**A**

**Major Project Report**

**On**

**“Abnormal Event Detection on Pathway using YOLO”**

Submitted in partial fulfillment of the

Requirements for the award of the degree of

**Bachelor of Technology**

**In**

**Computer Science and Engineering –**

**Artificial Intelligence and Machine Learning**

**By**

**Karka Vishwanath Reddy            21R25A6603**

**Bollaboina Vamshi yadav     20R21A6606**

**Munnuru Sudhansh Narayan      20R21A6629**

**Aarya Gouthula 20R21A6619**

Under the guidance of

**Mrs. Meena Talari**

**Assistant Professor**

**Department of Computer Science and Engineering –**

**Artificial Intelligence and Machine Learning**



**2024**



# Department of Computer Science and Engineering - Artificial Intelligence and Machine Learning

**CERTIFICATE**

This is to certify that the project entitled **“Abnormal Event Detection on Pathway using YOLO”** has been submitted by **Karka Vishwanath Reddy (21R25A6603), Bollaboina Vamshi Yadav (20R21A6606), Aarya Gouthula (20R21A6619), Munnuru Sudhansh Narayan (20R21A6629)** in partial fulfillment of the requirements for the award ofdegree of Bachelor of Technology in Computer Science and Engineering – Artificial Intelligence and Machine Learning from Jawaharlal Nehru Technological University, Hyderabad. The results embodied in this project have not been submitted to any other University or Institution for the award of any degree or diploma.

**Internal Guide** **Head of the Department**

**Project coordinator External Examiner**



# Department of Computer Science and Engineering - Artificial Intelligence and Machine Learning

**DECLARATION**

We hereby declare that the project entitled **“Abnormal Event Detection on Pathway using YOLO”** is the work done during the periodfrom **January 2024 to May 2024** and is submitted in partial fulfillment of the requirements for the award of degree of Bachelor of Technology in Computer Science and Engineering – Artificial Intelligence and Machine Learning from Jawaharlal Nehru Technology University, Hyderabad. The results embodied in this project have not been submitted to any other university or Institution for the award of any degree or diploma.

**Karka Vishwanath Reddy**

**Bollaboina Vamshi yadav**

**Munnuru Sudhansh Narayan**

**Aarya Gouthula**

**21R25A6603 20R21A6606 20R21A6629**

**20R21A6619**



# Department of Computer Science and Engineering - Artificial Intelligence and Machine Learning

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**Karka Vishwanath Reddy**

**Bollaboina Vamshi yadav**

**Munnuru Sudhansh Narayan**

**Aarya Gouthula**

**21R25A6603 20R21A6606 20R21A6629**

**20R21A6619**



# Department of Computer Science and Engineering - Artificial Intelligence and Machine Learning

**ABSTRACT**

To enhance road safety and prevent accidents, this project focuses on developing a system to detect abnormal activities on roads in real-time. With YOLOv8, an object detection model, our approach aims to identify various irregularities such as accidents, reckless driving, and pedestrian crossings. Through a comprehensive training process and fine-tuning of the YOLOv8 model, we adapt it to the specific requirements of road safety monitoring. At the beginning of the configuration, we discuss combining Flask for web application development and Cloudinary for video storage which provides the user with user authentication, video processing, and streaming. In the end, it detects the specific objects in a video stream, records segments of the video when these objects are detected, and then uploads the recorded segments to Cloudinary.

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**LIST OF ABBREVIATIONS**

**ABBREVIATIONS**

**YOLO**

**RSTP**

**CV**

**GAN**

**CDN**

**You Only Look once**

**Real Time Streaming Protocol**

**Computer Vision**

**General Adversarial Network**

**Content Delivery Network**

# APPENDIX-4

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