PROJECT GUIDELINES FOR 23ECE285/23CCE285 - MACHINE LEARNING LABORATORY

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Base paper selection:

Each team must select a base paper that meets the following criteria:

- Must be a standard conference paper, preferably from IEEE, Elsevier, Springer and ACM.
- Must be published within the last 5 years (2020 onwards).
- Must use machine learning models only (No deep learning).
- Dataset used in the base paper should be publicly available or a suitable alternative must be clearly justified.

Domain requirements:

- Base paper must involve **machine learning models only.**
- The problem statement may be based **on classification or regression or clustering.**

ML models include:

1. Logistic regression
2. Multivariable Linear regression
3. Support Vector Machine (SVM) and Support Vector Regression (SVR)
4. Decision tree
5. Random forest
6. Gradient Boosting / XGBoost
7. Naïve Bayes
8. K-Nearest Neighbour (KNN)
9. Artificial Neural Network (ANN) – shallow, NOT deep learning (for classification and regression)
10. Clustering: K-means / Hierarchical

Approval submission (Hardcopy):

Each team must submit a project summary (hardcopy) containing the following:

1. Abstract (minimum of 100 words and maximum of 300 words)
2. Project milestones
3. Project timeline
4. Dataset link

- The hardcopy of the base paper should also be attached along with project summary.

Note: Please follow the **formatting instructions** (line spacing, font type, font size etc.) specified in **Foundations of Data Science – Assignment 1 guidelines** while preparing the project summary.