Annexure -1

**Synopsis for Minor Project-I**

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| **Roll No** | **Name of the Student** |
| 20CSE036 | Anurag Thakur |
| 20CSE052 | Priya Khetan |
| 20CSE038 | Piyush Kumar |

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| **Title Of Project:** |
| **Synopsis:**  **In India, Agriculture is the key point for survival. For agriculture, rainfall is most important. These days rainfall prediction has become a major problem. Prediction of rainfall gives awareness to people and know in advance about rainfall to take certain precautions to protect their crop from rainfall.**  **So, it is one of the challenging and uncertain tasks which has a significant impact on human society. Timely and accurate predictions can help to proactively reduce human and financial loss. This study presents a set of experiments which involve the use of prevalent machine learning techniques to build models to predict whether it is going to rain tomorrow or not based on weather data for that particular day in major cities of India.**  **METHODOLOGY**  **For this we will us DATA Collection first, the raw data were collected from the regional meteorological station,** **Ten data features such as year, month, date, evaporation, sunshine, maximum temperature, minimum temperature, humidity, wind speed, and rainfall were included**. **Now, the Data Pre-Processing step included the data conversion, manage missing values, categorical encoding, and splitting dataset for training and testing dataset. A total of 20 years (1999–2021) data were collected from the meteorology office. Some of the major Machine Learning algorithms are ARIMA Model(Auto-Regressive Integrated Moving Average), Artificial Neural Network, Logistic Regression, Support Vector Machine and Self Organizing Map. Two commonly used models predict seasonal rainfall such as Linear and Non-Linear models.** |

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| **Group No:** | |
| **Supervisor Name :** | **Supervisor**  **Signature:** |

**Class Teacher Project Coordinator HOD, CSE**

**3rd year 3rd year**