World Academy of Science, Engineering and Technology
International Journal of Electronics and Communication Engineering
Vol:16, No:11, 2022

Detecting Characters as Objects Towards Character Recognition on Licence Plates

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Abstract : Character recognition is a well-researched topic across disciplines. Regardless, creating a solution that can cater to multiple situations is still challenging. Vehicle licence plates lack an international standard, meaning that different countries and regions have their own licence plate format. A problem that arises from this is that the typefaces and designs from different regions make it difficult to create a solution that can cater to a wide range of licence plates. The main issue concerning detection is the character recognition stage. This paper aims to create an object detection-based character recognition model trained on a custom dataset that consists of typefaces of licence plates from various regions. Given that characters have featured consistently maintained across an array of fonts, YOLO can be trained to recognise characters based on these features, which may provide better performance than OCR methods such as Tesseract OCR.

Keywords : computer vision, character recognition, licence plate recognition, object detection
Conference Title : ICCVISP 2022 : International Conference on Computer Vision, Image and Signal Processing
Conference Location : Cape Town, South Africa
Conference Dates : November 03-04, 2022