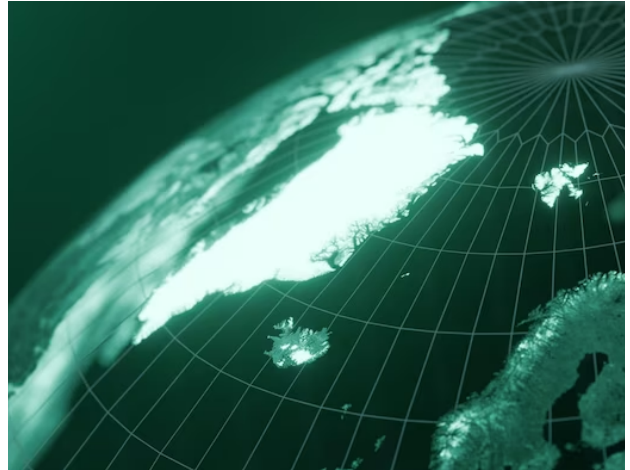


# **FORECASTING PRECIPITATION PATTERNS: AN EXAMINATION OF MACHINE LEARNING TECHNIQUES FOR RAINFALL PREDICTION**

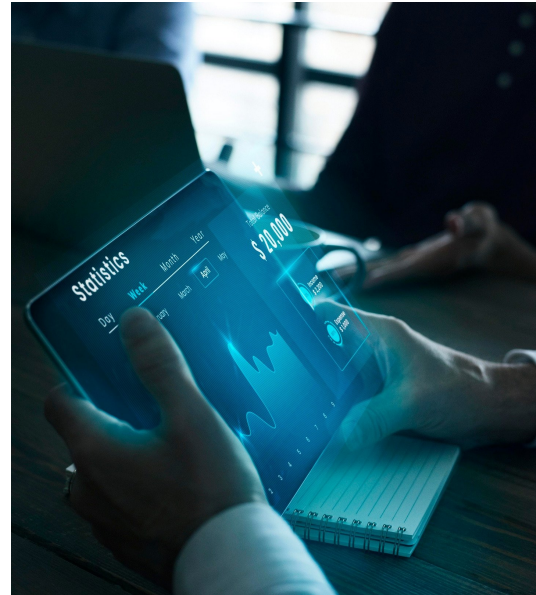
# INTRODUCTION

This presentation will examine the use of **machine learning techniques** for **rainfall prediction**. The goal is to forecast **precipitation patterns** with greater accuracy, aiding in **weather forecasting** and **disaster preparedness** efforts.



# WHAT IS MACHINE LEARNING?

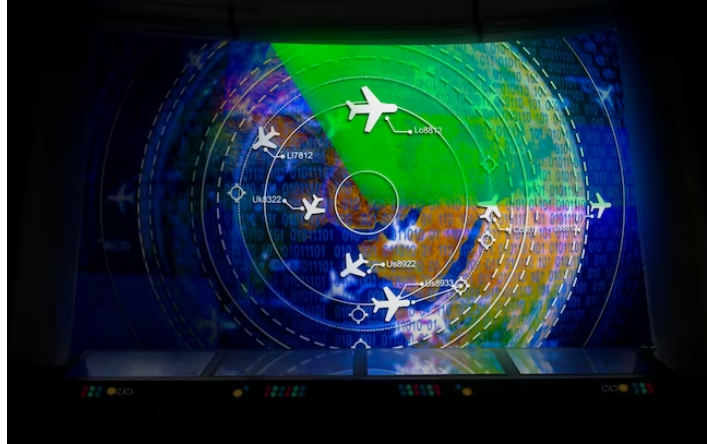
**Machine learning** is a type of artificial intelligence that allows computers to **learn from data** without being explicitly programmed. It can be used to identify **patterns** in data and make **predictions** based on those patterns. Machine learning is becoming increasingly important in the field of **weather forecasting**.



## RAINFALL PREDICTION TECHNIQUES

There are several **machine learning techniques** that can be used for **rainfall prediction**, including **decision trees**, **random forests**, and **neural networks**. Each technique has its own strengths and weaknesses, and the best approach will depend on the specific **data set** being analyzed.





## DATA COLLECTION AND PROCESSING

Accurate rainfall prediction requires **high quality data**. This data can be collected from **weather stations, satellites, and radar systems**. Once collected, the data must be **processed** to remove noise and errors before it can be used for machine learning.

# PREDICTIVE MODELS

Once the data has been collected and processed, it can be used to train **predictive models**. These models can then be used to forecast future rainfall patterns based on **current weather conditions**. By continually updating the model with new data, the accuracy of the predictions can be improved over time.



# CONCLUSION

Machine learning techniques have the potential to significantly improve **rainfall prediction** and aid in **weather forecasting** and **disaster preparedness** efforts.

With the right data and predictive models, we can forecast precipitation patterns with greater accuracy than ever before.



**THANK YOU**

