Report on Annual Summer Course: AI for Everyone (AI4E), 16th– 31st May 2025

Introduction

The Department of Electrical Engineering at Dayalbagh Educational Institute successfully conducted the Third iteration of the annual two-week Summer Training Program titled *"AI for Everyone"* from 16th to 31st May 2025.

As AI becomes increasingly integrated into every aspect of society, the need to make its understanding more inclusive and widespread has grown significantly. This program sought to empower students from both technical and non-technical backgrounds, enabling them to gain a foundational grasp of AI, irrespective of their prior experience in computer science or programming.

The course aimed to introduce students belonging to a wide variety of academic disciplines to the fundamental principles and practical applications of Artificial Intelligence (AI). Designed with accessibility in mind, the program blended theoretical concepts with hands-on learning to help students explore AI's potential and relevance in today's world.

Program Structure and Modules

The two-week course structure included a blend of theory lectures, interactive lab sessions, and guided project work. The curriculum was delivered through five key modules. The first module, *Introduction to AI*, provided a broad overview of the history, terminology, and key ideas in AI. This was followed by *Basics of Python*, where students learned foundational programming concepts needed to interact with AI systems. In the third module, *Python for Data Analysis*, participants explored data handling and visualization techniques essential for interpreting AI-driven insights.

The fourth module, *Foundations of Machine Learning*, introduced students to core ML concepts such as supervised and unsupervised learning, model training, and performance evaluation. Finally, the *Applications of AI* module showcased how AI is transforming industries like healthcare, finance, and digital media. This multi-pronged approach ensured that students not only understood the theory but also gained practical experience through coding exercises and tool-based tasks.

Project Work

Project-based learning was a central feature of the program, providing participants with the opportunity to apply their knowledge in meaningful ways. Students engaged in diverse practical projects, including analyzing the impact of student lifestyle habits on academic performance using regression and clustering techniques. Others explored the role of AI in shaping digital media between 2020 and 2025, using data trends and sentiment analysis. Some groups worked on detecting fraudulent financial transactions through binary and multiclass classification models, while another project focused on predicting the likelihood of candidates seeking new job opportunities after completing training, based on profile and behavioral data.

These projects allowed students to translate theoretical learning into actionable solutions, helping them grasp the real-world relevance of AI technologies.

Student Participation and Feedback

The program saw active participation from over 90 students across various streams, including B.Voc. (AI & Robotics, Internet of Things, Telematics, Telecommunication), B.Sc. (Computer Science), and B.Tech (Electrical, Mechanical, Agriculture, Footwear). The engagement levels were high throughout the course, with 85% of the participants completing all sessions and submitting their final projects.

Student feedback reflected deep appreciation for the content and delivery of the program.

One participant shared, *"AI4E was an insightful and well-structured course that provided a solid foundation in AI concepts and applications. The content was engaging, and the instructor explained topics clearly. It helped me understand AI's real-world impact on society and work."*

Another student reflected, *"AI4E is a great initiative that helps us understand how Artificial Intelligence is shaping our lives. It shows how AI makes tasks easier, smarter, and faster in fields like healthcare, education, and daily life."*

Others praised the program for its clarity and accessibility, noting, *"The course was really good! It covered AI and programming languages well. Easy to understand, with practical examples."*

Another participant added, *"AI4E offered a strong introduction to AI and Machine Learning, blending theory with practical applications... making it valuable for beginners seeking a career in AI or data science."*

Outcomes and Impact

Students became familiar with real-world applications of AI across various sectors such as healthcare, education, business, and transportation. They were able to identify how AI enhances efficiency, enables automation, and creates new career paths. Moreover, the course encouraged learners to reflect on the societal implications of AI technologies—touching on key concerns such as fairness, privacy, algorithmic bias, and the risks of job displacement.

By the end of the program, students had gained confidence in their ability to explore AI tools and concepts independently. The success of *"AI for Everyone"* demonstrates the potential of inclusive, interdisciplinary education in building a digitally empowered student community.