**A SYNOPSIS**

ON

**TITLE OF PROJECT REPORT**

WEATHER FORCASTING

**Submitted in partial fulfillment for the award of the**

**degree of**

**BACHELOR OF TECHNOLOGY**

In

BRANCH OF STUDY

COMPUTER SCIENCE & ENGINEERING

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**OBJECTIVE**

The goal of weather prediction is to provide information people and organizations can use to reduce weather-related losses and enhance societal benefits, including protection of life and property, public health and safety, and support of economic prosperity and quality of life.

**PROBLEM STATEMENT**

Weather forecasting means predicting the weather and telling how the weather changes with change in time. Change in weather occurs due to movement or transfer of energy, In the past, people used barometric pressure, current weather conditions, sky condition to predict whereas now there are many computer based models that consider the atmospheric factors to predict the weather.

**INTRODUCTION**

Weather simply refers to the condition of air on the earth at a given place and time. It is a continuous, data-intensive, multidimensional, dynamic and chaotic process.These properties make weather forecasting is a formidable challenge. Forecasting is the process of estimation in unknown situations from the historical data. Weather forecasting is one of the most scientifically and technologically challenging problems around the world in the last century. To make an accurate prediction is indeed, one of the major challenges that meteorologists are facing all over the world. Since ancient times, weather prediction has been one of the most interesting and fascinating domains. Scientists have tried to forecast meteorological characteristics using a number of methods, some of these methods being more accurate than others [MK02].

**DATA COLLECTION**

Weather data for ten years (2001-2010) is collected from the Indian Meteorological department of Kanyakumari District, Tamil Nadu. The chosen weather data is divided into two groups, the training group, corresponding to 75% of the data, and the test group corresponding to 25% of data. Weather forecasts today depend on collecting and analyzing data and measurements from around the world. Some of the misclassified data are taken from Weather.com and AccuWeather.com. It was supported the meteorologists in analyzing and predicting customized weather forecasts for a city or metropolitan area rather than providing general users with the ability to manipulate and interactively identify possible threats associated with impending weather hazards [HTTP2, HTTP3].

The data set contains fourteen attributes. They are

1. Bar Temperature

2. Bar reading

3. Station level pressure

4. Mean Sea level pressure

5. Dry bulb temperature

6. Wet bulb temperature

7. Maximum temperature

8. Minimum temperature

9. Vapor pressure

10. Relative humidity

11. Precipitation

12. Cloudiness

13. Wind speed

14. Wind direction

**TOOLS TO BE USED:**

SOFTWARE REQUIREMENTS:-

 Operating System:- Windows 2000 and above

 Web-Technology: - Artificial Intelligence

 Web Browser:- Chrome/Mozilla Firefox

HARDWARE REQUIREMENTS:-

 Windows:-10,11

 Internet:- Internet connection required for software activation.

 Hard Drive:- Minimum 32GB; Recommended 64 GB or more.

 Processor:- Minimum 1 GHz; Recommended 2 GHz or more.

 Operating System.

**EXPECTED OUTPUT**

You will be able to detect the weather of every region. It will give us the accurate results.

**REFERENCES**

https://gargicollege.in/wpcontent/uploads/2020/03/weather\_forecast.pdf

https://www.researchgate.net/publication/336797575\_Weather\_Forecasting