraj is an Associate Professor in Computer Science and Engineering (AI & ML) at the School of Engineering, Dayananda Sagar University. He previously worked at Hindustan University and as a Post-Doctoral Researcher at Prince of Songkla University, Thailand. He is also an Adjunct Faculty at Chandigarh University and Chief Research Manager at Smart Green Grid Solutions, India. Dr. Dhanraj holds a B.E. in Electronics and Communication Engineering from Anna University, an M.Tech in Mechatronics from VIT University, an MBA in HR from the University of Madras, and a Ph.D. in Mechanical Engineering (Mechatronics) from VIT University. With 5.5 years of teaching, 3 years of research, and 1 year of post-doctoral experience, he has published over 160 papers and filed 18 patents. His research interests include AI & ML, Mechatronics, Machine Fault Diagnosis, Robotics, and Renewable Energy for Sustainable Development Goals.

---

# DEPARTMENT FACULTY



**Dr. Sumit Kumar  
Yadav**  
Asssitant Professor

Dr. Sumit Kumar Yadav is an Assistant Professor in the Computer Science & Engineering (AI & ML) department at DSU, Bengaluru. He earned his B.Tech in ECE from Gautam Buddh Technical University in 2010, M.Tech in Bio-medical Signal Processing from IIITDM Jabalpur in 2017, and Ph.D. in Image Processing using Deep Learning from IIT (BHU), Varanasi in 2024. Dr. Yadav qualified GATE in 2015 and received the "Teaching Assistantship" fellowship during his M.Tech and Ph.D. He has over twelve years of teaching and research experience at reputed NITs and IITs. Prior to DSU, he served as adhoc faculty in the IT department at NIT Surathkal. His research interests include image/video processing, biomedical signal processing, image dehazing, denoising, and restoration. A member of IEEE Signal Processing Society, Dr. Yadav has published extensively in SCI/SCIE Q1 journals and conferences. He has also reviewed for IEEE Transactions and other leading journals. He received the Student and Early Researcher Conference Fund at TENCON 2020 in Osaka, Japan.



**Dr. Sugandha Saxena**  
Assistant Professor

Dr. Sugandha Saxena is an Assistant Professor in Computer Science and Engineering (AI & ML) at the School of Engineering, Dayananda Sagar University. She holds a B.Tech in Electronics and Communication Engineering from Rajasthan Technical University (2010) and an M.Tech in VLSI Design from Amity University, Noida (2013). In 2024, she completed her Ph.D. in Artificial Intelligence from REVA University.

With over 11 years of teaching experience and five years of research expertise, Dr. Saxena has also taken on various administrative responsibilities, including coordinating NIRF and NAAC accreditations, managing NBA Criterion 5, and serving as a research and cultural coordinator.

She has published more than 10 research articles in indexed journals and conferences and holds two patents for her innovations. She is a member of IEEE India and her research interests include deep convolutional networks, image processing, pattern recognition, and medical imaging



**Dr. M Lakshmanan**  
Assistant Professor

Dr. M. Lakshmanan serves as an Assistant Professor in the Department of Computer Science and Engineering (AI & ML). He earned his Ph.D. in Information and Communication Systems from Anna University in 2024. Prior to this, he completed his M.E. in Software Engineering (2013) and his B.E. in Computer Science and Engineering (2011), both from Anna University. With 12 years of academic experience at esteemed institutions, Dr. Lakshmanan focuses his research on Blockchain Technology applications in healthcare, particularly in Electronic Health Records, Data Security, and Health Data Analytics. He has contributed over 22 publications in SCI(E)-indexed journals, international conferences, and UGC Care Listed journals, and he holds one international patent.

---

# DEPARTMENT FACULTY



**Dr. Shreyas Rajendra Hole**  
Assistant Professor

Dr. Shreyas Rajendra Hole is an Assistant Professor in the CSE AI & ML department at Dayanand Sagar University, Bangalore. He holds a Ph.D. in AI/ML from VIT-AP University, an M.E. in Electronics & Communication Engineering from PRMIT&R, and a B.E. in Electronics and Telecommunication Engineering from Sant Gadge Baba Maharaj Amravati University. His research areas include Renewable Energy, Machine Learning, and DC-DC Converters. Dr. Hole has published three SCI-indexed and three SCOPUS-indexed papers and presented at seven conferences. His accolades include the Chatrapati Shahu Maharaj National Research Fellowship (2021), VIT-AP University Research Awards (2022, 2024), and Best Poster Presentation Award (2023). He has also published seven patents and received the 2nd Prize in the Patent Category at V-INN EXPO'24.



**Dr. Mude Nagarjuna Naik**  
Assistant Professor

Dr. Mude Nagarjuna Naik is currently working as an assistant professor in Computer Science and Engineering (AI&ML) at Dayananda Sagar University in Bangalore, India. Dr. Nagarjuna Naik completed his PhD from Kyung Hee University, Seoul, South Korea (2023) (QS world Rankings =328), M. Tech from IIT Hyderabad (2017), and B.Tech from JNTU Anantapur (2013), Andhra Pradesh, India. His research areas are Machine Learning, Artificial Intelligence, Internet of Things (IoT), Wireless Sensor Networks, Embedded Systems, Organic Electronics, Nano Electronics, Quantum Dot Light-Emitting Diodes (QLEDs), Organic Light-Emitting Diodes (OLEDs), and Photonics. Dr. Nagarjuna Naik has around 9 years of research and teaching experience, published over 22 papers in peer-reviewed Q1 SCI(E) Journals and international conferences and got the best paper award at the IDW'22 conference held in Japan, also published one patent. He has received the Prestigious President's and BK21Plus Scholarship award from the South Korean government for PhD, he also awarded a travel grant to attend the international conference, SID'2019, San Jose, USA, qualified GATE exam in 2015 and scored 93.7 percentile.



**Prof. Gouranga Mandal**  
Associate Professor

Dr. Gouranga Mandal is an Associate Professor in Computer Science and Engineering (AI & ML) at Dayananda Sagar University. He holds a B.Tech. and M.Tech. from West Bengal University of Technology and a Ph.D. from NIT Agartala. With over nine years of teaching, three years of research, and one year of industry experience, he has served at institutions like VIT-AP University and ICFAI University Tripura. He received the Best Faculty Award and Research (Patent) Award from VIT-AP University. His research focuses on image/video processing, computer vision, intelligent transportation systems, OCR, NLP, and pattern recognition. He has published extensively in reputed journals, filed six patents, guided a Ph.D. scholar, and actively reviews for top journals. He has also held key administrative roles and is a member of CSI, IAENG, and ISAC.hD, he also awarded a travel grant to attend the international conference, SID'2019, San Jose, USA, qualified GATE exam in 2015 and scored 93.7 percentile.

# DEPARTMENT FACULTY



**Prof. Subhash Mondal**  
Assistant Professor

Prof. Subhash Mondal is currently an Assistant Professor in the Computer Science & Engineering (AI & ML) Program at DSU. As before he has served his duty as an Assistant Professor, CSE, Meghnad Saha Institute of Technology, Kolkata, WB, IN, from August 2006 to August 2023. He has obtained his M. Tech (CSE '07), B. Tech (CSE '05), and B.Sc. (Mathematics (H) '02) from the University of Calcutta, IN. He is pursuing his Doctorate of Philosophy (PhD) in the field of Machine Learning, XAI, and Deep Learning in the Healthcare domain from the Central Institute of Technology Kokrajhar (CITK), Assam, in the CSE department from July 2022. He has more than 18 years 6 months of teaching experience in CSE domains. Currently, he has published 35 research articles including international Journals, conferences, and Book chapters. He has completed various FDP and MOOC courses for career development. He is a professional member of IEEE and is serving in the capacity of Faculty Adviser for the IEEE CIS SBC and IEEE RAS SBC, DSU. His areas of interest include Operating Systems, Computer Networks, Machine Learning, Design and analysis of Algorithms, Cryptography & Network Security, etc.



**Prof. Sriramkumar**  
Assistant Professor

Prof. R. Sriramkumar is an Assistant Professor in the Computer Science Cluster (AI & ML) at the School of Engineering, Dayananda Sagar University. Previously, he held positions at Sri Sairam College of Engineering and Kings College of Engineering. He is pursuing a Ph.D. at Annamalai University and holds a B.E. in Computer Science and Engineering from Anna University (2008) and an M.Tech in Embedded Systems from Sastra University (2011). With 12 years of teaching and 1 year of industry experience, he has published eight papers in peer-reviewed journals and participated in 14 conferences. He has also authored books on Python Programming and Grid and Cloud Computing on Amazon Kindle. His areas of expertise include Python Programming, AI & ML, Cyber Forensics, Cloud Computing, Algorithm Design and Analysis, C Programming, OOP, and Software Engineering



**Prof. Pradeep Kumar K**  
Assistant Professor

Prof. Pradeep Kumar K is currently an Assistant professor in Computer Science & Engineering (AIML) Program at DSU. Before this, he was an Assistant Professor at Sai Vidya Institute of Technology at Computer Science & Engineering Department. He has Completed his UG & PG from VTU Belgaum, currently pursuing his Doctorate of Philosophy (PhD) in the field of Reconfigurable Antennas / Wireless Sensor network using various parameters & Machine learning in REVA University Karnataka. He has around 11 years of teaching experience in various domain & 1 years of industrial experience. During his academic profession he has gained a guide recognition certificate by INSEF-2017 for his Project which served the purpose of fishermen safety & secure communication. He has been a resource person at various FDP's, Speaker at various International and National conferences / workshops and has delivered more than 30 talks across Karnataka. His areas of interest include Embedded systems, Internet of Things, 3 D modelling, Python Programming (AIML & DS), MEMS, Analog & Digital Circuits, Batteries, Solar Circuits, App development etc.

# DEPARTMENT FACULTY



**Prof. Ankita Thakkar**  
Assistant Professor

Prof. Ankita Thakkar is an Assistant Professor in Computer Science and Engineering (AI & ML) at the School of Engineering, Dayananda Sagar University. She completed her B.E. and M.E. in Information Technology from Mumbai University. She also holds an M.S. in Computer Science and Engineering from the University of Nevada, Reno, USA, and is currently pursuing a Doctor of Business Administration from the Swiss School of Business Management, Geneva.

Ankita has over 12 years of teaching and significant industry experience in full-stack development, product management, curriculum development, and instructional design. Her expertise spans areas such as Machine Learning, Deep Learning, Natural Language Processing (NLP), Cybersecurity, and Game Theory. She has held leadership roles in various EdTech organizations, where she developed educational solutions and trained educators. She is also a recipient of the Dean's Merit Scholarship from the University of Nevada, Reno, and has received multiple awards for excellence in teaching and curriculum development.

In research, Ankita has contributed to Game Theory, Machine Learning, Natural Language Processing (NLP), Cybersecurity, and Privacy Preservation, publishing a paper in an international conference and two in journals. She is passionate about bridging the gap between academia and industry. Ankita has authored a book on Core Java Programming and contributed to AI curriculum development for multiple academic institutions and EdTech companies. She has actively mentored students in AI and ML projects, focusing on predictive analytics, recommendation systems, and cybersecurity strategies.



**Prof. Trupthi Rao**  
Assistant Professor

Prof. Trupthi Rao is an Assistant Professor in Computer Science and Engineering (AI & ML) at the School of Engineering, Dayananda Sagar University. She earned her B.E. in Electronics and Communication Engineering from Srinivas Institute of Technology in 2010 and an M.Tech in Digital Electronics and Communication from NMAMIT, Nitte, in 2015. In 2021, she completed a Post Graduate Program in Artificial Intelligence and Machine Learning from The Great Lakes University. Currently, she is pursuing her PhD in the Department of Information Technology at the Indian Institute of Information Technology, Allahabad.

With over 12 years of teaching experience, Prof. Trupthi has held key academic roles, including Board of Examination Member, Board of Studies Member, Research Coordinator, FDP Coordinator, Value-Added Program Coordinator, and Cultural Coordinator. She has also managed NAAC Criterion 2 and served as the Organizing Co-Chair for the 1st International Conference, CIISCA 2023. She has conducted several training programs and FDPs on Deep Learning, Machine Learning, Data Analytics using Excel, and Data Analysis & Visualization with Tableau. Additionally, she has delivered sessions on Machine Learning and Python as part of the AIML Training Program at ISTRAC, ISRO. She successfully led a DRDO, Pune project titled "Development of a Classifier Based on Deep/Machine Learning Algorithms for Land-Based Munitions." Prof. Trupthi has published 152 research articles in indexed journals and international and national conferences. She has received five Best Paper Awards, a Best Employee Award, and secured two KSCST research grants. A member of IEEE and a life member of ISTE, she also serves as a reviewer for several reputed journals. Her research interests include eXplainable AI, Interpretable AI, Machine Learning, Data Science, and Natural Language Processing.



**Prof. S.V.K.R. Rajeswari**  
Assistant Professor

Prof. S.V.K.R. Rajeswari is an Assistant Professor in Computer Science and Engineering (AI & ML) at the School of Engineering, Dayananda Sagar University. She holds a B.Tech. in Electronics and Communication Engineering from Bandari Srinivas Institute of Technology and an M.Tech. in Embedded Systems Technology from SRM Institute of Science and Technology. With over four years of teaching and research experience, she has earned accolades such as the NPTEL Elite+Gold Medal and two consecutive awards for Best Poster Presentation. She has also applied for two patents related to her research.

Ms. Rajeswari specializes in designing noninvasive biomedical devices for diagnosis, treatment optimization, and cure, with three devices and a software tool clinically tested at SRM Medical College. Her research integrates biomedical devices with AI, ML, and Data Science. She has published extensively in SCI/SCIE and Scopus-indexed journals, serves as a reviewer for IEEE Access and Taylor & Francis, and is a public speaker and life coach in self-transformation and career development.

---

# DEPARTMENT FACULTY



**Prof. Pavithra A**  
Assistant Professor

**Prof. Pavithra A** is currently an Assistant professor in Computer Science & Engineering (AIML) Program at DSU. Currently pursuing Ph.D from VTU. Before this, she was an Assistant Professor at AMC Engineering College, in Information Science & Engineering Department. She has received M.Tech degree in Computer Science and engineering from PES University, Bangalore, in 2020 and BE degree in Information Science and engineering from the PES school of Engineering. She has published 3 International Journal papers and 1 book on Operating Systems. Her research interests include Internet of Things, Artificial Intelligence, Machine learning, and Deep Learning.



**Prof. Mitha Guru**  
Assistant Professor

**Prof. Mitha Guru** is currently an Assistant professor in Computer Science & Engineering (AIML) Program at DSU. She has 2 years of teaching experience. She received her M.Tech in Data Science from JSS Science and Technology University Mysore in 2019 and B.E in Information Science and Technology from VTU Belgaum. Her areas of interest are Artificial Intelligence, Machine Learning and Deep learning and its applications. She is currently also pursuing her Ph.D from Dayananda Sagar University .



**Prof. Rakshitha R**  
Assistant Professor

**Prof. Rakshitha R** is currently an Assistant professor in Computer Science & Engineering (AIML) Program at DSU. She completed her M.Tech in Computer Science and Engineering from Dayananda Sagar University (DSU) and BE in Information Science and Engineering from Vemana Institute Of Technology, Bangalore. Worked in Studique Company for 9 months. Areas of interest in Computer Vision, Python and Machine Learning.

---

# DEPARTMENT FACULTY



**Prof. Govinda Kumar Pandey**  
Assistant Professor

Prof. Govind Kumar Pandey is an Assistant Professor in Computer Science and Engineering (AI & ML) at the School of Engineering, Dayananda Sagar University. He holds a B.Tech. in Electronics and Communication Engineering from Maulana Abul Kalam Azad University of Technology and an M.Tech. in Optics and Optoelectronics from the College of Science, Technology, and Agriculture, Kolkata. With over four years of teaching and research experience, he has been recognized with the 'Dr. APJ Abdul Kalam Best Researcher Award 2025'. His research focuses on graphene-based terahertz (THz) MIMO antennas for indoor wireless communication, with broader interests in THz systems, reconfigurable antennas, intelligent reflecting surfaces, beam steering, and AI/ML integration. He has published in reputed SCI/SCIE and Web of Science journals and conferences and serves as a reviewer for journals like Computer Networks & Communication and Wireless Networks. He also ran a successful tuition centre, mentoring students in science and engineering, and is known for his strong communication and public speaking skills.



**Prof. Nivetha R**  
Assistant Professor

Prof. Nivetha R is currently serving as an Assistant Professor in Computer Science and Engineering (AI & ML) at the School of Engineering, Dayananda Sagar University. She completed her B.E. in Computer Science and Engineering and M.E. in Data Science from the Avinashilingam Institute for Home Science and Higher Education for Women in 2021 and 2023, respectively. She has over nine months of teaching experience and 10 months of industry experience. Previously, she held academic positions at Bannari Amman Institute of Technology. In addition to her academic roles, she has undertaken various administrative responsibilities, including serving as the Industrial Collaborations Coordinator, CoE and Internship Coordinator, BoS Coordinator, and Patent Coordinator for the entire institute. During her industry experience working in Intellectual Property Rights (GOI), she provided technical and scientific assistance to the Controller of Patents and Designs by attending hearings and drafting patents. She also has experience working on the Smart Cookie Project Implementation, where she delivered over 150 presentations in colleges nationwide regarding the Smart Cookie Reward Program (AICTE). She successfully took the project live and implemented it at AICTE Headquarters in New Delhi. Her research interests lie in the fields of Deep Learning, Blockchain, and Medical Image Processing.



**Prof. Sahil Pocker**  
Assistant Professor

Prof. Sahil Pocker is currently serving as an Assistant Professor in Computer Science and Engineering (AI & ML) at the School of Engineering, Dayananda Sagar University. He completed his B.Tech. in Mechatronics and Automation Engineering from Manipal University Jaipur in 2020 and M.Tech. in Computer Science and Engineering from NIT Jamshedpur in 2023. Mr. Sahil has one year of industry experience at a cutting edge AI startup. His research interests span Natural Language Understanding, Neuromorphic Computing, Human-Computer Interaction, AI ethics and governance, Reinforcement Learning, and Neural Network Architectures.

---

# DEPARTMENT FACULTY



**Prof. Bhuvana  
Mohini T N**  
Assistant Professor

**Prof. Bhuvana Mohini T N** is currently serving as an Assistant Professor in Computer Science and Engineering (AI & ML) at the School of Engineering, Dayananda Sagar University. She completed her B.Tech. in Computer Science and Engineering from Visveswaraya Technological University and M.Tech. in Artificial Intelligence and Machine learning from the M S Ramaiah University of Applied Sciences in 2022 and 2024 respectively. She has worked as Data Analyst, Web development intern and Software engineer Intern during her internships in the Industry. Her research interests are in the field of Signals and Image processing, Computer Vision, Biomedical imaging.



