

# EE5253 – Machine Learning

**Group Number** : 22

**Date of Submission** : 15th Jan 2024

**Name of Students and index numbers:**

- EG/2020/4248 Umayanagana D. M. I
- EG/2020/4252 Vihanga V. M. B. P

**Project Topic** : Weather Prediction

**ML Problem** : Supervised

**Problem Type** : Classification

**Number of Features:** 24

**Output Variable** : Weather code

10 outcomes :

- 0 - 'Cloud development not observed or observable',
- 1 - 'Clouds dissolving or becoming less developed',
- 2 - 'State of sky on the whole unchanged',
- 3 - 'Clouds generally forming or developing',
- 51 - 'Drizzle, not freezing, continuous ( slight at time of observation)',
- 53 - 'Drizzle, not freezing, continuous ( moderate at time of observation)',
- 55 - 'Drizzle, not freezing, continuous ( heavy (dense) at time of observation)',
- 61 - 'Rain, not freezing, continuous ( slight at time of observation)',
- 63 - 'Rain, not freezing, continuous ( moderate at time of observation)',
- 65 - 'Rain, not freezing, continuous ( heavy at time of observation)'

**Algorithms Used** :

- a. SVM
- b. Random Forest

**Link to the code** :

- GitHub link :  
[https://github.com/Pabasara715/Machine\\_Learning\\_Project\\_Weather\\_Prediction.git](https://github.com/Pabasara715/Machine_Learning_Project_Weather_Prediction.git)
- Google Colab:  
<https://colab.research.google.com/drive/1GvVuyU9tUX3LYYDZj3BKwJkHJHHaeD4l?usp=sharing>