



LICENCE PLATE RECOGNITION SYSTEM

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Abstract

License Plate Recognition System offers a solution that has been needed in recent years and necessary steps can be taken for the operation of an efficient smart transportation network. Due to the rapid increase in vehicles, it has become a necessity for traffic control management.

License plate recognition uses image processing techniques or OCR techniques and edge detection technology to detect characters on license plates. The model consists of vehicle detection, license plate segmentation and recognition.

License plate recognition system is used in various fields such as police forces, military areas, traffic control and security, keeping city entrances and exits under control, city security and installing smart traffic systems.

Keywords: Image Processing, Deep Learning, OCR.

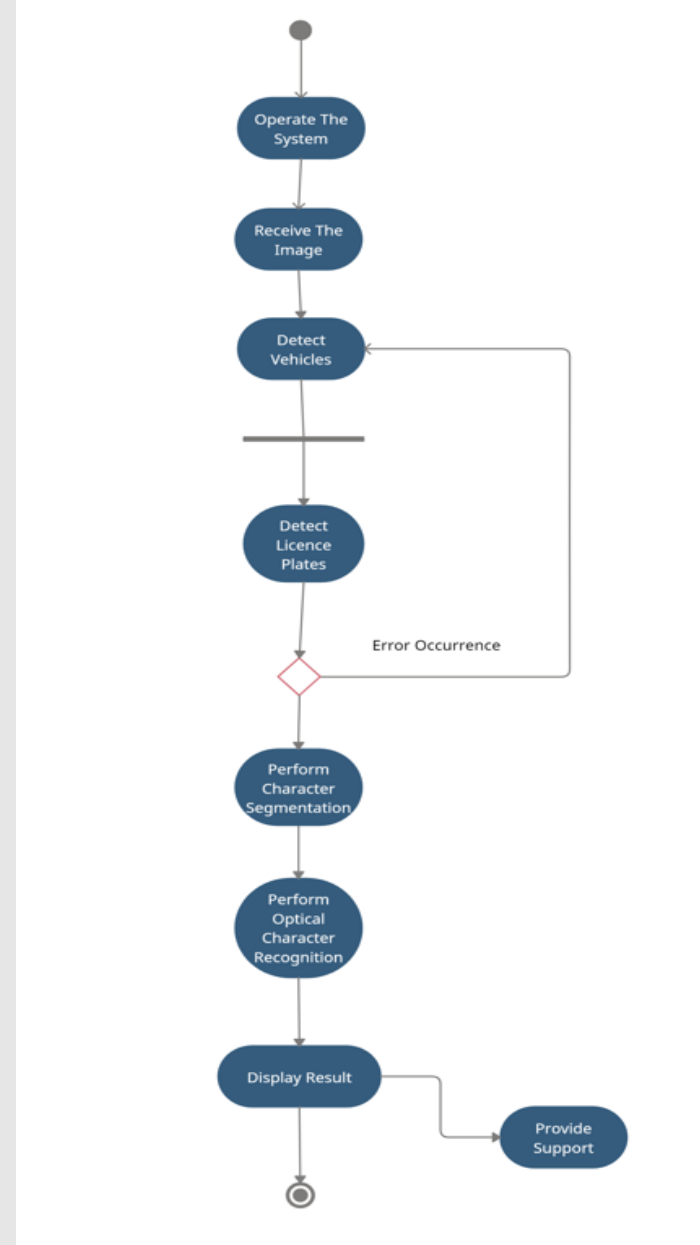


Figure 1 – Activity Diagram

Results & Conclusion

In the License Plate Recognition System, we provided the connection between the ESP32 CAM camera module and Wi-Fi and the computer, and we ensured that the images taken from the camera were transferred to the computer side.

Thus, we enabled license plate recognition and vehicle detection software to work on the images taken. By using the deep learning method, we provided the recognition of vehicles easily. We performed license plate recognition by detecting license plate characters with the OCR method.

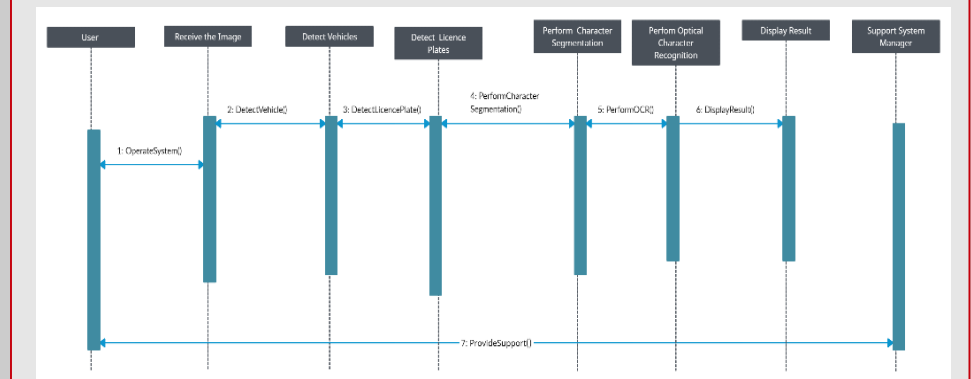


Figure 3 – Sequence Diagram

Introduction

With the License Plate Recognition System, our goal is to determine the license plates of vehicles using image processing methods such as character and segmentation.

In the License Plate Recognition System, deep learning method is used by using different vehicle images and datasets to be accurate and realistic while identifying the plates.

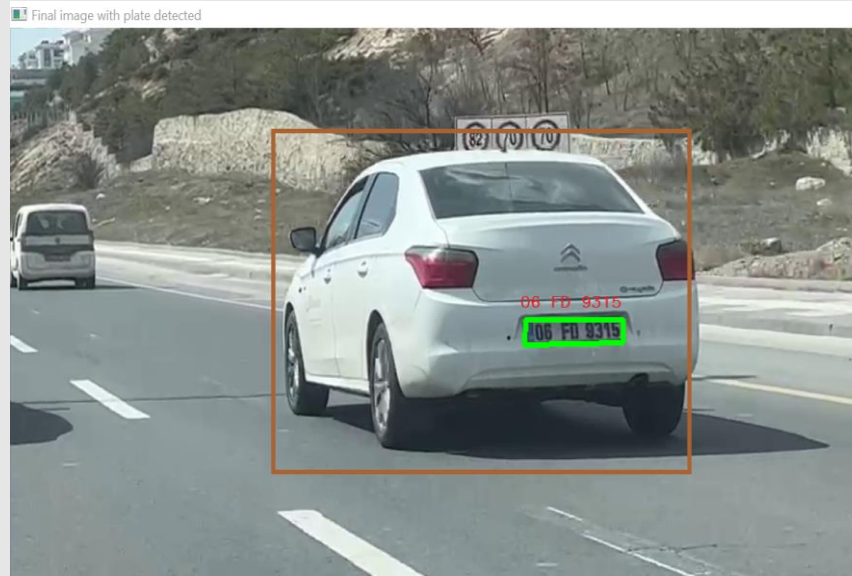


Figure 2 – User Interface

Acknowledgement

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Solution

By using the ESP32 camera module in our system, plate detection is provided by taking the image in real time and transferring it to the computer via Wi-Fi.

By using image processing, deep learning and OCR methods for the license plate recognition system, the license plate is determined accurately.

Team Members and Our Advisor

