

# An Optimized Algorithm for Biological and Environmental Problems

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**Abstract:** In the past, many researchers used data extraction techniques in any region. Many data have been collected from scientific fields such as geosciences, astronomy, meteorology, geology and the biological sciences. Techniques and data extraction tools used in environmental problems as well in environmental condition. In biology, the extraction of serial data is based on alignment with the fact that all organisms are related to the evolution and extraction of environmental science data used in the prediction of data, as earthquakes analysis, landslides, etc. This thesis investigates two factors of environments one is temperature and other is level of carbon-di-oxide (CO<sub>2</sub>). This thesis executed on MATLAB. The modified neural network is easy to understand and easy to implement in taxonomy technology. Despite its simplicity, it can work well in many situations, in particular, the well-known consequences of coverage and the heart show that the error of the neighboring regime is above the error of repeating under certain reasonable assumptions. In addition to this, the error of a generalized modified neural network reaches a repetitive error and can be used globally. Modified neural networks are especially suitable for multiple variables and applications, in which the object can contain many class labels. Therefore, the forecast of the proposed method predicts temperatures with 100% accuracy.

**Index Terms-** CO<sub>2</sub>, Temperature, taxonomy technology, MATLAB.

## I. INTRODUCTION

As human activities interfere with and destroy ecosystems, the protection and restoration of important systems is increasingly becoming a concern for sustainable development and environmental policies. These days seem to be a global trend. When formulating sustainable development plans, basic ecological and environmental information is needed. This basic environmental ecological information includes the diversity, abundance and distribution of biota and environmental quality. In particular, to verify if the construction plan is ecologically correct, this information of the ecological environment must be associated with the geographic information as a form of map. For these reasons, the demand for the acquisition and appropriate application of eco-environmental information is increasing. The environment is a complex and dynamic system, so we do not have a simple set of rules to describe this system at this time. In addition, a large amount of research on ecological environmental problems and problems depends only on in situ measurements or experiments, which are unrealistic and inefficient methods. Also, this is a slow and expensive job. Researchers have a variety of tools to collect and analyze data, but relatively few tools conducive to ecological reasoning and forecasting.

### 1.1 MAJOR CURRENT BIOLOGICAL ENVIRONMENTAL PROBLEMS

**Pollution:** Air pollution, water and soil take millions of years to recover. The automotive industry and escape are the main pollutants. Heavy metals, nitrates and plastics are the toxins that cause pollution. Water pollution is caused by oil spills, acid rain, and urban runoff. Air pollution is caused by the combustion of various gases and toxins released by industry and factories, as well as the burning of fossil fuels. Soil pollution is mainly due to industrial waste that deprives the soil of essential nutrients. substance.

**Global Warming:** Global warming and other climate changes are the result of human activities such as greenhouse gas emissions. Global warming causes the surface temperatures of the ocean and the earth to rise, leading to the melting of polar ice caps, rising sea levels and unnatural precipitation patterns such as flash floods, excessive snowfall, or desertification.

**Climate Change:** Climate change is another environmental issue that has emerged in recent decades. This is due to the increase in atmospheric temperature due to the burning of fossil fuels and the increase in global warming caused by the industrial release of harmful gases. Climate change has some harmful effects, but it is not limited to the melting of polar glaciers, seasonal changes, emergence of new diseases, flood frequency, and changes in general climate scenarios.

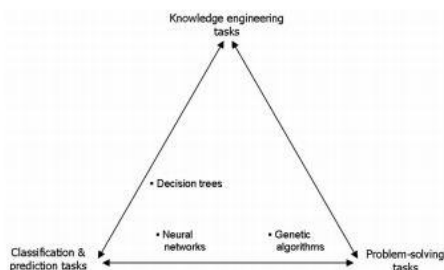
**O3 (Ozone) Depletion:** Ozone layer is a protected layer surrounding the earth, which can protect us from harmful rays of the sun. The main cause of ozone failure from the environment is chloro phora carbon (CCC) pollution due to chlorine and bromine.

Once this poisonous gas reaches the top level, it makes holes in the ozone layer, the largest of which is above Antarctica. CFF has been banned in many industries and consumer products. Ozone layer is worth it because it prevents harmful ultrasonic radiation from reaching the ground. This is one of the key environmental issues since then.

## 1.2 SEVEN CURRENT ENVIRONMENTAL PROBLEMS OF INDIA

The current environmental problems are:

1. Problems of Urbanization
2. Automobile Pollution
3. Climate Changes and Global Warming
4. Green House Effect/Global Warming
5. Acid Rain
6. Ozone Layer Depletion
6. Ozone Hole.



