

# Dept. of AIML

PESITM Shivamogga



# About AIML & its Scope

The industrial revolution 4.0 has introduced several new technologies that engineers need to imbibe to be relevant for the future. One among them is Artificial Intelligence and Machine Learning which is going to be a new trend that is going to shape the future and such engineers would be called as future thinking engineers. But given the new industrial revolution it has become essential that consolidation and strengthening of existing programs take place along with re-looking the engineering programs by introducing advance courses which is relevant with the new age demands. These kind of program should have specializations and there is need of futuristic courses that can keep pace with the technological and industrial advancements.

Artificial intelligence (AI) is wide-ranging branch of computer science concerned with building smart machines capable of performing tasks that typically require human intelligence. The field of artificial intelligence has been an interdisciplinary endeavor, requiring deep knowledge of both computational and human sciences.

Machine learning is an application of artificial intelligence (AI) that provides systems the ability to automatically learn and improve from experience without being explicitly programmed. Machine learning focuses on the development of computer programs that can access data and use it learn for themselves.

# Activities Details



- AIML Department Cricket Tournament 24-02-2025
- **12** Expert Talk on "Insights into AIML GAI & AGI" 22-03-2025
- Full Stack Development Workshop "Code. Create. Launch!"
  12-05-23 to 23-05-2025
- 14 IEEE AMATHE 2.0 24-04-2025 25-04-2025
- **15** Parents Meeting 30-04-2025
- **16** Talent Show- Unleash The Stars Within 28-05-2025
- 17 Student Outside World Interaction & Achievements
- **18** Faculty Outside World Interaction & Achievements
- 19 Published Perspectives-Spotlight on Research Excellence
- **20 Forum Valiductory** 29-05-2025
- **22** Trip 11-06-2025-12-06-2025







# AIML Department Cricket Tournament

24 FEB 2025



The Department of Artificial Intelligence and Machine Learning at PESITM, Shivamogga successfully organized an exciting cricket tournament for undergraduate students on February 25th, 2025, bringing together students from 4th and 6th semesters in a thrilling display of sportsmanship and competitive spirit.

Three teams participated in this dynamic competition: 4th Semester Team 1 led by Captain Yashwanth, 4th Semester Team 2 led by Captain Bhuvan, and 6th Semester Team led by Captain Hemanth, with all teams demonstrating exceptional teamwork, strategic gameplay, and excellent sportsmanship throughout the tournament.

After a series of intense and competitive matches, 4th Semester Team 1 (Captain: Yashwanth) emerged as champions, with 4th Semester Team 2 (Captain: Bhuvan) securing the runners-up position and 6th Semester Team (Captain: Hemanth) taking third place.

The particularly thrilling final match between the two 4th semester teams showcased superior strategy and coordination, making it a memorable highlight of the tournament.

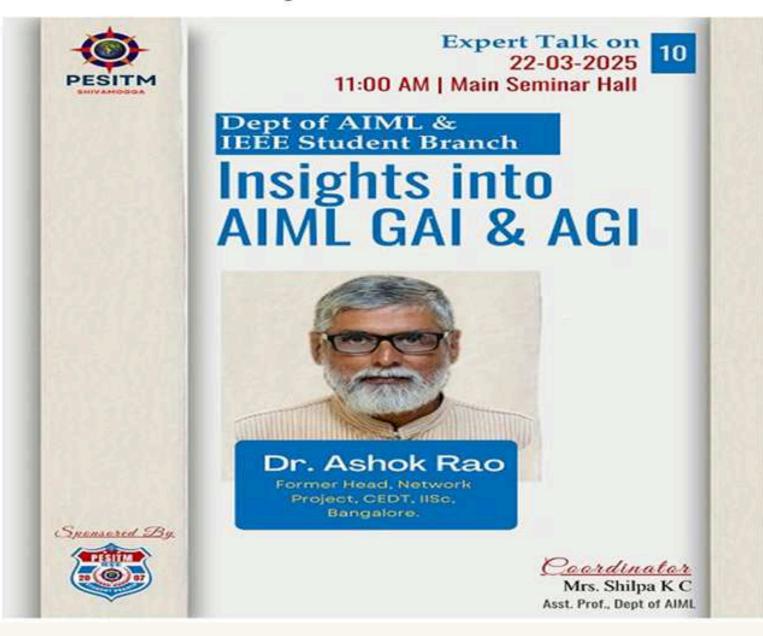
This successful event achieved its primary objectives of fostering teamwork, promoting physical well-being, and strengthening bonds among AIML department students, exemplifying the department's commitment to holistic student development beyond academics and creating a lasting impact on the entire AIML community through enthusiastic participation and competitive spirit.

# Glimpses of the Event:





# Expert Talk on "Insights into 22-03-2025



Dr. Ashok Rao Former head, Network Project CEDT, IISC, Bengaluru

#### **About the event:**

The Department of Artificial Intelligence and Machine Learning at PESITM, Shivamogga successfully organized an enlightening expert talk on "Insights into AIML GAI & AGI" on March 22nd, 2025, attracting over 250 students and faculty members to the main seminar hall. Distinguished keynote speaker Dr. Ashok Rao, with his impressive credentials including degrees from Mysore University, IISc Bangalore, and IIT Bombay, along with over 30 years of teaching and research experience across premier institutions, delivered invaluable insights to the academic community. Dr. Rao, a leading expert in Digital Signal Processing with over 100 published research papers, Gold Medal from IISc, and experience as Former Senior Advisor for Research with the Government of Kerala, addressed critical questions facing today's engineering students about the evolving AI landscape. The expert talk emphasized that while AI tools are transforming

industries, students must focus on building strong mathematical and programming foundations in ML, Deep Learning, and Data Science rather than merely learning to use pre-built tools. Dr. Rao guided students

on bridging the academia-industry gap through real-world projects, hackathons, meaningful internships, and open-source contributions, stressing that understanding algorithms, optimization, and model customization remains essential for professional success. The session achieved transformative outcomes by enhancing industry awareness, providing strategic career planning guidance, offering a comprehensive skill development roadmap, and fostering an innovation-focused mindset among participants. This successful event reinforced the department's commitment to aligning academic learning with industry expectations, preparing students for the rapidly evolving AI landscape while emphasizing that true success lies in customizing and deploying AI solutions rather than simply using existing tools.

