

Department of Artificial Intelligence and Data Science

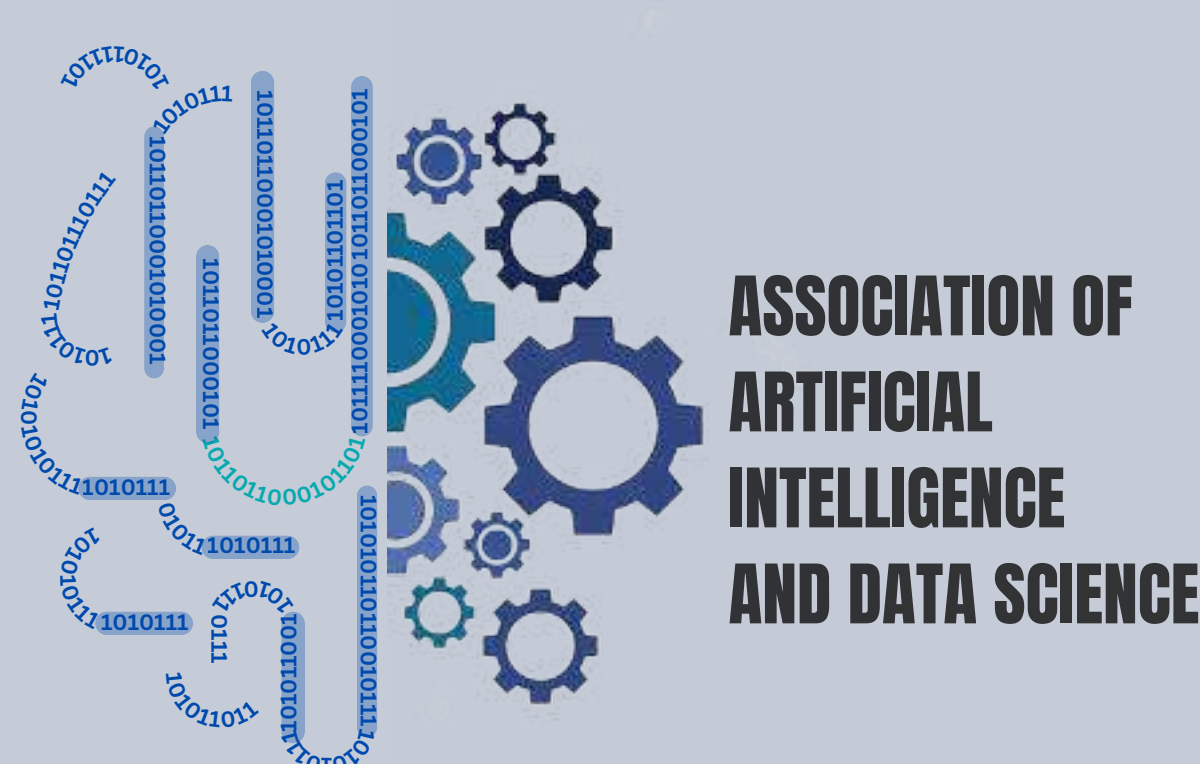
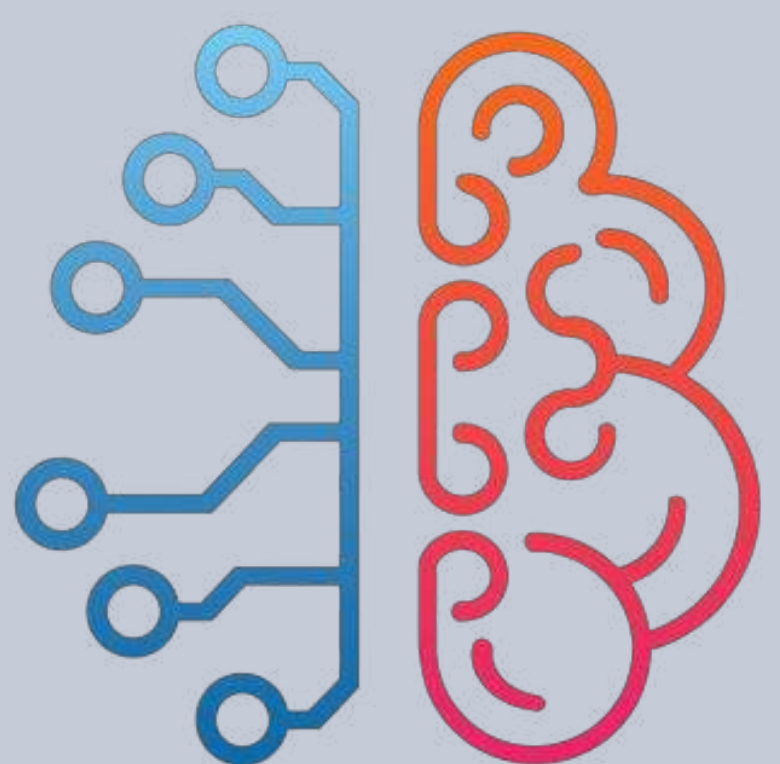
VOL - 01

AUGUST 2022- MARCH 2023



CHRONICLES

NEWSLETTER



TinkerHub
MITS

AI CHRONICLES

EDITORIAL

Dear all,

It is with immense pleasure and pride that we introduce the inaugural edition of the Artificial Intelligence and Data Science Department Newsletter. This publication serves as a testament to the remarkable achievements, insights, and innovations that characterize our dynamic and thriving community. Within these pages, you will find a carefully curated selection of articles and features, offering a glimpse into the diversity and dynamism inherent to our department. Our commitment to excellence is evident in the array of events, seminars, workshops, and technical talks featured in this edition each meticulously designed to foster innovation, collaboration, and skill enhancement among our students. Our students, the heartbeat of our department, take center stage as we showcase their outstanding accomplishments in academics, internships, and projects. Their dedication is the driving force behind the success of our department, and we take pride in highlighting their journey in this edition. Behind every successful student is a team of esteemed faculty members who not only excel in their respective fields but also serve as dedicated mentors. Discover more about their groundbreaking research, rich experiences, notable publications, and enduring contributions to the AI and data science community.

We trust that you will find this inaugural edition engaging and informative. As we navigate the ever-evolving landscape of artificial intelligence and data science, let us reiterate our commitment to the pursuit of knowledge, collaboration, and ethical innovation.

Together, let us build a vibrant and collaborative community that fosters the exchange of knowledge and ideas in the realm of Artificial Intelligence and Data Science. We express our sincere gratitude for being a part of this exciting journey.

