

License Plate Recognition AI

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Abstract: *The application of artificial intelligence (AI) in automated license plate recognition (ALPR) has become an important technology in modern transportation and vehicle systems. This paper presents the design and implementation of a "web-based Automated license plate recognition using AI" using deep learning models for efficient and accurate license plate detection and recognition. applications of this web based automated license plate recognition using AI are traffic management, security surveillance, and automated toll collection from vehicles. The presented system uses a convolutional neural network which is known as (CNN network)-based object detection algorithm for finding the location of license plates in real-time videos and Optical Character Recognition (OCR) to extract numerical information from the given input video. This Web Based license plate recognition using ai also uses YOLOv7 architecture to recognize numerical information. This interface provides a smooth user interaction to the user and it allows user for remote access and real-time processing on edge devices or cloud servers.*

Keywords: Traffic monitoring, deep learning, Artificial intelligence, Real-Time Video Processing