## **Glimpses of the Event:**









#### **Conclusion:**

The expert talk on "Insights into AIML GAI & AGI" proved to be a highly impactful and forward-looking session, equipping students and faculty with clarity on the evolving AI ecosystem. Dr. Ashok Rao's guidance not only highlighted the importance of strong fundamentals and critical thinking but also motivated participants to actively engage in projects, research, and industry-aligned initiatives. By bridging academic knowledge with real-world applications, the event successfully fostered a culture of innovation, preparedness, and continuous learning reinforcing the department's vision to shape competent and industry-ready AI professionals for the future.

# FULL STACK DEVELOPMENT WORKSHOP - "CODE. CREATE. LAUNCH!"

12-05-2025 to 23-05-2025



#### What's Happening in the Online Session?



- FULL STACK CRASH COURSE BUILD IT ALL!
- FRONTEND + BACKEND POWER COMBO!
- **Q&A WITH SENIORS ASK AWAY!**

# Resource Person:

# FULL STACK DEVELOPMENT WORKSHOP

FOR ALL BRANCH STUDENTS

**DURATION: 10 DAYS** 

MODE: ONLINE

TIME: EVENING 6:30-8:30

CODE. CREATE. LAUNCH!



### R BHEEMESH

Technical lead Destination technology

Scan QR Code to register



The Department of AI & Machine Learning at PESITM Shivamogga successfully organized a comprehensive 10-day Full Stack Development Workshop from May 12-23, 2025, featuring the dynamic theme "Code. Create. Launch!" Under the expert guidance of R. Bheemesh, Technical Lead at Destination Technology, this online evening workshop (6:30-8:30 PM) was designed to empower students from all branches with complete web development capabilities. The intensive program covered both frontend and backend technologies in a power-packed combination, enabling participants to build end-to-end web applications from scratch.

The workshop's unique approach included interactive Q&A sessions with senior students, providing valuable peer-to-peer learning opportunities and real-world insights into full stack development careers. With its convenient online format and evening timing, the workshop accommodated students' academic schedules while delivering industry-relevant skills essential for modern software development. This initiative reflects the department's continued commitment to bridging the gap between academic learning and industry requirements, preparing students for lucrative opportunities in the rapidly growing web development sector.



## Second International Conference on

#### **ADVANCES IN MODERN AGE TECHNOLOGIES FOR HEALTH AND ENGINEERING SCIENCE**









Chief Guest

Dr. Wan Khairunizam Professor, Universiti Malaysia Perlis

Guest of Honor

Dr. Nagaraja R

Chief Coordinator - Administration PES Trust (R), Shivamogga

Sri. Jai Prakash Soni

Chief Data Scientist- WDS, Mashreq Bank, Dubai

Sri. Shrinidhi Suresha

**Head - Al Engineering** Subex

Sri. Sunil Kumar

Managing Director, Sales and Pricing Accenture, Bangalore

Dr. S V Sathyanarayana

Chair **IEEE Mangalore Sub Section** 

Presided by

Sri. Subhash B R

Chief Operating Officer, PES Trust (R), Shivamogga

**Organizing Committee** 

**AMATHE 2025** 



Second International Conference on

ADVANCES IN MODERN AGE TECHNOLOGIES FOR **HEALTH AND ENGINEERING SCIENCE** 







10:00 AM TO 11:40

11:45 AM TO 12:15

#### INUGURATION

Opening Remarks 10:00 AM

Invocation 10:05 AM

Welcome Address 10:10 AM

> Dr. Prasanna Kumar H R AMATHE Conference Chair, HOD ISE

Dr. R Sekar

Vice- Principal, PESITM, Shivamogga

**Lighting the Lamp** by Dignitaries 10:15 AM

Release of Conference Proceeding 10:18 AM

Introduction of the Chief Guest 10:20 AM

Dr. Nandan N Shenoy AMATHE Publication Chair, Assoc. Prof., Dept of Civil

Address by the Chief Guest 10:30 AM Dr. Wan Khairunizam

Professor, Universiti Malaysia Perlis

Felicitation to the Chief Guest & Dignitaries 10:50 AM

Address by the Chair, IEEE MSS 11:10 AM

Dr. S V Sathyanarayana

Chair-IEEE Mangalore Sub-Section

Address by the Guest of Honour 11:20 AM

Dr. Nagaraja R CCA, PES Trust (R)

**Presidential Remarks** 11:30 AM

Sri. Subhash B R Chief Operating Officer, PES Trust (R), Shivamogga

Vote of Thanks 11:40 AM

Dr. Likewin Thomas AMATHE Conference Chair, HOD AIML

#### 24-04-2025

Inauguration

Karanataka, India

Panel Discussion on "Al Horizons: Redefining Education, Engineering, Ethics, and Human Roles in the Era of Intelligent Systems

