

Date:

DEPARTMENT OF
COMPUTER SCIENCE AND ENGINEERING-
ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

II YEAR II SEM

REAL-TIME/FIELD BASED RESEARCH PROJECT

Title: LSTM Autoencoder for Anomaly Detection

A.Y 2022-2026

Section: A

Team Number:12

Batch Number: 2

Student Details

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Guide Name: Dr.K.Sivakrishna

Guide Signature:

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Domain / Areas	Deep learning
Finalized Title of the Project	LSTM Autoencoder for Anomaly Detection
Team Leader	S.Shashank sai -22R21A6654
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<p>ABSTRACT: In recent years, the surge of complex data streams has necessitated advanced anomaly detection techniques. This abstract explores the application of Long Short-Term Memory (LSTM) autoencoders in anomaly detection, a promising approach in the realm of Deep learning. LSTM, a type of recurrent neural network (RNN), demonstrates prowess in capturing sequential dependencies, making it ideal for time-series data analysis. By leveraging the reconstruction error between input and output sequences, LSTM autoencoders detect anomalies by discerning deviations from normal patterns. Furthermore, it discusses the challenges associated with anomaly detection, such as class imbalance and model interpretability, and examines strategies to address these challenges within the LSTM autoencoder framework. Through experimental validation and comparative analysis, the efficacy of LSTM autoencoders in detecting anomalies across various domains is evaluated.</p>	
<p>KEY WORDS: Data, Anomaly, Memory</p>	
System Requirements	Hardware: Laptop
	Software: Python

Project Coordinator

Guide Signature

HOD-AIML