

AIML INSIGHTS INK

Secret of Success... MALNAD COLLEGE OF ENGINEERING

(An AUTONOMOUS INSTITUTION
UNDER VTU, BELAGAVI)
HASSAN, KARNATAKA 573202, INDIA

A Newsletter from Department of Computer Science and
Engineering (**Artificial Intelligence and Machine Learning**)

Annual Edition 2024 | Volume 1 | Issue 1

MALNAD COLLEGE OF ENGINEERING
(An AUTONOMOUS INSTITUTION UNDER VTU, BELAGAVI)
HASSAN, KARNATAKA 573202, INDIA



INSTITUTE MISSION

- Create conducive environment for learning and research
- Establish industry and academia collaborations
- Ensure professional and ethical values in all institutional endeavours

INSTITUTE VISION

To be an institute of excellence in engineering education and research, producing socially responsible professionals.



Computer Science and Engineering (Artificial Intelligence & Machine Learning)



Mission

- Fostering innovation through cutting-edge teaching, transformative learning, and innovative research in field of artificial intelligence and machine learning with foundations of Computer Science and Engineering.
- Impart latest technology by establishing industry academia collaboration.
- Maintain high standards of ethical values involved in AI and ML applications with transparency of operations for moral concerns of the society

Vision

To be a Center of Excellence for innovative teaching, learning and research to produce socially responsible professionals in the field of Artificial Intelligence and Machine Learning to address realworld problems.

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

- **PEO1** Acquire the fundamentals and expertise in basic science, Computer Science and Engineering, Artificial Intelligence and Machine Learning principles and excel as an IT professional or an entrepreneur.
- **PEO2** Pursue Higher Studies and Research
- **PEO3** Adapt to the technological advancements by engaging in lifelong learning and exhibit professional ethics, teamwork and leadership qualities.

PROGRAM SPECIFIC OUTCOMES (PSOs)

- **PSO1 Analytical Thinking:** Apply the principles of analytical and programming skills to solve the engineering problems
- **PSO2 Data Engineering and Intelligent Systems:** Utilize cognitive computing, artificial intelligence, and machine learning skills within the realm of data engineering to create intelligent systems.

PROGRAM OUTCOMES (POs)

- **PO1 Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
- **PO2 Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
- **PO3 Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
- **PO4 Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
- **PO5 Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.
- **PO6 The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.



DEPARTMENT OF CSE(AI&ML)

Dr. Balaji Prabhu B V

HEAD OF THE DEPARTMENT
and ASSOCIATE PROFESSOR

- Dr Balaji Prabhu B V - B.E., M.Tech., Ph.D., Postdoctorate (IISc.).
- HOD - Department of CSE(Artificial Intelligence and Machine Learning)
- Expertise : Artificial Intelligence and Machine Learning
- Research Interest : Artificial Intelligence, Computer Vision, Data Science, Blockchain, Remote Sensing
- Coordinator - ICT, NIRF, IUCEE



Mrs. Ankitha S

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- Qualification : M.Tech
- Specialization : Information Technology



Ms. Sushma M V

INDUSTRY PARTNERS

Department OF AI&ML has an **MOU** with ExcelR to bring new learning opportunities in many fields.

ExcelR is a global leader delivering technical training over 40 countries

- Training for students
- Faculty Development
- Curriculum Enhancement
- Skill Development & Guest Lectures



FACILITIES

- HOD office– 1: (AI304)
- Staff Rooms – 1 (AI305)
- Class Rooms: 3 (AI301, AI302, AI303)
- Lab - 1 (MB 202)
- No. of Systems : 70 (8 GB- 50, 16 GB- 20)
- Configuration-