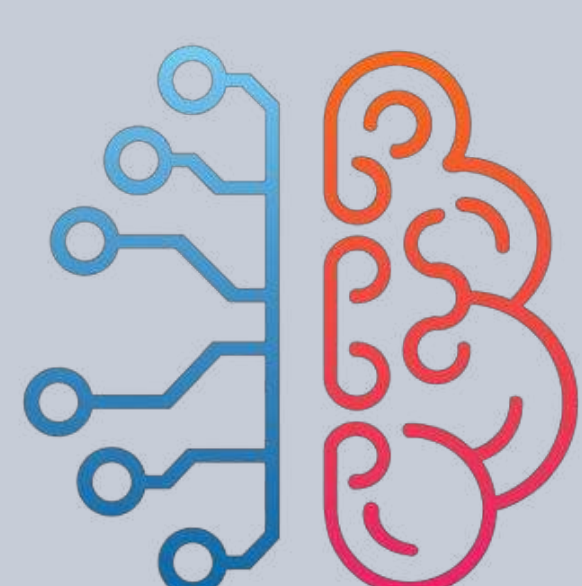
Best Regards,
Angel Varghese
Editor

Artificial Intelligence & Data Science Department



Editorial

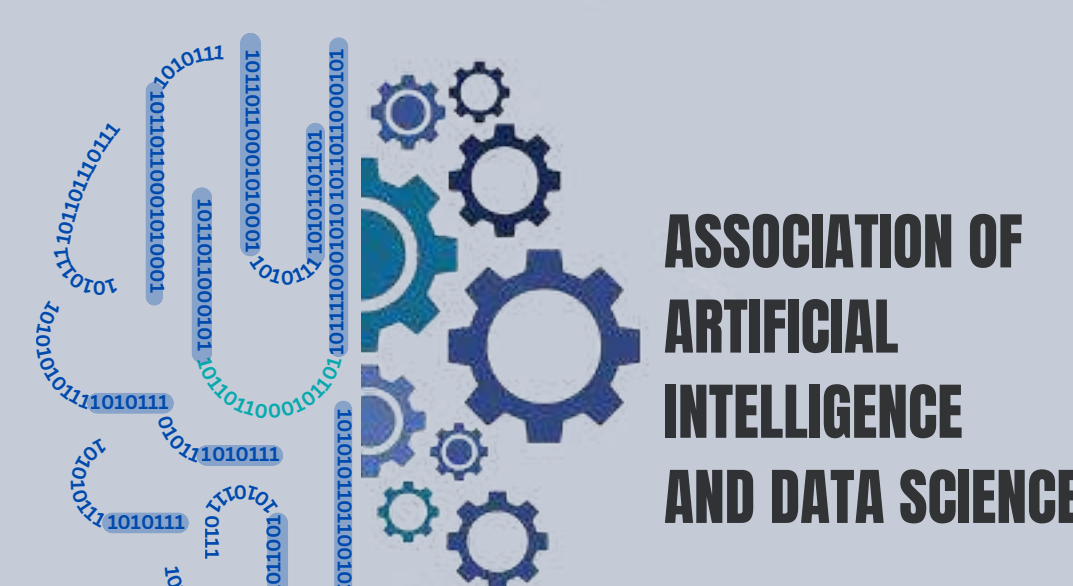
Ms. Angel Varghese
Lakshmi S7 CS(AI)
Stevin Sony S5 CS(AI)
Harigovind G S5 CS(AI)



Department of Artificial Intelligence and Data Science



Computational Intelligence Club



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VISION

To be a center of excellence in learning, research and technology development in the field of Artificial Intelligence and Data science with a strong sense of social responsibility.

MISSION

- To facilitate state-of-the-art teaching and learning to meet the expectations of the stakeholders.
- To empower students towards technology development & transfer, to solve socially relevant problems.
- To promote collaborative research through long term interaction with industry and R&D institutions

PROGRAM SPECIFIC OUTCOME OF CS(AI)

- PSO1: Implement AI models and strategies for real world problems to meet the challenges of future.
- PSO2: Develop computational models for system automation.

PROGRAM SPECIFIC OUTCOME OF AI&DS

- PSO1: Interpret and visualize high dimensional data for decision making systems.
- PSO2: Develop computational models for system automation.

PROGRAM EDUCATIONAL OBJECTIVES

Our graduates will

- PEO1: Create sustainable AI models.
- PEO2: Implement AI responsibly in research and development and technology transfer.
- PEO3: Deliver AI solutions for entrepreneurial activities leading to employment generation.