---

# DEPARTMENT NON TEACHING STAFF



**Mrs. Nagaveni M**  
Office Assistant

**Mrs. Nagaveni M is currently serving as an Office Assistant in the Computer Science and Engineering (AI & ML) department at Dayananda Sagar University, Bangalore, India. She completed her B. Com and in Previously, she worked as a Receptionist at K S Institute of Technology in Raghuvanahalli, Bengaluru, and as an Office Assistant at SJB Institute of Technology in Kengeri, Bengaluru. Ms. Nagaveni has extensive experience in managing Institutional tasks, particularly in the context of engineering academics.**



**Prof. Prashanth B G**  
Lab Instructor

**Mr. Prashasth B G is currently serving as a Lab Instructor in the Computer Science and Engineering (AI & ML) department at Dayananda Sagar University, Bengaluru, Karnataka, India. He completed his B.E. in Computer Science and has obtained a Global Red Hat Certification. His areas of interest include Linux Server Administration and Cloud Computing.**



**Mrs. Vaibhavi S**  
Lab Instructor

**Mrs. Vaibhavi S is currently working as a Lab Instructor in the department of Artificial Intelligence and Machine Learning, Dayananda Sagar University, Bengaluru. She has completed her Bachelor of Computer Applications (BCA) from Vijayanagara Sri Krishnadevaraya University, Ballari. She has 3 years of working experience in an autonomous engineering institutions, Ballari. She has the subject expertise in C programming, Python programming and Unix operating systems. She has assisted the UG students in laboratory projects with plagiarism check reports using Turnitin software. She has the ability to adapt to the new situation and learn new things to teach in quick time.**

---



# DEPARTMENT NON TEACHING STAFF



Ms. Safiya Nazreen M  
Lab Instructor

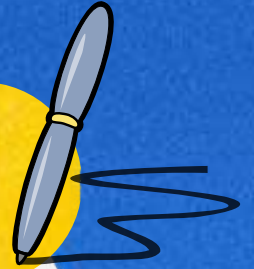
Ms. Safiya Nazreen M is currently working as a Lab Instructor in the department of CSE - Artificial Intelligence and Machine Learning, Dayananda Sagar University, Bengaluru. She has completed her Bachelor of Engineering (B.E) in Computer Science and Engineering from Anna University, Chennai. She has a strong academic background. She has the subject Python programming, Database Management Systems and Windows Operating Systems. She has a strong passion for teaching and she is keen in learning new advancements in the field of Computer Science and Engineering.



NEWS



# DEPARTMENT ARTICLES



# Shaping the Future of Healthcare Through Artificial Intelligence- 5.0

Nowadays AI research is transforming healthcare by enhancing the quality of diagnostics, treatment planning, and patient care. The Key submissions include medical image analysis, personalized treatment strategies, and predictive analytics. AI is serving in achieving higher accuracy in early disease detection, clinical decision-making and forecasting disease progression. This reduces the clinical human error and time. It also plays a growing role in automating tasks, improving robotic-assisted surgeries, and promoting patient engagement. The use of Federated machine learning can help to train AI model without seeing or touching user data.

with prompt

The above image has been generated by prompt engineering, “Create an illustration showing an ancient Indian sage sitting in meditation, representing the wisdom of AI in future healthcare. Around the sage, include labelled concepts like data-driven insights, predictive analytics, robotic surgery, and personalized care, with the Sanskrit title 'भविष्यस्वास्थ्यं बुद्ध्या' at the top and symbols like the brain and medical caduceus, all on a warm parchment-style background”

Some of Core Areas in AI & Healthcare:

- **Diagnostic Assistance:** AI helps to analyse medical images such as; X-rays, CT scans, and MRIs, enabling faster and more accurate detection of diseases like, Neuro Disorder, Diabetic, cancer and heart conditions compared to traditional methods.
- **Personalized Medicine:** Analysing patient-specific data, AI helps to design personalised treatment plans based on unique health profiles, helps to more effective and targeted therapies for better treatment.
- **Predictive Analytics:** AI frame works helps to identify high-risk associated with patients and anticipate disease progression. This also allows for early intervention and better preventive care such as, Bone density, Cancer, Seizer and heart failure predictions etc.
- **Robotics in Surgery and Rehabilitation:** AI-powered robotics assistance in complex surgical procedures, support patient rehabilitation, improving precision, safety and recovery.
- **Drug Discovery and Development:** AI accelerates the development of new drugs and vaccines by analysing extensive biological and chemical data. This significantly shortening research timelines.



# Shaping the Future of Healthcare Through Artificial Intelligence- 5.0

- Patient Engagement and Monitoring: Smart health apps and digital tools help patients manage their conditions, follow treatment plans and engage in proactive self-care.
- Task Automation and Workflow Efficiency: AI architectures tools are streamlining administrative duties, improving hospital workflows and reducing the workload for healthcare professionals.

In Short, some of the gray areas are to be considered such as; effective deployment of AI in healthcare depends on the availability of large, diverse, and high-quality datasets; however, real-world healthcare data often suffers from issues like privacy constraints, fragmentation, and inconsistency, making data quality a major challenge. To ensure safe and equitable AI integration, it's essential to address ethical and legal concerns, mitigate biases in algorithms, maintain transparency in decision-making, and promote collaboration between AI systems and healthcare professionals rather than replacing human expertise.



**Dr. Bahubali Shiragapur**  
**Professor**

# Blockchain and Healthcare: Engineering Trust in the Future of Medicine

Blockchain technology is rapidly gaining attention as a transformative tool in the healthcare sector. For engineering researchers, this domain presents exciting opportunities to apply principles of distributed systems, cryptography, and automation to some of the most pressing challenges in modern medicine. By leveraging blockchain's decentralized and tamper-proof architecture, healthcare systems can become more secure, transparent, and patient-centric.

In traditional healthcare environments, medical data is often fragmented across institutions, making it difficult to access, verify, and share securely. Blockchain offers a solution by enabling a shared, immutable ledger where patient records, diagnostic results, and treatment histories can be securely stored and accessed by authorized stakeholders. This ensures both data integrity and privacy, while also giving patients greater control over their personal health information.

Engineering applications of blockchain extend beyond data storage. Smart contracts—self-executing pieces of code on the blockchain—can automate processes such as insurance verification, hospital billing, and clinical trial management, reducing errors and increasing efficiency. In supply chain systems, blockchain enables real-time tracking of pharmaceuticals, helping to prevent counterfeit drugs and ensuring temperature-sensitive vaccines are delivered safely.

For young researchers, this is a multidisciplinary field rich with potential. It combines elements of computer science, electronics, biomedical systems, and cybersecurity. By integrating blockchain with technologies such as the Internet of Medical Things (IoMT), edge computing, and AI, future engineers can help create intelligent, scalable healthcare solutions that improve outcomes and build trust.

As the global healthcare system faces growing demands for security, efficiency, and equity, blockchain stands out as a key enabler of innovation. Exploring this domain offers a chance to contribute to high-impact solutions at the intersection of technology and human well being.



**Prof. Ankita Thakkar**  
**Assistant Professor**

# The Irreplaceable Value of Human Perspective in an AI-Driven World

*"No two people can know the sea the same way."*

Poet Mahmoud Darwish wrote these words long before artificial intelligence entered our daily work. Yet they capture a truth we need to remember now more than ever.

Professional feeds fill with identical content. AI tools generate the same proposals, insights, and posts. Everyone uses the same prompts. Everyone receives the same outputs. The unique texture of human experience disappears.

UCLA Anderson researchers Castro, Gao, and Northwestern's Martin (2023) documented this problem. They found that AI systems create a "death spiral" of sameness. When AI trains on content that AI previously generated, outputs become less diverse. Each generation grows more generic than the last.

AI offers clear benefits. It saves time. It handles routine tasks. It processes information quickly. But efficiency comes with a cost.

AI cannot capture your moment of realization when you discovered your approach was wrong. It cannot recreate the conversation that changed how you understand your field. It cannot generate the small observation that led to your breakthrough idea.

Your value lies in your specific combination of experiences. You have failed in ways no one else has failed. You have succeeded through paths no one else has taken. You have connected ideas in patterns unique to your mind.

This uniqueness matters more as content becomes more uniform. When everyone can generate polished text instantly, authentic perspective becomes rare. When everyone can produce professional documents quickly, genuine insight stands out.

The future belongs to those who use AI as a tool without losing their voice. Success requires maintaining what makes you human while gaining what makes AI powerful.

Your perspective cannot be replicated. This fact is not a limitation. It is your greatest professional asset.

*References:*

Castro, F., Gao, J., & Martin, S. (2023). *Human-AI Interactions and Societal Pitfalls*. arXiv preprint arXiv:2309.10448.

Shumailov, I., Shumaylov, Z., Zhao, Y., Gal, Y., Papernot, N., & Anderson, R. (2023). *The Curse of Recursion: Training on Generated Data Makes Models Forget*. arXiv preprint arXiv:2305.17493.



**Prof. Sahil Pocker**  
**Assistant Professor**

# Prompt Engineering: The New Skillset Every AI Student Needs

In today's fast-evolving world of Artificial Intelligence, there's a new skill that has quietly become one of the most in-demand—Prompt Engineering. As AI&ML students, we've spent time learning about models, datasets, and algorithms. But now, as tools like ChatGPT, Gemini, and Claude become more capable, it's not just about building models anymore—it's about talking to them effectively.

So, what exactly is prompt engineering?



Simply, it's the art of crafting inputs (prompts) to get the best possible responses from language models. A vague prompt gives you a vague answer. A detailed, well-structured prompt can give you an almost human-like, helpful response. It's like learning how to ask the right question in the right way—but with machines.

For students like us, this is a game changer.

Whether you're writing code, summarizing research papers, debugging an error, or brainstorming ideas for a project, a well-written prompt can save you hours. In fact, I've personally used LLMs to break down complex topics, generate boilerplate code, and even simulate interview questions—all just by refining my prompts over time.

And here's the best part: you don't need to be an expert. You learn by doing. The more you interact with models like ChatGPT, the more you understand how they "think." Start small. Try giving clear instructions. Add context. Ask the model to respond in a specific format. You'll be surprised how much better the responses become.

As AI&ML students preparing to enter the world of industry or research, prompt engineering gives us an edge. It's not about replacing human intelligence—it's about augmenting it.

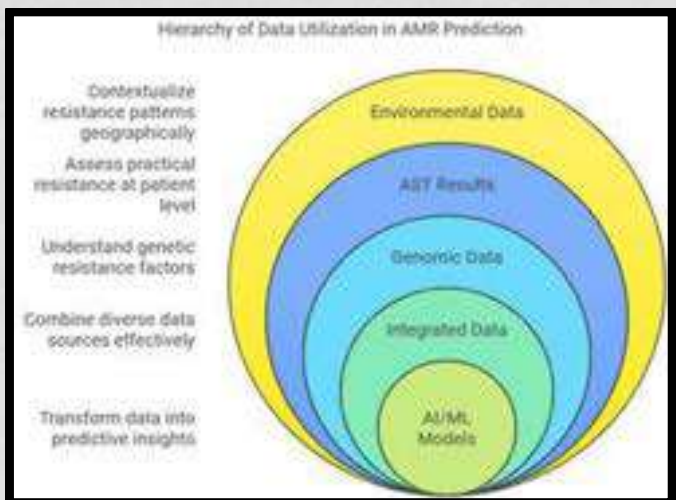
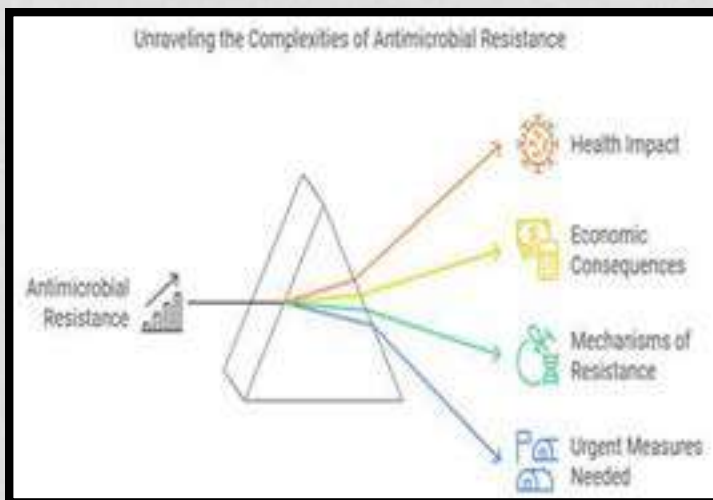
In a world where AI is becoming a daily tool, those who know how to work with it rather than just study it—will be the ones leading the next wave.



Akshat Agarwal  
ENG22AM0072 (AIML-7B)

# AI-Driven Predictive Modeling in Antimicrobial Resistance: Addressing Challenges and Exploring Future Pathways

Artificial Intelligence and Machine Learning (AI and ML) technologies facilitate the prediction and management of Antimicrobial Resistance (AMR), an issue of dire concern in contemporary medicine. Defeating global healthcare barriers through the application of new technologies is only achievable when the role of barriers, such as AMR in undermining the effectiveness of antibiotics and complicating infection treatments, is mitigated. My recent work concerns the employment of AI and ML technologies to forecast AMR challenges using vast biological datasets. The project included developing predictive models for drug resistance using genomic sequences, phenotypic resistance profiles, as well as other relevant data sets. Resistance pattern recognition and decision support in the clinic was done using various techniques, including supervised models like Random Forests and Support Vector Machines, as well as deep learning models like CNNs. Of particular note, the genomic DNA-derived XGBoost model achieved a 92.7% accuracy in predicting resistance in *Neisseria gonorrhoeae*.



Such research illustrates the transformative opportunities AI and ML offer to AMR surveillance, enabling the focused and real-time insight into clinical drug development, as well as remotely reporting clinical data in real-time. This work raises concerns of low-grade data quality, generalizability of the constructed model, and compliance to set research ethics, proposing possible remedies like the use of federated learning, interdisciplinary approaches, and collaborative cross-disciplines. The work highlights the call for innovation and policy in the intersection of AI, ML, and medicine, and the need for concrete public health and bioinformatics-responsive movements driven by data.



**AJEEB SAGAR**  
**USN: ENG22AM0071(AIML -7B)**

## Predicting Flu Trends with Deep Learning: A Step Towards Smarter Public Health

Influenza-like illnesses (ILI) remain a persistent public-health threat, burdening healthcare systems and economies alike; therefore, precise forecasts are essential for effective control measures and resource planning. Researchers at our institution have applied a Bidirectional Long Short-Term Memory (BiLSTM) deep-learning architecture to ILI surveillance data and found it yields remarkably accurate short-term predictions. The primary objective was to estimate the weekly percentage of clinical ILI cases using only retrospective surveillance records. Preprocessing involved removing anomalous outliers, generating lagged inputs to reflect past incidence, and calculating rolling averages that smoothed noisy weekly counts. The final BiLSTM design comprised two stacked layers of 128 and 64 memory cells, employed ReLU activations, L2 weight penalties, and dropout noise to mitigate overfitting; optimal hyperparameter sets were identified through a systematic Keras-Tuner search. Performance metrics included a mean absolute error (MAE) of 0.077, a mean squared error (MSE) of 0.029, and an R<sup>2</sup> statistic of 0.9743, demonstrating the architecture's capacity to learn both seasonal cadence and time-dependent correlations in the input series. Side-by-side plots of model outputs and ground truth further illustrated that predicted surge and decline phases closely followed observed weekly peaks, indicating promising readiness for deployment in early-warning systems.

The research highlights deep learning's promise in public-health forecasting, allowing authorities to prepare for seasonal outbreaks and to direct interventions, like targeted vaccination campaigns, toward areas with higher predicted rates of influenza-like illness (ILI). Ongoing work will merge supplementary data-weather trends, vaccination coverage, and population mobility to strengthen model reliability; test ensemble designs that fuse deep-learning algorithms with conventional machine-learning methods; and use transfer learning to recalibrate the models for diverse geographic regions. Collectively, the study illustrates that cutting-edge AI tools can underpin evidence-based decisions in public health, boosting flu surveillance and, ultimately, the readiness of healthcare systems.



**GAURAV KUMAVAT**

**USN:ENG22AM0092(AIML-7B)**

# Artificial Intelligence and Bias: Challenges, Implications, and Remedies

This research paper by Alfonso Min investigates the multifaceted issue of algorithmic bias in artificial intelligence (AI) systems and explores its profound ethical and human rights implications. The study employs a comprehensive multidisciplinary approach, drawing from literature reviews, case studies, and ethical analyses to examine AI bias, its causes, and potential remedies with particular focus on impacts to marginalized communities.

The research identifies that AI bias manifests across multiple critical domains including hiring processes, lending decisions, criminal justice systems, and healthcare applications.

The primary sources of bias include: -

“Biased training data” reflecting historical inequities and imbalanced datasets

“Poor algorithm design” lacking fairness-aware constraints and considerations

“Limited diversity” in development teams and stakeholder representation

“Lack of transparency” in decision-making processes and algorithmic operations

Disproportionate Impact on Marginalized Communities.

The study reveals that vulnerable populations bear the most significant burden from biased AI systems: - “Racial minorities” face systematic discrimination in criminal justice risk assessments and healthcare diagnostics .

“Women and gender-diverse individuals” encounter barriers in hiring algorithms and career advancement systems.

“Socioeconomically disadvantaged groups” experience reduced access to financial services and opportunities.

“Elderly and disabled populations” receive suboptimal care due to age and ability bias in AI systems.

**Real-World Case Studies** The paper presents compelling evidence through three major case studies:

“Amazon's Gender-Biased Recruitment Algorithm”: The system systematically discriminated against female candidates by learning from historical data.



**POORVIK B S**

**USN: ENG23AM0053 (AIML-5C)**

# Artificial Intelligence: A Silent Revolution in the Modern World

Artificial Intelligence (AI) is one of the most impactful innovations of our time. Once seen as a futuristic idea, it now plays a central role in our daily lives—often without us even noticing.

At its core, AI refers to machines that can mimic human intelligence, such as learning from experience, understanding language, and making decisions. Common examples include voice assistants, recommendation systems on streaming platforms, and smart cameras. But beyond convenience, AI is making significant contributions in fields like healthcare, where it helps diagnose diseases and analyze complex data with speed and accuracy.

