# An Air Quality Prediction System Using Machine Learning Through Python

Problem Statement

Air Pollution Poses a Serious Threat To Public Health And The Environment,

Causing Millions Of Premature Deaths And Contributing To Respiratory Illnesses, Cardio Vascular Problems, And Other Chronic Conditions. Rapid Utilization,

Industrialization , And Increased Reliance On Transportation have Exacerbated This Issue , Resulting In Degraded Air Quality In Many Cities And Industrial Areas . Effective Air Quality Management Is Crucial For Mitigating These Negative Impacts And Promoting A Healthier Environment . By Leveraging The Historical Air Quality Data And Various Environmental Parameters , Machine Learning. Models Can Learn Complex Relationships And Patterns , Providing More Accurate And Efficient Predictions Of Air Quality Index (AQI) And Pollutant Concentrations. To Develop ML Based Air Quality Prediction System First Step Is Data Collection And Preprocessing , Second Step Is Feature Engineering And Selection ,Third Step Is Model Selection And Training, Fourth Step is Model Evaluation , Fifth Step Is Prediction And Deployment .