**Panelist** 1.Dr. Wan Khairunizam, Professor, Universiti Malaysia Perlis

2. Sri. Jai Prakash Soni, Chief Data Scientist, WDS, Mashreq Bank, Dubai

3. Sri. Shrinidhi Suresha, Head of Al Engineering at Subex

4. Sri. Sunil Kumar, Managing Director, Sales and Pricing Strategist at Accenture 5. Dr. S V Sathyanarayana, Chair - IEEE Mangalore Sub Section

12:15 PM TO 01:00 Keynote Address: 01

Sri. Jai Prakash Soni, Chief Data Scientist- WDS, Mashreq Bank

01:00 PM TO 02:00 Lunch

02:15 PM TO 03:00 Keynote Address: 02 Sri. Shrinidhi Suresha, Head of Al Engineering, Subex Bangalore

03:00 PM TO 05:00 Paper Session 01

06:30 PM ONWARDS Gala Dinner with Cultural Night

25-04-2025

09:30 AM TO 10:00 **Keynote Address: 03** 

Sri. Sunil Kumar, Managing Director, Sales and Pricing, Accenture, Bangalore

Panel Discussion on "Al in Industry - From Innovation to Impact" 10:00 AM TO 10:45

1.Dr. Siva Teja Kakileti, Principal Research Scientist and Director at NIRAMAI Health Analytix 2.Dr. Pawan Kumar M P, Senior Manager, Global Data Science and Analytics, C5i

3. Mrs. Sharadhi Ravindra, Assistant General Manager (AGM) - Marketing at Kidvento Education and Research

11:00 PM TO 12:30 Paper Session 02

12:30 PM TO 01:00 **Valedictory Session** 

01:00 PM TO 02:00 Lunch







# Dr. Wan Khairunizam Bin Wan Ahmad

Professor of Mechatronic Engineering at the Faculty of Electrical Engineering and Technology, Universiti Malaysia Perlis (UniMAP), Malaysia.

He holds a Bachelor of Engineering in Electrical and Electronic Engineering from Yamaguchi University (1999) and a Ph.D. in Intelligent Mechanical Systems Engineering from Kagawa University (2009). With over two decades of academic and research experience, he has significantly advanced the fields of Human-Intelligent Interaction, **Transportation** Computer Systems, Artificial Intelligence, and Robotics.

has Khairunizam authored at the forefront of interdisciplinary innovation.





## PRERANA EDUCATIONAL & SOCIAL TRUST (R) PES INSTITUTE OF TECHNOLOGY AND MANAGEMENT

Approved by AICTE, Affiliated to VTU & Recognized by Govt. of Karnataka NBA Accredited Programs: CSE, ECE, ISE, CV, ME and EEE

2024 International Conference on VANCES IN MODERN AGE TECHNOLOGIES FOR HEALTH AND ENGINEERING SCIENCE











# Inauguration by the Esteemed Guests

#### Chief Guests:

Dr. Wan Khairunizam Bin Wan Ahmad, Professor, University of Malaysia, Perlis, Kangar, Malaysia

#### Guests of Honor

- Mr. Jai Prakash Soni,
  - O Chief Data Scientist, WDS, Mashreq Bank, Dubai
- Mr. Sunil Kumar,
  - Managing Director, Sales and Pricing Strategist, Accenture
- Dr. S. V. Sathyanarayana,
  - Chair IEEE MSS

#### President & Conference Chair

- Dr Nagaraja R
  - CCA, PES Trust (R), Shivamogga, PES Trust (R), Shivamogg
- Dr Prasanna Kumar H R
  - Prof. & Head, Dept of ISE







Sri. Jai Prakash Soni delivered an engaging and insightful keynote address centered around the transformative role of Artificial Intelligence in the financial sector. Drawing from his extensive experience as Chief Data Scientist at Mashreq Bank, he discussed the practical deployment of AI in areas such as credit scoring, fraud detection, customer risk assessment, and personalized financial services.

He began by explaining how data-driven decision-making is reshaping the FinTech landscape, allowing institutions to serve customers faster and more accurately. He emphasized that the success of AI models in banking relies heavily on data quality, model fairness, and transparency, especially given the sensitive nature of financial information.

A significant portion of his keynote was dedicated to discussing ethical considerations in AI—particularly around bias in models, data privacy, and the importance of maintaining trust in digital financial systems. He advocated for the inclusion of ethical hacking and cybersecurity certifications in the academic curriculum to prepare students for the rapidly evolving demands of FinTech security.

Mr. Soni also spoke about the emergence of blockchain and smart contracts, underlining their potential to revolutionize areas like payments, lending, and insurance. He encouraged engineering students to begin experimenting with open-source blockchain plat forms and build proof-of-concept applications to better understand real-world implications.

Keynote Address by Sri. Jai Prakash Soni Chief Data Scientist, WDS, Mashreq Bank, Dubai

Topic: "The Future of Al in Financial Services: Challenges, Ethics, and Innovation"



# Engineering colleges are dreams, and infinite pote

Sri. Shrinidhi Suresha delivered a highly practical and technically grounded keynote focused on the real-world journey of AI—from development to deployment. With his extensive leadership experience in building AI systems at Subex, he offered students and professionals a unique glimpse into the challenges and opportunities of deploying AI at scale within enterprise environments.

He began by highlighting that while training AI models has become more accessible, deploying them securely, reliably, and at scale is where much of the complexity lies. He emphasized the need for engineers to understand not just model accuracy, but also aspects like model latency, API integration, scalability, and monitoring.