AI is also transforming education, finance, and agriculture—making systems more efficient, personalized, and predictive. However, as its influence grows, so do the concerns. Issues such as job automation, data privacy, and ethical transparency need serious attention. As machines take over repetitive tasks, humans must adapt by focusing on creativity, emotional intelligence, and critical thinking.

The real challenge lies in ensuring that AI is used responsibly. It's not just about building smarter systems, but about aligning them with human values and ethics. With the right approach, AI can be a powerful partner rather than a threat.

In conclusion, AI is not just shaping the future—it's already shaping the present. As students and future professionals, it is important to understand how this technology works, what it can do, and how we can contribute to its ethical and meaningful use.



**PRACHI PATEL**

**USN: ENG23AM0054 (AIML-5C)**

# When Machines Dream: The Unseen Frontier of Artificial Imagination

Artificial Intelligence has long been associated with logic, precision, and data. But a new and lesser-explored frontier is emerging: Artificial Imagination – the ability of machines to not just analyze, but create, invent, and envision.

Generative models like GANs (Generative Adversarial Networks) are already capable of creating hyper-realistic images, designing fashion, and producing music. But researchers are now asking bolder questions: Can machines “dream” possibilities? Can they generate original ideas or simulate curiosity?

Recent advances in reinforcement learning show AI agents acting not just for external rewards, but for intrinsic motivation – exploring for the sake of learning, much like humans. Some neural networks have even been trained to perform thought experiments and hypothesize outcomes they haven’t directly experienced.

This pushes AI from being purely reactive to becoming imaginative – a shift that challenges our notions of creativity, authorship, and ethics. If an AI writes a novel or paints a picture, who owns it? More importantly, what responsibilities come with creating machines that can mimic human thought?

As students of AI and ML, we are not just writing code – we are shaping the edge of digital consciousness. The future won’t just be about intelligent systems solving problems, but about creative machines reframing them.

In a world where machines may one day “dream,” our role is no longer just technical – it’s philosophical, ethical, and deeply human.

And the journey has just begun.



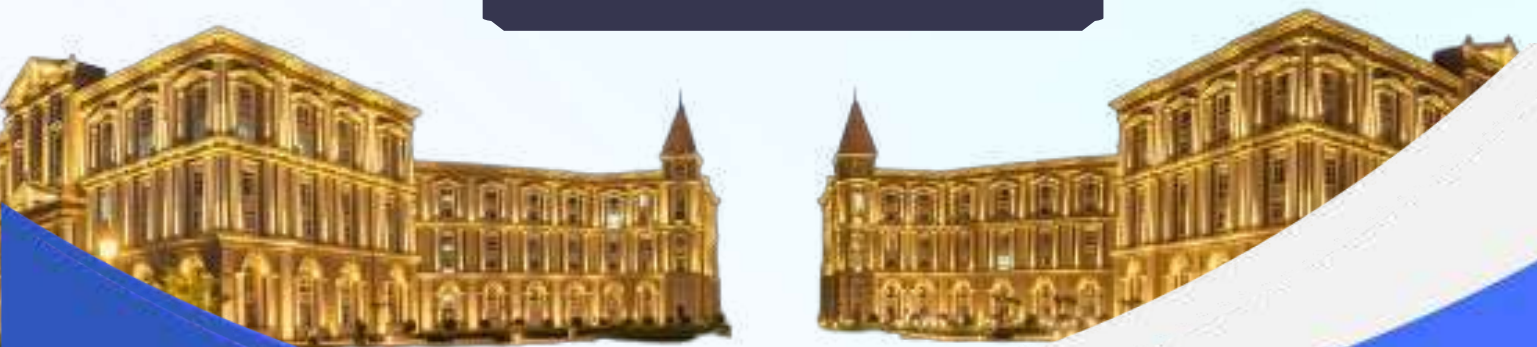
**MANYASHREE D**

**USN: ENG23AM0043 (AIML-5B)**



DAYANANDA SAGAR  
UNIVERSITY , SCHOOL OF  
ENGINEERING DEPARTMENT OF  
CSE (AI & ML)

# DEPARTMENT ACTIVITIES



# International Rover Challenge (IRC)

## 2025 -Team Trixanth

The International Rover Challenge (IRC) is one of the most prestigious competitions in the field of space robotics, drawing teams from educational institutions worldwide to showcase their expertise and innovative solutions in rover technology organized by Space Robotics Society from January 28 to February 2, 2025. Birla Institute of Technology and Science (BITS), Pilani hosted the IRC Finals 2025, where top teams competed in challenging space exploration simulations.

Out of 100 initial registrations from various esteemed institutions, only the top 25 teams were selected to participate in the finals. We are proud to report that our student team, Trixanth, earned a place among these top 25 finalists, marking a significant achievement for the institution. Our student team, Trixanth, represented Dayananda Sagar University at the IRC 2025 Finals and demonstrated exceptional skill, innovation, and teamwork throughout the event. The team tackled complex challenges involving navigation, autonomous operations, and communication tasks in simulated Martian terrain. Their participation highlighted their technical proficiency and commitment to excellence in space robotics. Although the official rankings are still awaited, the team exhibited a remarkable performance and embodied the spirit of innovation and teamwork. They successfully executed various technical challenges despite fierce competition from teams across the globe. The event provided invaluable exposure and served as a platform for them to demonstrate their project development and execution capabilities. This experience enhanced their understanding of rover mechanics and autonomous navigation systems, strengthened teamwork and technical communication under competitive pressure, and offered exposure to international best practices and the latest advancements in space robotics.

### **Faculty mentors:**

Prof. Gopal Joshi Sharma (CSST), Prof. Jayavrinda Vrindavanam, Professor, Dept. of CSE(AI&ML), Prof. Bahubali Shiragapur, Professor, Dept. of CSE(AI&ML), Prof. Pradeep Kumar K, Assistant Professor, Dept. of CSE(AI&ML)

### **Faculty Participants:**

- 1.Dr. Joshuva Arockia Dhandraj, Associate Professor, Dept. of CSE(AI&ML)
- 2.Prof Nivetha R, Assistant Professor, Dept. of CSE(AI&ML)

# International Rover Challenge (IRC) 2025 -Team Trixanth

## Student List :

| Sl. No | Student Name      | USN         | Department    |
|--------|-------------------|-------------|---------------|
| 1      | Utpal Kumar       | ENG22AMO139 | CSE (AI & ML) |
| 2      | Deekshitha M      | ENG22AMOO10 | CSE (AI & ML) |
| 3      | R Sujay           | ENG22AMO122 | CSE (AI & ML) |
| 4      | Akshat Agarwal    | ENG22AMOO72 | CSE (AI & ML) |
| 5      | Pushkar Pallav    | ENG22AMO187 | CSE (AI & ML) |
| 6      | K Vamsi Krishna   | ENG22AMO102 | CSE (AI & ML) |
| 7      | Renuka Anil Sutar | ENG22EC0092 | ECE           |
| 8      | Rohan Susarla     | ENG22EC0093 | ECE           |
| 9      | Rohan Jaiswal     | ENG22CS0578 | CSE           |
| 10     | Mithun P          | ENG22AS0034 | AS            |
| 11     | Tarita Shetty     | ENG23AS1003 | AS            |
| 12     | Yogesh V          | ENG23AS1002 | AS            |



# International Rover Challenge (IRC) 2025 -Team Trixanth



# An Expert talk on “Implementing Sustainable Development Goals”

On February 18, 2025, the Department of CSE (AI & ML) at Dayananda Sagar University organized an insightful event titled “Implementing Sustainable Development Goals”. The session aimed to address global challenges like poverty, inequality, health, education, environmental sustainability, and economic growth.

Ms. S.V.K.R. Rajeswari led the session, engaging both in-person and online audiences. She provided an in-depth understanding of SDGs, their significance, and the necessary actions to achieve them. The session emphasized the role of academicians in contributing to SDGs and showcased senior students' projects aligning with sustainable goals in various fields like healthcare, automobile technologies, space applications, and sports analytics. Faculty and students were also guided on incorporating SDG-related keywords in research papers.

Key challenges such as funding, lack of awareness, and resistance to change were discussed, along with DSU's solutions, including research grants, awareness campaigns, and policy incentives. The session concluded with a call for interdisciplinary collaboration, continuous research, and innovation to drive sustainable development by 2030. Participants were encouraged to align their academic and professional efforts with SDGs for a sustainable future.



# An Expert talk on “Implementing Sustainable Development Goals”



# National Service Scheme “Anti-Ragging Awareness Activity”

On February 20, 2025, The Anti-Ragging Awareness Activity was conducted by the CSE (AI & ML) Department at Dayananda Sagar University. The event, chaired by Dr. Jayavrinda Vrindavanam V and coordinated by Dr. Shreyas Rajendra Hole, aimed to educate students on the harmful effects of ragging and promote a safe, inclusive campus culture.

The program began with a welcome address by Dr. Shreyas Rajendra Hole, who introduced NSS and the significance of anti-ragging awareness. The first activity was an open-place skit titled "The Right Action," performed by students, portraying real-life scenarios where seniors and faculty intervened to foster a respectful and ethical environment. The skit effectively highlighted the importance of mutual respect and the role of authority in preventing ragging.

Following this, an Anti-Ragging Awareness Presentation was conducted in classrooms, featuring PowerPoint slides and posters explaining anti-ragging laws, university policies, and consequences for violators. The interactive session encouraged student participation, discussions, and real-life scenario analysis.

The event concluded with an Anti-Ragging Pledge, reinforcing students' commitment to a ragging-free campus. The initiative successfully raised awareness, promoted ethical behavior, and strengthened student-faculty collaboration to ensure a safe and inclusive academic environment.

Faculty Coordinator: **Dr Shreyas Rajendra Hole**, Assisant Professor Dept of AI&ML



# National Service Scheme “Anti-Ragging Awareness Activity”



# Workshop on “PyLIB” by AI works@DSU

The PyLIB Workshop was successfully conducted by the Department of CSE (AI&ML), Dayananda Sagar University (DSU), on 28th February, 2025, attracting over 270 participants eager to enhance their Python skills. The workshop provided hands-on experience with essential Python libraries—NumPy, Pandas, and Matplotlib—focusing on data analysis, scientific computing, and visualization. A highlight of the event was the implementation of a mini-JARVIS project, showcasing AI applications in real-world scenarios.

The event commenced with insightful talks from faculty members, emphasizing the significance of strong fundamental knowledge for career readiness. The technical sessions, led by a student facilitator, covered key Python concepts, including numerical computing with NumPy, data manipulation with Pandas, and data visualization using Matplotlib. The afternoon session featured the JARVIS project, integrating speech recognition, text-to-speech, and OpenAI APIs to create a voice assistant.



Participants gained practical experience, enhanced problem-solving skills, and developed confidence in AI applications. The workshop fostered collaboration and peer learning, with industry experts providing valuable insights into real-world applications. Positive feedback highlighted the engaging and well-structured format, with students suggesting extended hands-on sessions in future workshops.

Overall, the PyLIB Workshop successfully empowered students with technical expertise, demonstrating the practical impact of Python in AI and data science. The event's success encourages future sessions on advanced Python topics and AI applications.

## Faculty Coordinators:

**Dr. VEGI FERNANDO A**, Associate Professor, Department of CSE (AI & ML).

**Prof. PRADEEP KUMAR K**, Assistant Professor, Department of CSE (AI & ML).

# Workshop on “PyLIB” by AI works@DSU



# AI Innovation Day Bhasha Bandhu Hackathon

On February 25th, 2025, AI Innovation Day Bhasha Bandhu Hackathon, hosted by the Department of CSE (AI&ML), Dayananda Sagar University (DSU) in collaboration with Bhashini and Microsoft, aimed to address India's linguistic digital divide through AI-driven solutions. The event saw 170+ participants, including students and professionals, working on real-world legal accessibility challenges using Bhashini's AI models and Microsoft's technologies.

Bhashini, a MeitY initiative, focuses on AI-powered language translation and digital accessibility. The hackathon provided a platform for participants to develop solutions around legal literacy, mediation awareness, and digital legal accessibility in regional languages. Industry experts, including Lingaraj Benni (NTT DATA) and Prathap Reddy Chenchappagari (Eviden), mentored participants, offering insights into Bhashini APIs, OpenAI, and Microsoft Azure AI.

The event followed a structured flow: an inauguration, mentor sessions, followed by team-based ideation, development, and pitching. Due to time constraints, submissions were evaluated remotely, and results will be announced in the Bhasha Bandhu app. Selected teams will advance to Round 2 at Microsoft's office in March 2025, competing for ₹1 lakh (first prize) and ₹50,000 (second prize) per domain.

Key highlights included enthusiastic participation, mentorship from industry leaders, and hands-on AI experience. The creativity and problem-solving skills of DSU students impressed mentors, though participants suggested more direct presentation opportunities. The hackathon reinforced DSU's reputation as a tech innovation hub, fostering industry collaborations and encouraging students to engage in AI research.

With its success and impact on AI-driven linguistic accessibility, the hackathon sets the stage for future events, mentorship programs, and broader regional outreach, ensuring continued advancements in AI-powered digital inclusion.

## Faculty coordinators:

**DR. VINUTHA N**, Associate Professor, Dept. of CSE (AI & ML)

**PROF. PRADEEP KUMAR K**, Assistant Professor, Dept. of CSE (AI & ML)



# AI Innovation Day Bhasha Bandhu Hackathon Collaboration with Microsoft



# AIML - Cultural Events (Dance Competition)

On 27/02/2025, the Department of CSE (AI&ML) organized a captivating event titled “Celebrating Creativity: Elevating Spirits through Cultural Dance Competition.” The aim of this event was to showcase the vibrancy of cultural dance forms while fostering creativity and community spirit among participants.

The dance event was a mesmerizing celebration of artistic expression, showcasing classical, folk, and contemporary styles. Students captivated the audience with their talent, passion, and dedication, blending tradition with creativity. Performances ranged from Bharatanatyam and Kathak to lively folk dances like Bhangra and Garba, fostering cultural unity and joy.

Faculty and staff played a crucial role, providing unwavering support and encouragement. The event not only highlighted students' artistic abilities but also promoted personal growth, teamwork, and cultural appreciation. It served as a platform for participants to embrace their heritage while balancing academics and creativity.

The competition concluded on an uplifting note, recognizing the talent and effort of every performer. Though one emerged as the winner, each participant left a lasting impact. The Department extends heartfelt gratitude to faculty, organizers, and students for their contributions, making the event a grand success.

## Faculty coordinators:

**1.Prof.R.Rakshitha, Assistant Professor, Dept. of CSE (AI & ML)**

**2.PROF. S.V.K.R.Rajeswari , Assistant Professor, Dept. of CSE (AI & ML)**



# AIML - Cultural Events (Dance Competition)



# Outreach Activity at AAShraya Seva Trust

On March 4, 2025, third-semester students from Department of CSE (AI&ML), Dayananda Sagar University (DSU), participated in an Outreach Activity at AAShraya Seva Trust, an old age home. The visit aimed to bring joy to the elderly and instill social responsibility in students. The students gathered at SOE Block A, DSU, at 9:20 AM, where the Chairperson extended her best wishes. Under the guidance of Dr. Shreyas Rajendra Hole, they departed at 10:00 AM and reached the old age home by 11:00 AM. The event, coordinated by student leader Shiksha & Student coordinator Manyashree began with introductions. Students engaged the elderly with interactive activities, including Dumb Charades, Antakshari, and dance performances. The residents enthusiastically participated, creating a lively atmosphere. The celebration continued with cake-cutting, serving snacks, and heartfelt conversations. Many students were emotionally moved by the residents' stories.

Before departing, students gifted a sapling as a symbol of growth and remembrance. In return, the elderly shared valuable life lessons, emphasizing respect for parents and the joy of helping others. The visit concluded at 1:30 PM, leaving students with a deep sense of empathy and gratitude. This outreach activity was a memorable and impactful experience for both students and residents.

## **Faculty Coordinator:**

Dr. Shreyas Rajendra Hole, Assistant Professor, Department of CSE (AI & ML)



# Outreach Activity at AAShraya Seva Trust



# Industrial visit to Vaidyuthi Mobility

The Department of CSE (AI & ML) at Dayananda Sagar University is organized an industrial visit to Vaidyuthi Mobility (VM) on March 6 and 7, 2025, for VI Semester students. This visit aims to provide firsthand exposure to cutting-edge advancements in electric vehicle (EV) technology and AI integration in the automotive sector. Approximately 60 students will participate each day, with transportation arranged via university buses.

The visit will allow students to observe innovative EV technologies such as dual motor drive trains, air suspension, and torque-on-demand. VM's unique "Zero Welding, Zero Painting, Zero Wiring, Zero Wastage, and Zero Manpower" approach will highlight sustainable manufacturing practices. The event features a special session by Mr. Hari Vasudevan, Co-Founder & CTO of Vaidyuthi Mobility, who will discuss AI applications in electric mobility and future industry trends.

This initiative benefits students by bridging theoretical learning with real-world applications, while faculty gain valuable industry insights to enhance teaching. The visit strengthens university-industry collaboration, fostering research opportunities and innovation. By witnessing the latest AI-driven advancements in EVs, students will be inspired to contribute to the future of sustainable transportation and intelligent mobility.

## Faculty Coordinator:

Dr. Shreyas Rajendra Hole, Assistant Professor, Department of CSE (AI & ML).



# Industrial visit to Vaidyuthi Mobility



# FACULTY TRAINING: LARGE LANGUAGE MODELS (LLMs) “SOFTWARE ENGINEERING USING LLMS – DEVELOPING A FORECASTING SOLUTION”

The Faculty Training: Large Language Models (LLMs) was successfully conducted by the Department of CSE (AI&ML) in collaboration with Center for Research and Innovation in AI (CRIA) and the School of Computer Applications, on 12th March, 2025, the event "Software Engineering Using LLMs – Developing a Forecasting Solution", conducted by the resource person Dr. J. B. Simha, CTO of Abiba Systems, Bengaluru, explored the role of Large Language Models (LLMs) in software engineering, particularly in predictive analytics. The session covered how LLMs enhance automation, improve forecasting accuracy, and optimize decision-making.

