

WORKSHOP ON ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

JOINTLY ORGANISED BY SPIU-UP AND KNIT SULTANPUR

Date	Session: 09:00 am to 01:00 pm			
25-July-2020	Introduction to Machine learning By Prof. M. K. Dutta	Basic Paradigm, Classification and clustering, classifier surfaces By Mr. NeerajBaghel	Feature engineering, measuring distances between features, statistical coefficient and confusion matrix, training errors By Ms. Saumya Yadav	Hands-on Session 1- Installation of programming software and IDE, Introduction to Google Colab, Basic Programming on Python, Introduction to Training resources, Import packages and loading of datasets By Mr. Rakesh Chandra Joshi
26-July-2020	Supervised Learning: Classification, Support Vector Machines (SVM) By Ms. Saumya Yadav	Linear and Non-linear SVMs, Kernels, Decision tree By Prof. M. K. Dutta	Entropy and Information Gain, Random Forest Classifier, Naïve Bayes By Mr. NeerajBaghel	Hands-on Session 2- Machine Learning , Supervised Learning, Support Vector Machines and Naïve Classifier By Mr. Rakesh Chandra Joshi
27-July-2020	Introduction to Deep Learning, Perceptron model, Activation function, Loss Function By Prof. M. K. Dutta	Building Neural Networks with perceptron, Binary Cross Entropy loss, loss optimization By Mr. Rakesh Chandra Joshi	gradient decent, Learning rate, Over fitting, Dropouts By Ms. Saumya Yadav	Hands-on Session 3- Creating CNN models from scratch, Compiling of CNN models, Training and Testing, Plotting of curves By Mr. NeerajBaghel

<p>28-July-2020</p>	<p>Deep Learning in Computer Vision</p> <p>By Prof. M. K. Dutta</p>	<p>Features Extraction, Feature Representation, Fully Connected Neural Network, Convolution on Images</p> <p>By Mr. Rakesh Chandra Joshi</p>	<p>Convolution Layer and Feature Maps, Pooling and Activation Function (ReLU), CNNs Applications</p> <p>By Mr. NeerajBaghel</p>	<p>Hands-on Session 4- Deep learning training and architecture, feature extraction, Models training with some pertained models, Object Detection, Image Augmentation</p> <p>By Saumya Yadav</p>
<p>29-July-2020</p>	<p>Deep Learning in Time Series Signals</p> <p>By Prof. M. K. Dutta</p>	<p>Signals, Filtering, Augmentation, 1D Signal Processing</p> <p>By Mr. Rakesh Chandra Joshi</p>	<p>Features extraction, Convolution and Pooling in 1D signals, Classifications using CNN</p> <p>By Saumya Yadav</p>	<p>Hands-on Session 5- Signal acquisition, signal filtering, Augmentation, Feature Extraction 1-D signals, Training and classification of 1D signals using CNN</p> <p>By Mr. Neeraj Baghel</p>