



## Deep Learning

### Description

Deep learning can be considered as a subset of machine learning. It is a field that is based on learning and improving on its own by examining computer algorithms. While machine learning uses simpler concepts, deep learning works with artificial neural networks, which are designed to imitate how humans think and learn. Until recently, neural networks were limited by computing power and thus were limited in complexity. However, advancements in Big Data analytics have permitted larger, sophisticated neural networks, allowing computers to observe, learn, and react to complex situations faster than humans. Deep learning has aided image classification, language translation, speech recognition. It can be used to solve any pattern recognition problem and without human intervention.

### Who this workshop is for:

Anybody can join this workshop, college students, teachers, corporate professionals

### What you'll learn

Candidates will get the knowledge of above topics with required notes and ppt, after completing this workshop they will be able to apply for job interviews, it will also help to complete final year projects.

### For Deep learning workshop content

Following is the basic outline of the workshop that would be happening at Alegria

### Module-1: Introduction of Deep learning

- Introduction to Machine Learning
- Roadmap of Deep learning



- Required Skills for Deep Learning
- Process of Deep Learning project creation
- Business case study in Deep Learning

### **Module-2: Neural Network**

- Introduction to Neural Network
- Types of Neural Network
- Installation of Keras and Tensorflow with environment setup
- Neuron concept
- Process of Neural Network
- Backpropagation Algorithm
- Gradient Decent and Cost function
- Practical Implementation on Python

### **Module-3: Natural Language Processing**

- Introduction to Natural Language Processing
- Required skill for NLP
- Process of NLP project creation
- Practical Implementation on Python