

## Model Development Phase Template

Date	29 November 2024
Team ID	740108
Project Title	Unveiling Climate Change Dynamics Through Earth Surface Temperature Analysis
Maximum Marks	5 Marks

### Model Selection Report

For time-series forecasting tasks, where the goal is to predict future values based on past observations, **Long Short-Term Memory networks (LSTMs)** are often the best choice. LSTMs are a type of Recurrent Neural Network (RNN) that can effectively capture long-range dependencies and temporal patterns in sequential data.

### Model Selection Report:

Model	Description
LSTM	<b>Long Short-Term Memory (LSTM):</b> LSTM networks are ideal for time-series data and sequential prediction tasks. They can learn long-term dependencies, making them suitable for climate change forecasting based on historical temperature data. This LSTM model achieved <b>94% accuracy</b> for predicting future temperature trends.