AI CHRONICLES

EVENTS ORGANIZED

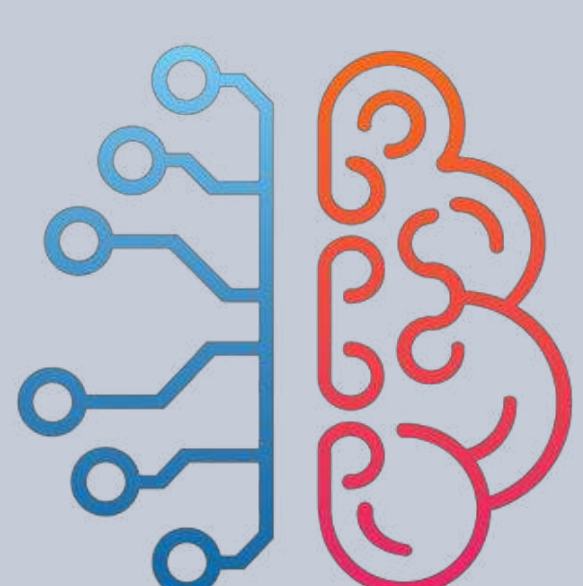
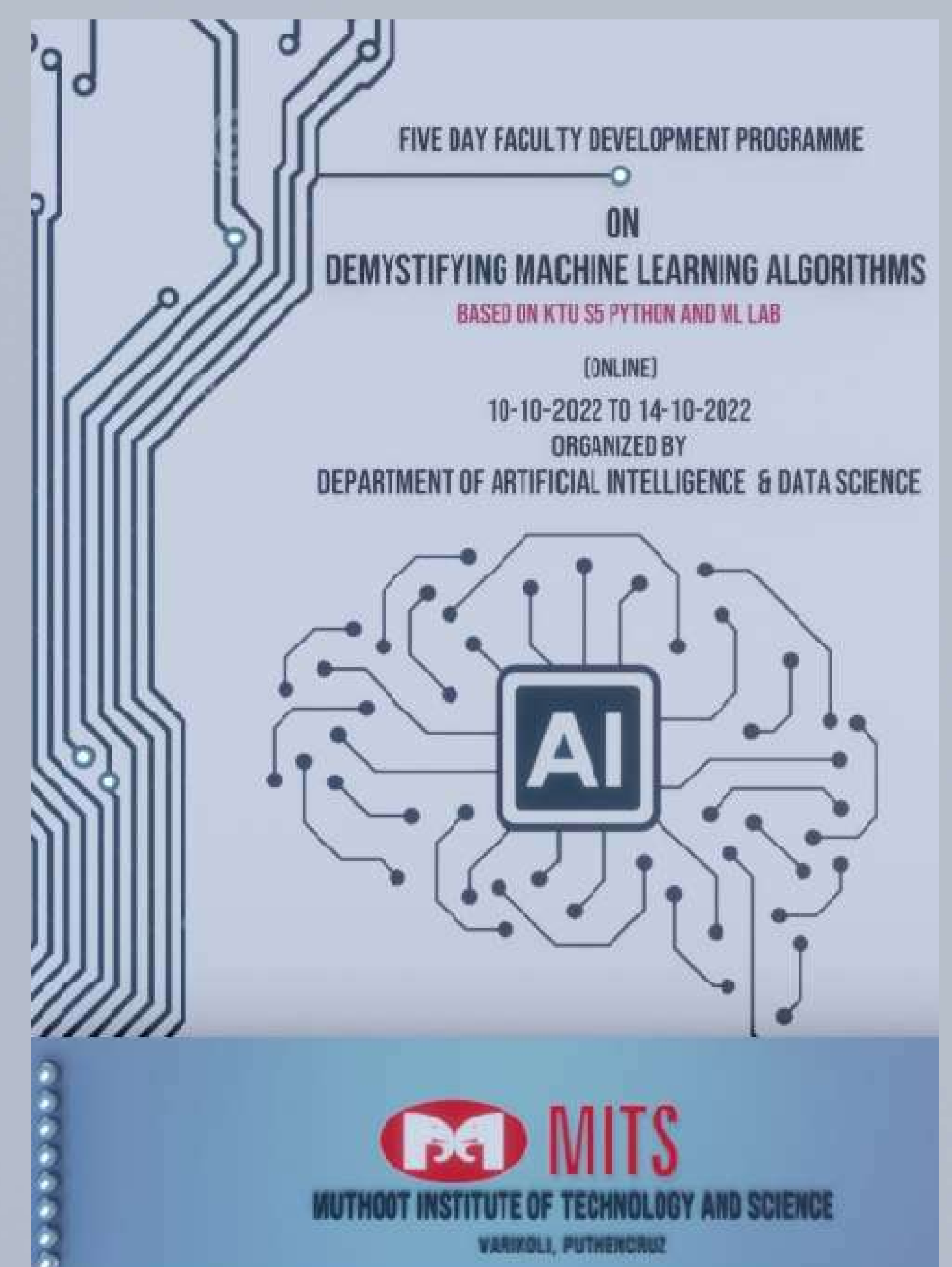
INAUGURATION OF AI DEPARTMENT ASSOCIATION

The inaugural ceremony of AI&DS department association and Computational Intelligence Club was conducted on 19 Oct 2022, with Dr. Elizabeth Sherly, distinguished professor of Kerala Digital University, as the chief guest.



DEMYSTIFYING MACHINE LEARNING ALGORITHMS: FACULTY DEVELOPMENT PROGRAM

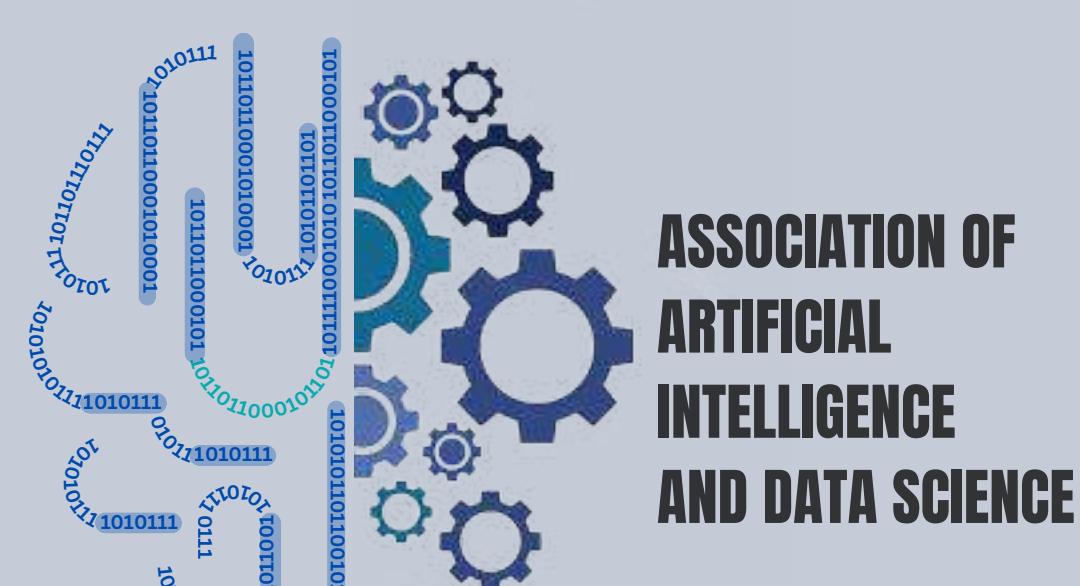
A 5-day(10/102022 to 14/102022) session was organized by the Department of AI&DS for faculty and research scholars. The objective of the program was to help participants learn and understand the machine learning algorithms using Python at a beginner level. Around 100 participants were actively involved in the session.



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EVENTS ORGANIZED

INTRODUCTION TO TINKERHUB

TinkerHub Campus community inauguration and an introduction to TinkerHub were held on 19th Nov 2022. Mr. Anantha Krishnan, Clusterdev operations lead and TinkerHub campus community fellow introduced the community to the students of MITS.



UNVEILING THE POWER OF AI IN CYBERSECURITY: EXPERT TALK

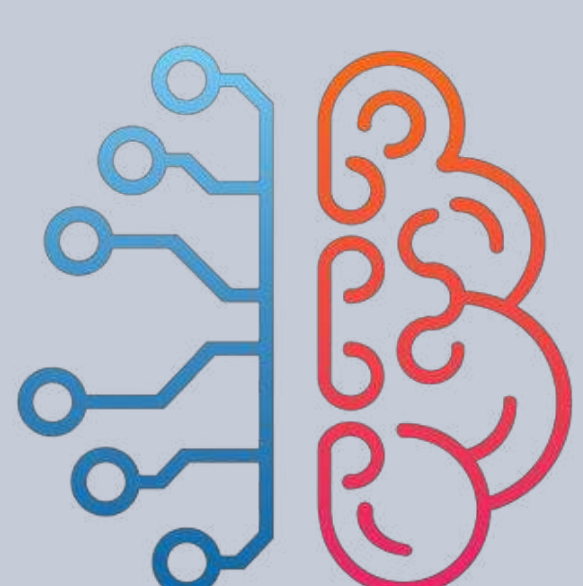
25/01/2023 - 27/01/2023

An insightful technical presentation on "Artificial Intelligence in Cyber Security" with Sri. Bhadran V K, Director Alibi Global Pvt. Ltd, Former Head Technology, Kerala IT Mission, discussing the potential applications and ethical considerations of using AI in cybersecurity