Processor- I5 13th Gen

Speed – 2.5 GHZ

OS-Windows 10

RAM- 8 GB

HDD- 512 GB

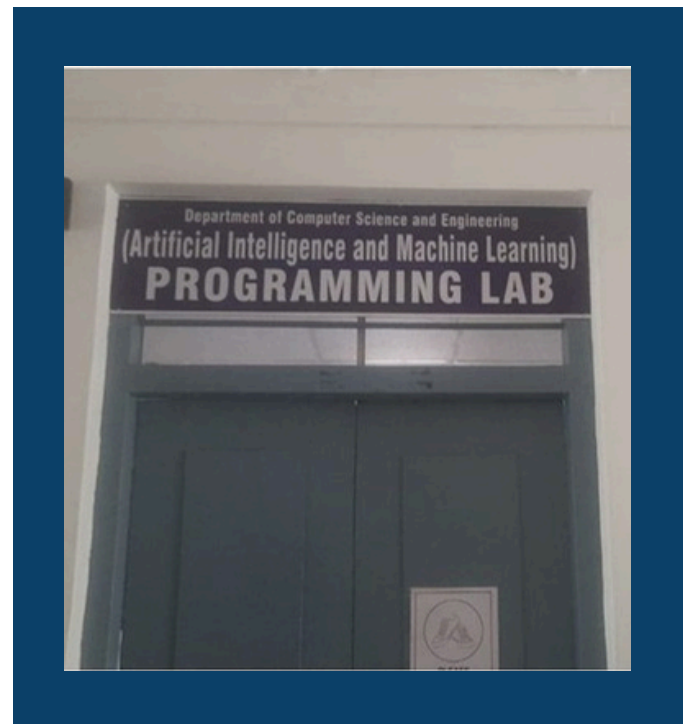
Monitor- DELL

Processor- I5 13th Gen

Speed – 2.5 GHZ

OS- UBUNTU

RAM- 16 GB





PUBLICATIONS



- Dr . Balaji Prabu BV, Tajamul Ashraf and Omkar S N , **“PoseWatch: Advancing Real Time Human Pose Tracking and Juxtaposition with Deep Learning”** , IEEE-International Conference on Computer Vision & Image Processing (CVIP-2023). November 03-05, 2023 at Indian Institute of Technology Jammu (IIT Jammu).
- BV Balaji Prabhu, R Lakshmi, R Ankitha, M S Prateeksha, NC Priya, **“RescueNet: YOLO-based object detection model for detection and counting of flood survivors”** , Modeling Earth Systems and Environment, Springer, 8(4), 4509-4516, 2022. <https://link.springer.com/article/10.1007/s40808-022-01414-6>
- Kestur, A Kulkarni, Balaji Prabhu BV, **“MangoGAN: a general adversarial network-based deep learning architecture for mango tree crown detection”**, Journal of Applied Remote Sensing, 16 (1), 014527-014527, 2022, International Journal.
- Dr. Balaji Prabhu B V, **"ARIA: Augmented Reality and Artificial Intelligence enabled mobile application for Yield and grade prediction of Tomato Crops"** Procedia Computer Science – Elsevier, International Journal .

MOMENTS FROM AROUND THE DEPARTMENT



AI UNLEASHED

by - **Dr. Anupama H S, Associate Professor and Head,
Dept. of AI&ML BMSIT&M, Bengaluru**

- Overview of Artificial Intelligence and Machine Learning
- The session highlighted how AI-driven technologies are optimizing processes, enhancing efficiency, and automating tasks
- Speaker explored how AI is enabling more personalized and tailored experiences in various applications
- The talk delved into how AI is contributing to sustainable solutions and innovative practices
- Conducted on 15-07-2023

IMPORTANCE OF CYBER SECURITY IN DIGITAL INDIA



by - Dr. Rajan and Mr. Ajay from TCS, Bangalore

- To promote innovation and competitiveness by enabling the safe and secure use of emerging technologies and digital services.
- The resource person emphasized the critical importance of cyber security in the context of Digital India
- The session provided an overview of the current cyber threat landscape, highlighting the types of attacks and their potential impacts
- The resource person highlighted how advancements in technology are both a boon and a challenge for cyber security efforts
- The session covered the critical steps involved in responding to cyber incidents and minimizing damage
- Conducted on 15-07-2023

TALK ON

“ Self Reliance : The pathway to architect your career ”

