DA 312, Advanced Machine Learning Laboratory

Lab 5 (Spring 2025)

Instructor:	Dr. Chiranjib Sur	**Time:**	Wednesday - 9:00-11:00 (MDSAI Lab)
Email:	chiranjib@iitg.ac.in	**Place:**	MDSAI Lab.

Problem 1: [20+20+20+20+20 marks]

Consider the following Datasets

https://www.kaggle.com/datasets/chrisfilo/urbansound8k/
https://www.kaggle.com/datasets/soumendraprasad/sound-of-114-species-of-birds-till-2022?
select=Voice+of+Birds

1. Using this dataset, explore and create a detailed report of the class and sound/image examples. Use Jupyter Notebook to create.

2. Provide some samples of Spectrogram of sound signals.

3. Provide some samples of MFCC of sound signals.

4. Provide three different models and compare performance.

5. Which feature+model combination is working the best?

6. Include TensorBoard (This is for practice).