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**Gokaraju Rangaraju Institute of Engineering and Technology**

**(Autonomous)**

Department of Computer Science and Engineering

**Domain** : Data Science

**Title: Climate Change - Earth Surface Temperature**

**ABSTRACT**

In this project we will be using Flask Web development to create a user-friendly web application to read the inputs from the user, we will be using certain python libraries such as NumPy, Pandas, Matplotlib, etc. to analyse and extract data from the dataset and to represent the acquired data in form of a graph.

This project proposes a prediction model to predict temperature at a specific time in the future of the specified region . This is done by analysing temperatures of past records using Expectation-Maximization Algorithm. The EM algorithm is way to maximum probable estimates for model parameters if the data is incomplete or has missing data points.

According to the output produced by the EM algorithm we will be concluding whether the area is influenced by climate change or not.

**Index words:** Data Analysis, Climate Change, Regional Temperature, etc.

**Project requirements:**

**Software:**

* OS: Windows 7 and above
* Dataset of regional temperatures
* Python Virtual Environment
* Flask Web technology
* Python Packages

**Team members: Guide:**

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