CODE A STAR

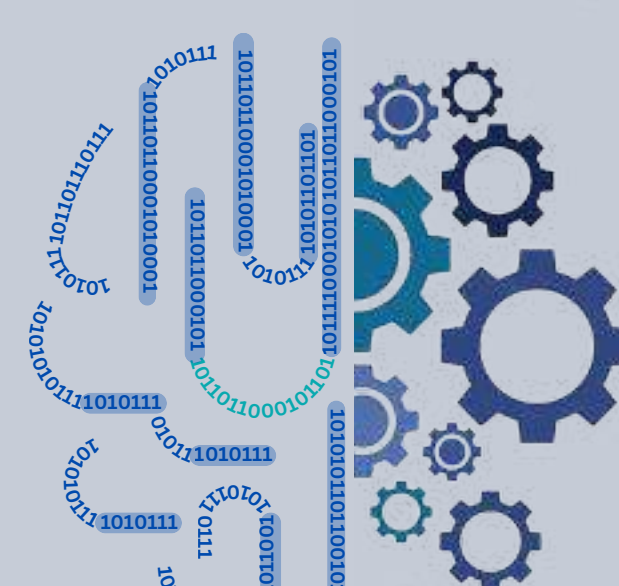
TinkerHub MITS Hosted an Exciting Coding Competition "CODE A STAR", where participant showcased their Creative Skills by Crafting Stellar Creations in Their Preferred Programming Languages"



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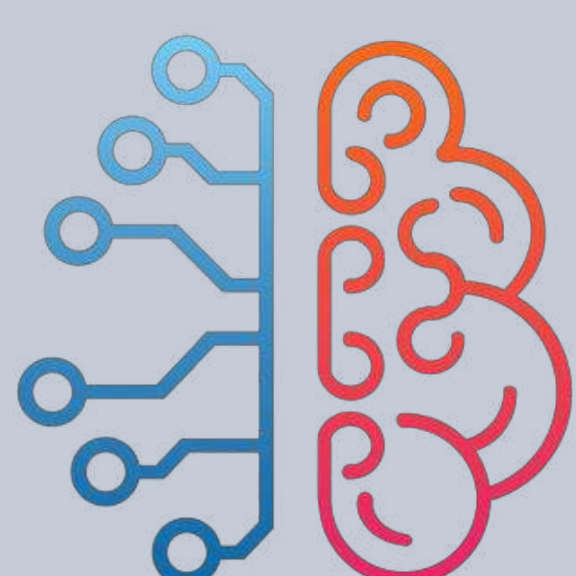
EVENTS ORGANIZED

OWN YOUR CAREER

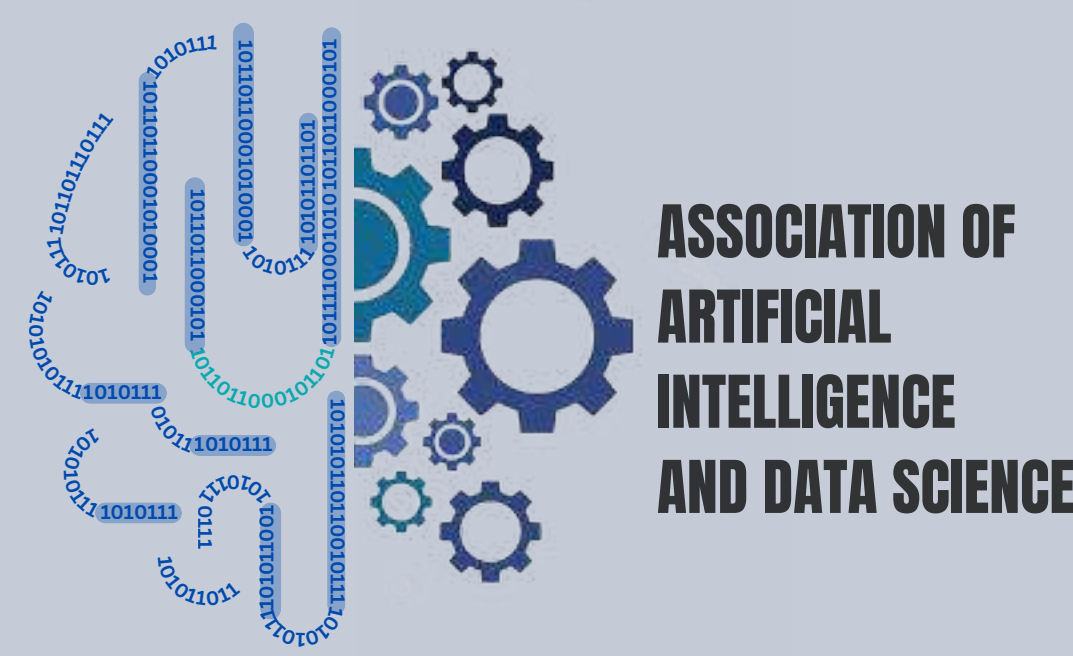
Tinkerhub MITS hosted an enriching profile-building session that honed resume-building skills, provided LinkedIn and GitHub tutorials, and propelled participants toward excellence in their chosen fields. Sandramol S, TinkerHub intern, facilitated the session with co-facilitators Swathi S Krishna, Campus Lead of TinkerHub MITS, and Christo Tomy, Tech Lead TinkerHub MITS.

METaverse EXPO

In association with IIT Palakkad, the AI&DS department of MITS hosted METaverse as a part of the intercollegiate Techfest SHRESHTA 2023. The event was a workshop on Virtual Reality. Also available to the attendees was a hands-on VR experience with a variety of scenes and activities to explore. 122 people participated in the program.



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EVENTS ORGANIZED

LASER TAG

APRIL 1 2023

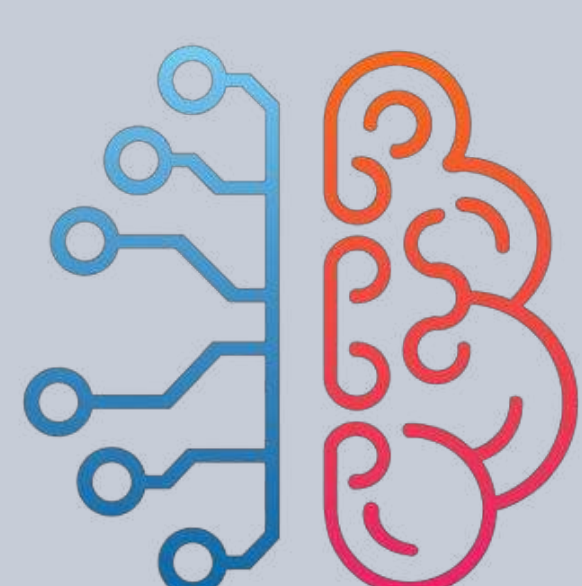
Laser tag, a fast-paced team game conducted by the AI&DS Department as part of the intercollegiate Techfest SHRESHTA 2023, where the objective of each team is to capture the opposing team's flag. The game is played in a 3 vs 3 format with three rounds of two minutes each. The team that wins two rounds wins the game. Players are required to use the extensive terrain to their advantage to outplay their opponents.



