**Sri Sivasubramaniya Nadar College of Engineering, Kalavakkam – 603 110**

**(An Autonomous Institution, Affiliated to Anna University, Chennai)**

**Department of Electronics and Communication Engineering**

**UEC26041 – Machine learning**

**Practical Component**

**Basic ML Algorithms**

To support the mini project implementation, execute the following to have a basic understanding.

| **S. No** | **Experiment** | **Course Outcome** | **Knowledge Level** |
| --- | --- | --- | --- |
| 1 | Data Visualization Techniques | CO1 | K4 |
| 2 | Linear and logistic Regression | CO2 | K4 |
| 3 | K Nearest Neighbour | CO2 | K4 |
| 4 | Support Vector Machine | CO2 | K4 |
| 5 | Principal Component Analysis | CO3 | K4 |
| 6 | K Means Clustering | CO3 | K4 |

**Mini Project:**

Design a Machine Learning Algorithm for a specific dataset such as audio/ video/ image/speech/ text to suit a specific application.

1. Choose and design an appropriate algorithm.
2. Use simulation tools Matlab/Python/Equivalent to validate the working of the design.

Simulation tools: Matlab/Python/Equivalent

**SAMPLE LIST OF PROJECTS:**

1. Textual description of images
2. Car damage assessment with cost estimation
3. Estimating facial features using speech
4. Speech reconstruction from silent video
5. Quality check for manuscripts/reports for possible acceptance
6. Fake news detection in social media
7. Food calories analytics
8. Predictive maintenance of automobiles
9. Any other similar projects related to machine/deep learning