**Dr. Jayavrinda Vrindavanam**, Chairperson, Dept. of CSE (AI&ML), **Dr. Udaya Kumar Reddy**, Dean, SOE, and **Dr. Sentil**, Dean, the School of Computer Applications, emphasized the significance of LLMs in modern AI applications. Dr. J. B. Simha, explained the architecture of LLMs, data representation methods, learning techniques (supervised, unsupervised, iterative), and reasoning approaches (probabilistic, approximate). He also discussed ARIMA and Fuzzy Time Series for forecasting.

A hands-on session introduced participants to Shiny, an R-based framework for interactive data visualization, demonstrating its application in forecasting dashboards. The workshop fostered discussions on real-world AI-driven forecasting applications and ethical challenges in LLM usage. The event concluded with a vote of thanks by Dr. Vinutha, appreciating the expert insights and active participation.



# FACULTY TRAINING: LARGE LANGUAGE MODELS (LLMs) “SOFTWARE ENGINEERING USING LLMS – DEVELOPING A FORECASTING SOLUTION”



# AIML- Chess Tournament

On 11/3/2025, The Department of CSE(AI&ML) successfully organized a chess tournament within the department. Students came together to play chess, show their skills, and enjoy friendly competition with their peers.

The interdepartmental chess tournament, held in A508, SOE, DSU, was a great success, featuring 23 participants from the 4th and 6th semesters. The event aimed to provide students with an opportunity to showcase their chess skills, foster friendly competition, and build connections while taking a break from academics.

## Format & Rules:

- Over The Board (OTB) Swiss Style with 5 rounds
- 3-way tiebreak for Rank 1, making the final matches particularly exciting
- Time control: 10+2 for Swiss rounds, 5+2 for tiebreakers

## Highlights:

The tiebreaker rounds were intense and showcased impressive chess talent among students. The tournament successfully encouraged strategic thinking while providing an enjoyable and competitive atmosphere.

We extend our gratitude to all participants, organizers, and supporters for making this event a memorable success

## Winners:

First Place: Pritam Wani (ENG23AMO262)

Second Place: Sangagond Dnyaneshwar (ENG22AMOO54)

Third Place: Thenesh RGS Marriboyina (ENG22AMO196)



Fig.1 - First Place

# AIML - Sports Activities (Chess Tournament)



Fig.2 - Second Place



Fig.3 - Third Place

# Women's day celebration at AIML department

On March 8th, 2025, the Department of CSE (AI & ML) at Dayananda Sagar University celebrated International Women's Day. The event featured an inspiring speech by Chairperson Dr. Jayavrinda Vrindavanm, highlighting the significance of women's contributions in various fields. Faculty members also shared their perspectives, emphasizing empowerment, inclusivity, and gender equality. The celebration recognized the achievements of women in technology and academia, fostering a spirit of encouragement and support among faculty.



# Technical Talk on “Machine Learning-Based Segmentation in Cone Beam Tomographic Imaging”

Dr. Mikhail N Rychagov from the National Research University of Electronic Technology (MIET), Moscow, visited Dayananda Sagar University's Department of CSE (AI & ML) on March 24, 2025, to foster international academic collaboration. As part of his visit, he delivered a technical seminar on "Machine Learning-Based Segmentation in Cone Beam Tomographic Imaging" to 6th-semester B.Tech CSE (AI & ML) students.

His talk focused on 2D and 3D machine learning-based segmentation techniques in cone beam computed tomography (CBCT). He discussed his research on segmenting teeth and bones using advanced computer vision algorithms, addressing key challenges such as noise reduction, anatomical landmark detection, and accurate boundary delineation in volumetric medical data.

Dr. Rychagov also provided insights into deep learning model design and training for medical image segmentation, covering performance metrics, dataset considerations, and clinical applications. He highlighted the relevance of ML-based CBCT segmentation in dental diagnostics, surgical planning, and anatomical modeling, demonstrating its real-world impact in the medical field.

## Faculty Coordinators:

Dr. Abdul Haq Nalband, Associate Professor, Dept of CSE (AI & ML)

Dr. Sugandha Saxena, Assistant Professor, Dept of CSE (AI & ML)

The poster is for a technical talk titled "Machine Learning Based Segmentation in Cone Beam Tomographic Imaging" by Prof. Mikhail N. Rychagov, Dr.Sc. It is organized by the School of Engineering, Department of Computer Science and Engineering (Artificial Intelligence and Machine Learning) at Dayananda Sagar University. The event is scheduled for March 24, 2025, at 11 am onwards in Block LH-02. The poster lists several conveners and coordinators, including Dr. D. Premchandra Sagar, Dr. Amit Shett, Dr. Pattamedappa C, Dr. Udaya Kumar Reddy, Dr. Ramesh R Galigekere, Dr. Kousalya Govardhanan, and Dr. Jayarinda Vridheyanam V. It also features a portrait of Prof. Rychagov and logos of the university and department.

**DAYANANDA SAGAR UNIVERSITY**  
Harohalli, Kanakapura Road, Bangalore South-562112

**SCHOOL OF ENGINEERING**  
**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**  
(ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING)

**MACHINE LEARNING  
BASED SEGMENTATION IN  
CONE BEAM TOMOGRAPHIC IMAGING**

**Prof. MIKHAIL N. RYCHAGOV , Dr.Sc**  
Institute of Systems & Software Engineering and Information Technology  
National Research University of Electronic  
Technology (MIET), Moscow

**CONVENERS:**

- Dr. D.Premchandra Sagar  
Chairman, SOE
- Dr. D.Premchandra Sagar  
Prin-Chancellor, DSU
- Dr. Amit Shett  
Vice-Chancellor in Charge, SOE
- Dr. Pattamedappa C  
Registrar, DSU
- Dr. Udaya Kumar Reddy  
Dean, SOE, DSU
- Dr. Ramesh R Galigekere  
Coordinator, Science & Technology
- Dr. Kousalya Govardhanan  
Dean, R&D
- Dr. Jayarinda Vridheyanam V  
Professor & Chairperson CSE (AI & ML), DSU

**Date**  
24 th March 2025

**Venue**  
SOE A-BLOCK LH-02

**Time**  
11 am Onwards

**COORDINATORS:**

- Dr. ABDUL HAQ NALBAND  
Associate Professor CSE (AI&ML) Dept.
- Dr. SUGANDHA SAXENA  
Assistant Professor CSE (AI&ML) Dept.

# Technical Talk on “Machine Learning-Based Segmentation in Cone Beam Tomographic Imaging”



# 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, convener, 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.

## Faculty Coordinators:

**Dr.Mude Nagarjuna Naik**

Assistant Professor, Dept of CSE (AI & ML)

**Ms.Sumeha Noor**

Assistant Professor, Dept of CSE (AI & ML)

**DAYANANDA SAGAR UNIVERSITY**  
Benevolence, Knowledge, Service, Leadership, Innovation, Excellence

**SCHOOL OF ENGINEERING**  
DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING  
(ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING)

GUEST LECTURE ON:

**“LEVERAGING THE POWER OF AI WITH INNOVATIVE APPLICATIONS”**

Resource person : Dr. Safak Dogan  
Loughborough University London, U.K.

**Targeted Audience:**  
4th Semester AIML

**CHIEF PATRONS:**

- Dr. D. Hemachandra Sagar  
Chancellor, DSU
- Dr. D. Premachandra Sagar  
Pro-Chancellor, DSU

**PATRONS:**

- Dr. Ansh Shrivastava  
Vice-Chancellor, DSU
- Dr. Puttamadappa C.  
Registrar, DSU
- Dr. Udaya Kumar Reddy  
Dean, SOE, DSU
- Ms. Supriya Mathew  
Vice President, International Affairs
- Dr. Kousalya Gowdhanam  
Dean (PAC)

**CONVENER:**

- Dr. Jayavrinda Vrindavanam V  
Professor & Chairperson CSE (AI & ML), DSU

**STAFF COORDINATORS**

- Dr. Mude Nagarjuna Naik  
Assistant Professor, CSE(AI & ML)
- Ms. Sumeha Noor  
Manager, International Relations, DSU

**STUDENT COORDINATORS**

- Bishakh B Sengupta, ENG23A00079
- Vandana Kumari Meena, ENG23A00099
- 4th sem. D-Section, TTR(A & ML)

**04th April, 2025**  
**12.30 PM to 1.30 PM**  
**SOE, LH 1**

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



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



# 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.

## FACULTY COORDINATOR:

PROF. SUBHASH MONDAL,  
FACULTY ADVISOR OF CIS & RAS SBC. DSU

The poster is for 'THE ULTIMATE ROBOTICS AND AUTOMATION QUIZ' held at Dayananda Sagar University, School of Engineering, IEEE Robotics & Automation Society. It is in association with the IEEE Computational Intelligence Society (CIS), DSU. The event took place on Monday, 7 April 2025, at 10:30 AM in Lecture Hall 3. The poster features a central illustration of two people at a podium with speech bubbles labeled 'AUTOMATION', 'INNOVATION', and 'INTELLIGENCE'. It lists the prizes for winners and certificates for all participants. A QR code is provided for registration, with a fee of ₹80 per team. The poster also lists the faculty coordinator, Prof. Subhash Mondal, and the student coordinators, K Siddharth, Nitesh Sarkar, and Aradhana C.

**DAYANANDA SAGAR UNIVERSITY**  
**SCHOOL OF ENGINEERING**  
**IEEE ROBOTICS & AUTOMATION SOCIETY**

**THE ULTIMATE ROBOTICS AND AUTOMATION QUIZ**

**IN ASSOCIATION WITH**  
**IEEE COMPUTATIONAL INTELLIGENCE SOCIETY (CIS), DSU**

**PRIZES FOR THE WINNERS**  
**CERTIFICATES FOR ALL PARTICIPANTS**

**MONDAY, 7 APRIL 2025 | 10:30AM @LECTURE HALL : 3**

**ORGANIZING SOCIETIES**  
DR. D. BHACHANDRA SAGAR, CHANCELLOR, DSU  
DR. G. PREMAKUMAR, PRO-CHANCELLOR, DSU

**PROFESSORS**  
DR. ANIL BHATT, VICE CHANCELLOR, DSU  
PROF. K. JAGADISH, PRO-VICE CHANCELLOR  
DR. PUTTASWAMY C. ROOSTAKI, DSU  
DR. USATA KUMAR REDDY, DEAN, SOE, DSU  
DR. KOUSALYA GOVARDHAN DEAN (DSU)

**FACULTY COORDINATOR**  
PROF. SUBHASH MONDAL, FACULTY ADVISOR OF CIS & RAS SBC, DSU

**STUDENT COORDINATORS**  
K SIDDHARTH : 8003550497  
NITESH SARKAR : 9742480484  
ARADHANA C : 7849045250

**PER TEAM : ₹ 80**

# The Ultimate Robotics & Automation Quiz, Ideathon



# 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 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.

Faculty Coordinators: Prof. Ankita Thakkar - Assistant Professor (AIML)  
Prof. Trupthi Rao - Assistant Professor (AIML)



# Career guidance talk “Advance your career with John Hopkins MS/MBA Programs”



# Project Expo CSE(AI&ML) “TECH PARK 2.0”

TECH SPARK 2.0, held on April 26, 2025 in department of CSE(AI&ML), at Dayananda Sagar University, commenced with a warm welcome by student emcees, who introduced the event's significance. Dr. Jayavrinda Vrindavanam, Chairperson of the AI & ML Department, welcomed the Chief Guest and Guest of Honor, and addressed the gathering. She spoke about key technological advancements in solving real-world problems. Emphasizing the importance of interdisciplinary learning and innovation, she motivated students to actively participate, setting an inspiring tone for the event.

At TECH SPARK 2.0, distinguished guests were honoured in a felicitation ceremony, recognizing their valuable contributions and inspiring presence. The department expressed sincere gratitude for their support in making the event a success. Following the felicitation, students proceeded to their designated blocks for project presentations in three different domains – Large Language Models, Healthcare, Deep Learning and Computer Vision. The students showcased their technical knowledge, creativity, and problem-solving abilities. These presentations formed a core part of TECH SPARK 2.0, offering students a valuable opportunity to share their innovative ideas and receive constructive feedback from guests, faculty, and peers.

Faculty Coordinator : Dr. VINUTHA N  
ASSOCIATE PROFESSOR CSE (AI & ML)



# Project Expo CSE(AI&ML) “TECH PARK 2.0”



## Winners in Large Language Models Domain

|                      |             |
|----------------------|-------------|
| Sri Bharath Sharma P | ENG22AM3005 |
| Yudhajit Jana        | ENG22AM3021 |
| Shriyans Arkal       | ENG21AM0117 |

**Enhancing Medical Diagnostics with  
Vision-Language Models**

|                    |             |
|--------------------|-------------|
| Sayli Pankaj Bande | ENG21AM0112 |
|--------------------|-------------|

**Agent Frameworks for VLM based  
Medical Diagnosis**

# Project Expo CSE(AI&ML) “TECH PARK 2.0”



## Winners in Healthcare Domain

|                    |             |
|--------------------|-------------|
| Jahn timer A       | ENG22AM0050 |
| K Nageshwari Durga | ENG21AM0053 |
| Kunjan Kumar Singh | ENG21AM0060 |
| Poornima M Nerale  | ENG21AM0085 |

Digital Display using Gen AI



# Project Expo CSE(AI&ML) “TECH PARK 2.0”

## Winners in Deep Learning and Computer Vision Domain

Shruti Nigam

ENG21AM0120

**Adaptive Machine Learning Framework  
for Environmental Monitoring**



# CSE(AI&ML) “Industry Conclave”

The Department of Computer Science and Engineering (AI&ML) hosted a curriculum review session with industry experts Mr. Santosh Rebello (Manager, MuleSoft at Salesforce) and Dr. Pradeep Desai (CEO, Thalesat Innovations Pvt. Ltd.). The session began with a warm welcome from Dr. Jayavrinda Vrindavanam (Chairperson, CSE AI&ML) and Prof. Pradeep Kumar, followed by an overview of faculty, BOS members, elective courses, and placement statistics. Dr. Udaya Kumar Reddy K R, Dean of SoE, also participated in the discussions.

Both experts appreciated the department's advanced, industry-aligned curriculum, highlighting courses like Generative AI, FinTech, and MLOps. They recommended the inclusion of Agentic AI in the sixth semester and stressed the need for continuous curriculum evolution. Mr. Santosh emphasized current industry demands and urged a stronger focus on emerging domains and integration tools like MuleSoft, AWS Bedrock, and Google BigQuery.

Key discussions covered AI advancements in Predictive, Generative, and Agentic AI, as well as Robotics. Suggestions included expanding electives and minor courses for interdisciplinary learning, adopting outcome-based education, and enhancing foundational courses through real-world applications. Faculty internships and modern teaching methods were encouraged to bridge academic-industry gaps.

Collaborative opportunities with institutions like ICMR, NIMHANS, Defence, and NVIDIA were proposed. A dedicated Career Consultancy Cell was suggested to support diverse career paths. Mr. Santosh also recommended value-added courses in Personal Development and Financial Management.

Real-world AI applications were discussed in areas like disability support, defence, legal analytics, and rural healthcare. The conclave emphasized the need for *affordable, localized, and customized* AI solutions—drawing inspiration from the Maruti 800's success. The conclave concluded by reinforcing the need for application-driven learning, interdisciplinary collaboration, and tackling wicked problems with innovative AI solutions.



# CSE(AI&ML) “Industry Conclave”



# Stress Management: Unplug the Pressure

“Stress Management: Unplug the Pressure” is a proactive student wellness initiative curated for Department of CSE (AI & ML) students of Dayananda Sagar University. The event spans across multiple sessions led by experienced psychiatrists from CDSIMER and faculty members, focusing on mental health, cognitive well-being, and behavioral discipline.

It begins with a self-realization session by Prof. S.V.K.R. Rajeswari, aiming to lay a foundation for understanding personal triggers and stress responses. The subsequent weeks include sessions on friendships and relationships, cognitive misperceptions, time management, and behavioral addictions.

By integrating psychological insights and practical tools, this event provides students with strategies to navigate academic pressure, emotional burnout, and lifestyle challenges. It reinforces DSU's commitment to nurturing not just academic excellence but emotional intelligence and well-being, thus preparing students for personal and professional success.

## Details of the Guests

1. **Prof. S.V.K.R. Rajeswari** – Assistant Professor, AI & ML, DSU
2. **Dr. Anupama** – Department of Psychiatry, CDSIMER
3. **Dr. Pooja** – Department of Psychiatry, CDSIMER
4. **Dr. Neeraj** – Department of Psychiatry, CDSIMER
5. **Dr. Gopal** – Department of Psychiatry, CDSIMER
6. **Dr. Likhith** – Department of Psychiatry, CDSIMER



# Stress Management: Unplug the Pressure



# MoU Signing Between Dayananda Sagar University and IBM India Pvt. Ltd

**Date:** 30<sup>th</sup> May 2025

**Venue:** Board Room, Dayananda Sagar University, Bengaluru

**Prepared by:** Dr. Bahubali Shiragapur, Professor, CSE-AI&ML, School of Engineering, DSU

Dayananda Sagar University (DSU) entered into a strategic academic partnership with IBM India Pvt. Ltd. through a Memorandum of Understanding (MoU) signed on 30<sup>th</sup> May 2025. The event marked a significant milestone in DSU's commitment to transforming its engineering education ecosystem through industry-integrated and future-ready learning pathways.

The ceremony was graced by the presence of senior leadership from both DSU and IBM, including the Hon'ble Vice Chancellor, Pro Vice Chancellor, Dean of Engineering, Registrar, Chairperson of AI&ML, and IBM representatives. This collaboration aims to bridge the academia-industry gap by embedding IBM's cutting-edge technologies and global best practices into DSU's engineering curriculum.

## Key Features of the MoU:

•**Curriculum Co-Design:** IBM will collaborate in designing and delivering courses in AI & ML, Cybersecurity, and Computer Science, integrating IBM tools such as Watson, SPSS, Guardium, and QRadar.

•**Certifications & Courseware:** Students and faculty will gain access to globally recognized IBM certifications and comprehensive course content.

•**Hands-On Training:** Each semester will feature training sessions conducted by IBM Subject Matter Experts to promote experiential learning.

•**Knowledge Events:** The partnership will facilitate seminars, guest lectures, hackathons, and co-branded academic programs focused on innovation and employability.

•**Global Recognition:** The MoU is expected to enhance DSU's positioning as a hub for next-generation talent aligned with international IT standards.

This partnership is a major step forward in aligning academic outcomes with industry expectations and equipping students with the skills necessary to thrive in a technology-driven future.

