**Classification of Air Pollution Levels using Supervised Machine Learning Algorithm**

**Abstract:-**

Air pollution is one of the world's most serious environmental problems. It is a major threat to both human health and the environment. The quality of air in cities is deteriorating on a daily basis. Pollutants in the air also have an impact on the quality of both water and land. This mechanism discusses how machine learning algorithms can be used to analyse and forecast air quality. Machine learning algorithms provide methods for forecasting air pollution levels, allowing people to take preventive measures to reduce air pollution.

**Introduction:-**

Almost every city in the world has the air pollution problem. This issue cannot be avoided because of technological developments such as motor vehicles, industry, combustion and so on. This condition causes the gases in the air to become dangerous substances. Air quality is an important element of life.

Machine learning is to predict the future from past data. Machine learning (ML) is a type of artificial intelligence (AI) that provides computers with the ability to learn without being explicitly programmed. Machine learning focuses on the development of Computer Programs that can change when exposed to new data and the basics of Machine Learning, implementation of a simple machine learning algorithm using python.Supervised learning program is both given the input data and the corresponding labelling to learn data has to be labelled by a human being beforehand.

**Project flow:-**

* Data Collection
* Pre-Processing
* Training
* Testing
* Prediction

**Methodology:-**

Collect relevant data which is in the form of poisons gas levels and air condition status. Data split into training set and Testing set. Training set will be trained using supervised Machine learning algorithm. The test data given to trained model it will analyse and predict.

**Requirements:-**

**Software Requirements: -**

* + - * windows 10 (Operating System)
      * Python Anaconda

**Hardware Requirements: -**

* + - * Intel i3 or above (processor)
      * 4GB or above RAM memory