



AICTE Training and Learning (ATAL) Academy Sponsored One Week Online Faculty Development Program(FDP) on Artificial Intelligence & Machine Learning From 4th October to 8th October 2021



Course Objectives:

Artificial Intelligence(AI) also known as Machine Intelligence refers to intelligence demonstrated by machines, which is contradictory to intelligence displayed by humans known as natural intelligence. The Artificial Intelligence is a major step forward in how computer system adapts, evolves and learns. It has widespread application in almost every industry and is a big technological shift, similar in scale to past events such as the industrial revolution, the computer age, and the smart phone revolution. The FDP is aimed at imparting knowledge and training on the fundamentals of Artificial Intelligence, machine learning and its applications towards various domains. This program will be beneficial to research scholars and faculty members who intend to practice/begin research in the field of Artificial Intelligence & machine learning.

Tentative Topics to be Covered (but not limited):

- Introduction of Artificial Intelligence & Machine Learning
- Introduction of Python and R programming
- Regression analysis
- Supervised models such as Naïve Bayes, Decision Tree, Support vector Machines etc
- Ensemble Models Boosting, Bagging, Stacking etc.
- Deep learning & Applications etc.
- Case studies of ML and DL applications
- Hands on Sessions using Python/R.

Important Dates & Registration Information:

- ❖ Last date of Registration on or before 25-09-2021.
- ❖ Confirmation of participation to selected participants only on or before 30-09-2021 through E-mail only.
- ❖ FDP is Scheduled from 4th October to 8th October 2021.
- ❖ Registration mode : online through the ATAL Academy website
<https://atalacademy.aicte-india.org/signup>

Who can register?

- ❖ The faculty members of the AICTE approved institutions, research scholars, PG Scholars, participants from Government, Industry (Bureaucrats/Technicians/Participants from Industry etc.), CBSE Teachers and staff of host institutions.
- ❖ One participant can apply for maximum 4 FDPs.
- ❖ Certificates will be given to registered participants & subsequently approved by the coordinator, provided participants obtain 80% attendance, 60% marks in assessment and Feedback given by participants on Portal only.
- ❖ FDPs are free for all participants.

Coordinator:

Dr. Dilip Singh Sisodia, Department of Computer Science & Engineering, National Institute of Technology Raipur (An Institute of National Importance) G.E. Road, Raipur-492010, Chhattisgarh, India

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Resource Persons



Dr. R. B. Pachori
IIT Indore



Dr. Lalit Garg
University of Malta



Dr. Dilip Singh Sisodia
NIT Raipur



Dr. Deepak Garg
Bennett University



Dr. Naresh Kumar Nagwani
NIT Raipur



Dr. Vivek Tiwari
IIIT Naya Raipur



Dr. Debarka Sengupta
IIIT Delhi



Dr. Saptarsi Goswami
Calcutta University



Dr. Vijay Bhaskar Semwal
MANIT Bhopal



Dr. Puneet Gupta
IIT Indore



Mr. S. K. Rajeev Nair
CSIT Durg



Dr. Jitendra Kumar Rout
NIT Raipur



Dr. Deepak Singh
NIT Raipur



Dr. Abinash Pujahari
Bennett University



Final Schedule of one week FDP on Artificial Intelligence and Machine Learning
Department of Computer Science and Engineering (CS&E)
National Institute of Technology Raipur
Dates: 4th October to 8th October 2021



Dates	10:00 AM to 11:30 AM	11:30 AM to 12.00 PM	12.00 PM to 1.30 PM	1.30 PM to 2:30 PM	2:30 PM to 4.00 PM	4:15 PM to 4:45 PM
4/10/21	Inauguration & Session 1 Introduction to AI, ML and Application Prof. R.B. Pachori, IIT Indore Lecture Session	Tea Break OR Q &A Session	Session 2 Extended Intelligence & Health Care applications Dr. Lalit Garg University of Malta Lecture Session	Lunch Break	Session 3 Data Analysis & Visualization Using Python Dr. Deepak Singh NIT Raipur Hands-on Session	Q &A Session
5/10/21	Session 4 Regression Analysis Dr. Vivek Tiwari IIT Naya Raipur Lecture Session	Tea Break OR Q &A Session	Session 5 Nave Bayes and K-NN Dr. Naresh Kumar Nagwani NIT Raipur Lecture Session	Lunch Break	Session 6 Feature Engineering & Dimension Reduction Dr. Vijay Bhaskar Semwal MANIT Bhopal Hands-on Session	Q &A Session
6/10/21	Session 7 Decision Tree Algorithms Dr. Dilip Singh Sisodia NIT Raipur Lecture Session	Tea Break OR Q &A Session	Session 8 Support Vector Machines Dr. Puneet Gupta IIT Indore Lecture Session	Lunch Break	Session 9 Hands-On using DT and SVM Dr. Abinash Pujahari Bennet University Hands-on Session	Q &A Session
7/10/21	Session 10 Ensemble Learning Dr. Saptarsi Goswami Calcutta University Lecture Session	Tea Break OR Q &A Session	Session 11 Unsupervised Learning Dr. Debarka Sengupta IIT Delhi Lecture Session	Lunch Break	Session 12 ML Techniques for NLP Dr. Jitendra Rout NIT Raipur Hands-on Session	Q &A Session
8/10/21	Session 13 Deep Learning & Applications Dr. Deepak Garg Bennet University Lecture Session	Tea Break OR Q &A Session	Examination	Lunch Break	Session 14 Yoga & Meditation Shri S.K.Rajeev Nair CSIT, Durg Lecture Session	Valediction & Feedback

Tentative Venues

Registration, Inauguration, Lecture Sessions and Hands-on Sessions will be conducted online, and link will be shared soon.