ABSTRACT

The number of commercial vehicles in Indonesia continues to increase along with the growing demand for goods and services transportation. This increase poses challenges in maintaining traffic order and safety. License Plate Recognition (LPR) plays a crucial role in supporting vehicle identification, tracking, and activity analysis for monitoring and security purposes. Previous studies generally focused on passenger vehicles and employed either character-segmentation or segmentation-free approaches. This study addresses the problem of recognizing commercial vehicle license plates using deep learning with the LPRNet architecture. The study aims to evaluate the performance of a deep learning model based on the LPRNet architecture for recognizing commercial vehicle license plates. The model was evaluated using Character Error Rate (CER) and Letter Number Recognition Rate (RLN), achieving scores of 24.82% and 69.15%, respectively. The results highlight the potential of adapting LPRNet for recognizing commercial vehicle license plates in Indonesia and contribute to the development of automated license plate recognition systems for commercial vehicles under real-world conditions.

Keywords: License Plate Recognition, commercial vehicles, deep learning, LPRNet.