A Project Report

On

LIVE CAPTURING BASED IMAGE SEGMENTATION USING MASK RCNN

Submitted in partial fulfilment of the requirements for the

award of the degree of

BACHELOR OF TECHNOLOGY

In

INFORMATION TECHNOLOGY

Submitted By

VELIVELLI VEDASRI (19BQ1A12H6)

SAKHAMURI AASRITHA (19BQ1A12D9)

VELPULA VENKATA DEEPTHI (19BQ1A12H7)

Under supervision of

Mr.K. JEEVAN RATNAKAR

Assistant Professor of IT

DEPARTMENT OF INFORMATION TECHNOLOGY

VASIREDDY VENKATADRI INSTITUTE OF TECHNOLOGY

Jawaharlal Nehru Technological University, Kakinada,

AP, India

ABSTRACT

Image segmentation is a critical process in computer vision. It involves dividing a visual input into segments to simplify image analysis. In our project we are working with traffic images. Traffic based image segmentation is a technique used to identify and isolate vehicles, pedestrians, and other objects in traffic scenes captured by cameras. Here we used mask RCNN for image segmentation. The algorithm uses convolutional neural networks to identify objects of interest in traffic scenes and segment them accurately. This project helps in automating the signal change irrespective of time. Though the signal is green in the way in the traffic, if the vehicles are not present, then it's of no use. So, to avoid time wasting, we came up with an idea to implement the current traffic system. After segmenting the image, if no vehicle is present in that way, it automatically changes the green signal to the next mode. In conclusion, traffic-based image segmentation is an essential technique for traffic monitoring and management, and it has a wide range of applications in transportation and smart cities.