## Artificial Intelligence

## and

## Machine Learning

Project Abstract

Semester-IV (Batch-2022)

Air Quality Prediction

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Description automatically generated with low confidence

**Supervised By: Submitted By:**

Rajeev Bhardwaj Name: Tannishtha Jain

RollNumber:2210990903

Group: G13

**Department of Computer Science and Engineering**

## Chitkara University Institute of Engineering & Technology,

## Chitkara University, Punjab

**Title:** An AI/ML-based Stock Price Predictor

**Abstract:**

Title: AI-Driven Air Quality Prediction: Enhancing Environmental Decision-Making

This project introduces an advanced AI/ML-based Air Quality Predictor, crafted to improve air quality monitoring and decision-making processes. By harnessing cutting-edge machine learning algorithms and statistical analysis techniques, particularly focusing on historical air quality data from diverse monitoring stations, our predictor offers a robust framework for forecasting air pollutant levels.

Through meticulous analysis of past air quality records, the predictor constructs predictive models capable of discerning intricate patterns and trends in pollutant concentrations. It integrates various environmental parameters and pollutant levels to identify critical factors influencing air quality dynamics.

The predictor utilizes techniques such as data preprocessing, feature engineering, and model selection to optimize predictive performance. By continuously learning and adapting to new data, the predictor evolves, enhancing its accuracy and adaptability to changing environmental conditions.

By providing actionable insights to environmental agencies, policymakers, and the public, our system aims to empower stakeholders to address air pollution challenges proactively. Facilitating informed decision-making, our predictor contributes to preserving public health and the environment, ultimately improving air quality and quality of life for communities worldwide.