# MoU Signing Between Dayananda Sagar University and IBM India Pvt. Ltd



# Celebrate Environment Day: Sustainable Product Exhibition

To commemorate World Environment Day 2025 (5<sup>th</sup> June), the Department of CSE (Artificial Intelligence and Machine Learning), Dayananda Sagar University, organized a vibrant and informative event on June 5, 2025, under the theme “Celebrate Environment Day – Sustainable Innovations.”

The event featured a Sustainable Product Exhibition, where students showcased creative eco-friendly products and models that promote alternatives to single-use plastics. As part of the celebration, Prof. S.V.K.R. Rajeswari delivered an engaging awareness talk on sustainable practices, emphasizing the use of glass, steel, paper, and cardboard over plastic.



# AI&ML department Farewell day celebration for 2021-2025 batch.

"The farewell for the outgoing batch of 2021–2025 was organized on 6th June 2025. The event began with a warm welcome extended by the pre-final year students to their seniors. This was followed by a group photo session, capturing cherished moments.

The formal proceedings commenced at 9:30 AM with another heartfelt welcome to all attendees. Dr. Jayavrinda Vrindavanam, Chairperson of the Department of CSE (AI & ML), addressed the gathering by congratulating the students, reminiscing shared memories, and wishing them success in their future endeavors. Dr. Bahubali, Professor, shared insightful thoughts on the milestones and transitions in one's career journey.

The event featured a vibrant cultural program, followed by the certificate distribution ceremony recognizing notable achievements:

**Shrusti Veerabasayya Goudar** – Best Class Representative

**Sayli Bande and Ratan Ravichandran** – Outstanding Performers in Multiple Hackathons

**Anuj Dwivedi** – Exceptional Initiative in Club Formation

**Harsh Manalel** – Best Photographer

**Vinay R** – All-rounder of the Batch

**Mohith N** – Best Research Publication

**C. S. S. Krishna Kaushik** – Highest Placement

**Juvvi Sai Akshitha** – Highest CGPA

**Keshav Sairam** – Most Obedient and Disciplined Student

Later, the final-year students shared their heartfelt feedback and reflections on their academic journey. The event concluded with a gift distribution, marking a memorable send-off for the graduating batch.



# AI&ML department Farewell day celebration for 2021-2025 batch.

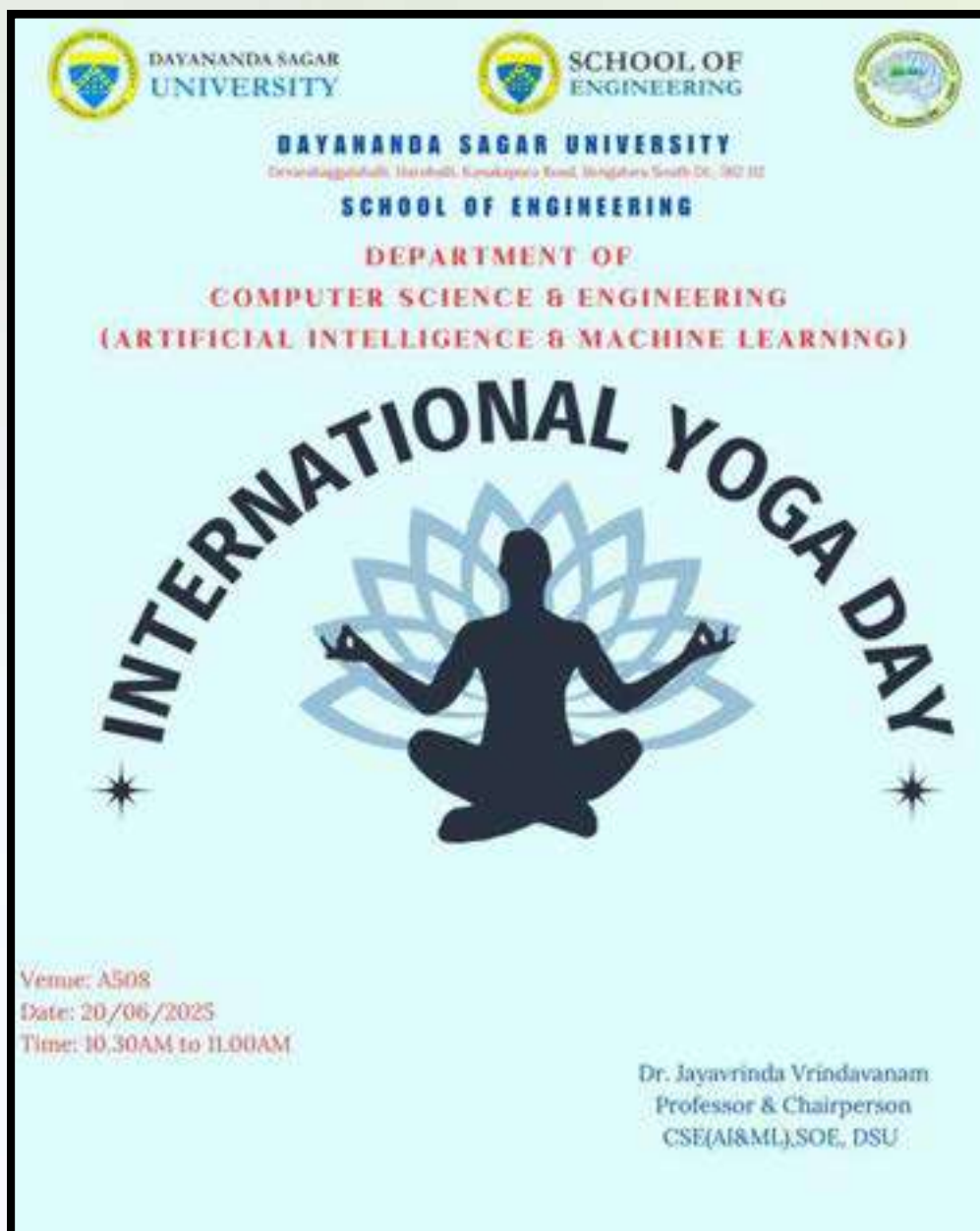


# AI&ML department Farewell day celebration for 2021-2025 batch.



# “International Yoga Day” – Dept. of CSE(AI&ML)

The Department of Computer Science and Engineering (Artificial Intelligence & Machine Learning) joyfully celebrated International Yoga Day on 20th June 2025, with enthusiastic participation from the faculty. The event focused on promoting physical, mental, and emotional well-being through the ancient practice of yoga. It commenced with an insightful introduction on the relevance of yoga in managing stress and maintaining a balanced lifestyle in today's technology-driven world. A faculty member led the session, guiding participants through a series of yoga asanas, breathing exercises, and meditation practices. The faculty members engaged actively, showcasing keen interest and positive energy throughout the session. This refreshing break from the academic routine served as a reminder of the importance of self-care and mindfulness. The department expressed heartfelt appreciation to all who contributed to the event's success. The celebration concluded with a unified pledge to incorporate yoga into daily life, promoting holistic health and inner harmony.



# “International Yoga Day” – Dept. of CSE(AI&ML)

The Department of Computer Science and Engineering (Artificial Intelligence & Machine Learning) joyfully celebrated International Yoga Day on 20th June 2025, with enthusiastic participation from the faculty. The event focused on promoting physical, mental, and emotional well-being through the ancient practice of yoga. It commenced with an insightful introduction on the relevance of yoga in managing stress and maintaining a balanced lifestyle in today's technology-driven world. A faculty member led the session, guiding participants through a series of yoga asanas, breathing exercises, and meditation practices. The faculty members engaged actively, showcasing keen interest and positive energy throughout the session. This refreshing break from the academic routine served as a reminder of the importance of self-care and mindfulness. The department expressed heartfelt appreciation to all who contributed to the event's success. The celebration concluded with a unified pledge to incorporate yoga into daily life, promoting holistic health and inner harmony.



# “International Yoga Day” – Dept. of CSE(AI&ML)



# Special Interest group (SIG) Meeting: Dept. of CSE (AI&ML)

The Special Interest Group (SIG) meetings organized by the Department of Computer Science and Engineering (Artificial Intelligence & Machine Learning), Dayananda Sagar University (DSU), were successfully conducted on 20th June 2025. These meetings were held in collaboration with esteemed faculty members from Dayananda Sagar College of Engineering (DSCE) and Dayananda Sagar Academy of Technology and Management (DSATM). The primary objective of the SIG meetings was to foster interdisciplinary collaboration and promote a unified research culture across the Dayananda Sagar Institutions (DSI).

The discussions focused on identifying common research themes, sharing institutional resources, and encouraging joint academic and research initiatives. Three prominent SIGs led the discussions: the Computational Artificial Intelligence Group, led by Professor and Chairperson Dr. Jayavrinda Vrindavanam; the Biomedical Signal and Image Processing Group, led by Professor Dr. Bahubali; and the Frontiers in Generative AI Group, led by Professor Dr. Hanumanth Sastry Sistla.

Each group presented their ongoing research, explored potential collaborative opportunities, and discussed future goals. The event created a platform for meaningful dialogue and knowledge exchange among the faculty members. It marked a significant step toward building a cohesive research ecosystem within DSI, driven by innovation, collaboration, and shared academic excellence.





DAYANANDA SAGAR  
UNIVERSITY , SCHOOL OF  
ENGINEERING DEPARTMENT OF  
CSE (AI & ML)

# STUDENTS: CERTIFICATIONS AND OTHER ACHIVEMENTS



# Youth Red Cross State Level Walk-a-thon – 2025



Our students participated enthusiastically in the **Youth Red Cross State Level Walk-a-thon – 2025**, organized by the **Indian Red Cross Society, Karnataka State Branch, Bengaluru**. The Valedictory Programme, held on **12th March 2025** at **Sri Kanteerava Outdoor Stadium**, celebrated the success of this inspiring event under the theme **“Walk for Humanity”**. Bringing together young volunteers from across Karnataka, the walk-a-thon emphasized the values of unity, compassion, and social responsibility. Dayananda Sagar University students from the Department of Artificial Intelligence & Machine Learning demonstrated commitment towards humanitarian causes through their active participation.

# 6<sup>th</sup> International Conference Recent Advances in Information Technology



**Sayli Pankaj Bande** presented her research paper titled “**Augmenting Medical Diagnostics with AI: A Dual Approach Using RAG-Based Chatbots and Nano GPT Models**” at the prestigious **6th International Conference on Recent Advances in Information Technology (RAIT 2025)**, held at the **Indian Institute of Technology (Indian School of Mines), Dhanbad**, from **March 6–8, 2025**. The conference, organized under the banner of IEEE, recognized innovative contributions in emerging technologies. Sayli’s paper explored the **integration of Retrieval-Augmented Generation (RAG) techniques with lightweight generative models to enhance medical diagnostic support**, marking a notable contribution in the intersection of healthcare and artificial intelligence.

# 6<sup>th</sup> International Conference Recent Advances in Information Technology



**CSS Krishna Kaushik** presented his research paper titled “**Hybrid Spiking Neural Network-Attention Model for Multi-Class Heart Disease Detection**” at the **6th International Conference on Recent Advances in Information Technology (RAIT 2025)**, held from **March 6 to 8, 2025**, at the **Indian Institute of Technology (Indian School of Mines), Dhanbad**. The conference, organized under the banner of IEEE, brought together researchers and innovators from across the globe. Krishna’s paper proposed a novel **AI framework that integrates spiking neural networks with attention mechanisms to improve the accuracy of multi-class heart disease detection**—an important advancement in the field of medical diagnostics. His work reflects the growing intersection of artificial intelligence and healthcare and was well-received for its technical depth and practical significance.

# 6<sup>th</sup> International Conference Recent Advances in Information Technology



**Yudhajit Jana** presented a research paper titled “**Attention-Enhanced Transfer Learning for Emphysema Classification Using CBAM-Augmented ResNet-50**” at the **6th International Conference on Recent Advances in Information Technology (RAIT 2025)**, held at **IIT (ISM) Dhanbad** from **March 6–8, 2025**. The paper, presented under the technical sponsorship of IEEE, focuses on **improving medical image classification using advanced deep learning techniques**. This marks a significant achievement in the field of AI-driven healthcare research.

# IEEE WIE – Quest Global Scholarship 2024–25



**2024 - 25 Scholarship**  
Funded By CSR Initiatives Of Quest Global for 360 female students across Karnataka, Kerala, and Maharashtra offers Rs. 50,000 to pay the educational expenses but not limited only to financial support. The scholarship also offers access to two courses in the IEEE blended learning platform, learning and mentoring sessions from industry & academia professionals, engagement in philanthropy initiatives of IEEE, networking with professionals, and placement linkage support.



**DAYANANDA SAGAR UNIVERSITY**  
Deverakoppalshalli, Harehalli, Konikopura Rd, Dist. Ramanagara, Karnataka-562102

**SCHOOL OF ENGINEERING**



**Ms. Savita Chinnur**  
3<sup>rd</sup> Year, CSE

**Ms. Deeksha M**  
3<sup>rd</sup> Year, CSE

**Ms. Deekshitha M**  
3<sup>rd</sup> Year, CSE (AI&ML)

**Ms. Gaana Shree S**  
3<sup>rd</sup> Year, CSE (A&ML)

**Congratulations....!!!**  
"Your dedication and excellence have earned you the prestigious IEEE WIE Scholarship and a grant of ₹50,000. Wishing you continued success in your academic and professional journey!"

Four students from Dayananda Sagar University, School of Engineering – **Ms. Savita Chinnur (3<sup>rd</sup> Year, CSE)**, **Ms. Deeksha M (3<sup>rd</sup> Year, CSE)**, **Ms. Deekshitha M (3<sup>rd</sup> Year, CSE - AI & ML)**, and **Ms. Gaana Shree S (3<sup>rd</sup> Year, CSE - AI & ML)** – have received the prestigious **IEEE Women in Engineering (WIE) – Quest Global Scholarship 2024–25**, funded by the **CSR initiatives of Quest Global**. The scholarship awards ₹50,000 to each student and provides additional benefits including IEEE blended learning platform access, mentorship from industry and academia, professional networking, engagement in IEEE philanthropy, and placement support.

**(GATE) 2025**



**GRADUATE APTITUDE TEST IN ENGINEERING 2025**  
अभियुक्ति परीक्षा अभियुक्त परीक्षा २०२५

Organising Institution: INDIAN INSTITUTE OF TECHNOLOGY ROORKEE

**SCORE CARD**



---

|                              |                                                |
|------------------------------|------------------------------------------------|
| Name of the Candidate        | KARA SIVATHI                                   |
| Name of the Parents/Guardian | K SOMA REDDY                                   |
| Registration No.             | DA2551306293                                   |
| Date of Birth                | March 4, 2004                                  |
| Test Paper                   | Data Science and Artificial Intelligence (DAI) |
| Date of Examination          | February 15, 2025                              |
| GATE Score                   | 342                                            |
| Marks out of 100             | 28.33                                          |

| Qualifying Marks |      |
|------------------|------|
| General          | 20.0 |
| EWB/OCB-NCL      | 26.1 |
| SC/ST/PwD        | 19.3 |



*Sivathi*

**All India Rank (AIR) in the test paper:** 8913

**Number of candidates appeared for the test paper:** 57054

*Prof. P. Anandaraman*  
Organising Chairperson, GATE 2025  
On behalf of NCL-GATE  
Ministry of Education (MoE)



QR Code is used to verify the authenticity of the Score Card

**This Score Card is valid up to 31<sup>st</sup> March 2028.**

**GATE SCORE COMPUTATION**

The GATE 2025 score is calculated using the formula:

$$\text{GATE Score} = S_u + (S_h - S_u) \frac{(M - M_u)}{(M_h - M_u)}$$

where,

- $M$  is the Marks obtained by the candidate in the test paper mentioned on the GATE 2025 Score Card
- $M_u$  is the qualifying marks for general category candidates in the test paper
- $M_h$  is the mean of marks of top 0.7% or top 1% (whichever is larger) of all the candidates who appeared in the test paper
- $S_u = 250$ , is the score assigned to  $M_u$  and
- $S_h = 950$ , is the score assigned to  $M_h$ .

In the GATE 2025 score formula, the qualifying marks ( $M_u$ ) for the general category candidate in each subject: All OI (On-off marks for GENERAL category) =  $\max(25, \min(40, \mu + \sigma))$ . Here  $\mu$  is the mean and  $\sigma$  is the standard deviation of positive marks of all the candidates who appeared in the test paper.

Qualifying in GATE 2025 does not guarantee admission to a postgraduate program or scholarship/financial assistance. Admitting institutes may conduct additional tests or interviews for final selection of candidates.

Graduate Aptitude Test in Engineering (GATE) 2025 was organized by Indian Institute of Technology Roorkee on behalf of National Coordination Board (NCB) - GATE for the Department of Higher Education, Ministry of Education (MoE), Government of India.

**Kara Swathi** appeared for the **GATE 2025 examination in Data Science and Artificial Intelligence (DA)**, conducted by the **Indian Institute of Technology Roorkee**. She achieved an impressive **GATE score of 342** and secured an **All India Rank (AIR) of 8913 among 57,054 candidates**, reflecting her dedication and strong grasp of core concepts in a highly competitive and emerging field. Her performance showcases her potential and readiness for advanced studies and opportunities in the domain of data science and artificial intelligence.

# ISRO-IIRS Certificate:



**Akshat Agarwal** successfully completed the online course on “**Geodata Processing using Python and Machine Learning**”, conducted by the **Indian Institute of Remote Sensing (IIRS), ISRO**, from **17th to 28th February 2025**, in association with Dayananda Sagar University, School of Engineering. He secured an outstanding Grade A+ with 100% attendance, reflecting his consistent dedication and excellence in understanding advanced concepts in geospatial data processing through modern technologies like Python and machine learning.

# Robo-Quiz 2025



Students secured **First Prize in Robo-Quiz 2025**, a **two-stage technical competition organized by the IEEE Robotics and Automation Society (RAS)** in collaboration with the **IEEE Computational Intelligence Society (CIS)** on **April 7, 2025**. The event featured 43 participating teams and included a rigorous Quiz Round focused on robotics, automation, and computational intelligence, followed by an Ideathon Round where teams proposed innovative solutions to real-world robotics challenges. Student impressed the judges with a strong grasp of technical concepts, creativity, and the ability to apply AI and robotics knowledge to practical scenarios, earning top honors in the competition.

