DEPT *of* AIML

AIM lakshya

Department Official Newsletter

every step counts towards success
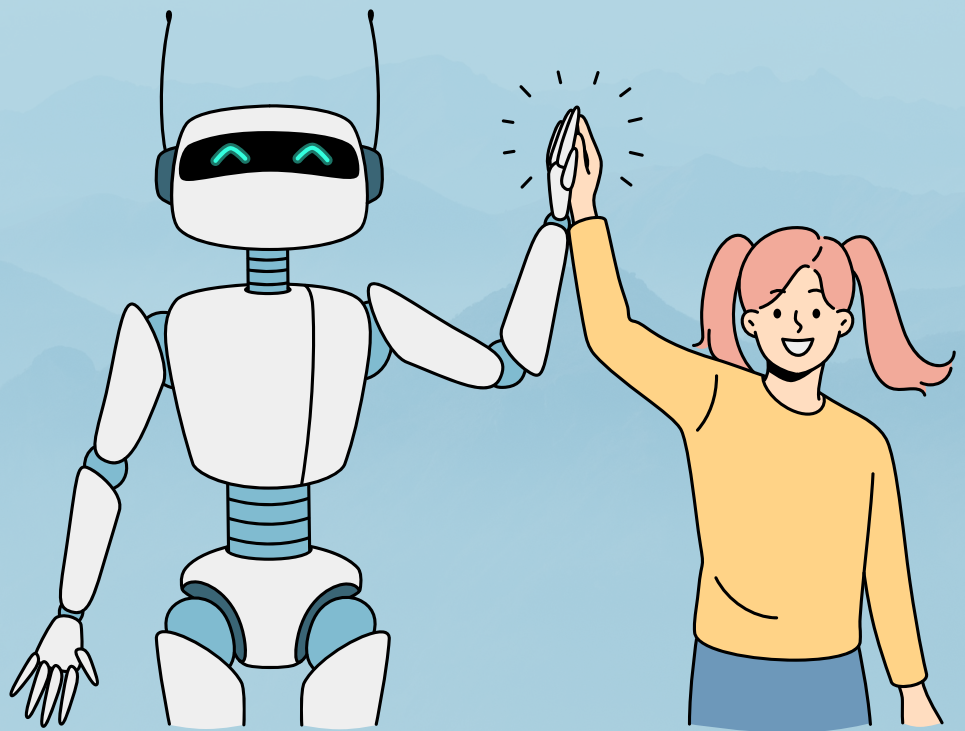
About AIML & its Scope

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

01 IEEE CodXpress 36 Hours Hackathon, PESITM
29-04-2023 to 30-04-2023

02 Industrial Visit to IISc, Bengaluru
15-07-2023 to 16-07-2023

03 3 Days SDP On LaTeX
21-06-2023 to 23-06-2023

04 Parents Meeting
15-07-2023

05 2 Days SDP on DBMS
15-07-2023 to 16-07-2023
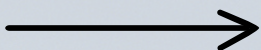
06 10 Days SDP on AI&ML
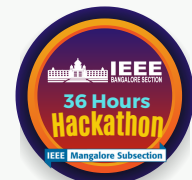16-08-2023 to 26-08-2023

07 Google Devoloper Student Club Inaguration
09-09-2023

08 MOU Signing Ceremony for School Adoption
14-09-2023

CodXpress Hackathon

29-04-2023 to 30-04-2023

Hosted by PESITM, the IEEE Bangalore CodXpress 2023 was a monumental event across five locations, held from April 29th to April 30th. With 12 teams of three members each, the flagship event, skillfully coordinated by the Department of AI&ML, saw enthusiastic participation and seamless execution.

The winning teams demonstrated exceptional prowess in their respective projects. Securing the coveted first place at both the hub and zone levels, the AIML team from PESITM presented an innovative app designed to aid mothers in child health and vaccination efforts. Meanwhile, ECE from MIT Manipal secured second place with their automated detection of stroke lesions using deep learning, and CSE from PESITM claimed third place with their IoT-based smart energy meter reading and billing system.

This triumph wouldn't have been possible without the dedicated guidance of our Institute Guide, Dr. Likewin Thomas, and the invaluable support from Physical Mentor Dr. Manjunath Patel G C and Virtual Mentor Manikandan Padmanaban. Their mentorship played a crucial role in shaping our teams' success and fostering a culture of excellence at AIML, PESITM Shivamogga.

Industrial Visit to IISc Bengaluru

15-07-2023 to 16-07-2023

About IISc, Bangalore

The Indian Institute of Science (IISc) is a public, deemed, research university for higher education and research in science, engineering, design, and management. It is located in the southern Indian city of Bangalore, Karnataka. The institute was established in 1909 with active support from Jamsetji Tata and thus is also locally known as the Tata Institute. It was granted a deemed university status in 1958 and recognized as an Institute of Eminence in 2018.

