NARASARAOPETA ENGINEERING COLLEGE

(AUTONOMOUS)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

2023-2024

BATCH NUMBER	DB12
TEAM MEMBERS	Mannepuli Teja (20471A05L8) Nandam Pavankumar (21475A0515) Nandam Venkata Siva Suneel (21475A0503)
GUIDE	Dr. S.V.N Sreenivasu M.Tech, Ph.D
TITLE	Automatic Attendance Management System By Using Deep Learning
DOMAIN/TECHNOLOGY	DEEP LEARNING
BASE PAPER LINK	https://ieeexplore.ieee.org/document/9432334
DATASET LINK	Creating Own Dataset
SOFTWARE REQUIREMENTS	Browser: Any latest browser like Chrome Operating System: Windows 10 Server or later Language : Python
HARDWARE REQUIREMENTS	Processor: Intel® Dual Core 1.1GHz minimum Hard Disk: 1TB minimum RAM: 4GB or more

ABSTRACT

This research introduces an innovative approach for real time class attendance capture using Convolutional Neural Networks (CNNs). The system focuses on facial identification through a meticulously curated dataset of student photographs. The goal is to automate attendance tracking during classroom sessions.

The key components include the utilization of a CNN architecture to extract essential facial features for accurate identification. Operating in real-time, the system efficiently recognizes individual faces, overcoming challenges such as variations in pose, lighting, and expressions. The model is trained on a comprehensive dataset, ensuring robust generalization.

This research aims to enhance traditional attendance taking methods by offering an automated, accurate, and non-intrusive approach. The system has the potential to significantly reduce administrative workload, providing a more efficient and engaging classroom experience.

Keywords: Convolutional Neural Network, Real-Time Face Identification, Attendance Tracking, Deep Learning, Dataset Preparation, Automation