# Research on Bird Conservation Using Deep Learning at CVR 2025, NIT Goa



**K Vamsi Krishna**, along with co-authors **Kommuri Venkata Sai Abinay**, **Lekkala Harsha Vardhan Reddy**, and **Joshuva Arockia Dhanraj**, presented their research paper titled "**Bird Species Recognition using YOLOv8: A Deep Learning Approach for Habitat Conservation and Preservation**" at the **5th International Conference on Computer Vision and Robotics (CVR 2025)**, held at the **National Institute of Technology (NIT) Goa** on **April 25–26, 2025**. The conference was supported by Springer and organized under the guidance of the **Soft Computing Research Society (SCRS)**. The paper explores the use of advanced object detection through YOLOv8 deep learning architecture for ecological applications, aiming to aid in wildlife conservation through accurate bird species identification.

# SVIT Conference Presentation on AI in Healthcare



Mr. Sachin Prakash Kurup and Ms. Hena Basheer participated in the International Conference on Advancement in Communication & Computing in Technology (INOACC-2025), jointly organized by the Departments of CSE, ISE, ECE, CSE (AI & ML), and CSE (Data Science) at Sai Vidya Institute of Technology, Bengaluru, held from 4th to 6th April 2025. They presented a research paper titled “Multiple Sclerosis Disease Detection using Machine Learning Approaches for Medical Imaging”, which explores the application of AI techniques in healthcare diagnostics. The conference was supported by AICTE, affiliated to VTU, and recognized by the Government of Karnataka, with **SVIT being a NAAC ‘A’ Grade and NBA-accredited institution**. Their contribution to this reputed international forum reflects their academic commitment and growing expertise in the intersection of artificial intelligence and medical imaging, offering promising insights into improving early detection of neurological disorders.



# Students Presenting AI-Based Agricultural Research at IconDeepCom-2025



Students **Gaddam Deveswar Reddy**, **Nallamalli Venkata Kushal**, **KMNS Silesh**, and **Karanam Venkata Sai Sudheendra Kumar** participated in the **4th International Conference on Deep Sciences for Computing and Communications (IconDeepCom-2025)**, organized by the **Department of Computational Intelligence, SRM Institute of Science and Technology, Kattankulathur**, in collaboration with **Universiti Putra Malaysia**, held on **April 29th and 30th, 2025**. They presented a joint research paper titled **“Integrating IoT and Random Forest Classifier for Crop Recommendation and Cultivation: Real-Time Analysis of Nitrogen, Phosphorus, Potassium, and pH in Soil”**. The paper highlighted the use of modern machine learning techniques and IoT-based real-time soil monitoring to aid smart agricultural practices. Their presentation reflected innovation in the integration of AI and sustainable farming technologies, contributing significantly to the conference’s theme of computing for societal advancement.

# Hack-A-League

Harshith G R, 5th semester CSE (AI&ML) and his team participated and represented Dayananda Sagar University in a National level offline hackathon "Hack-A-League" conducted in Global Academy of Technology Bangalore.

The team has secured 2nd place and a cash prize of rupees 15000. They also achieved the highest reward for a team from Karnataka.

## Team Papz from 5th sem:

Harshith GR (AI&ML) - ENG22AMOO21

Sameer S Katte (CSE-C) - ENG22CSO148

Sai Shravan V (CSE-C) - ENG22CSO144

Sriram Ravindra (CSE-C) - ENG22CSO185



# International Student Exchange

ULUKHANOV ANDREY (USN: INTENGAMOO1) and VORONIN DMITRIL (USN: INTENGAMOO2), two students from Moscow, Russia, have joined the CSE (AI & ML) department at Dayananda Sagar University as part of the international student exchange program in their 6th semester.



# FOSS Meetup, InUnity, Mangalore, India

Students of 4<sup>th</sup> semester (K R Varshini – ENG23AMOO31, Keerthana T J – ENG23AMOO34, N Rohith – ENG23AMOO46, Nandeesh N B – ENG23AMOO47, Niharika N – ENG23AMOO48, Nishvika Teja Reddy – ENG23AMOO50), Dept. of CSE(AI&ML) attended the FOSS Meetup in Mangalore on February 16, 2025, brought together developers, students, and open-source enthusiasts to discuss FOSS and Google Summer of Code (GSoC) 2025. Led by Mohit P. Tahiliani and his core team, the event focused on GSoC's structure, eligibility, and participation process. Key topics included open-source entities, project categories, and essential application guidelines

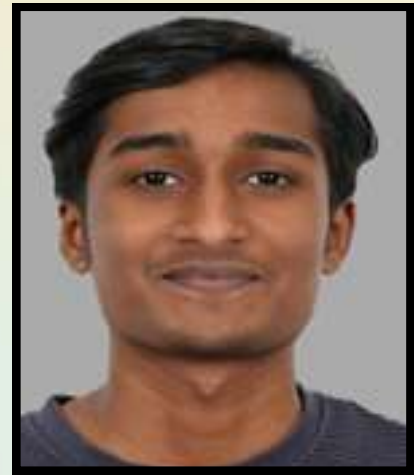


Attendees learned about selecting projects, engaging with mentors, and submitting strong applications. The session concluded with an interactive Q&A, addressing common concerns about mentorship, application mistakes, and time commitment. The meetup successfully promoted open-source contributions, networking, and mentorship, leaving participants motivated to explore GSoC and contribute to the FOSS community.



# **KSCST Funding for CSE(AI&ML) 8th Sem UG student of 2021-25 batch.**

Mithesh Chandrashekar (ENG21AM0072), Pradeep K (ENG21AM0086), Rohan John Varghese (ENG21AM0097) and Ruchitha Gowda S (ENG21AM0100) of 8th Semester AIML, 2021-2025 batch has been selected for KSCST funding of Rs. 5000 under the guidance of Dr. Vinutha N, CSE (AI & ML).



# CSS Krishna Kaushik (ENG21AM0020)



CSS Krishna Kaushik (ENG21AM0020), 8<sup>th</sup> semester student, dept. of CES(AI&ML), has presented a paper titled “Hybrid Spiking Neural Network-Attention Model for Multi-Class Heart Disease Detection” at the 6th International Conference on Recent Advances in Information Technology (RAIT) 2025, held at the Indian Institute of Technology (Indian School of Mines), Dhanbad, India, from March 6 to 8, 2025.

# Sayli Pankaj Bande (ENG21AM0112)



Sayli Pankaj Bande (ENG21AM0112), 8<sup>th</sup> semester student, Dept. of CES(AI&ML), has presented a paper titled “Augmenting Medical Diagnostics with AI: A Dual Approach Using RAG-Based Chatbots and Nano GPT Models” at the 6th International Conference on Recent Advances in Information Technology (RAIT) 2025, held at the Indian Institute of Technology (Indian School of Mines), Dhanbad, India, from March 6 to 8, 2025.

# Yudhajit Jana (ENG22AM3021)



Yudhajit Jana (ENG22AM3021), 8<sup>th</sup> semester student, Dept. of CES(AI&ML), has presented a paper titled Attention-Enhanced Transfer Learning for Emphysema Classification Using CBAM-Augmented ResNet-50 at the 6th International Conference on Recent Advances in Information Technology (RAIT) 2025, held at the Indian Institute of Technology (Indian School of Mines), Dhanbad, India, from March 6 to 8, 2025.

# AKSHAT AGARWAL (ENG22AM0072)



**AKSHAT AGARWAL (ENG22AM0072)**, 6<sup>th</sup> semester student, Dept. of CES(AI&ML), got the certificate of Merit ON **COMPLETION OF THE ONLINE COURSE ON** "Geodata Processing using Python and Machine Learning" THIS ONLINE COURSE WAS CONDUCTED DURING 17 February 2025 to 28 February 2025 (Total course duration = 9 hrs). (Concerned IIRS Nodal Centre- **DAYANANDA SAGAR UNIVERSITY SCHOOL OF ENGINEERING**)

# Best paper award

**Prajwal B(ENG22AM0038), Raghu M (ENG23AM1003) & Shashank N (ENG23AM1006)** of 6th-semester student, Dept. of CSE (AI&ML), Under the supervision of Prof. Subhash Mondal, won the Best Paper Award at the IEEE International Conference on Computing for Sustainability and Intelligent Future (COMPSIF 2025), held on March 21, 2025. Titled: "Disease Detection in Finger Millet Plant Using Fine-Tuned Transfer Learning Models" Students were honored to receive the award from Prof. Rychagov Mikhail Nikolaevich from the National Research University of Electronic Technology (MIET), Moscow, Russia.



# Runner-Up Achievement at RoTech Hackathon – BMSCE

A team of third-year students from Dayananda Sagar University secured the Runner-Up position at the RoTech Hackathon hosted by BMS College of Engineering, a 12-hour high-intensity app development challenge themed "CRACK THE CODE." The event focused on building innovative tech solutions for real-world social impact.

The team, comprising Yogesh N (ENG22AM0070), Syed Fuzail (ENG22CSO476), Suhaib Yasir (ENG22CSO189), and Sathish S (ENG22CSO153), 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.

Their impactful solution earned them a cash prize of ₹8,000, recognizing their commitment to building technology that is inclusive, empathetic, and socially relevant.



# “A Real-Time IoT and Machine Learning-based Smart Insole System”

**Kolisetty Dhanush (ENG21AM0058), Kalla Jaya Karthik (ENG21AM0021), Matam Mahesh (ENG21AM0070)**, 8<sup>th</sup> semester students from Dept. of CSE (AI&ML) has participated & successfully presented the paper entitled “A Real-Time IoT and Machine Learning-based Smart Insole System for Early Detection and Prevention of Diabetic Foot Ulcers at the 7th International Conference on Inventive Material Science and Applications (ICIMA-2025) held from 28th-30th, May 2025 at Muthayammal engineering college, Rasipuram, Tamil Nadu, India.



**Conference title “Machine Learning and Artificial Intelligence for Predictive Modeling in Antimicrobial Resistance Data sets, Challenges, and Future Directions.”**

**Ajeeb Sagar (ENG22AM0071), Ujjwal Jaiswal (ENG22AM0197), Gaurav Kumavat (ENG22AM0092)**, Students of 6<sup>th</sup> semester, Dept. of CSE (AI&ML) has published a conference title “Machine Learning and Artificial Intelligence for Predictive Modeling in Antimicrobial Resistance Data sets, Challenges, and Future Directions.” in the 3rd International Conference on Smart Systems for applications in Electrical Sciences (ICSSES), 2025.



**3** 1000 HEALTH AND WELL-BEING

**PAPER PUBLISHED**

**Title Of Paper:** Machine Learning and Artificial Intelligence for Predictive Modeling in Antimicrobial Resistance Data Sets, Challenges, and Future Directions

**Conference:** 2025 3rd International Conference on Smart Systems for applications in Electrical Sciences (ICSSES)

**Index:** SCOPUS

**Date of publication:** 2025-06-02

**DOI:** [10.1109/ICSSES64899.2025.11009316](https://doi.org/10.1109/ICSSES64899.2025.11009316)

**Gaurav Kumavat**  
ENG22AM0092

**Dr. Shreyas Rajendra**  
Hole

**Ajeeb Sagar**  
ENG22AM0071

**Ujjwal Jaiswal**  
ENG22AM0197

*Congratulations*

#ResearchAtDSU





DAYANANDA SAGAR  
UNIVERSITY , SCHOOL OF  
ENGINEERING DEPARTMENT OF  
CSE (AI & ML)

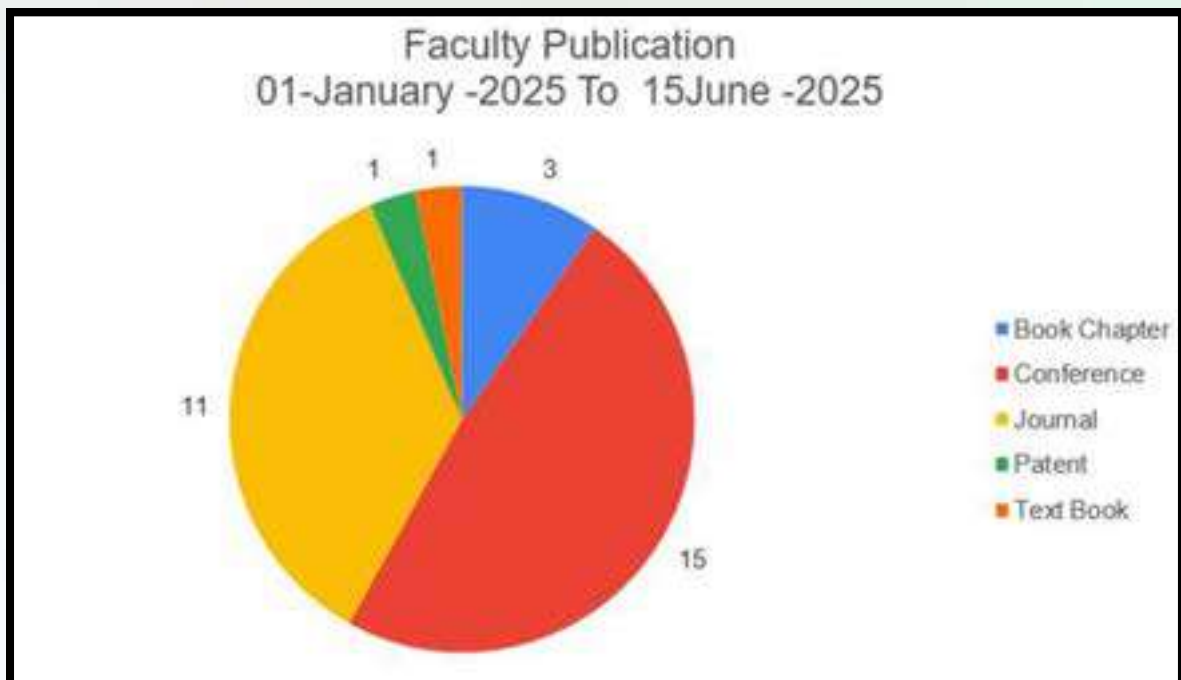
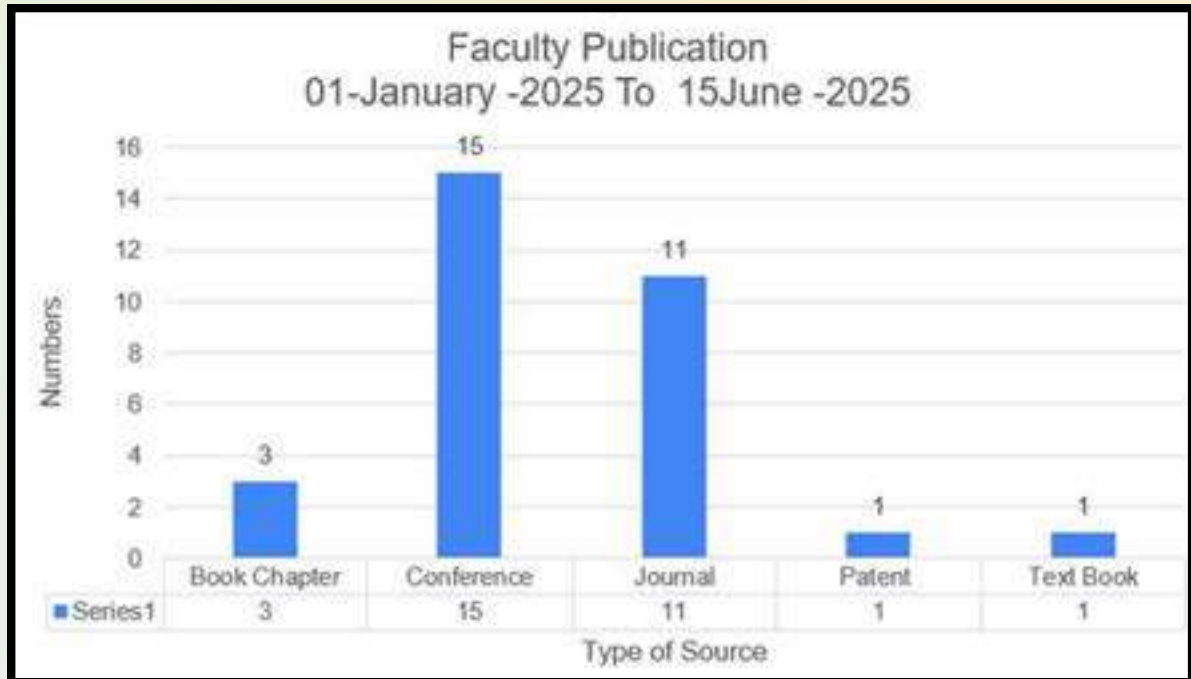
# FACULTIES: PUBLICATIONS, CERTIFICATIONS, AND OTHER ACHIEVEMENTS



# PUBLICATIONS

## 01-JANUARY TO 15-JUNE-2025

Q1 - 3 Papers, Q2 - 6 Papers, Q3 -1 Paper





## Dr. Jayavrinda Vrindavanam

**TITLE: AN EFFICIENT QUANTUM-ENHANCED ENSEMBLE FAULT DETECTION FOR SOLAR ENERGY INTEGRATION USING AN ITERATIVE GAME-THEORETIC APPROACH WITH ADAPTIVE NEURO-FUZZY INFERENCE AND ENERGY STORAGE.**

**Type:** Journal

**Date:** 14 March 2025

**Quartile Ranking:** Q2

**Indexed in:** Scopus

**Article Link:** <https://jsesd-ojs.csers.ly/ojs/index.php/jsesd/index>

**TITLE: A REVIEW OF BLOCK CIPHERS AND ITS POST-QUANTUM CONSIDERATIONS**

**Type:** Journal

**Date:** 25 March 2025

**SCI Impact Factor:** 3.4

**Indexed in:** Scopus

**Quartile Ranking:** Q1

**Article Link:** <https://ieeexplore.ieee.org/document/10938619>

**TITLE: HYBRID PCA-BASED MACHINE LEARNING MODELS FOR PREDICTIVE ANALYTICS IN URBAN HEALTH MONITORING SYSTEMS**

**Type:** Conference Paper

**Date:** 25 April 2025

**Conference:** 2027 IEEE 1st International Conference on Smart and Sustainable Developments in Electrical Engineering (SSDEE)

**Indexed in:** Scopus

**Article Link:** <https://ieeexplore.ieee.org/document/10967575>

**TITLE: NEUROTRANSFORMER: TRANSFORMER MODEL FOR MOTOR IMAGERY CLASSIFICATION**

**Type:** Conference Paper

**Date:** 6 June 2025

**Conference:** International Conference on Data Science and Applications (ICDSA 2024)

**Indexed in:** SCOPUS

**Article Link:** [https://link.springer.com/chapter/10.1007/978-981-96-1188-1\\_24](https://link.springer.com/chapter/10.1007/978-981-96-1188-1_24)



## Dr. Jayavrinda Vrindavanam

Dr. Jayavrinda Vrindavanam recently delivered an insightful talk on the topic "AI for Healthcare" at the College of Physiotherapy. The session focused on the transformative potential of Artificial Intelligence in revolutionizing the healthcare landscape, particularly in physiotherapy and rehabilitation sciences. Dr. Jayavrinda emphasized how AI technologies are enhancing diagnostic accuracy, enabling predictive analytics, and improving patient care through intelligent systems. The talk also shed light on the integration of machine learning and data-driven decision-making in clinical settings, showcasing real-world applications and future possibilities. The session was well-received by students and faculty, inspiring many to explore the intersection of AI and healthcare for research and innovation.