Sri. Shrinidhi Suresha,

Head of Al Engineering at Subex

Topic: "Operationalizing Al: From Model Training to Scalable Enterprise

Deployment"

Master new sk

Creation





# Dr. Nagaraja R CCA, PES Trust

## **About AMATHE 2025**

In partnership with IEEE, the prestigious PES Institute of Technology and Management (PESITM) hosted the influential AMATHE-2025 conference, featuring a lineup of distinguished guests and scholars from around the globe. This international gathering in Shimoga spotlighted cutting-edge research in Computer Technology, Artificial Intelligence, and Machine Learning. Dr. Prasanna Kumar H R, Head of the Information Science Department, welcomed the guest, dignitaries and the participants of AMATHE 2025. Dr Nandan Shenoy, Professor from Civil Engineering, introduced the guests. The event began with an invocation song, and was concluded with a vote of thanks by Dr. Likewin Thomas, Head of the Artificial Intelligence and Machine Learning Department.



Dr. Likewin Thomas, Conference Chair, warmly welcomed attendees to the Second IEEE International Conference on Advances in Modern Age Technologies for Health and Engineering Science (AMATHE 2025), highlighting the evolution of the event from its inception in 2024 to an internationally recognized platform.

Key achievements of AMATHE 2025 are noted, including:

- 1,487 global paper submissions, with 287 papers selected for presentation.
- Submissions and selections represent diverse countries including China, Peru, USA, Saudi Arabia, and institutions like MIT and IITs.
- The conference symbolizes AMATHE's growing academic impact and global reach.

## **Dr Likewin Thomas**

Conference Chair, AMATHE 2025 Prof. & Head, Dept of AIML







# Panelist The Transformative Role of Artificial Intelligence Across Disciplines





#### **Panel Discussion:**

#### The Transformative Role of Artificial Intelligence Across Disciplines

The panel discussion brought together eminent experts from academia and industry to explore the multifaceted impact of Artificial Intelligence (AI) across sectors. The session was moderated by Dr Likewin Thomas, who also set the tone by emphasizing the need for ethical, inclusive, and interdisciplinary approaches in AI development and deployment.



## Panel Discussion on Day 2: "Al in Industry – From Innovation to Impact"











Best Paper Award: Students from Dayanand Sagar, Bangalore

ADVANCES IN MODERN AGE TECHNOLOGIES FOR HEALTH AND ENGINEERING SUILNUE



Best Paper Award: Prof Tejaswini N D & Team Dept of AIML, PESITM Shivamogga















# PARENTS' MEETING HIGHLIGHTS



30/04/2025

## STRENGTHENING ACADEMIC PARTNERSHIP FOR STUDENT SUCCESS

The Department of AI & Machine Learning at PESITM Shivamogga recently conducted a comprehensive Parents' Meeting under the leadership of Dr. Likewin Thomas, Head of Department, showcasing remarkable achievements and future initiatives. The department has successfully organized multiple industry-aligned events including an IEEE Conference, specialized workshops in Computer Vision, DevOps, and Full Stack Development, along with an enriching industrial visit to AIC-CCRI-CED Bangalore. These initiatives have equipped students with cutting-edge skills in emerging technologies like PyTorch, Gen-AI, Jenkins, and MongoDB while maintaining strong focus on core subjects like Data Structures, Machine Learning, and Computer Vision.

The department's commitment to practical learning is evident through its real-time project initiatives covering domains such as Vehicle Detection, Electronic Health Records, and Voice Recognition systems. With 8th semester students actively engaged in Be Practical Training internships that offer direct placement opportunities, the department continues to bridge the academic-industry gap effectively. Parents expressed high satisfaction with the hands-on learning approach and provided valuable feedback for enhanced career counseling services. The meeting concluded with renewed commitment from both faculty and parents to support students' academic excellence and professional growth in the rapidly evolving field of artificial intelligence and machine learning.





# TALENT SHOW 2025 – UNLEASHING THE STARS

# WITHIN

28 MAY 2025



- The AIML Department at PESITM, Shivamogga successfully hosted the spectacular "Talent Show 2025 – Unleashing the Stars Within" on May 28th, 2025, at 2:00 PM in the AIML Seminar Hall. This vibrant celebration of student creativity featured over 30 talented participants showcasing their diverse artistic abilities across six performance categories including solo singing, group dancing, instrumental music, drama and skits, stand-up comedy, and poetry recitation. The packed seminar hall buzzed with enthusiasm as students from multiple departments, faculty members, and special invitees cheered for each performance, creating a truly memorable experience for all participants.
- The event achieved remarkable success in fostering community spirit and boosting student confidence, with Sahara (6th Semester) claiming the top prize and Rakshitha (4th Semester) earning runner-up honors. All participants received special appreciation awards, ensuring everyone felt valued for their contributions. Expert faculty judges provided constructive feedback while maintaining an inclusive environment that celebrated creativity regardless of performance level. The overwhelming positive response confirmed the event's significant value in promoting holistic student development, strengthening inter-departmental bonds, and providing a vital platform for discovering and nurturing hidden talents within the PESITM community. The seamless organization and enthusiastic participation demonstrated the incredible creative potential of students while reinforcing the importance of extracurricular activities in comprehensive education.



# Student Outside world interaction & Achievements



Students actively participated in prestigious conferences, summits, and hackathons, gaining exposure to real-world industry practices. They showcased their skills through commercial projects and competitions at national and state levels. These interactions and achievements enhanced their knowledge, networking, and career readiness.

