

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING



Events for the month of January ACY 2025



January 2025

1. Inspirational talk on “Empowering Educators: Elevating Lives through Personal and Professional Growth”

On 16th January, 2025, the Department of CSE (AI & ML) organized an inspiring talk titled “Empowering Educators: Elevating Lives through Personal and Professional Growth.” The aim of the session was to provide educators with tools, insights, and strategies for fostering growth, both in their personal lives and professional careers.

The event featured two distinguished speakers: Dr. P. Supraja, who joined virtually, and Ms. S.V.K.R. Rajeswari, who engaged with the audience in person. Dr. Supraja’s session focused on Universal Human Values and their alignment with the Sustainable Development Goals (SDGs). She emphasized nurturing compassion, aligning actions with SDGs, and fostering meaningful relationships for a fulfilling life.

Ms. Rajeswari delivered an engaging talk on self-reflection, resilience, and overcoming negativity. She introduced the Mirror Method for self-assessment, strategies to build resilience, and techniques to maintain positivity. She also highlighted opportunities for self-improvement, such as skill certifications and leveraging challenges for growth.

Both sessions were followed by interactive Q&A rounds, allowing attendees to gain deeper insights. The event concluded on a high note, leaving participants inspired and empowered with practical tools for personal and professional growth. The discussions fostered self-awareness, motivation, and a values-driven approach to life.



DAYANANDA SAGAR UNIVERSITY

DEVARAKAGGALAHALLI, HAREHALLI, KANAKAPURA RD, DIST. RAMANAGARA, KARNATAKA-562102

SCHOOL OF ENGINEERING
DEPARTMENT OF CSE (ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING)

INSPIRATIONAL TALK

ON

Empowering Educators: Elevating Lives Through Personal and Professional Growth



DR. P. SUPRAJA
Associate Professor,
Indo - US Wistam Fellow, USA (USC),
Post-Doctoral Research Associate, UK,
SRM Institute of Science and Technology
Chennai, India





S.V.K.R. RAJESWARI SATULURI
Assistant Professor, Researcher,
Public Speaker, Life Coach,
NLP Practitioner,
Lifestyle Writer
Dayananda Sagar University
Bengaluru, India

CONVENERS:
Dr. D. Hemachandra Sagar
Chancellor, DSU
Dr. D. Premachandra Sagar
Pro-Chancellor, DSU
Dr. Amit Bhatt
Vice-Chancellor In Charge, DSU
Dr. Puttamaadappa C
Registrar, DSU
Dr. Vidya Kumar Reddy
Dean, SOT, DSU
Dr. Ramesh R Gelligere
Dean (Acad) Science & Technology
Dr. Kousalya Govardhanan
Dean (R&D)
Dr. Jayavirinda Vrindavanam V
Professor & Chairperson CSE (AI & ML),
DSU

 **2:00 P.M to 4:00 P.M**
 **16th Jan 2025**

SCAN TO REGISTER!!!









Image: 1. Inspirational talk

2. Faculty Achievements

- 2.1 **Prof. Sriramkumar R**, Assistant Professor, Dept. of CSE(AI&ML) has awarded the certificate for successfully presented the paper entitled Leveraging Blockchain for Secure and Efficient Crowdfunding: An Optimized Particle Swarm Approach at 9th International Conference on Communication and Electronics Systems (ICCES 2024) organised by PPG Institute of Technology, Coimbatore, India on 16-18, December 2024.



Image: 2. ICCES 2024 IEEE Conference certificate_Prof. Sriramkumar

- 2.2 **Dr. Shreyas Rajendra Hole**, Assistant Professor, Dept. of CSE(AI&ML) has successfully completed a One Day Faculty Orientation Program on “Empowering Academia: Integrating High-Performance Computing in Education and Research” Organized by Department of Computer Science and Engineering, IIIT Nagpur, Walchand College of Engineering, Sangli Under the aegis of National Supercomputing Mission, Government of India On 6th January 2025.



Image: 3. Faculty orientation certificate_Dr. Shreyas

- 2.3 **Dr. Lakshmanan**, Assistant Professor, Dept. of CSE(AI&ML) has published a Journal titled "Implementation of Energy-Aware Optimal Routing for Improving Traffic Capacity in Ad Hoc Wireless Network Using Hybrid Heuristic Algorithm," Int. J. Commun. Syst., vol. 38, no. 4, pp. e6126, 2025. DOI: <https://doi.org/10.1002/dac.6126>. Q2, Impact Factor: 1.7

RESEARCH ARTICLE

Implementation of Energy-Aware Optimal Routing for Improving Traffic Capacity in Ad Hoc Wireless Network Using Hybrid Heuristic Algorithm

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Keywords: energy consumption | energy-aware routing | Hybrid Dark Forest-based Gazelle Optimization Algorithm | optimal routing | traffic capacity | wireless ad hoc network

ABSTRACT

Ad hoc wireless network has been one of the significant research topics, as its uses are spread over various applications. The energy-aware routing (EAR) protocols must create a routing environment with both the security and energy factors, such that the ad hoc network can be sustained for a longer period. Thus, this work proposes an EAR model by considering various factors of the ad hoc network and thus aims to improve the overall network lifetime. At first, the necessary attributes for this process are gathered from standard data sources. After that, an energy-efficient optimal routing process is performed with the support of the proposed Hybrid Dark Forest-based Gazelle Optimization Algorithm (HDFGOA) for minimizing energy consumption and maximizing the network lifespan. In this process, the multiobjective functions such as residual energy, route energy, route quality, congestion, and signal interference noise ratio (SINR) are derived by the same HDFGOA. This supports to performance of the energy-efficient optimal routing process without any interference. Moreover, this process improves the traffic capacity of the ad hoc wireless networks. Finally, thorough experiments are performed for the developed energy-efficient optimal routing process with conventional algorithms to ensure the suggested process's effectiveness.

1 | Introduction

Wireless technology, in recent years, has seen a progressive improvement as it has a high degree of flexibility in the

network provides this advantage by having a large set of nodes interconnected by wireless medium [3]. The interconnected nodes form a temporary network without the intervention of a fixed medium. Research related to ad hoc networking is on

Image: 4.Wiley journal_Dr. Lakshmanan

- 2.4 **Prof. Subhash Mondal**, Assistant Professor, Dept. of CSE(AI&ML) has published a Journal titled "An Efficient Malware Detection Approach Based on Machine Learning Feature Influence Techniques for Resource-Constrained Devices", IEEE Access. The journal is indexed in Web of Science (WoS) and has a high Impact Factor of (3.4) with SCImago Journal & Country Rank (SJR) of Q1. Journal: IEEE Access Publication Date: 07.01.2025 Journal Link to access: <https://ieeexplore.ieee.org/document/10830491/authors#authors>

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RESEARCH ARTICLE

An Efficient Malware Detection Approach Based on Machine Learning Feature Influence Techniques for Resource-Constrained Devices

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ABSTRACT The growing use of computer resources in modern society makes it extremely vulnerable to several cyber-attacks, including unauthorized access to equipment and computer systems' manipulation or utter breakdown. Malicious attacks in the form of malware cause significant harm to systems with limited resources. Hence, detecting these attacks and promptly implementing a computationally efficient technique is imperative. Utilizing a machine learning (ML) based model is a superior option for promptly identifying malware. This study develops fourteen machine learning models using a five-fold cross-validation technique on the dataset it obtained for research. We compute the execution time and memory used for each of the fourteen ML model developments, considering both all features and the reduced features after applying the

Image: 5.IEEE access journal_ Prof. Subhash_mondal