

Short Term Course on Introduction to Generative AI and its Application A Step Forward to Artificial Intelligence Department of Mathematics & Computing, IIT (ISM) Dhanbad

Generative AI's Days are out creating massive disruptions to change the way of life via changing the process of analytics & research in various areas like: Engineering, Defense, Space, Medical Science, Pharmaceutical Science, Cognitive Science, Agricultural Science, Mathematics, Physics, Chemistry, Economics, Management and many more. No establishment be it industry or academic institute can afford to skip the application of Generative AI. NLP, ANN, CNN, RNN all are synchronised to create Generative AI. To begin with let us get inducted to a six days (18 hours) online certification program on Generative AI organized by Dept. of Mathematics & Computing, Indian Institute of Technology (ISM) Dhanbad. Use of code without coding is going to be the code of conduct to drive business and conduct research through Generative AI in various areas.

Objective: Objective of the program is to create an appetite to understand Generative AI and its application in a way to manage business as well as the way to conduct research, develop different projects.

The program includes a balanced mix of theoretical sessions, practical hands-on exercises, guiding participants through the process of developing small projects using Generative AI. The hands will help the participant to gain some experience on how to develop projects as well as how to use Generative AI for practical application. No prior programming experience is required, making this an ideal opportunity for anyone interested in learning Generative AI in an intuitive and practical manner. Free open-source software will be used for hands on. Participants can download the free software and do their hands on as well as small projects.

Course Outline:

Module 1: Introduction to AI and Generative AI

Module 2: Basics of Neural Networks & NLP

Module 3: Introduction to Transformers

Module 4: Large Language Models (LLMs)

Module 5: Generative AI Basics

Module 6: Prompt Engineering

Module 7: OpenAI Platform, API Tools & Open-Source Models, Ollama

Module 8: Retrieval-Augmented Generation (RAG)

Module 9: Safety, Ethics, and Limitations

Module 10: Project / Application Building

Module 11: Advanced GenAI Concepts / Future of GenAI

This course includes hands-on sessions for practical learning. Participants will be given some small projects to develop using Generative AI. Participants only need a laptop or desktop to download the free software and work on it.

A certificate will be awarded upon completion, and soft copies of course materials will be provided for future reference.

This program will be done in online mode after office hours, i.e., in the evening.

Coordinator:

Prof. Subhashis Chatterjee, Dept. of M&C, IIT (ISM) Dhanbad

Co-Coordinator:

Prof. Abhishek Kumar Singh, Dept. of M&C, IIT (ISM) Dhanbad



Speakers & Hands-on Instructors

Faculty from Indian Statistical Institute Pune

Mr. Vivek Kumar, Data Science Consultant, Accenture

Faculties from IIT(ISM) Dhanbad

Also, Research Scholars of IIT(ISM) will coordinate and assist the participants for completion of the projects

Eligibility Criteria

Anyone pursuing or having completed a Diploma/bachelor's degree or above in any discipline.

Registration Fees (in INR including 18% GST):

Industry Personal	10000/-
Faculty members from Centrally Funded Institutes (like IITs, NITs, IIMs, IIITs, IISc, IISERs, IIMC etc), and Central Universities.	5000/-
Faculty Members from other Universities & affiliated colleges /Institutes/Organization, School Teachers	2000/-
Research Scholars from any University /Institute, Students (pursuing Diploma /UG/PG)	1500/-

Register Now

Pay the registration fee and fill up the form [Click here](#)

Account Details

Name of Bank- Canara Bank

Account Name- IIT ISM CEP Account

Account Number- 110261358281

IFSC Code- CNRB0000986

Last date to apply: 26/10/2025

Date: 27/10/2025-01/11/2025, **Time:** 6:00 PM to 9:00 PM