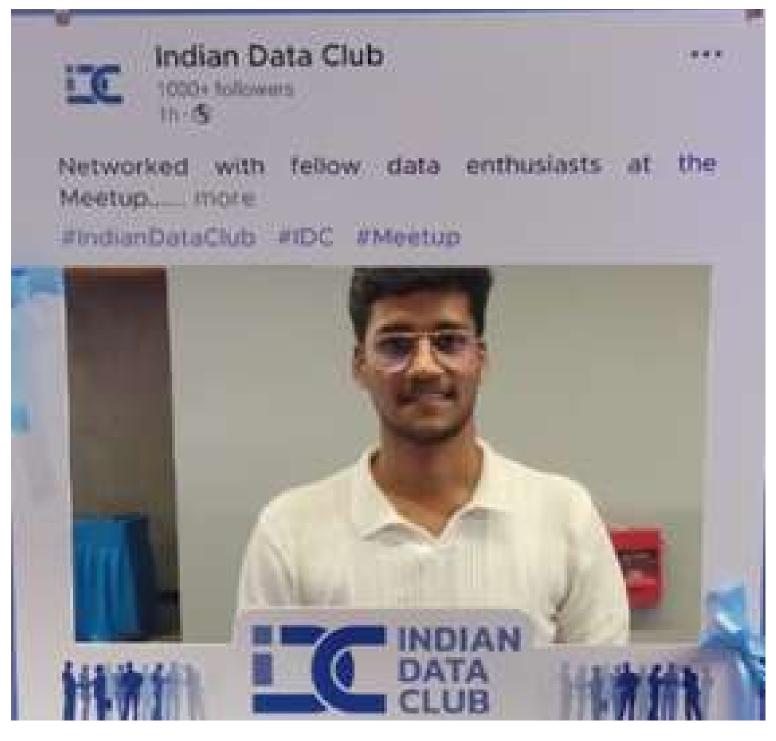


Mr. Pavan Bendre had the privilege of attending the prestigious Bengaluru Tech Summit 2024, which took place on November 20, 2024, at the iconic Bangalore Palace Grounds, Bengaluru. The summit, recognized as one of Asia's leading technology events, brought together global leaders, innovators, startups.

It served as a powerful convergence platform for showcasing cutting-edge technologies, exchanging groundbreaking ideas, and fostering meaningful collaborations. By attending the event, Mr. Bendre gained valuable insights into the latest advancements in emerging fields such as Artificial Intelligence, Biotechnology, FinTech, and Sustainable Technologies, while also exploring future industry trends shaping the digital economy.

Mr. Srinivasa Somayaji brought laurels to the institution by securing First Prize in the prestigious competition, organized "Tech-Talk" the Department of Computer Engineering, PESITM, on November 2024. The event witnessed 28th enthusiastic participation from students across various domains, providing a platform to showcase innovative ideas and technical excellence. Mr. Somayaji impressed the judges with his in-depth knowledge, engaging delivery, and unique perspectives on emerging technologies, which set his presentation apart from others. His achievement not only highlights his individual brilliance but also reflects the spirit of innovation and academic excellence fostered within the department.





Mr. Dayanand participated in the Data Science & Analytics Community Meetup organized by the Indian Data Club and the Learners Meetup organized by Code Basics, held in Hyderabad during December 2024. These meetups served as a vibrant platform to bring together enthusiasts, professionals, and learners in the fields of data science, analytics, and emerging technologies. The sessions focused on knowledge sharing, exploring real-world applications, and understanding the latest trends shaping the industry. Participants engaged in interactive discussions on machine learning, data visualization, and practical problem-solving approaches, while also networking with industry experts and fellow learners.

Ms. Amulya, Ms. Nidhi V, Mr. Prajwal H P, and Mr. Pavan Bendre R from 6th semester AIML participated in a 5-day Bootcamp on "Software and System Security" held from February 17–21, 2025 at NITK Surathkal, organized under the ISEA-Phase III initiative of the Ministry of Electronics and Information Technology, Government of India. The team developed an innovative project titled Cyber Knowledge Graph, which integrates datasets such as CVE, CWE, CAPEC, ICS Attack, and Mobile Attack into a Neo4j-based graph database to enhance threat intelligence, vulnerability analysis, and cyberattack pattern discovery. The project was supported by Honeywell Technology Solutions Lab Pvt. Ltd. and guided by mentors and faculty at NITK.





Soumya from 5th semester participated in a 5-day Bootcamp on "Software and System Security" held from February 17–21, 2025, at NITK Surathkal, organized in collaboration with industry experts. Her team developed an innovative cybersecurity solution addressing vulnerabilities in healthcare services offered by 5C Networks, a leading health-tech startup. For their impactful work, the team secured first place and received a cash prize of ₹10,000.

DAYANAND, HEMANTH, AND PRIFI FROM THE AIML PROUDLY DEPARTMENT **SHOWCASED** THEIR CREATIVITY AND STAGE PRESENCE BY PARTICIPATING IN THE SKIT COMPETITION AT YUKTI 2025, THE ANNUAL TECHNO-MANAGEMENT AND CULTURAL FESTIVAL **HOSTED BY VTU, BELAGAVI, ON FEBRUARY 20–21, 2025.** BROUGHT TOGETHER TALENTED EVENT THE PERFORMERS FROM ACROSS THE STATE, PROVIDING A VIBRANT PLATFORM TO BLEND ART WITH EXPRESSION. THROUGH THEIR PERFORMANCE, THE STUDENTS DEMONSTRATED TEAMWORK, ORIGINALITY, AND CONFIDENCE, REFLECTING THE DEPARTMENT'S

Conference Chair

Percetar



AKANKSHA'S SUCCESSFULLY PRESENTED HER RESEARCH PAPER TITLED "MULTIMODAL MAESTRO: HUMAN GAZE AND GESTURE FOR HCI" AT THE INTERNATIONAL CONFERENCE ON ARTIFICIAL INTELLIGENCE IN HEALTHCARE (ICAIH-2025) HELD ON MARCH 20–21, 2025. THE CONFERENCE WAS ORGANIZED BY THE SCHOOL OF INFORMATION SCIENCE AND TECHNOLOGY, ST ALOYSIUS INSTITUTE OF MANAGEMENT AND INFORMATION TECHNOLOGY (AIMIT), MANGALURU, IN ASSOCIATION WITH SPRINGER. HER CONTRIBUTION HIGHLIGHTED INNOVATIVE APPROACHES IN HUMAN–COMPUTER INTERACTION AND REFLECTED THE DEPARTMENT'S FOCUS ON IMPACTFUL RESEARCH IN EMERGING AREAS OF AI AND HEALTHCARE.

