NARASARAOPETA ENGINEERING COLLEGE: NARASARAOPET

(Autonomous)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

2024-2025

Batch Number	CG7
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Guide	Yamani Chandhana
Title	Text-Based Emotion Analysis: Approaches and Evaluations
Domain/Technology	Deep Learning, Machine Learning
Dataset Link	https://www.kaggle.com/code/psohansai/isear/
Base Paper Link	https://www.sciencedirect.com/science/article/pii/S1877050923017143
Software Requirements	Browser : Any Latest browser like Chrome Operating System : Windows 11 Language : Python Platform : Google Colab
Hardware Requirements	Processor : Intel(R) Core (TM) i5-1235U 1.30 GHz RAM :16.0 GB (gigabyte) System Type :64-bit operating system, x64-based processor
Abstract	Emotions have an effect on human conduct, affecting interactions, choices, and ordinary functioning. Emotion detection can help businesses personalize services and help in diagnosing intellectual fitness problems. This challenge makes use of the ISEAR (International Survey on Emotion Antecedents and Reactions) dataset, which incorporates seven emotion classes, to detect emotions from textual information. We integrate Convolutional Neural Networks (CNN), Bidirectional Gated Recurrent Units (BiGRU), and Support Vector Machines (SVM) to deal with the complexity of emotion expression in text. Our hybrid version achieves an 86% accuracy rate. The outcomes highlight the model's effectiveness and its capacity programs in improving purchaser interactions and intellectual health diagnostics. This work advances natural language processing techniques for real-world applications.

Signature of the student(s) **Signature of the Guide** **Signature of the project coordinator**