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TRAFFIC LANE NAVIGATION SYSTEM USING IMAGE PROCESSING

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AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations, Universiti Teknologi MARA, regulating the conduct of my study and research.

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ABSTRACT

Traffic lane navigation system has received a lot of attention in recent years. It can help the user in assisting the route planning and it played a great role in driving system. The main problem arises when there were many accidents occur due to the careless of the driver on the driving that have be among the main reason when the accident occurs. Failure to keep in the proper lane or running of road become the famous factor for the drivers involved in fatal crashes. This project introduced the traffic lane navigation system using image processing. This system helps the driver to drive safely within the road lane. The image processing technique used to detect and navigate traffic lane was Hough Transform. This project was using the recorded road lane video that have capture the view of the driving mode on road and detect the traffic lane via image processing and computer vision techniques. It was a process that combines color and edge information to detect the lane marking. The technique involved the process of interest region selection, noise filtering, edge detection and hough transform. All the process in this project was using MATLAB software. This project was able to assist the driver to drive safely.

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