TEXT EXTRACTION ON IDENTITY CARD DATA USING OPTICAL CHARACTER RECOGNITION

(Case Study: Cakrawala Rent Car Cikarang, Bekasi)

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ABSTRACT

The Population Identification Card (KTP) in Indonesia serves as an official form of identification that contains essential information for administrative and social purposes. However, managing information within the KTP often encounters challenges, particularly due to manual processes that are susceptible to input errors and delays in data processing. This study develops a KTP data extraction system utilizing Convolutional Neural Networks (CNN) and Optical Character Recognition (OCR) technology to enhance the efficiency of automatic data processing. The test results indicate that this system can detect and recognize text with an accuracy of 92%, a precision of 100%, a recall of 85%, and an F1-Score of 92%. OCR technology facilitates the extraction of text from physical KTP documents with high accuracy, thereby expediting data verification and minimizing input errors. Given the results obtained, this system is anticipated to improve the efficiency of digital administrative services and can be further developed for various applications based on automatic identification.

Keywords: Optical Character Recognition (OCR), KTP, data extraction, data collection automation, car rental, efficiency. Keywords: KTP, OCR, CNN, Text Extraction, Data Collection Automation