LANE DETECTION FOR AUTONUMOUS VEHICLES USING OPENCV

(Mini Project)

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DECLARATION

I hereby declare that this submission is my own work and that, to the best of my knowledge and belief no material previously published or written by another person nor material which to a substantial extent has been accepted for the award of any other degree or diploma of the University or other institute of higher learning. Except where due acknowledgment has been made in the text.

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This is to certify that project report entitled "**LANE DETECTION FOR AUTONOUMUS VEHICLES USING OPENCV"** which is submitted by the **CH.VAMSHI(4511-18-733-017), K.SHIVAPRASAD(4511-18-733-016),P.SHRAVYA(4511-18-733-034)** in partial fulfilment of the requirement for award of degree B.Tech Department of Computer science & engineering of University college of Engineering and Technology , panagal, is record of the candidate own work carried out by him under my/our supervision. The matter embodied in project is original and has not been submitted for the award of any other degree.

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ABSTRACT

For vehicles to be able to drive by themselves, they need to understand their surrounding world like human drivers, so they can navigate their way in streets, pause at stop signs and traffic lights, and avoid hitting obstacles such as other cars and pedestrians. Autonomous Driving Car is one of the most disruptive innovations in AI. they are continuously driving our society forward and creating new opportunities in the mobility sector. An autonomous car can go anywhere a traditional car can go and does everything that an experienced human driver does. But it's very essential to train it properly. One of the many steps involved during the training of an autonomous driving car is lane detection, which is the preliminary step. Today, we are going to learn how to perform lane detection using videos. Based on the problems encountered in detecting objects by autonomous vehicles an effort has been made to demonstrate lane detection using OpenCV library. The reason and procedure for choosing grayscale instead of colour, detecting edges in an image, selecting region of interest, applying Hough Transform and choosing polar coordinates over Cartesian coordinates has been discussed.

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