ABSTRACT

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Pendeteksi Plat Nomor Kendaraan Menggunakan *Convolutional Neural Network (CNN)* dan *Optical Character Recognition* (OCR)

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In the current digital era, the use of motor vehicles is increasing rapidly. Therefore, a system that can support traffic monitoring and security is needed. One important component in this system is license plate detection and recognition. Through the use of computer technology, a license plate detection system can assist in automatically identifying and verifying vehicles, thereby enhancing the effectiveness of police actions and traffic monitoring. This research aims to address this issue by developing a license plate detection system using *Convolutional Neural Network* (CNN) and *Optical Character Recognition* (OCR) techniques capable of recognizing license plates involving stages such as collecting vechile lincse plate *image*data, training and testing CNN *network*s, and implementing OCR algorithms for character recognition. The result obtained from this research can serve as a basis for further development and implementation in broader applications realted to traffic security and vechile surveillance. The utilization of a license plate detection system utilizing CNN and OCR techniques has great potential to enhance traffic monitoring and security. Based on the conducted tests, two percentages were obtained:an 85,7% bounding box accuracy percentage and a 20% OCR accuracy percentage. It is expected that the developed lincense plate detection system can be widely implemented to assist in tasks such as traffic monitoring, parking management, as well as other security application.

Bibliography (2018 - 2022)