**Dr. Jayavrinda Vrindavanam**

## **CERTIFICATION :**



**Dr. Gouranga Mandal**

**TITLE: EFFICIENT RICE LEAF DISEASE DETECTION BASED ON CONVOLUTIONAL NEURAL NETWORKS**

**Type:** Conference Paper

**Date:** 22 March 2025

**Conference:** Proceedings of the 3rd International Conference on Machine Learning, Cloud Computing and Intelligent Mining (MLCCIM2024)

**Indexed in:** Scopus

**Article Link:** [https://link.springer.com/chapter/10.1007/978-981-96-2468-3\\_78](https://link.springer.com/chapter/10.1007/978-981-96-2468-3_78)



**Dr. Vinutha N**

**TITLE: DYNAMIC SLICE SELECTION BASED 3D BRAIN TUMOUR VOLUMETRIC SEGMENTATION**  
**TYPE: CONFERENCE PAPER**

**Date:** 6 June 2025

**Conference:** International Conference on Data Science and Applications (ICDSA 2024)

**Indexed in:** SCOPUS

**Article Link:** [https://link.springer.com/chapter/10.1007/978-981-96-1188-1\\_16#citeas](https://link.springer.com/chapter/10.1007/978-981-96-1188-1_16#citeas)

**TITLE: NEUROTRANSFORMER: TRANSFORMER MODEL FOR MOTOR IMAGERY CLASSIFICATION**  
**TYPE: CONFERENCE PAPER**

**Date:** 6 June 2025

**Conference:** International Conference on Data Science and Applications (ICDSA 2024)

**Indexed in:** SCOPUS

**Article Link:** [https://link.springer.com/chapter/10.1007/978-981-96-1188-1\\_24](https://link.springer.com/chapter/10.1007/978-981-96-1188-1_24)

## **CERTIFICATION :**





## Dr. Joshuva Arockia Dhanraj

**TITLE: CAMERALESS SENSOR FUSION: DEVELOPING A COST-EFFECTIVE DRIVER ASSISTANCE SYSTEM USING RADAR AND ULTRASONIC SENSOR**

**Type:** Journal

**Date:** 7 February 2025

**Journal:** Sensor Review

**SJR Quartile:** Q3

**WoS-SCIE Impact Factor:** 1.6

**Article Link:** <https://www.emerald.com/insight/content/doi/10.1108/sr-08-2024-0702/full/html>

**TITLE: PITTING CORROSION STUDIES ON SS316L WALL FABRICATED BY DIRECTED ENERGY DEPOSITION BASED WIRE ARC PROCESS**

**Type:** Journal

**Date:** 2025

**Journal:** Journal of Alloys and Metallurgical Systems

**Indexed in:** Scopus

**Quartile:** Q1/Q2

**Article Link:** <https://www.sciencedirect.com/science/article/pii/S294991782500029X?via%3Dihub>

**TITLE: NATURAL LANGUAGE PROCESSING USING SOFT COMPUTING**

**Type:** Book Chapter

**Date:** 1 January 2025

**Book:** Natural Language Processing for Software Engineering

**Indexed in:** Scopus

**Chapter Link:** <https://onlinelibrary.wiley.com/doi/10.1002/9781394272464.ch19>

**TITLE: WEB DATA MINING: EXPLORING HYPERLINKS, CONTENTS, AND USAGE DATA**

**Type:** Book Chapter

**Date:** 1 January 2025

**Book:** Natural Language Processing for Software Engineering

**Indexed in:** Scopus

**Chapter Link:** <https://onlinelibrary.wiley.com/doi/10.1002/9781394272464.ch21>

# Dr. Joshua Arockia Dhanraj

**TITLE: OPTIMIZED MACHINE LEARNING TECHNIQUES FOR SOFTWARE FAULT PREDICTION**

**Type:** Book Chapter

**Date:** 1 January 2025

**Book:** Natural Language Processing for Software Engineering

**Indexed in:** Scopus

**Chapter Link:** <https://onlinelibrary.wiley.com/doi/10.1002/9781394272464.ch14>

**TITLE: MONOCULAR DEPTH ESTIMATION FOR UAV NAVIGATION USING SEGMENTAL FULLY CONVOLUTIONAL PRAIRIE DOG NEURAL NETWORKS**

**Type:** Conference Paper

**Date:** 1 January 2025

**Conference:** 4th International Conference on Sentiment Analysis and Deep Learning, ICSADL 2025 – Proceedings

**Indexed in:** Scopus

**Article Link:** <https://ieeexplore.ieee.org/document/10933057>

**TITLE: INTEGRATION OF AI, ML & DATA SCIENCE**

**Type:** Text Book

**Date:** 2 April 2025

**Publisher:** Black Horse Publish

**ISBN:** 9789348460523

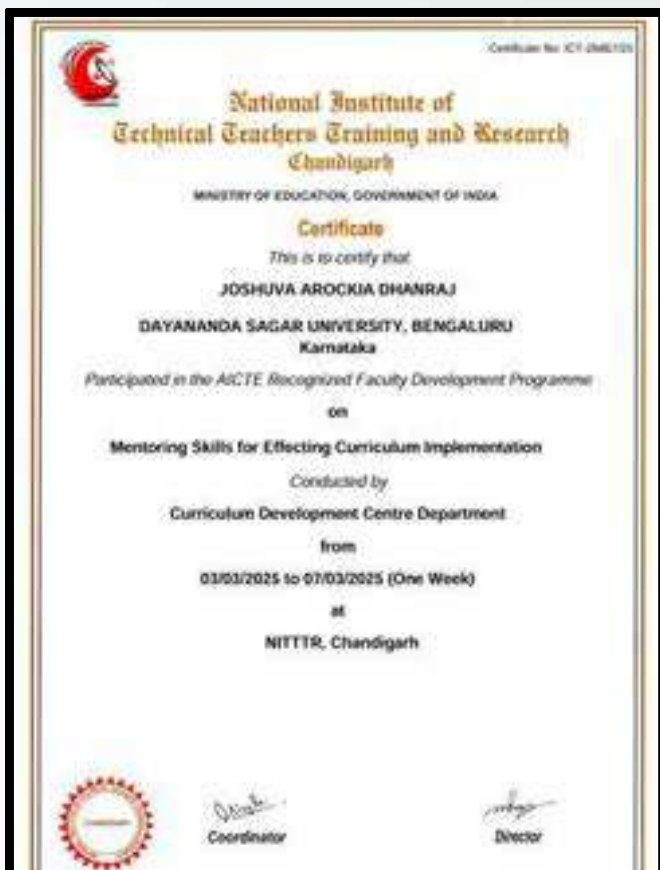
**Available in:**

**Amazon:** <https://tinyurl.com/4vf5kzep>

**Flipkart:** <https://tinyurl.com/bdem97nc>

# Dr. Joshua Arockia Dhanraj

## BOOK PUBLICATION & CERTIFICATION:



# Dr. Joshuva Arockia Dhanraj

## CERTIFICATION :





**Dr. M. Lakshmanan**

**TITLE: IMPLEMENTATION OF ENERGY-AWARE OPTIMAL ROUTING FOR IMPROVING TRAFFIC CAPACITY IN AD HOC WIRELESS NETWORK USING HYBRID HEURISTIC ALGORITHM**

**Type:** Journal

**Date:** 20 January 2025

**Journal:** International Journal of Communication Systems

**SJR Quartile:** Q 2

**Indexed in:** WoS-SCIE

**Impact Factor:** 1.7

**Article Link:** <https://onlinelibrary.wiley.com/doi/abs/10.1002/dac.6126>

**Title: Hybrid Quantum-Resistant Multi-Layer Encryption (HQRMLE) System for Health Records Using Blockchain Storage and Method Thereof**

**Type:** Patent

**Published Date:** 6 June 2025

**Publication:** The Patent Office Journal No. 23/2025, Page No. 54241

**Patent Link:** <https://search.ipindia.gov.in/IPOJournal/Journal/ViewJournal>

**Title: Integration of AI, ML & Data Science**

**Type:** Text Book

**Date:** 2 April 2025

**Publisher:** Black Horse Publish

**ISBN:** 9789348460523

Available in:

**Amazon:** <https://tinyurl.com/4vf5kzep>

**Flipkart:** <https://tinyurl.com/bdem97nc>



# Dr. M. Lakshmanan

## CERTIFICATION :





## Dr. Shreyas Rajendra Hole

### **TITLE: EMPIRICAL ANALYSIS OF CONTROL MODELS FOR DIFFERENT CONVERTER TOPOLOGIES FROM A STATISTICAL PERSPECTIVE**

**Type:** Journal

**Date:** 29 January 2025

**Journal:** Science and Technology for Energy Transition, EDP Sciences

**SJR Quartile:** Q2

**Indexed in:** WoS-SCIE

**Impact Factor:** 1.8

**Article link:**

[https://www.stet-review.org/articles/stet/full\\_html/2025/01/stet20240208/stet20240208.html](https://www.stet-review.org/articles/stet/full_html/2025/01/stet20240208/stet20240208.html)

### **TITLE: AI-DRIVEN MOBILE HEALTHCARE: SOCIETAL IMPACT, WORKFORCE ADAPTATION, AND ENHANCED PREDICTIVE MODELING FOR DIABETES RISK ASSESSMENT**

**Type:** Conference Paper

**Date:** 1 April 2025

**Conference:** 2025 International Conference on Pervasive Computational Technologies (ICPCT)

**Indexed in:** Scopus

**Article Link:** <https://ieeexplore.ieee.org/abstract/document/10940740/authors#authors>

### **TITLE: DESIGN OF AN EFFICIENT MODEL FOR DC-DC CONVERTER TOPOLOGIES AND GRID INTEGRATION IN ELECTRIC VEHICLES**

**Type:** Conference Paper

**Date:** 25 March 2025

**Conference:** International Conference on Electric Power and Renewable Energy, Control Applications in Modern Power Systems. EPREC 2024. Lecture Notes in Electrical Engineering, vol 1304

**Indexed in:** Scopus

**Article Link:** [https://link.springer.com/chapter/10.1007/978-981-96-0104-2\\_20](https://link.springer.com/chapter/10.1007/978-981-96-0104-2_20)

# Dr.Shreyas Rajesndra Hole

**TITLE: AN EFFICIENT QUANTUM-ENHANCED ENSEMBLE FAULT DETECTION FOR SOLAR ENERGY INTEGRATION USING AN ITERATIVE GAME-THEORETIC APPROACH WITH ADAPTIVE NEURO-FUZZY INFERENCE AND ENERGY STORAGE**

**Type:** Journal

**Date:** 14 March 2025

**Journal:** Solar Energy and Sustainable Development

**SJR Quartile:** Q2

**Indexed in:** Scopus

**Article Link:** <https://jsesd-ojs.csers.ly/ojs/index.php/jsesd/article/view/489>

**TITLE: A DESIGN OF HYBRID MODEL AND BAYESIAN NEURAL NETWORKS FOR SMART GRID STABILITY PREDICTION**

**Type:**Journal

**Date:** 25 April 2025

**Conference:** 2025 IEEE 1st International Conference on Smart and Sustainable Developments in Electrical Engineering (SSDEE)

**Indexed in:** Scopus

**Article Link:** <https://ieeexplore.ieee.org/document/10967715>

**TITLE: HYBRID APPROACH OF TABNET AND TRANSFORMER-XGBOOST FOR PREDICTING TRAFFIC FLOW IN SMART CITIES**

**Type:** Conference Paper

**Date:** 25 April 2025

**Conference:** 2026 IEEE 1st International Conference on Smart and Sustainable Developments in Electrical Engineering (SSDEE)

**Indexed in:** Scopus

**Article Link:** <https://ieeexplore.ieee.org/document/10968571>

# Dr. Shreyas Rajendra Hole

## **TITLE: HYBRID PCA-BASED MACHINE LEARNING MODELS FOR PREDICTIVE ANALYTICS IN URBAN HEALTH MONITORING SYSTEMS**

**Type:** Conference Paper

**Date:** 25 April 2025

**Conference:** 2027 IEEE 1st International Conference on Smart and Sustainable Developments in Electrical Engineering (SSDEE)

**Indexed in:** Scopus

**Article Link:** <https://ieeexplore.ieee.org/document/10967575>

## **TITLE: OPTIMIZING SOLAR RADIATION FORECASTING FOR RENEWABLE ENERGY SYSTEMS: A COMPARATIVE ANALYSIS OF MACHINE LEARNING AND FEATURE ENGINEERING TECHNIQUES**

**Type:** Journal

**Date:** 13 April 2025

**Journal:** Solar Energy and Sustainable Development

**SJR Quartile:** Q2

**Indexed in:** Scopus

**Article Link:** <https://jsesd-ojs.cesers.ly/ojs/index.php/jsesd/article/view/386>

## **TITLE: AI-DRIVEN MOBILE HEALTHCARE: SOCIETAL IMPACT, WORKFORCE ADAPTATION, AND ENHANCED PREDICTIVE MODELING FOR DIABETES RISK ASSESSMENT**

**Type:** Conference Paper

**Date:** 1 April 2025

**Conference:** 2025 International Conference on Pervasive Computational Technologies (ICPCT)

**Indexed in:** Scopus

**Article Link:**

<https://ieeexplore.ieee.org/abstract/document/10940740/authors#authors>

# Dr. Shreyas Rajendra Hole

## PAPER PUBLISHED & CERTIFICATION:

**Congratulations**

**PAPER PUBLISHED**

Title Of Paper: An Efficient Quantum-Enhanced Ensemble Fault Detection for Solar Energy Integration using an Iterative Game-Theoretic Approach with Adaptive Neuro-Fuzzy Inference and Energy Storage

Journal: Solar Energy and Sustainable Development Journal

Indexing: SCOPUS

DOI: <https://doi.org/10.51646/jesed.v14i1.489>

APC: 00

Dr. Shreyas Rajendra Hole  
Assistant Professor  
CSE(AI&ML)  
Dayananda Sagar University  
#ResearchAtDSU

Certificate No: ICT-2345678

**National Institute of Technical Teachers Training and Research Chandigarh**

MINISTRY OF EDUCATION, GOVERNMENT OF INDIA

**Certificate**

This is to certify that  
**SHREYAS RAJENDRA HOLE**  
DAYANANDA SAGAR UNIVERSITY, HAROHALLI, BANGALORE, KARNATAKA

Participated in the AICTE Recognized Faculty Development Programme on

Applications of IOT- Project Based

Conducted by

Information Management and Emerging Engineering Department

from

10/02/2025 to 14/02/2025 (One Week)

at

NETTR, Chandigarh

  Coordinator  Director

**SIDDAGANGA INSTITUTE OF TECHNOLOGY**

WOLFFENBUTEL INSTITUT FÜR VERGLEICHENDE KULTURLEHRE  
APPROVED BY AICTE, MINISTRY OF EDUCATION, GOVERNMENT OF INDIA  
TUMAKURU-572103, KARNATAKA

**INTERNATIONAL CONFERENCE ON SMART SYSTEMS FOR APPLICATIONS IN ELECTRICAL SCIENCES [IGSSES-2025]**

THIS CERTIFICATE IS PRESENTED TO

Prof./Mr./Ms. Dr. Dr. Shreyas Rajendra Hole From Dayananda Sagar University  
Presented the paper titled Machine Learning and Artificial Intelligence for Predictive Modeling in Antimicrobial Resistance Datasets: Challenges, and Future Directions in the International Conference on Smart Systems for Applications in Electrical Sciences - 2025 held at SIT, Tumakuru on 21<sup>st</sup> and 22<sup>nd</sup> March 2025.

Dr. Vinayaka K. U.  
Professor of CSE,  
Siddaganga Institute of Technology,  
TUMAKURU, KARNATAKA

Prof. Ramesh  
Professor of EEE,  
Siddaganga Institute of Technology,  
TUMAKURU, KARNATAKA

Prof. S.V. Divyesh  
Professor of EEE,  
Siddaganga Institute of Technology,  
TUMAKURU, KARNATAKA

**2025 IEEE 1<sup>st</sup> International Conference on Smart and Sustainable Developments in Electrical Engineering (SSDEE)**

28<sup>th</sup> Feb - 02<sup>nd</sup> Mar 2025

Department of Electrical Engineering  
Indian Institute of Technology (Indian School of Mines), Dhanbad-826004 (Jharkhand)

**CERTIFICATE OF PARTICIPATION**

This is to certify that  
**Shreyas Rajendra Hole**  
Dayananda Sagar University

presented a paper titled in the 2025 IEEE 1<sup>st</sup> International Conference on (SSDEE-2025) held at Indian Institute of Technology (Indian School of Mines), Dhanbad during 28<sup>th</sup> February to 2<sup>nd</sup> March, 2025.

Paper title: "AI-Based IoT-Based Machine Learning Models for Predictive Analysis in Urban Health Monitoring Systems..."

