

Unsupervised Learning Lab	L	P	C
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Discipline(s) / EAE / OAE	Semester	Group	Sub-group	Paper Code
EAE	7	MLDA-EAE	MLDA-EAE-4	ML-465P

<p>Marking Scheme:</p> <ol style="list-style-type: none"> Teachers Continuous Evaluation: 40 marks Term end Theory Examinations: 60 marks <p>Instructions:</p> <ol style="list-style-type: none"> The course objectives and course outcomes are identical to that of (Unsupervised Learning) as this is the practical component of the corresponding theory paper. The practical list shall be notified by the teacher in the first week of the class commencement under intimation to the office of the Head of Department / Institution in which the paper is being offered from the list of practicals below. Atleast 10 experiments must be performed by the students, they may be asked to do more. Atleast 5 experiments must be from the given list.

- Setting up the Jupyter Notebook and Executing a Python Program
- Installing Keras, Tensorflow and Pytorch, Pandas, numpy etc libraries and making use of them
- Apply EM algorithm to cluster a set of data stored in a .CSV file. Use the same data set for clustering using k-Means algorithm. Compare the results of these two algorithms and comment on the quality of clustering. You can add Java/Python ML library classes/API in the program.
- Program to demonstrate k-means clustering algorithm
- Program to demonstrate DBSCAN clustering algorithm
- Program to demonstrate PCA and LDA on Iris dataset
- Compare the performance of PCA and Autoencoders on a given dataset
- Build Generative adversarial model for fake (news/image/audio/video) prediction.
- Outlier detection in time series dataset using RNN
- Anomaly detection using Self-Organizing Network