

## **Week9: CS 6301 - Machine Learning Lab**

**Date: 16.5.22**

### **Instructions:**

1. For exercises and spot write the results obtained, plots and inferences (what do u understand from the results).
2. Write ur own functions (instead of packages) for the algorithms to get full mark.

### **1. Implement Linear Discriminant Analysis (5)**

Perform classification of NIR spectra data with Linear Discriminant Analysis.  
<https://github.com/nevernervous78/nirpyresearch>

### **2. Implement Principal Component Analysis (5)**

Perform dimensionality reduction using PCA. Use your own dataset.

### **3. Compare LDA and PCA (5)**

Compare the performance of LDA with PCA for dimensionality reduction with the same data?