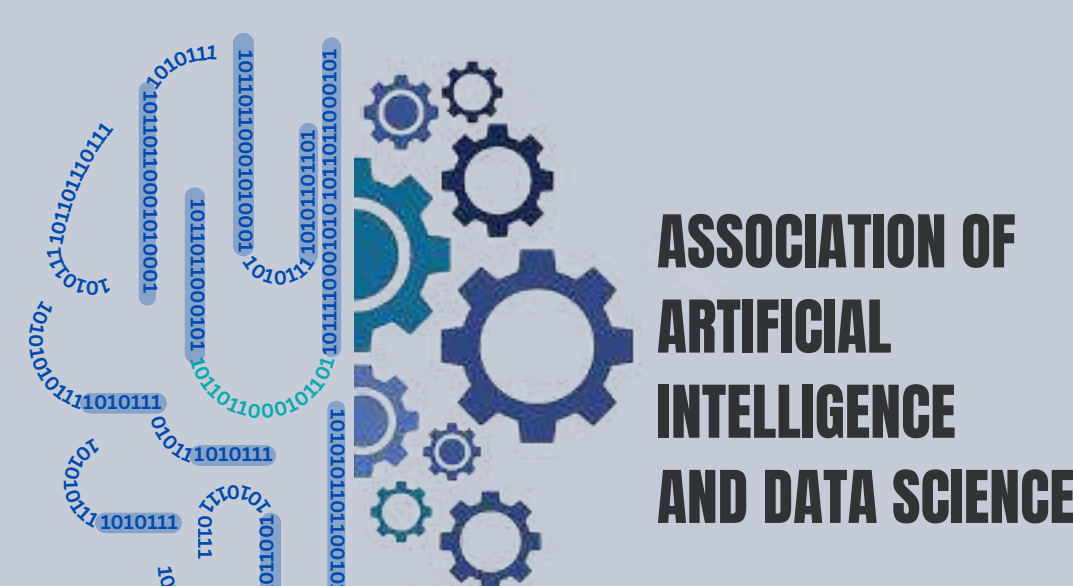
ARMAGEDDON

APRIL 1 2023

Armageddon competition, which was held as part of the intercollegiate Techfest SHRESHTA 2023 by the AI&DS Department, involved players following through and completing a series of tasks aligned with an intriguing story. Participants were required to solve AI-related puzzles to conquer each level.



It's your chance to shine at AI&DS Techfest SHRESHTA 2023



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STATISTICAL MODELING OF DATA SCIENCE USING PYTHON

The Two Day Faculty Development programme on “Statistical modeling of data science using python” was conducted successfully during January 25th and January 27th of 2023. The aim of the FDP was to familiarize basic concepts of data science, which will enable them to handle the lecture sessions very well. The topics were based on the KTU syllabus of S4 CS AI. It intend to increase the research impact of the faculties in the respective fields.



FACULTY ACHIEVEMENTS

DR SUMAM MARY IDICULA

RESEARCH PUBLICATIONS



- "Lightweight SAR ship detection and 16 class classification using novel deep learning algorithm with a hybrid preprocessing technique." *International Journal of Remote Sensing* 43.15-16 (2022): 5820-5847 January 2022
- "Spatio-temporal data clustering using deep learning: A review." *2022 IEEE International Conference on Evolving and Adaptive Intelligent Systems (EAIS)*. IEEE, 2022.
- "Feature based entailment recognition for malayalam language texts." *International Journal of Advanced Computer Science and Applications(IJACSA)*, Volume 13 Issue 2, 2022..
- "Deep Learning Based Synthetic Aperture Radar Image Classification" in *Machine Learning Algorithms for Signal and Image Processing*, 37-43(Book chapter, ISBN:9072-1-119-86182-9, Wiley-IEEE press, Dec 2022).
- "Extractive summarization of Malayalam documents using latent Dirichlet allocation: An experience." *Journal of Intelligent Systems* 31.1 (2022): 393-406.

FACULTY ACHIEVEMENTS

DR SUMAM MARY IDICULA

CONFERENCE PUBLICATIONS

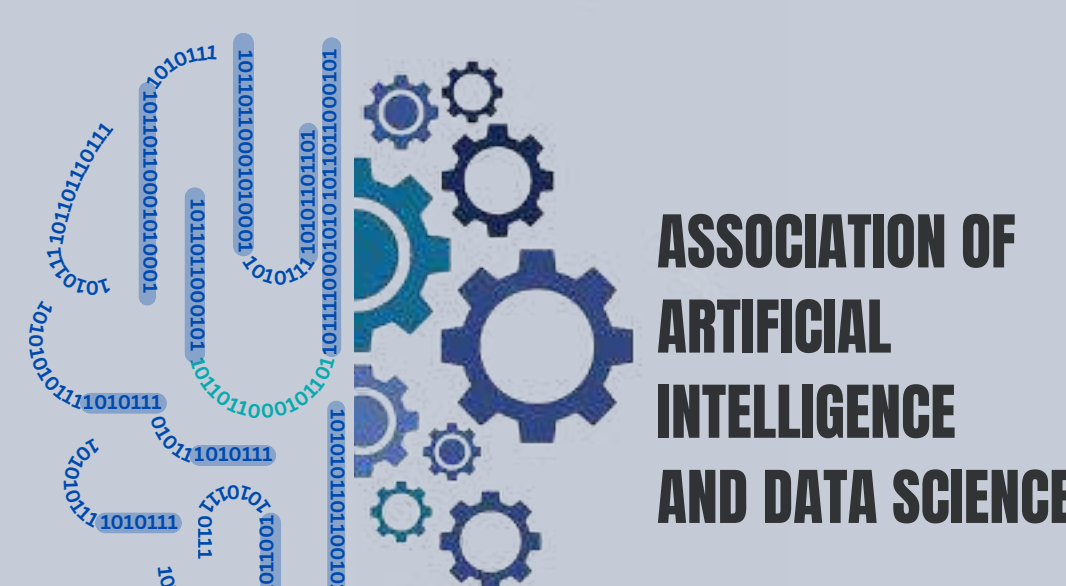
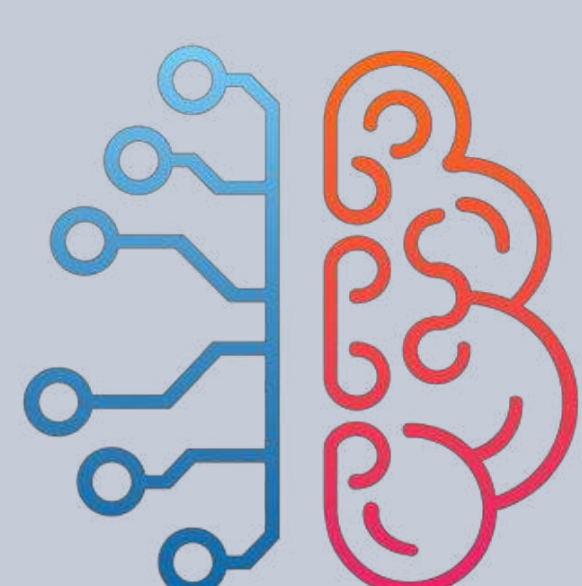
- "Textual Inference Identification in the Malayalam Language Using Convolutional Neural Network." Advanced Computing and Intelligent Technologies: Proceedings of ICACIT 2022. Singapore: Springer Nature Singapore, 2022. 237-250.
- "English to Indian Sign Language Gloss Conversion Using a Rule-Based Approach." Proceedings of International Conference on Communication and Computational Technologies: ICCCT 2022. Singapore: Springer Nature Singapore, 2022.
- "Abstractive Summarization of Text Document in Malayalam Language: Enhancing Attention Model Using POS Tagging Feature." ACM Transactions on Asian and Low-Resource Language Information Processing 22.2 (2023): 1-14.