Authors: Shreyas Rajendra Hole, Gokul Bhaskar, Jeeva Pragasam, Venkateswar Reddy, Suresh Kumar, Suresh Kumar, Suresh Kumar

Reviewed & Approved by

Prof. Madan Mohan Reddy  
Professor of EEE

Prof. Anand Kumar Reddy  
Professor of EEE

Prof. Anand Kumar Reddy  
Professor of EEE

Prof. Anand Kumar Reddy  
Professor of EEE

Prof. Anand Kumar Reddy  
Professor of EEE

Prof. Anand Kumar Reddy  
Professor of EEE

# Dr. Shreyas Rajendra Hole

## CERTIFICATION :





## Dr. Mude Nagarjuna Naik

### **TITLE: HYBRID APPROACH OF TABNET AND TRANSFORMER-XGBOOST FOR PREDICTING TRAFFIC FLOW IN SMART CITIES**

**Type:** Conference Paper

**Date:** 25 April 2025

**Conference:** 2026 IEEE 1st International Conference on Smart and Sustainable Developments in Electrical Engineering (SSDEE)

**Indexed in:** Scopus

**Article Link:** <https://ieeexplore.ieee.org/document/10968571>

### **TITLE: HYBRID QUANTUM-RESISTANT MULTI-LAYER ENCRYPTION (HQRMLE) SYSTEM FOR HEALTH RECORDS USING BLOCKCHAIN STORAGE AND METHOD THEREOF**

**Type:** Patent

**Published Date:** 6 June 2025

**Publication:** The Patent Office Journal No. 23/2025 Page No. 54241

**Patent Link:** <https://search.ipindia.gov.in/IPOJournal/Journal/ViewJournal>

### **TITLE: INTEGRATION OF AI, ML & DATA SCIENCE**

**Type:** Text Book

**Date:** 2 April 2025

**Publisher:** Black Horse Publish

**ISBN:** 9789348460523

**Available in:**

**Amazon:** <https://tinyurl.com/4vf5kzep>

**Flipkart:** <https://tinyurl.com/bdem97nc>

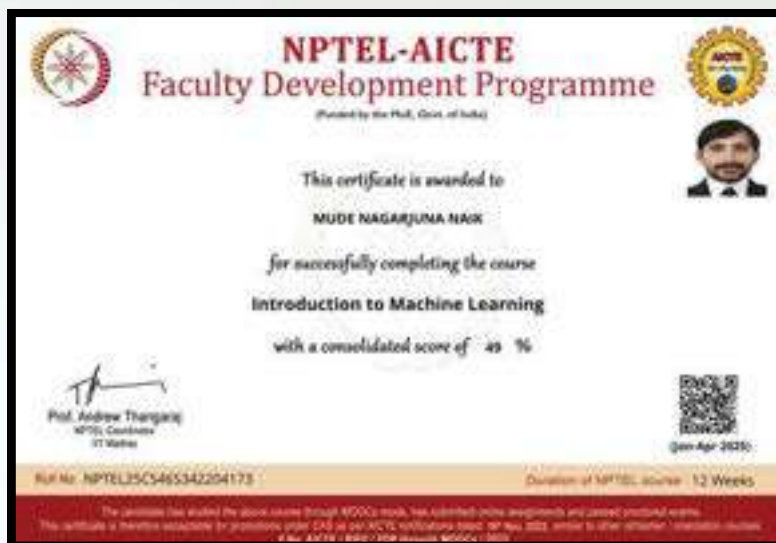
# Dr. Mude Nagarjuna Naik

## CERTIFICATION :



# Dr. Mude Nagarjuna Naik

## CERTIFICATION :





## Prof. Subhash Mondal

**TITLE: AN EFFICIENT MALWARE DETECTION APPROACH BASED ON MACHINE LEARNING FEATURE INFLUENCE TECHNIQUES FOR RESOURCE-CONSTRAINED DEVICES**

**Type:** Journal

**Date:** 17 January 2025

**Journal:** IEEE Access

**Indexed in:** SCI, SCOPUS

**Impact Factor:** 3.9

**SJR Quartile:** Q1

**Article Link:** <https://ieeexplore.ieee.org/abstract/document/10830491>

**TITLE: AN EFFICIENT ARTIFICIAL NEURAL NETWORK-BASED OPTIMIZATION TECHNIQUES FOR THE EARLY PREDICTION OF CORONARY HEART DISEASE: COMPREHENSIVE ANALYSIS**

**Type:** Journal

**Date:** 9 February 2025

**Journal:** Scientific Reports, Nature Publishing Group UK

**Indexed in:** SCI, SCOPUS

**Impact Factor:** 3.8

**Quartile:** Q1

**Article Link:** <https://www.nature.com/articles/s41598-025-85765-x>

**TITLE: FETAL HEALTH RISK PREDICTION USING ENSEMBLE-BASED MACHINE LEARNING APPROACHES**

**Type:** Journal

**Date:** 10 May 2025

**Journal:** Knowledge and Information Systems, Springer Nature

**Indexed in:** SCIE, Scopus

**Impact Factor:** 2.822

**SJR:** 0.827

**Quartile:** Q2 (2024)

**Article Link:** <https://link.springer.com/article/10.1007/s10115-025-02442-1>

# Prof. Subhash Mondal

**TITLE: DISEASE DETECTION IN FINGER MILLET PLANT USING FINE-TUNED TRANSFER  
LEARNING MODELS**  
**TYPE: CONFERENCE PAPER**

**Date:** 28 April 2025

**Conference:** 2025 International Conference on Computing for Sustainability and  
Intelligent Future (COMP-SIF)

**Indexed in:** Scopus

**TITLE: A REAL-TIME SIGN LANGUAGE RECOGNITION SYSTEM USING MEDIAPIPE AND RANDOM  
FOREST CLASSIFIER COMBINING WITH TEXT-TO-SPEECH TECHNIQUE**

**Type:** Conference Paper

**Date:** 12 May 2025

**Conference:** 2025 5th International Conference on Artificial Intelligence and Data  
Engineering (AIDE)

**Indexed in:** Scopus

**Article Link:** <https://ieeexplore.ieee.org/document/10986900>



## Prof. Sriramkumar R

### **TITLE: A DESIGN OF HYBRID MODEL AND BAYESIAN NEURAL NETWORKS FOR SMART GRID STABILITY PREDICTION**

**Type:** Conference Paper

**Date:** 25 April 2025

**Conference:** 2025 IEEE 1st International Conference on Smart and Sustainable Developments in Electrical Engineering (SSDEE)

**Indexed in:** Scopus

**Article Link:** <https://ieeexplore.ieee.org/document/10967715>

### **TITLE: HYBRID QUANTUM-RESISTANT MULTI-LAYER ENCRYPTION (HQRMLE) SYSTEM FOR HEALTH RECORDS USING BLOCKCHAIN STORAGE AND METHOD THEREOF**

**Type:** Patent

**Published Date:** 6 June 2025

**Publication:** The Patent Office Journal No. 23/2025 Page No. 54241

**Patent Link:** <https://search.ipindia.gov.in/IPOJournal/Journal/ViewJournal>

### **TITLE: INTEGRATION OF AI, ML & DATA SCIENCE**

**Type:** Text Book

**Date:** 2 April 2025

**Publisher:** Black Horse Publish

**ISBN:** 9789348460523

**Available in:**

**Amazon:** <https://tinyurl.com/4vf5kzep>

**Flipkart:** <https://tinyurl.com/bdem97nc>

# Prof. Sriramkumar R

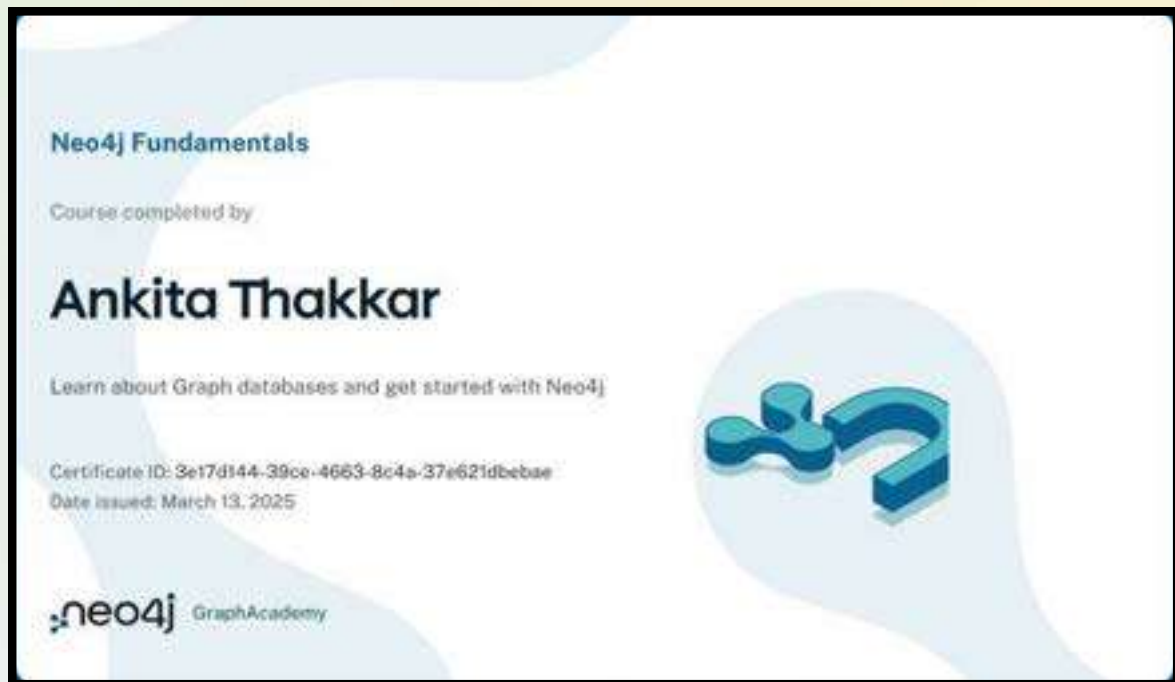
## CERTIFICATION :





**Prof. Ankita Thakkar**

## **CERTIFICATION :**



# Dr. Vegi Fernando A

## CERTIFICATION:





**Dr. Bahubali Shiragapur**

## CERTIFICATION :





Prof.Mithaguru

## CERTIFICATION :

**R.M.K. ENGINEERING COLLEGE**  
30 YEARS OF EXCELLENCE

2025 IEEE Conference on  
Research Methodologies in Knowledge Management,  
Artificial Intelligence and Telecommunication Engineering  
**RMKMATE'25**  
Sponsored by DST-SERB(ANRF)

**Certificate of Presentation**

This certificate is presented to  
*Mr./Ms./Dr. Mithaguru, Dayananda Sagar University*

for presenting the research paper titled  
*Blockchain - Based HSFO Framework for Privacy Preservation  
of Healthcare Data using Hybrid Algorithms*  
in the 2025 IEEE International Conference on Research Methodologies in Knowledge  
Management, Artificial Intelligence and Telecommunication Engineering  
organized by the Department of Computer Science and Engineering,  
R.M.K. Engineering College, Chennai, India during 7<sup>th</sup> and 8<sup>th</sup> May, 2025.

*Dr. D. Paulraj*  
Dr. D. Paulraj  
Dr. S. Neelakandan  
Conference Chair

*Dr. T. Sethukaresi*  
Dr. T. Sethukaresi  
General Chair

*Dr. K. A. Mohamed Junaid*  
Dr. K. A. Mohamed Junaid  
Principal (Convener)

*Thiru. R.S. Munirathinam*  
Thiru. R.S. Munirathinam  
Chairman

**IEEE** **AN** **VERA** **IET**

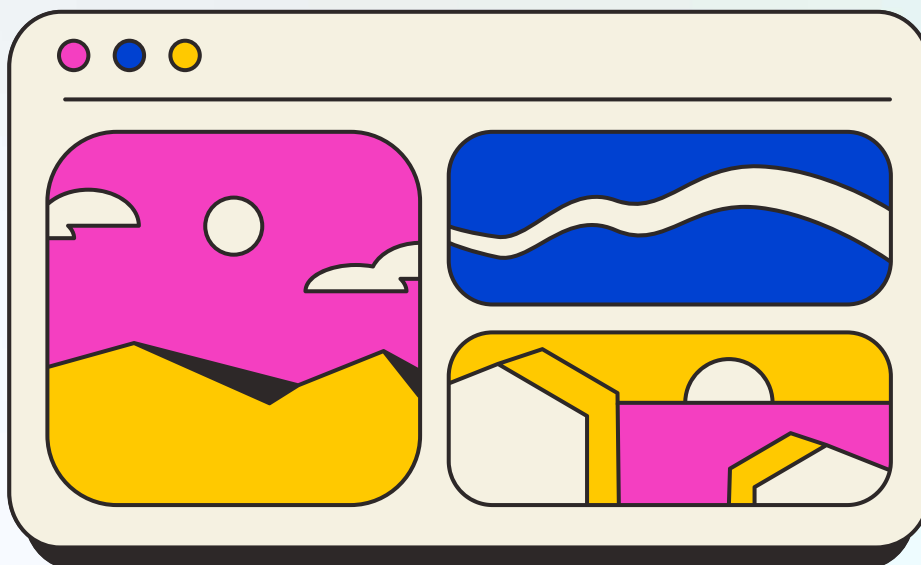
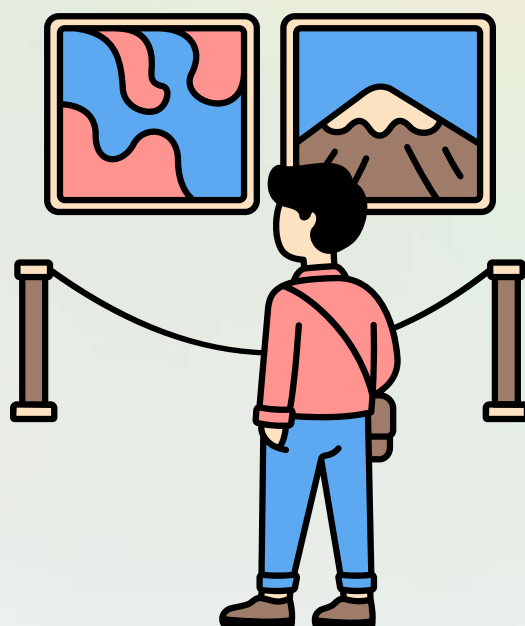
*R.S.M. Nagar, Kavaralpettal, Gummidipoondi Taluk, Thiruvallur District*  
Affiliated to Anna University, Chennai | Approved by AICTE, New Delhi | Accredited  
An ISO 9001:2015 Certified Institution | All the Eligible UG Programs are Accredited

**PDF Extra**

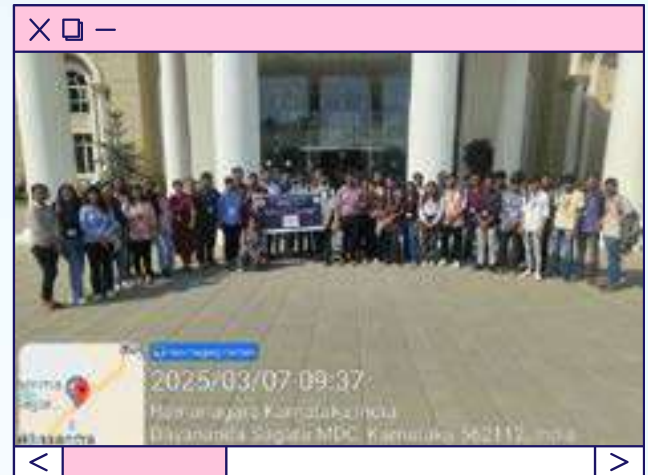


DAYANANDA SAGAR  
UNIVERSITY , SCHOOL OF  
ENGINEERING DEPARTMENT OF  
CSE (AI & ML)

# GALLERY



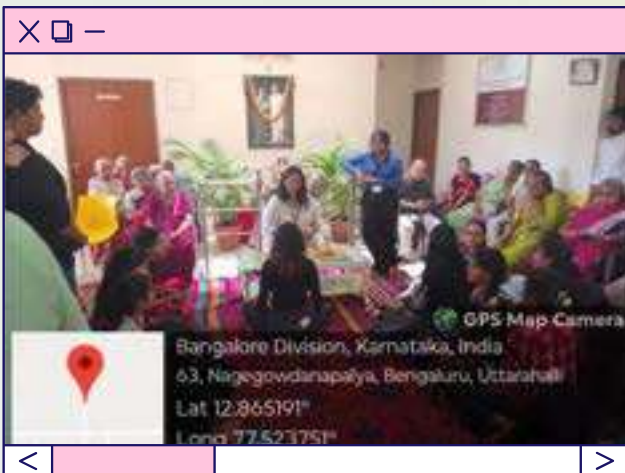
# Gallery



# Gallery



# Gallery



# Gallery

✕ □ -



< >

✕ □ -



< >

✕ □ -



< >

✕ □ -



< >

✕ □ -



< >

✕ □ -



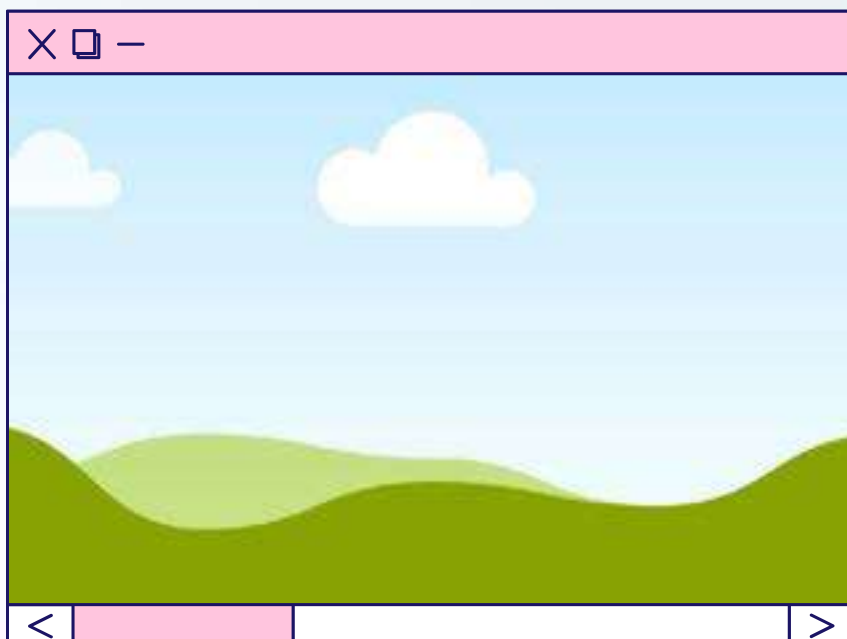
< >

✕ □ -



< >

# Gallery



# Gallery



# Gallery



# Gallery



# Gallery



# Editorial board

## Faculty Coordinators ✨



**DR. JAYAVRINDA  
VRINDAVANAM**  
PROFESSOR & CHAIRPERSON



**DR. SHREYAS RAJENDRA  
HOLE**  
ASSISTANT PROFESSOR



**PROF. SAHIL POCKER**  
ASSISTANT PROFESSOR



**PROF. MITHA GURU**  
ASSISTANT PROFESSOR

## Student Coordinators



**MANYASHREE D**  
CSE-(AI&ML)  
USN:ENG23AM0043



**POORVIK B S**  
CSE-(AI&ML)  
USN:ENG23AM0053