Ananya R, Akanksha S, Dhanya M Bhat, and Nireeksha B successfully presented their research paper titled "Multimodal Maestro: Human Gaze and Gesture for HCI" at the International Conference on Computing for Sustainability and Intelligent Future (COMPSIF 2025) held on March 21–22, 2025, at BMS Institute of Technology and Management, Bengaluru. The paper explored innovative approaches in Human–Computer Interaction by integrating human gaze and gesture recognition, contributing to the development of more natural, accessible, and intelligent systems.





A team of 7th-semester AI & Machine Learning students from PESITM Shivamogga – Prajwal H P, Pavan Gowda N P, Akshay Raghavendra, and Lohith K G – secured 2nd place with a cash prize of ₹20,000 at the prestigious State-Level Hackathon HackYugma 2K25, held at JNNCE, Shivamogga on August 21–22, 2025. Competing against reputed colleges from across Karnataka, the team impressed the judges with their innovative project "Holographic Display System with Gesture Recognition." This achievement reflects the students' strong problem-solving skills and creativity in applying AI to real-world challenges. Their success has brought pride to the department and inspiration to fellow peers.

## POLICE BANDOBAST



ಶಿವಮೊಗ್ಗ ಜಿಲ್ಲಾ ಪೊಲೀಸ್

Our department takes pride in the remarkable achievement of four of our 7th semester Hemanth Kumar N R, Pavan Bedre R, Mohammed Rayan, and Anvith D B who got the rare opportunity to work on a live project with the Karnataka Police Department.

This project, titled "Police Bandobast Monitoring System", was entrusted to the team through Futuretronix, thanks to the encouragement and support of our respected Head of the Department, Dr. Likewin Thomas



The students began by designing and developing the basic requirements of the application. Soon after, they had the privilege to demonstrate their work before the Superintendent of Police (SP), who shared his valuable thoughts and insights for further improvement. Incorporating these suggestions, the team worked on additional features and later got the opportunity to present the enhanced system before the Honourable Inspector General of Police (IG). Once the development was complete, the next step was to distribute the application to police personnel. For this, the team planned a WhatsApp-based distribution method. During the roll call sessions arranged for police staff, sector-wise WhatsApp groups were created, and the Police Bandobast System APK file was shared in these groups for easy installation and access.

On the eve of the Ganapathi procession, the team was invited to the Smart City Control Room, where viewing panels were arranged for live monitoring of staff through the application. On the procession day, all four students were present in the control room along with our HOD to oversee the functioning of the system. Alongside them, Prajwal H P also contributed by providing support during the monitoring process, ensuring smooth coordination and assisting with on-ground requirements. A proud moment came when the Additional SP personally monitored police staff through the Police Bandobast System dashboard, showcasing the real-world utility of the project.

This achievement not only reflects the dedication and technical expertise of our classmates but also stands as an inspiration for the entire department. It proves how student innovation, when guided and encouraged, can contribute meaningfully to smart policing and public safety.





# Faculty Outside world interaction & Achievements



Faculty members actively engaged in national and international conferences, workshops, and industry collaborations, sharing their expertise and contributing to cutting-edge research. They participated as keynote speakers, reviewers, and mentors, strengthening connections with the global Al and technology community. These interactions enhanced the department's visibility, brought practical insights into the classroom, and fostered innovation, research excellence, and industry-aligned learning for students.

• Prof. Poornima B P, Prof. Tejaswini N D, and Prof. Akhila C V have successfully cleared the PhD Eligibility Test & Review (ETR) in January 2025, marking a significant milestone in their academic and research journey. This accomplishment reflects their dedication to advanced research and commitment to fostering a strong scholarly environment within the department.



Mrs. Poornima BP Assistant Professor



Mrs. Tejaswini N D Assistant Professor



Mrs. Akhila C V Assistant Professor

- Prof. Sandeep Telkar conducted a two-day educational workshop on "AI & ML in Industries and Daily Life" from March 28–29, 2025, benefiting students of the Computer Science Department at Government Polytechnic College, Joida. The workshop provided practical insights into AI and ML applications, helping students connect theoretical knowledge with real-world industry practices.
- Prof. Tejaswini N D successfully presented her research paper titled "Automated User Engagement Analysis Through Multi-Modal Facial Expression Recognition: A Deep Learning Approach" at second International conference on Advances in Modern age technologies for health and engineering science, IEEE AMATHE held on April 24-25, 2025.



• This paper presents a deep learning-based framework for real-time multi-modal emotion recognition to predict user engagement in both images and videos. It combines a hybrid CNN-LSTM model for spatial and temporal feature extraction with a dual-stage attention mechanism to handle occlusions and lighting variations. Evaluated on benchmark datasets like AffectNet and RAVDESS, the system achieves high accuracy (up to 89.3%) while maintaining real-time performance at 30 FPS. The study also addresses ethical considerations, including bias mitigation and privacypreserving on-device processing, and outlines future directions such as multi-modal fusion, transformer-based models, and edge deployment.  Prof. Swetha B S has successfully completed HP LIFE's "AI for Beginners" online certification program, reflecting her commitment to continuous learning and staying abreast of emerging technologies in education.
 This achievement highlights her proactive approach to integrating AI knowledge into teaching practices and professional development.