Beautiful Journey of our AIML students at IISc Bangalore on 16th June 2023

Total of 45 Students from 4th Semester AIML department accompanied by Mr. Sandeep Telkar R, Assistant professor visited the IISc campus

Students and Staff were welcomed and addressed by
- Miss. Akshata Badri : Senior Associate - Marketing & Communication.
- Mr. Syed Adil Hassan: Head of Startup@ARTPARK.
- Mr. Varun - Young Entrepreneur, Founder of Vishwa Robot.
- Mr.Jyotishka Duttagupta - Young Entrepreneur, Founder of Gati Robotics

Mr. Syed Adil gave a brief overview about the different stages of Startup Journey @ARTPARK.

Students were visited different Start-up's Products in the ARTPARK.

- Vishwa - "Realize True Autonomy in Drones of the Future".
- Gati Robotics.
Our students also visited Supercomputer Education and Research Center.

SPARK

IGNITE

BOOST

Mr. Anil introduced the students with Param Pravega Super Computer and gave the details about its platform, configuration and the process of operation.

Three Days SDP on LaTeX

21-06-2023 to 23-06-2023

LaTeX is a document preparation system used for the communication and publication of scientific documents. LaTeX is generally distributed along with plain TEX, i.e., it provides a set of macros for TEX to interpret. LaTeX is available as free software. LaTeX encourages authors not to worry too much about the appearance of their documents but to concentrate on getting the right content.

Department of AIML hosted 3 days SDP on LaTeX from 21/06/2023 to 23/6/2023 and it is open to all branch students. The resource persons for the sessions were Dr. Manu A P, Professor, Department of Computer Science & Engineering, PESITM, Shivamogga and Dr. Likewin Thomas Associate Professor and HOD, Department of Artificial Intelligence & Machine Learning, PESITM, Shivamogga.

A Total of 64 Students attended this SDP program. Students Gain the knowledge about documentation on open source tool and basic understanding of Latex.

Topics Covered:

1. Finding, Installing and Using LaTex software.
2. Writing a LaTeX Article - The Basics.
3. Writing a LaTeX Article - Using Tables.
4. Writing a LaTeX Article - Embedded Figures.
5. Writing formulas for a LaTeX Article.
6. Using Document Classes and Packages - Preamble and Document Structure.
7. Using BibTex.
8. Using Journal Class Files and Packages.

Students gain knowledge about how to insert image, sub images, equation, table and cross reference in research paper. BibTex allows automatically generating and formatting a bibliography in a LaTeX document.
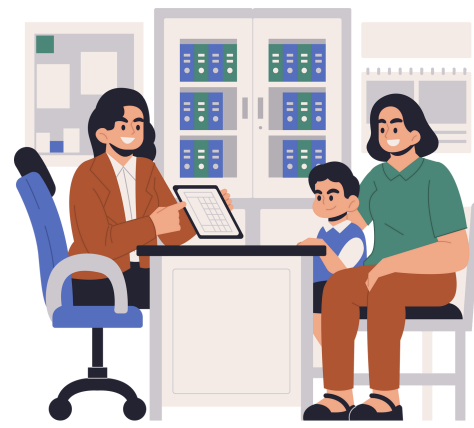
Parents Meet

15-07-2023

A Parent-Teachers Meeting was conducted on 15-07-2023 .The parents were intimated through the phone calls well in advance through class teachers and mentors.

45 parents attended this meeting. Interaction between Parents, Class Teachers, Subject Teachers and Mentors was done. There was a discussion on student's performance in individual subjects, students discipline in classrooms and their attendance percentage. Parents were happy with the way the department was conducting academically. They were very satisfied with the performance of their wards.
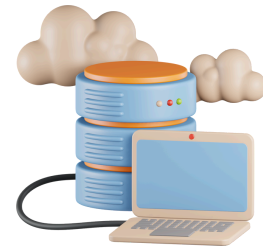

Some parents also enquired what kind of placement arrangements are done for their wards. CIE marks in all the subjects were discussed with the parents. The top 3 consistently performing students & student of the semester were felicitated in the meeting.

Two Days SDP on DBMS

15-07-2023 to 16-07-2023

Database management system is software which is used to manage the database. For example: MySQL, Oracle, etc. are a very popular commercial database which is used in different applications. DBMS provides an interface to perform various operations like database creation, storing data in it, updating data, creating a table in the database and a lot more. It provides protection and security to the database. In the case of multiple users, it also maintains data consistency.

Department has hosted 2 days SDP on Database Management System- DBMS. The resource person for the SDP was Mr. Vinay M V, Assistant Professor, CSE , VVCE, Mysore. Students gained the knowledge about basics of DBMS Concepts and its application for building Web applications. This SDP also provides students with theoretical knowledge and practical skills in the use of databases and database management systems in information technology applications.

