





### Online Refresher Course

On

# AI & Machin Learning Mastery: A Practical Refresher Course

14 - 26 October, 2024

Supported by

Malaviya Mission
Teacher Training Program (MM-TTP)
Ministry of Education, Government of India

Organized by

Centre for Faculty Development &
Technology
Indian Institute of Technology
(Banaras Hindu University)
Varanasi, UP, India

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# AI & Machin Learning Mastery: A Practical Refresher Course

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Centre for Faculty Development & Technology, Indian Institute of Technology (BHU) Varanasi is organizing an Online Refresher Course on "AI & Machine Learning Mastery: A Practical Refresher Course" under Malaviya Mission Teacher Training program (MM-TTP) from 14<sup>th</sup> – 26<sup>th</sup> October, 2024.

#### **Overview**

The "AI & Machine Learning Mastery: A Practical Refresher Course" is a two-week comprehensive program designed to equip faculty members with a strong foundation in Artificial Intelligence (AI) and Machine Learning (ML). Through interactive sessions, real-world case studies, and hands-on projects, participants will develop an understanding of AI/ML techniques, tools, and their applications across various domains. This course aims to provide educators with the skills to integrate AI/ML in their teaching, research, and to facilitate innovative, interdisciplinary projects.

#### **Objective**

The objective of this refresher course is to provide:

- ◆ A solid foundation in AI and ML concepts, techniques, and algorithms.
- ◆ Practical skills in applying AI/ML tools and frameworks (e.g., Python, TensorFlow, Scikit-learn).
- ◆ Competence in teaching AI/ML to undergraduate and postgraduate students.
- ♦ A deep understanding of AI/ML applications across different industries.
- ◆ Knowledge of ethical implications and the societal impact of AI technologies.

#### **Coordinators**

**❖** Dr. Shyam Kamal

Coordinator
Centre for Faculty Development and Technology
IIT (BHU) Varanasi

**❖** Dr. Ajit K. Mishra

Co-Coordinator Centre for Faculty Development and Technology IIT (BHU) Varanasi

Free Registration
Recognised by UGC for CAS
No Registration Fee

#### Who Can Apply?

All faculty members working in Government/Private Universities /Colleges anywhere in India under section 2(f) are eligible.

#### **How to Register?**

#### **Step I: Participant Registration:**

- 1. For first-time registration, visit the website: <a href="https://mmc.ugc.ac.in/registration/Index">https://mmc.ugc.ac.in/registration/Index</a>, fill in the necessary details.
- 2. A confirmation e-mail with username and password will be sent to registered email ID.

#### **Step II: Register for the Training Programme:**

- 1. **Login as a Participant** by using your username and password. **Change** your password on first login.
- 2. Again Login with change Password
- 3. On Left Side Click on Apply for Refresher Course
- 4. Select Apply For: Refresher Course
- 5. Select month & Year: October 2024
- Select Center Name: Indian Institute of Technology (BHU) Varanasi (14/10/2024 -26/10/2024),
- 7. Select Title: "AI & Machine Learning Mastery: A Practical Refresher Course"
- 8. Fill other details
- 9. Click on submit.

Registration Deadline
13 October, 2024

#### Mode of selection

Selection of participants will be done by the organizing committee.

#### Certification

Participants are required to attend all sessions.

E-certificates will be issued to participants only on successful participation in the programme and qualified the MCQs TEST Examination (MCQs TEST will be conducted during/at the end of program.)

#### **Programme Schedule**

#### Timing: 10am to 5pm

#### Week 1: Foundations of AI & Machine Learning

Day 1: Introduction to Artificial Intelligence & Machine Learning

Day 2: Machine Learning Concepts & Algorithms (Part 1)

Day 3: Machine Learning Concepts & Algorithms (Part 2)

Day 4: Neural Networks and Deep Learning

Day 5: Al and Data Preprocessing

Day 6: Introduction to Natural Language Processing (NLP)

## Week 2: Advanced AI/ML Techniques and Applications

Day 7: Reinforcement Learning and Decision Making

Day 8: Al in Computer Vision

Day 9: AI for Time Series Forecasting

Day 10: AI/ML in Industry Applications

Day 11: AI Ethics and Societal Impact

Day 12: Capstone Project Presentations & Feedback

## Centre for Faculty Development & Technology, IIT (BHU) Varanasi

A Centre named 'Teaching Learning Centre (TLC)' was initiated by the Institute in July 2013 to strengthen the teaching environment of the institute and to organize several programmes to enhance teaching-learning processes. It covers all aspects of teaching, pedagogy, laboratory projects, assessment, course delivery, course design, e-learning, sharing best practices in teaching- learning, faculty development programmes, etc. Currently Teaching learning Center becomes Centre for Faculty Development & Technology.

#### For further assistance, please contact

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#### **Office Address:**

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