



IIT Bhubaneswar

The Annual Techno Management Fest

WISSENAIRE

Artificial Intelligence & Machine Learning

Introduction:

Artificial Intelligence refers to the machine intelligence. Machine learning is an application of artificial intelligence (AI) that provides systems the ability to automatically learn and improve from experience without being explicitly programmed. Machine learning focuses on the development of computer programs that can access data and use it learn for themselves. This workshop equips you with the necessary skills required for the understanding of Artificial Intelligence & Machine Learning.

Topics to be covered:

- **Day-1:**

Session 1: Introduction of Machine Learning and Artificial Intelligent

- Introduction of Artificial Intelligence and Machine Learning
- Brief introduction to Machine Learning for AI
- Classification of Machine Learning
- Difference between Machine Learning and Artificial Intelligence
- Machine Learning Techniques
- Types of Learning
- Machine Learning System Design
- Supervised Learning-Regression & Classification
- Future scope, Machine Learning and Artificial Intelligence

Session 2: Python/Anaconda

- Introduction to python and anaconda
- Conditional Statements
- Looping, Control Statements
- Lists, Tuple, Dictionaries
- String Manipulation
- Functions
- Installing Packages
- Introduction of Various Tool
- Working on Spyder, Jupyter notebook
- Installing library and packages for machine learning and data science
- Matplotlib, Seaborn
- Scipy and Numpy (Linear Algebra)
- Pandas (Data Framing)

- **Day-2:**

Session 3: Machine Learning Algorithms

- Regression
- Naive Bayes Classification



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- Logistic Regression
- Support Vector Machines (SVM)
- k-Nearest Neighbours (KNN)
- K-Means Clustering

Session 4: Introduction of Neural Network (Deep Learning) and Project

- What is Neural Network
- Introduction of Sklearn
- Digit Recognition using KNN Machine Learning algorithms
- Introduction of TensorFlow
- Object Detection using TensorFlow

Benefits:

- Internship offer to the participants on the performance basis
- Certificate of participation to all the participants from Wissenaire, IIT Bhubaneswar and Organizing partner.

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