10 Days SDP on AI&ML For Coders

Event Overview

The 50 Hours Industry Oriented Add-On Course on AI&ML, hosted at ME Seminar Hall, was a comprehensive exploration into the realms of Artificial Intelligence and Machine Learning. Guided by Mr. AMIT Chimmalgi, AI Program Manager at ResoluteAI, participants delved into practical applications and real-world projects during this 10-day immersive program.

Days 1-2: OpenCV and its Applications:
Introduction to Open Source Computer Vision Library (OpenCV).
Real-world applications in diverse sectors.

Days 3-4: Linear and Logistic Regression:
Statistical methods for predictive modeling and data analysis.
Application of linear regression in modeling relationships.

Days 5-6: Time Series Analysis and Convolution Neural Networks (CNNs):
Analyzing temporal aspects of data.
CNNs for image processing and classification.

Day 7: YOLO-Based Object Detection:
Introduction to "You Only Look Once" algorithm.
Real-world applications in autonomous vehicles, object tracking, and retail analytics.

Day 8: Text Extraction and Natural Language Processing (NLP):
Optical Character Recognition (OCR) for text extraction.
NLP applications in customer feedback analysis, spam detection, and more.

Days 9-10: Flask and Project Work:
Building web applications with Flask.
Participants worked on diverse projects showcasing practical applications of AI&ML.

Real-World Applications of Projects:

- Web Applications.
- Data Dashboards.
- Customer APIs.
- Attendance Monitoring System.
- Scaling up small power generation plants using PPE waste with AI model.
- Creation of logos using AI model.
- Diabetes detection from eye retina image analysis.
- Chatbot for health preliminary diagnostics.

Conclusion:

The 50 Hours AI&ML Add-On Course, facilitated by Mr. AMIT Chimmalgi, provided a rich learning experience. With practical insights, hands-on projects, and real-world applications, participants gained valuable skills. The collaboration with IEEE PESITM Chapter further strengthened the program's impact, fostering an environment of learning and innovation. The projects exhibited the diverse applications of AI&ML, reflecting the success and relevance of the course

Google Developer Student Club Inauguration

09-09-2023

Google Developer Student Clubs (GDSC) train thousands of student developers globally and work with their communities to solve real-life problems. Every year Google selects students from universities around the globe to lead the developer communities at their campus and help students to bridge the gap between industry and academia.

GDSC Club (PESITM Chapter) was inaugurated on 9th September 2023 at PES Institute of Technology and Management, Shivammogga. The event was a grand success, with over 200 students attended. The inauguration ceremony was graced by the presence of,

Dr. Chaitanya Kumar M V,
Principal, PESITM

Mr. C M Patil
CEO, Anvesana and Ex CEO, Deshpande Foundation

Mr. Sandeep Nagabhushan Aithal,
Senior Manager, Merger & Acquisition, Infosys

Mr. Madan Padaki,
Indian Entrepreneur & Social Change Maker

Key Take A ways of GDSC Club are:

The importance of technology in today's world.
The need for students to develop their technical skills and become innovative thinkers.
The benefits of being a GDSC member.
Insights from experienced Google Developers on Google technologies such as Android development, Cloud Platform, and Machine Learning

MOU Signing Ceremony for School Adoption

14-09-2023

Signing of MOU Ceremony for Govt. School Adoption was organized in the Mechanical seminar hall on 14-09-2023 at 11:00 AM in presence of Mr. Ravi Head Master, Govt. School Virupinakoppa, Dr. Nagaraja , CCA PES Trust ,Dr. Chaitanya Kumar M V Principal, PESITM Shivamogga, Mr. Prasanna Nayak, NSS Coordinator and Mr. Shankar Inde Student NSS Co ordinator Dept of AIML.

The inauguration was blessed by the invocation song by Mr. Prabhanjan, Student of Dept. of AIML, Mr. Adil H,Student of Dept. of AIML welcomed the guests and the audience for the event. he gave a brief introduction about the Chief Guest and emphasized on why such events are required. President of the function Dr. Nagaraja CCA PES Trust shared his views and appreciated the efforts done by the AIML Department. Mr. Ravi appreciated the steps taken by the PESITM for adopting the govt. school. Signing of MOU was been done and event was concluded by Vote of Thanks by Miss. Arpitha, Student of Dept. of AIML. A distribution of Steel Water bottles was done by the guest to the Govt. School students. A Total of 48 Govt. School Students attended this event

Outcome of this Adoption:

- Helping local students to achieve good result.
- Promoting appropriate innovative approaches.
- To Skill Rural population.

Thank You

DEPARTMENT OF

ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

PESITM, SHIVAMOGGA