

Proceedings of the Second International Conference on Self Sustainable Artificial Intelligence Systems (ICSSAS-2)  
IEEE Xplore Part Number: CFP24DN7-ART; ISBN: 979-8-3503-6841-3

# Dynamic Weather Prediction: Real-Time using Deep Learning Techniques and ]

Manikandan N K<sup>[1]</sup>, Vivek Justus<sup>[2]</sup>, Manivannan D<sup>[3]</sup>, Kavitha M<sup>[4]</sup>

<sup>1, 3, 4</sup> *Department of Computer Science & Engineering, Vel Tech Rangarajan Dr.Sagunthala R&D Institute  
Chennai 600062, India*

<sup>2</sup> *Department of Computing Technologies, School of Computing, SRM Institute of Science and Technology  
Tamil Nadu, India.*

Email: manikandan1488@gmail.com, vivekjustus@gmail.com, mani02.ceg@gmail.com, kavitha.m@gmail.com

**Abstract-** We have long been used to checking the weather every day to organize our thoughts and make plans for a few daily tasks, trip plans, or anything else we need to accomplish. This may be done purposefully or accidentally to monitor the weather. People used to measure the weather in the sky in the distant past. Later, they started using disobedience to predict the weather in a community. Climate estimates for portable phones had then arrived. That means that people also develop and use climate figures on a daily basis. Verifying the average weather can let everyone go about their lives without any uncomfortable influences, such as intense downpours or chilly breezes. Most of the time, the reason we selected this is to examine the average weather may help everyone go about their lives without any uncomfortable influences, such as intense downpours or chilly breezes. Our decision to look into this topic is usually based on how important it is to each person's daily existence. In this study, we looked at several methods for estimating climate and how to calculate it .However, the main focus of our analysis is the Long Short-Term Memory, or LSTM, calculation that we selected to provide a workable climate estimate. For real-time weather analysis, this project integrates LSTM networks with a relational database called

[3] of weather patterns with re-cutting-edge deep learning me aims to revolutionize weather fo

At the heart of this endeavor live data streams, providing snapshot of atmospheric co sophisticated deep learning al promises [4] unparalleled accu predicting essential weather para

Furthermore, the applicatio extends to critical domains su sounding rocket launches at scenarios, where split-second d difference, the ability to foreca wind speed, wind direction, and Prediction is indispensable. T integration and efficient manage of real-time data, this projec between Application Programm Structured Query Language (S gateway for accessing live we sources, ensuring a continuou

systems (ICSSAS) | 979-8-3503-6841-3/24/\$31.00 ©2024 IEEE | DOI: 10.1109/ICSSAS4001.2024.10760399