

Program Name: Master of Technology in Artificial Intelligence

Department: Department of Information and Communication Technology

School: School of Technology

University: Pandit Deendayal Energy University

Relevance of the M. Tech. A.I.: In recent years artificial intelligence (AI) has become one of the mainstream branches of Engineering education. The advancement in High-performance computing (HPC) has accelerated the development of many real-world applications of AI, such as predictive maintenance in industry, drug discovery, smart transportation, smart city, space exploration, aviation, mining, Material design, automation, robotics etc. All these emerging fields will need trained human resource. Due to this, we can see a sharp increase in AI-related education.

As per AI Index report by Stanford University (2021), AI has been reported as one of the emerging fields, that is going to fuel the world economy. During the year 2019-2020, there were almost 200 new AI courses being conducted among the top 18 world-class universities. This indicates the demand and increasing popularity of this course. From 2016 to 2020, there is a 150% increase in the enrolment in AI related courses in all major world-class universities. There is a growing demand for AI-related human resources in India too. Companies and research organizations are constantly looking for trained human resources in AI domain. Keeping all these developments in mind, the dept. of ICT at PDEU is starting the M. Tech in Artificial Intelligence course. The salient features of this course are as follows.

- Practical hands-on training by experts
- Exposure to cutting edge tools and technologies related to AI and ML
- Exposure to real-life case studies to provide solutions using AI and ML techniques.
- Enhancing the industry readiness of the students
- Prepare the students for the disruptions due to the advancement in AI.
- Aware the students about the ethical and responsible use of AI.
- Cultivate the culture of innovation and research among the students and prepare them for higher studies.
- Motivate the students for startup culture and entrepreneurship.

At the end of this course the students will be able to

1. Imparting basic concepts of Artificial Intelligence for the design of intelligent systems.

2. Development of smart solutions for solving complex AI, ML and DL problems using the latest technologies.

3. To analyse and evaluate the AI model performance and report as a dissertation in the area of AI.

Prerequisite: The candidate must be well versed in programming, and knowledge of fundamentals of mathematics and statistics is required.

About the Curriculum: The curriculum has been designed with the help of experts from best academic institutes (such as IIT Gandhinagar, IIT Kharagpur, SAC ISRO etc.) as well as experts from various industries. The curriculum is well calibrated as per the demand of the industry as well as to cope up with the latest development in the field of AI apart from the fundamentals. The course has been structured keeping in mind the possible intake from various domains.