Associated with mind matrix

*by - Mr. Tirumala,
Mindmatrix*



MindMatrix's school

- Industry-recognized training: Their programs are designed to prepare graduates for the challenges of the engineering industry.
- Instructors have in-depth knowledge of emerging technologies and deliver interactive, outcome-based training.
- MindMatrix personalizes learning to enhance the job prospects of their students
- Conducted on August 2023

Key Points:

- Building Self-Awareness
- Developing a Growth Mindset
- Goal Setting and Action Planning
- Embrace Continuous Learning
- Set SMART Goals and Create Action Plans



EXPERT TALK ON AI

by - **Dr. Kumaraswamy B.V,**

Data Analytics Architect, Koch Business Solutions

- Big Data & technologies
- AI key concepts
- Industry application of AI
- The session provided valuable information on the skills required to thrive in an AI-driven world and how students can prepare for AI-related careers.
- The expert highlighted emerging trends in AI and what the future holds for this rapidly evolving technology.
- Conducted on 22-12-2024



SDP on Python

by - Chetan Adhikary, Data analyst in TCS

- Scope of Python Programming and also the career opportunities available in market.
- To understand programming skills in core Python.
- Essential Python concepts, including data types, control structures, functions and many more.
- The vast career opportunities available for Python programmers and how students can leverage their skills in the job market.
- The program concluded with an interactive Q&A session, allowing students to ask questions and deepen their understanding of Python programming.
- Conducted on 09-12-2023.



WORKSHOP ON LINUX OS

by - **Vishwa Kiran S,**

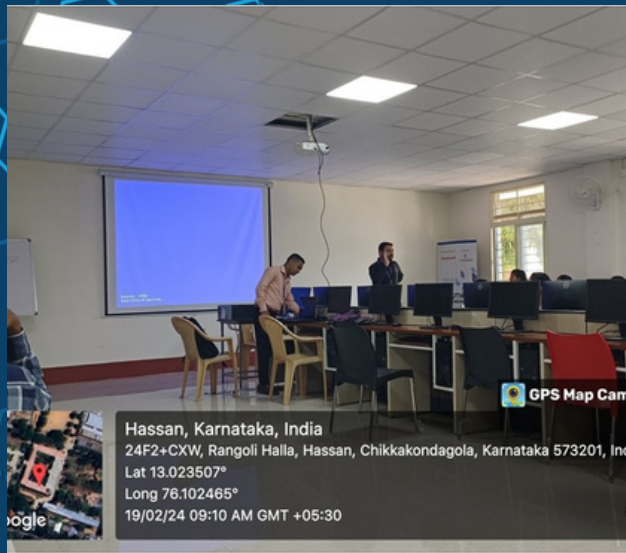
Senior Consultant in Aprameyah Technologies Pvt.Ltd

- From 16-02-2024 to 17-02-2024 in AI&ML new Laboratory.
- Students engaged in hands-on sessions where they configured Linux on their systems, gaining practical experience.
- Covered the basics of the Linux command line, teaching essential commands and navigation techniques.
- Discussed tools and techniques for system monitoring, maintenance, and troubleshooting common issues.
- The event concluded with an interactive Q&A session, allowing participants to ask questions and further explore Linux topics



by - **Dr. Manoj Kumar D**, professor in KIT , Tiptur

- Students learned about various data structures such as arrays, linked lists, stacks, queues, trees, and graphs, and their practical applications.
- Highlighted the importance of choosing the right data structure for efficient data storage, retrieval, and optimization.
- The talk explored how data structures are integral to the design and implementation of algorithms, enhancing their performance.
- The event concluded with an interactive Q&A session, providing students the opportunity to engage with the expert and clarify their doubts.
- Conducted on March 2024



WORKSHOP ON ORGANISATION OF COMPUTER SYSTEM

by - **Mr. Tejonidhi M R**, Assistant Professor, CSE Department,
Malnad College of Engineering, Hassan.

- To provide comprehensive insights and knowledge regarding computer organization.
- Exploration of both hardware and software components.
- Aimed to equip students with a deeper understanding of how computers function at a fundamental level.
- Conducted on 19-02-2024.