FUNDED PROJECTS

- Got the approval for her project titled "DRDO- CARS project on Deep learning-based Ship detection and classification from Synthetic Aperture Radar (SAR) images" for 9.6lakhs from NPOL.

AWARDS

- Received CSIR Emeritus Scientist ship 2022.



FACULTY ACHIEVEMENTS

DR.CERENE MARIAM ABRAHAM

JOURNAL PUBLICATION

- "Real-time earthquake detection using Twitter tweets." AIP Conference Proceedings. Vol. 2520. No. 1. AIP Publishing, 2022.

CONFERENCE PUBLICATIONS

- "Cryptocase-Diversified Investment Platform for High Returns" in International Journal of Engineering Research & Technology (IJERT), 2278-0181, ICCIDT Conference Proceedings 2022, 10.17577/IJERTCONV10IS04016.

EXPERT TALKS

- Delivered session for the programme IT Empowerment for Senior Managers And Employees of Muthoot Group, along with Dimple Elizabeth Baby and Dr. Priya C.V



FACULTY ACHIEVEMENTS

Dr. Priya C V

CONFERENCE PUBLICATIONS

- "A Secure Application of Multi-Biometric Recognition and QR Coding System" IEEE Conference Proceedings - April 2022 - Organized by IIIT Kottayam.
- "An Automated System For Subject Allocation Among Faculty in Academic" IEEE Conference Proceedings - March 2023 - IEEE International Power and Renewable Energy Conference (IPRECON).



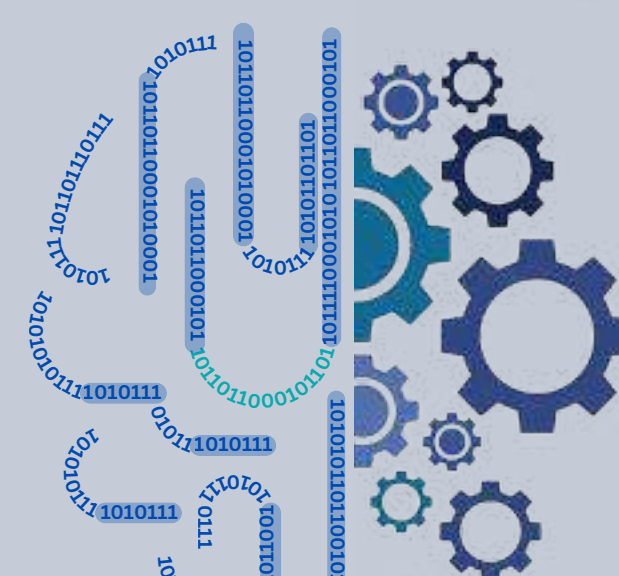
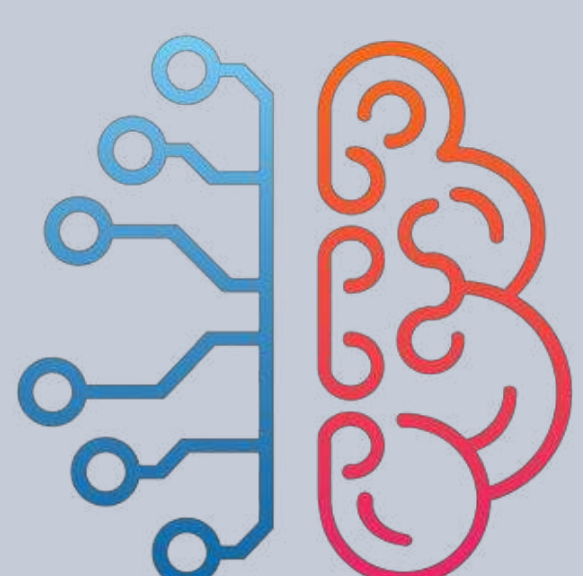
OUTREACH PROGRAMS

- Delivered a talk on "AI Beginners Workshop - Get Set for AI Vibes" at AISAT, Kalamassery along with Dr. Jina Varghese
- Delivered an introductory Talk & Hands-on session on AI - First Try on AI - MITS+ACM Students Chapter along with Dr. Jina Varghese

FACULTY ACHIEVEMENTS

DR. PRIYA C V

- A session for the FDP organised by MITS AI&DS Department on Demystifying Machine Learning Algorithms.
- A session for Tech Shakthi 1.0 - A Skill Improvement Programme for Women of Kunnathunad Constituency organised by MITS.
- Selected as 'TechSaksham Ambassador' by Microsoft India & SAP India led Faculty Development Program on "Artificial Intelligence" organized in collaboration with ASAP Kerala under TechSaksham Program along with Dr. Jina Varghese



FACULTY ACHIEVEMENTS

DR. JINA VARGHESE

OUTREACH PROGRAMS

- Delivered a talk on "AI Beginners Workshop - Get Set for AI Vibes" at AISAT, Kalamassery along with Dr. Priya C.V
- Delivered an introductory Talk & Hands-on session on AI - First Try on AI - MITS+ACM Students Chapter along with Dr. Priya C.V
- Selected as 'TechSaksham Ambassador' by Microsoft India & SAP India led Faculty Development Program on "Artificial Intelligence" organized in collaboration with ASAP Kerala under TechSaksham Program along with Dr. Priya C.V



FACULTY ACHIEVEMENTS

DIMPLE ELIZABETH BABY

OUTREACH PROGRAMS

- One of the Chief Program Coordinators (CSE) for the Outreach Program JUMPSTART version 1.0 at Catholicate HSS Pathanamthitta and delivered a hand on session on "Natural Language Processing".
- One of the Chief Program Coordinators for the Outreach Program JUMPSTART version 2.0 at Rajarshi Memorial HSS Vadavucode and delivered a hand on session on "Hands on Session on AI/ML using Nocode AI builder tools".

