



Malaviya National Institute of Technology, Surat
Department of Computer Science and Engineering

Pattern Recognition LAB Assignment, 2021

Day-5

1. Write a program to reduce the dimension of feature space for a given dataset using principal component analysis (PCA). (Load ionosphere dataset “ionosphere.mat”)
2. Write a program to reduce the dimension of feature space for a given dataset using Linear Discriminant Analysis (LDA). (Load ionosphere dataset “ionosphere.mat”)

Day-6

1. Load the "Iris" dataset and perform k -nearest neighbor classification. Plot the accuracy/error w.r.t different k values. Compare the accuracy with the built-in function of k -NN.

Day-7

1. Load the "fisheriris.mat" dataset and design a linear classifier using both perceptron batch and sequential algorithm.
2. Design a linear classifier using relaxation criteria on the same dataset.

Day-8

1. Load the "fisheriris.mat" dataset and perform classification using support vector machine (SVM).
(Take the first 100 samples out of 150 samples)

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