



# CENTRE FOR ADVANCED STUDIES

DR. A.P.J. ABDUL KALAM TECHNICAL UNIVERSITY



## 3-Days Online Workshop on

# Artificial Intelligence: Machine Learning & Deep Learning

(23 June - 25 June, 2022)

sponsored by



सत्यमेव जयते  
Department of Science and Technology  
Ministry of Science and Technology  
Government of India



## Highlights



Course Completion Certificate



Projects, Assignments, Discussion



Experts led Training



20+ hours Online training

- Duration : 3-days
- Eligibility: B.Tech. 4<sup>th</sup> Year (CSE / IT /ECE)
- Mode: Online



Registration Link:

<https://cas.res.in/workshops.html>



### Coordinator

**Prof. (Dr.) M. K. Dutta**

Director

Centre for Advanced Studies  
Dr. A.P.J. Abdul Kalam Technical University, Lucknow



Free Registration – Limited seats

Last Date of Registration: 18 June, 2022

Day	Session 1	Session 2
Day 1	<b>Introduction to Machine learning:</b> Basic Paradigm, Classification and clustering, classifier surfaces, feature engineering, measuring distances between features, statistical coefficient and confusion matrix, training errors	<b>Hands-on Session 1-</b> Introduction to Machine Learning, Supervised Learning, Support Vector Machines and Naive Classifier, Machine Learning Classifiers
Day 2	<b>Introduction to Deep Learning:</b> Perceptron model, Activation function, Loss Function, Building Neural Networks with perceptron, Binary Cross Entropy loss, loss optimization, Gradient descent, Learning rate, Over fitting, Dropouts	<b>Hands-on Session 2-</b> Machine Learning Classifiers, Creating CNN models from scratch, Compiling of CNN models, Training and Testing, Plotting of curves
Day 3	<b>Deep Learning in Computer Vision:</b> Features Extraction, Feature Representation, Fully Connected Neural Network, Convolution on Images, Convolution Layer and Feature Maps, Pooling and Activation Function (ReLU), CNNs Applications	<b>Hands-on Session 3-</b> Deep learning training and architecture, feature extraction, Models training with some pertained models, Object Detection, Image Augmentation



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