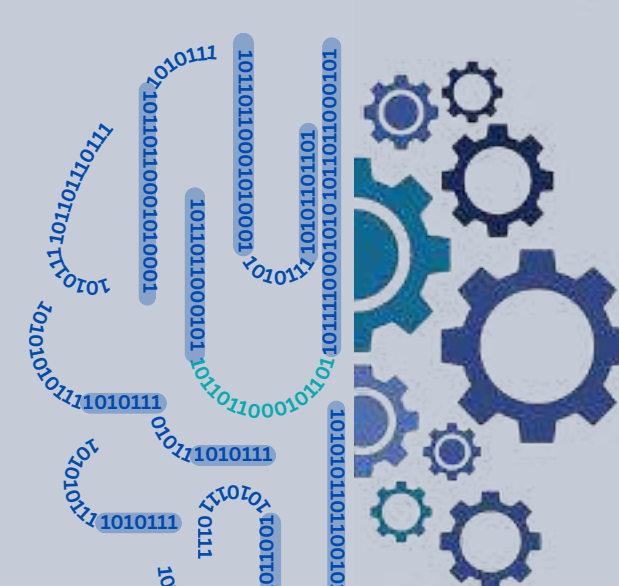
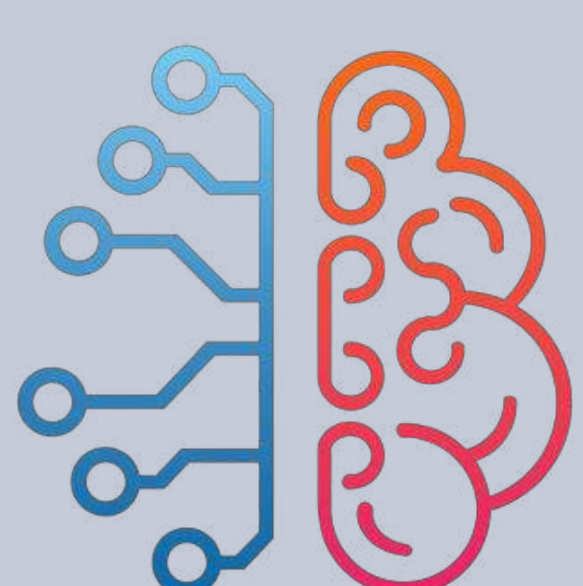


CONFERENCE PUBLICATIONS

- Presented a paper "Automated System for Identifying Vaccinated Person by Iris Recognition Technique using Deep Learning Models" in International Conference on Advances in Signal Processing, VLSI, Communications and Embedded Systems (ICSVCE-2022) organized by Vardhaman College of Engineering Hyderabad and Paper accepted for publishing AIP Conference Proceedings (indexed in Web of Science and Scopus).

AWARDS

- Completed the MOOC COURSE with NPTEL certification on Medical Image Analysis in March 2023.
- Received the title " Wipro certified Faculty in Java Full Stack" in February 2023.



FACULTY ACHIEVEMENTS

AWARDS

ELDHOSE P SIM

- Delivered a session on World of startup opportunities and Challenges organized by IIC TIST.
- Recognized as Innovation Ambassador, MoE Innovation cell conducted by AICTE.



SHAREENA BASHEER

- Received NPTEL Elite Certification for the MOOC Course Theory of computation.



STUDENT ACHIEVEMENTS

ACADEMIC EXCELLENCE

SEMESTER EXAMS ACADEMIC YEAR 2022-2023



Pardhiv Krishna of S4 CS-AI has secured 10 SGPA in the second semester examination conducted on June 2022

Tiju George Varghese of S2 MTech AI&DS has secured 10 SGPA in the second semester examination June 2022



STUDENT ACHIEVEMENTS

EXTRACURRICULAR ACHIEVEMENTS

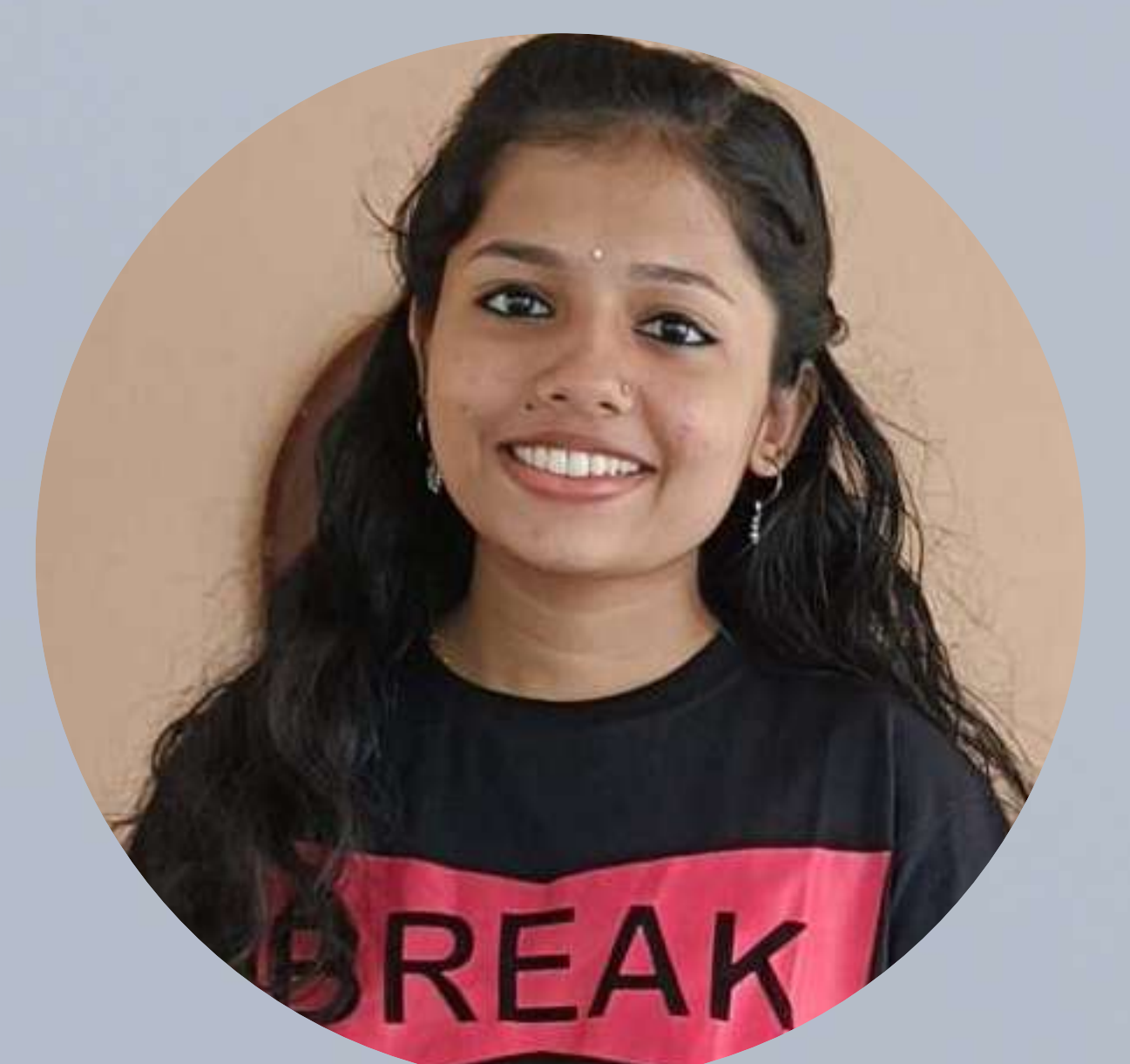
Hima Jyothish, Fathima Nasrin, Seethal Anil, Sameera T U of S4CSAI has bagged first prize in Hackathon conducted by Tinkerhub



