



Jodhpur Institute of Engineering & Technology

SYLLABUS

Branch: CSE (AI and ML)

Syllabus - VI Semester 6AIML4-24: Deep Learning Lab

Credits: 1.5
0L+0T+3P

Max. Marks: 75 (IA:45, ETE: 30)
End Term Exam: 3 Hours

S.No.	Objectives
1	Demonstration and implementation of Shallow architecture, using Python, Tensorflow and Keras.
2	Tools/Resources: Google Colab, Cloning GitHub repository, Upload Data, Importing Kaggle's dataset.
3	Digit Classification: <ul style="list-style-type: none">Neural network to classify MNIST dataset
4	Convolution Neural Network application using Tensorflow and Keras: <ul style="list-style-type: none">Classification of MNIST Dataset using CNN
5	Convolution Neural Network application using Tensorflow and Keras: <ul style="list-style-type: none">Face recognition using CNN
6	Image denoising (Fashion dataset) using Auto Encoders : <ul style="list-style-type: none">Handling Color Image in Neural Network aka Stacked Auto Encoders (Denoising)
7	Text processing, Language Modelling using RNN.
8	Time Series Prediction using RNN.
9	Sentiment Analysis using LSTM .
10	Image generation using GAN.

Suggested References/Books:

1. Rafael C Gonzalez, Richard E Woods, "Digital Image Processing", 4th Edition, Pearson, 2018.
2. Kenneth R. Castleman, Digital Image Processing Pearson, 2006."
- 3: Deep Learning with Python, Second Edition by François Chollet
- 4.Beginning with Deep Learning Using TensorFlow: A Beginners Guide to TensorFlow and Keras for Practicing Deep Learning Principles and Applications by Mohan Kumar Silaparasetty