UI/UX WORKSHOP

by - **Experts working in TCS**

- Fundamentals of User Interface (UI) and User Experience (UX) design and their importance in digital product development.
- Improved skills in creating user-centered designs and prototypes.
- Enhanced understanding of ethical considerations in UI/UX design.
- The speaker discussed the growing career opportunities in UI/UX design and how students can build a successful career in this field
- The event concluded with an interactive Q&A session, allowing attendees to engage with the expert and deepen their understanding of UI/UX design
- Conducted on 25-01-2024



EXCEL WORKSHOP

by - Mr. Saurav Dash, Data Analyst, Jones Lang LeSalle

- Participants were introduced to Microsoft Excel, exploring its powerful features and applications in various fields
- Students learnt essential Excel functions, including data entry, formatting, and basic calculations
- The session covered data analysis techniques, demonstrating how to use Excel for sorting, filtering, and summarizing data
- Provided valuable tips and tricks to enhance productivity and efficiency when working with Excel
- The event concluded with an interactive Q&A session, allowing participants to ask questions and clarify their doubts about Excel functionalities
- Conducted on 05-03-2024.



AWARENESS ON NATIVE AQUARIUM ECOSYSTEM

by - **Kishore,**

3rd year Student, Government Engineering College

- Participants were introduced to the concept of native aquarium ecosystems, emphasizing the importance of preserving local aquatic biodiversity
- Covered aquascaping techniques specific to native aquariums, including substrate choices, plant selection, and natural decor
- Fostering a sense of responsibility towards aquatic ecosystems
- Aims to ensure the long-term health and sustainability of our water environments.
- The speaker discussed the role of educational outreach in promoting awareness about native aquarium ecosystems among hobbyists and the general public
- Conducted on February, 2023



PLANTATION

- “Kadamba” plants were planted
- Venue : Boys parking lot, Malnad college of Engineering
- This initiative aimed to enhance the greenary and aesthetics of the campus.
- Conducted on 05-02-2024.

PLANT ADOPTION

- Students took the responsibility of caring the adopted plant.
- They created the QR code detailing it's information.
- This was done to create awareness among students about importance of plants.



INDUSTRY VISIT



- Presentation on “Importance of Cyber Security”.
- Enhanced understanding of IT industry dynamics, including digital transformation, cybersecurity, and emerging technologies.
- Exposure to real-world applications of software development, data analytics, and project management.
- Insight into TCS's corporate culture, values, and commitment to innovation and excellence.
- Explore potential career opportunities and industry trends in the IT sector.
- Visited on 07-12-2023.



Unlocking the digital future: the journey inside tech titan, TCS



KMF VISIT

- Educational trip to KMF (Karnataka Milk Federation), Hassan
- The visit was designed to provide in depth understanding of industrial processes and operational dynamics within dairy sector
- Students were introduced to the Karnataka Milk Federation, its history, and its role in dairy production and management
- Participants gained firsthand knowledge of the dairy production process, from milk collection and processing to packaging and distribution
- Learnt about KMF's initiatives in environmental sustainability, including waste management and energy-efficient practices
- Conducted on 23 February, 2024



HERITAGE VISIT

- Heritage visit to Lakshmi Devi temple, located in Doddagadduvalli near Hagare
- The purpose of the visit was to explore and appreciate the historical and cultural significance of the temple
- Participants marveled at the unique architecture of the Lakshmi Devi Temple, known for its intricate carvings and ancient craftsmanship
- The visit highlighted the cultural significance of the temple in preserving local traditions and beliefs over centuries
- Conducted on 1st March, 2024

ACHIEVEMENTS



CHANDRAYAAN MAHOTSAV

Prize : 1st place

Students :

Bhoomika L B

Kumuda D P

Nida Fathima

Date : 4th September
2023

PRASTUTHI 2.0

A startup idea pitching
competition on occasion
of National Startup Day.