• Prof. Sandeep Telkar R has been appointed as an esteemed Editorial Board Member of the International Journal of Advance Research in Science, Management, Engineering, and Technology (IJARSMET), recognizing his expertise and contributions to the field. This role underscores his commitment to advancing research quality and fostering scholarly collaboration at an international level.



# Published Perspectives

#### -Spotlight on Research Excellence

- The research paper by Manjunath Patel G C, Likewin Thomas, Mujeebur Rehaman, and Praveena R, titled "Brainstorming and Fishbone diagram Tools for Enhancing the Student Placement in Technical Education System," was published on June 26, 2024, in the International Journal of Research and Innovation in Social Science (IJRISS) with DOI <a href="https://dx.doi.org/10.47772/IJRISS.2024.8031015">https://dx.doi.org/10.47772/IJRISS.2024.8031015</a>.
- The research paper by Olusegun D. Samuel, G. C. Manjunath Patel, Likewin Thomas, Davannendran Chandran, Prabhu Paramasivam, and Christopher C. Enweremadu, titled "RSM integrated GWO, Driving Training, and Election-Based Algorithms for optimising ethylic biodiesel from ternary oil of neem, animal fat, and jatropha," was published on September 12, 2024, in Scientific Reports, volume 14, article number 21289.
- The research paper by Shilpa K C, Tejaswini N D, Harshitha V, Priyanka V, Nisarga M, and Siri K S, titled "Early Detection of Parkinson's Disease through Voice Recording of Phone Calls," was published in the Journal of Advances Research in IOT Security (e-ISSN: 3107-6041), Volume 1, Number 1 (2025).
- The research paper by Shilpa K C, Shilpa M I, Harshitha V, Priyanka V, Priyanka V, Nisarga M, and Siri K S, titled "A Review: Brain Imaging For Neurological Disorder," was published in the Journal of Advances in Cryptography and Network Security, Volume 1, Number 1 (2025).
- This research paper by Shilpa K C, Poornima B P, Rajath R Pai, Rakeen Harmain Khan, Shreya N S, and Suchith A, titled "A Comprehensive Review on Deep Fake Detection in Videos," was published in the Journal of Advancement in Architectures for Computer Vision, Volume 1, Number 1 (2025).
- The research paper by Mr. Adil Hussain, Mr. Gagandeep Rao, Mr. Karthik K P, Mr. Samartha M J, and Dr. Likewin Thomas, titled "Machine Learning-Driven Cardiovascular and Stroke Screening Using IoT-Based Health Monitoring Systems," was published in the Journal of Advanced Research in Artificial Intelligence & It's Applications (e-ISSN: 3048-6440), Volume 2, Number 3 (2025).
- The research paper by Ms. Devi S Naidu, Ms. Dhanya R, Mr. Mubarak M, Mr. Mallikarjun V B, and Mrs. Poornima B P, titled "A Survey on Deepfake Generation and Detection using Deep Learning," was published in the Journal of Advanced Research in Artificial Intelligence & It's Applications (e-ISSN: 3048-6440), Volume 2, Number 3 (2025).
- The research paper by Mr. Sagar Kumar, Mr. Sakib Ahamed, Mr. Sanjana H V, Mr. Farhan Khan K A, and Ms. Shilpa M I, titled "Comprehensive Survey on Kannada Language Speech to English Language Translation and Voice Cloning System," was published in the Journal of Advanced Research in Artificial Intelligence & It's Applications (e-ISSN: 3048-6440), Volume 2, Number 2 (2025).
- The research paper by Mr. Tameem Abrar ul Haq, Ms. Chinmayie S M Nadig, Mr. Prajwal C S, Ms. Arpita R, and Mrs. Tejaswini N D, titled "Advancements in Emotion Recognition," was published in the Journal of Advanced Research in Artificial Intelligence & It's Applications (e-ISSN: 3048-6440), Volume 2, Number 3 (2025).
- The research paper by Mr. Darshan G, Mr. Rahul Bilki, Mr. Supraj S Sheerayada, Mr. Gajendra P H, and Mrs. Tejaswini N. D, titled "Smart Basket Integration with Shopping Behavior Analysis," was published in the Journal of Advanced Research in Artificial Intelligence & It's Applications (e-ISSN: 3048-6440), Volume 2, Number 2 (2025).

# FORUM VALIDUCTARY 29-05-2025

The "Lakshya" forum concluded its academic year with a memorable valedictory event, celebrating a year of insightful discussions, skill-building sessions, and enriching activities. The event recognized the dedication, talent, and growth of its members while highlighting the forum's commitment to leadership, innovation, and collaboration.

The program began with an inspiring keynote address by a distinguished guest, followed by speeches from faculty and student representatives sharing their experiences and gratitude for the opportunities provided by "Lakshya." The valedictory also featured awards and certificate presentations, honoring participants who excelled in academic, cultural, and technical activities.

#### **Reports Presented**

- Forum & Cultural Report Presented by Amulya B, this report highlighted the forum's academic, cultural, and extracurricular milestones, capturing the holistic growth of its members and the vibrant community spirit cultivated throughout the year.
- IEEE Event Report Presented by Prajwal H P, this report summarized the year's technical workshops, seminars, and student engagement initiatives under the IEEE chapter, with a special focus on AMATHE 2.0, showcasing the forum's efforts in promoting technical excellence, innovation, and collaborative learning among students.