Mishel Anna Ashly of S2 AI&DS has bagged third prize in KTU Interzone Karate Championship. She's also the second prize winner in District Karate Championship.

Nikhitha Eldhose of S4 CS(AI) has bagged

- Second prize in IDEATHON, an online idea pitching competition as a part of WiEcompete, organized by IEEE WIE AGs of NITC, RIT and CCE.
- Second prize in CONVO EMPOWERO is a Q&A competition organized by IEEE AG VJCET as part of Malala Day.
- First prize in Alora-2022 is an Article Writing Competition organized by IEEE FISAT SB.



STUDENT ACHIEVEMENTS

Eben G Abraham, Aswin Dev SP, Harigovind of S4 CSAI and AI& DS developed Android application "Maintenance and Complaint Managment System" for MITS.



Janu Sunil has been selected to the KTU University Basketball team for Inter University Championship.

STUDENT ACHIEVEMENTS

INDUSTRIAL PROJECTS

Sulphur Prediction in DHDS(for BPCL- Ongoing).

The students of **S6 CS AI and CS A** are currently working on developing a machine learning model that will be capable of predicting a proportion of the end product sulfur, which will be aligning with the data that has been obtained through the laboratory methods. It aims to create an effective monitoring system to visualize in numbers the proportion of sulphur at the end of the DHDS desulfurization process.



Indoor Navigation System

The students of **S8 ECE and CS(AI)** worked on an app that provides a complete layout of a specified venue along with all the events happening as well as the route to reach the corresponding venues.

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STUDENT ACHIEVEMENTS

Project-Rambo

Music recommendation discord bot, after sentimental analysis.
Tink-Her-Hack, 4th prize winners(TocH venue) advanced to the next level of hackathon.

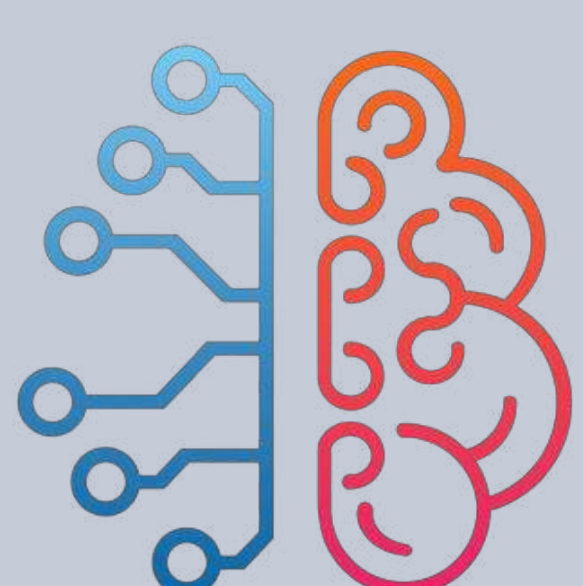
Team Members:

Abhirami Anil

Devika S

Nandana S

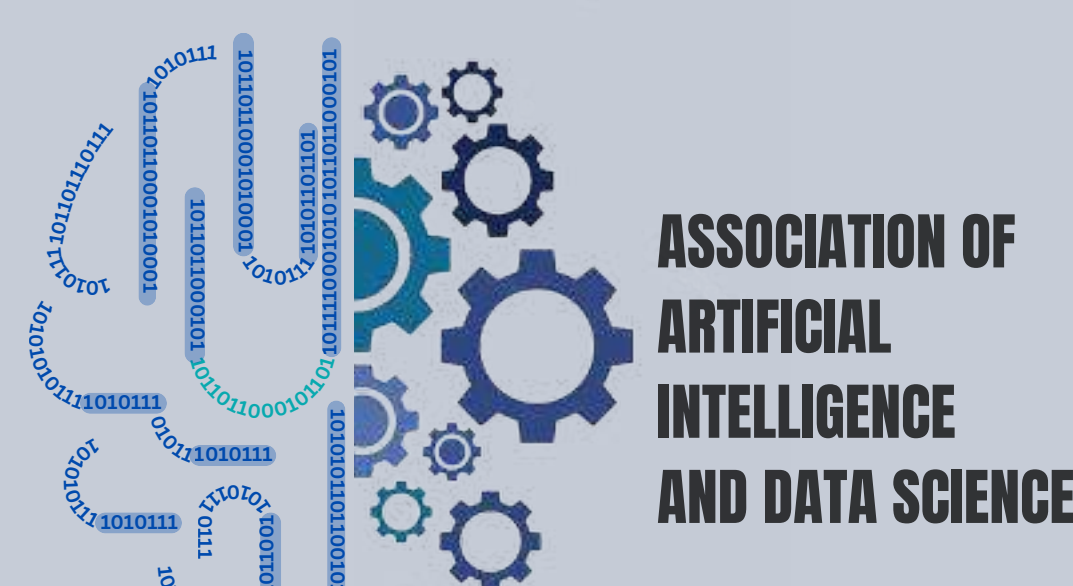
Neha Grace Poly



It's your future. Let AI and Data Science define it.



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