Prize : 3rd place

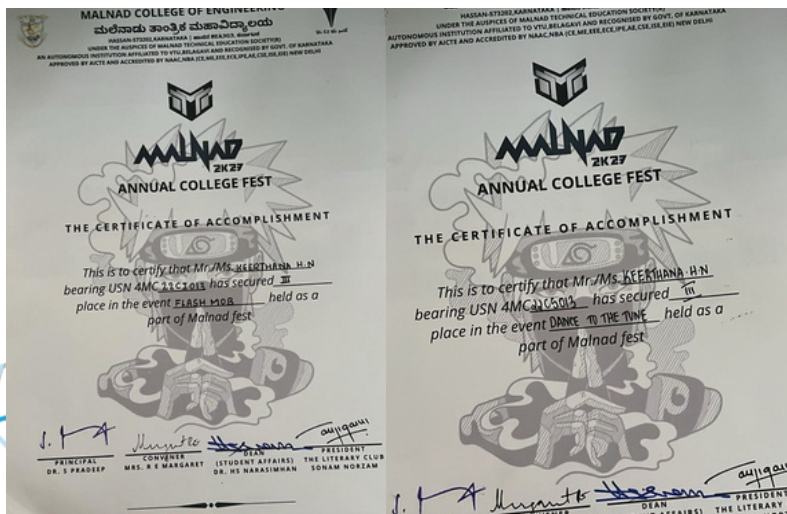
Students :

Kumuda D P

Bhoomika L B

Nida Fathima

Date : 16th Jan 2024



MALNAD FEST

Annual fest organized by
Literary club at Malnad College
Of Engineering

Prize : 3rd place

Event : Dance to the tune and
flash mob

Student : Keerthana H N

Date : 17-18 th June 2023

PARTICIPATIONS



NATIONAL LEVEL IDEATHON

Organized by- IUCEE @MCE
Students : Aishwarya A R,
Bhoomika L B, Harshitha B V,
Kumuda D P, Nida Fathima,
Nithyashree C P
Date : 01-03-2024 and
02-03-2024

IDEATHON FOR STARTUPS 'INNOVATRACE-2023'

Organized by - the Startup Cell under
the aegis of IQAC in JSS College Mysore
Student : Nida Fathima
Date : 19 October, 2023



JNANA VIJNANA TANTRAJNANA MELA , PAPER PRESENTATION

Organized by - Adichunchangiri
University
Students : Kumuda D P, Nida
Fathima
Date : 19th February, 2024



JAMBOREE

Organized by - LEO club,
Malnad College of Engineering,
Hassan.

Student : Keerthana H N

Event : Cultural event

Date : 8th - 9th December, 2023



INCRIDEA

National level techno-cultural
fest, NMAMIT, Nitte .

Student : Keerthana H N

Event : National Dance
Competition

Date : 24-26th February 2024

NAAC

Cultural program



Organized by - Malnad college of engineering
Students : Keerthana H N and Sanjana S V
Event : Cultural Dance
Date : 23 rd August 2023



SARGAM

An inter-college fest
Organized by - New Horizon
College of Engineering

Student : Keerthana H N
Event : National Dance
Competition.
Date : 01-03 December 2023

Department of AI&ML invites you to immerse yourself in a world of boundless possibilities.



Department of AI&ML offers a myriad of resources and opportunities to fuel your curiosity and drive your aspirations forward. Come, join us, and unlock the doors to endless potential in the captivating realm of AI&ML.

With a dedicated faculty committed to excellence, state-of-the-art facilities, and a vibrant learning community, there's no better place to embark on your journey towards innovation and discovery. Whether you're a seasoned professional or a budding enthusiast, this is the perfect place to start.



“ Your Gateway to Excellence in the AI Domain “

EDITORIAL TEAM



Dr. Balaji Prabhu B V
Prof. and Head, Dept. of AI&MI



Mrs. Ankitha S
Assistant Professor



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Sinchana G P
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Nida Fathima
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WHERE TO FIND US ?

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 <https://www.youtube.com/@AIMLMCE>

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 https://www.instagram.com/mce_aiml/