NARASARAOPETA ENGINEERING COLLEGE (AUTONOMOUS)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

2024 -2025

Batch Number	CB6
Team Members	Y.Narendra(21471A05K9) A.Ramu(21471A05E3) M.Adi(21471A05I0)
Guide	K.V.Narasimha Reddy
Title	Automated Traffic Sign Recognition via CNN Deep Learning
Domain/Technology	DEEP LEARNING
Base Paper Link	http://sciencedirect.com/science/article/pii/S1877050923019336
Dataset Link	https://www.kaggle.com/datasets/GTSRB-German Traffic Sign Recognition Benchmark
Software Requirements	Browser: Any latest browser like Chrome Operating System: Windows 7 Server or later Python (COLAB)
Hardware Requirements	System Type: Intel Core i5 or above RAM: 8 GB Number of cores:5 Number of Threads: 6
Abstract	The rapid development of the road traffic systems is a very important component of the nation's infrastructure, and that is reflected in growing importance of the traffic safety. Traffic Sign Recognition (TSR) is an important field of research because traffic offenses, particularly the disregard for traffic signs, are a major contributor to accidents. This paper gives a comprehensive review of the latest developments in the area of traffic sign detection and recognition techniques with attention to the applications of CNNs. This paper discusses the need for traffic signs to be detected under complex conditions and proposes an architecture based on modified CNN that helps reduce the processing time and increase accuracy. Improving recognition accuracy in realistic environments is the motivation behind the CNN model, which has been architected for real-time training as well as target identification.Experiments suggest that this solution outperforms present intelligent driving systems and the state-of the-art performance achieved by the image processing algorithms currently in use and traffic sign datasets.

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