The event concluded on a high note, leaving participants inspired and motivated to carry forward the spirit of collaboration, innovation, and excellence into the upcoming academic year.

#### **ABOUT THE EVENT**

Attended by students, faculty, and distinguished guests, the valedictory event featured inspiring speeches, presentations, and an awards ceremony to honor outstanding achievements by forum members.

The outcome of the event was not only a reflection of the forum's accomplishments but also an opportunity to motivate and inspire the next generation of students. It highlighted the milestones achieved throughout the year, including successful workshops, seminars, and community service projects spearheaded by "Lakshya." The event also served as a platform to acknowledge the efforts of students who had actively contributed to the forum's activities.

As the forum bid farewell to the academic year, it left behind a legacy of leadership, collaboration, and innovation. "Lakshya" has set the standard for excellence and remains a beacon for students aiming to achieve their goals and make a lasting impact.

#### **OUTCOME OF THE EVENT**

- 1.RECOGNIZED AND AWARDED OUTSTANDING STUDENTS FOR THEIR ACHIEVEMENTS IN ACADEMICS, EXTRACURRICULARS, AND LEADERSHIP.
- 2.PROVIDED A PLATFORM FOR STUDENTS TO EXPRESS GRATITUDE TOWARDS THEIR MENTORS AND PEERS.
- 3. STRENGTHENED THE SENSE OF COMMUNITY AND COLLABORATION WITHIN THE FORUM.
- 4. MOTIVATED STUDENTS TO SET NEW GOALS FOR THE UPCOMING ACADEMIC YEAR, INSPIRED BY THE SUCCESS STORIES SHARED AT THE EVENT.

THE VALEDICTORY EVENT BY THE "LAKSHYA" FORUM SERVED NOT ONLY AS A CLOSING CEREMONY BUT ALSO AS A SOURCE OF INSPIRATION FOR THE FUTURE, ENCOURAGING STUDENTS TO CONTINUE STRIVING FOR EXCELLENCE IN THEIR PERSONAL AND ACADEMIC JOURNEYS.

# Memories in Motion –



29-05-2025



The Department of AIML came together to bid a heartfelt farewell to Batch 2021, celebrating their journey, achievements, and the memories they created over the years. The day was filled with laughter, music, performances, and joyous moments, honoring the seniors who have contributed immensely to the forum and the department.

From mentoring juniors and leading initiatives to creating moments of inspiration and fun, the seniors of Batch 2021 have left an everlasting impact. This farewell was not just a goodbye it was a celebration of friendships, accomplishments, and the legacy they leave behind.

As Batch 2021 steps into new adventures, we wish them success, happiness, and countless new milestones. Thank you for the guidance, laughter, and memories you will always remain a part of the AIML family!

#### **Farewell Overview:**

The Farewell blended entertainment, nostalgia, and celebration, making it a memorable day for Batch 2021. The event kicked off with dance performances by Amulya & Team and Juhi & Team, followed by soulful songs by Uma, Usha & Prajna Patil and a solo by Rayan.

Seniors like Sanjana, Rahul, and Bilki shared their experiences, while Prabhanjan and Gagan played guitar and sang, and Farhan performed a lively dance. Seniors were also honored with unique titles and major awards like Best Dressed, Best Outgoing, and academic toppers. The HOD, Likewin Sir, dedicated a book to Batch 2021, adding a heartfelt touch.

Fun games and activities by the 6th Semester hostel boys brought laughter and friendly competition. The program was hosted by Dayanand, Bhuvan, Saniya, Trupthi, and Sanjana G.U. The farewell ended with smiles, laughter, and warm goodbyes, leaving lasting memories.

The slam book and event coordination was managed by Bhuvan, Ganshyam, Sufiyan, Vinay, and Prajwal H P

#### A Message from the HOD:

Batch 2021 had a very special place in the Department of AIML, and the HOD took a moment to share his thoughts and memories with the students. He spoke about how the batch had grown and evolved over the years, navigating both the highs and lows of departmental life with determination and spirit.

He fondly recalled how these students shaped his journey as HOD, leaving lasting impressions through their energy, dedication, and unique personalities. From memorable trips and fun departmental moments to their strong commitment in academics, the seniors had truly made their mark.

The HOD's reflections were filled with warmth, nostalgia, and pride, celebrating not just achievements but also the friendships, memories, and bonds that defined Batch 2021. It was a heartfelt moment that left everyone smiling, inspired, and cherishing the journey they shared together.













Batch 2027

As Batch 2021 steps into new adventures, we take a moment to celebrate their journey, achievements, and the memories they created at Department. From leading initiatives and inspiring juniors to latenight discussions and moments of laughter, their time here has left an indelible mark on all of us.

The friendships, experiences, and milestones they shared have shaped not only their journey but also the spirit of our forum. May the memories of Lakshya guide and inspire them as they shine in new endeavors.

We thank our seniors for their dedication, leadership, and the joy they brought to the forum. Though they have moved on, their legacy and the laughter, challenges, and triumphs we shared will always remain a part of our hearts As you move forward to pursue careers, higher studies, or your own ventures, remember success is not just in reaching great heights, but also in staying grounded, kind, and curious. Never forget where you started, and never stop believing in where you can go. The doors of this department will always remain open for you not as students, but as cherished alumni, and forever part of our extended family.

With gratitude and best wishes,

Your Lakshya Family!!!!

Batch 2021, you've left your mark on our hearts and halls until we meet again,
hasta la vista