**Fig 1.1:** AL-Technique in simplex of three major data mining tasks

## 1.3 GENERAL ENVIRONMENTAL PROBLEMS

Our environment is constantly changing. There is no Deny this. However, as our environment changes, we need to become more aware of the issues surrounding it. With the influx of natural disasters, periods of warming and cooling, different types of weather patterns, etc., people should be aware of the types of environmental problems our planet faces.

## 1.4 IMPACT OF GREEN HOUSE GASES (CO<sub>2</sub>) ON HUMAN

Carbon dioxide (CO<sub>2</sub>) is the major greenhouse gas emitted by human activities. In 2016, carbon dioxide accounted for approximately 81.6% of all U.S. greenhouse gas emissions. From human activities. Carbon dioxide is naturally present in the atmosphere as part of the Earth's carbon cycle (atmosphere of the atmosphere, oceans, soils, natural carbon of plants and animals). Human activities are changing the carbon cycle by adding more carbon dioxide to the atmosphere and by removing the ability to remove carbon dioxide from the atmosphere through natural sinks such as forests. Although carbon dioxide emissions come from various natural resources, the emissions associated with humans have been the cause of the increase in the atmosphere since the industrial revolution.

## II. EARLIER WORK

This thesis investigates various research papers. As per the objective concern of my research area the papers published in IEEE by Narendra Babu .c, B. Eswara Reddy<sup>2</sup>, iMember, IEEE 'Research Scholar, Dept. of Computer Science Associate Professor and Head, Dept. of Computer Science.

### 2.1 Predictive Data Mining on Average Global Temperature Using Variants of ARIMA models

This study analyzes and predicts data for global average temperature time series. Three different variants of the ARIMA model: ARIMA based on trend, ARIMA and ARIMA based on wavelet have been used to predict global average temperature. In the three linear models, it has been observed that the ARIMA method based on trends is superior to the ARIMA basic method, and the ARIMA method based on Wavelet is superior to the ARIMA method based on trends. MAPE (average absolute percentage error), maximum APE.(Maximum absolute percentage error) and MAE (average absolute error) as performance indicators for the comparison between models.

## 2.2 Introduction to earlier Work

Descriptive data extraction and PREDECTIVE are two important branches of data mining. Descriptive data mining is used to extract knowledge of available data. The extraction of forecast data is used to predict the available data and benefit it in a number of ways. Time series data is an important type of data. Changing the attribute value according to time can be regarded as time series data. These data can be seen in many applications, such as atmospheric changes, production of basic products, geographic data, data extracted from sensors, stock market data, inventory control, etc.

## III. METHODOLOGY

This study involves the method steps used in the study. The following headline describes the survey procedure followed:

A. Selection of temperature in F and noted as per the record.

B. Selection of Data mining tools.

C. Use of Tools in research study such as MATLAB.

D. Selection of Data mining Algorithms.

- Weather data or climate data are two categories of weather data. Weather data is real-time data provided for its use in aviation safety and forecasting modeling. Climate data are official data records and are usually provided after quality control.
- Climate and climate affect human society in all possible ways. The production of agricultural crops in agriculture is the most important factor for water resources, namely, rainwater, climate factors and the proportion of these factors increase or decrease due to climate change. Energy source, p. Natural gas and electricity are highly dependent on weather conditions.
- The climate is not fixed and the climate fluctuations can be seen year by year, p. Rain/dry; cold/hot seasons significantly affect society in all possible ways. According to the technology used, data mining can be divided into three basic types, namely association rules, mining, clustering, analysis and classification/prediction. The proposed method describes how to use data mining technology “neural networks” and how to develop a system that uses historical numerical data to predict the climate in New Delhi. The main purpose of this study is to obtain temperature and use a neural network algorithm to find hidden patterns in large amounts of data in order to convert the recovered information into knowledge that can be used to classify and predict temperature.

Predicting the value of the future through temperature analysis is one of the most important parts of society and economy. This restriction has been working for many years. Different techniques have been applied to predict the temperature of the recorded data. Part of this work is as follows: In data mining, cluster unsupervised learning techniques are useful methods for determining data trends and patterns. The most commonly used grouping technique does not consider the chronological order of the data.

## 3.3 SIMULATION EXECUTION



Fig 3.1: Basic Layout MATLAB of Project



**Fig 3.2:** Run Command of project

## CONCLUSION

The modified neural network is an easy-to-understand and easy-to-implement classification technique. Although it is simple, it works well in many situations. In particular, a well-known result of Cover and Hart shows that, under the most appropriate assumption, the error of the closest neighbor rule is limited to more than twice the iteration error. In addition, the error of the general modified neural network is asymptotic to the error of the iteration error and can be used to approximate it. The modified neural network is particularly suitable for multivariate applications, and objects can have multiple class labels. Therefore, the proposed method aims to predict the temperature with an accuracy of close to 100%.

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