A Review on Automatic Number Plate Recognition (ANPR) Systems

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Abstract. Automatic License Plate Recognition (ANPR) systems have been a significant area of study in image processing and monitoring systems. Automatic number plate recognition systems keep track of vehicles, which is extremely difficult to manage manually. The video analysis of the captured number plate image relies heavily on character recognition and computer vision algorithms for plate recognition. This type of vehicle identification has been a focus of research for more than a decade. To read license plates, automated number plate recognition systems use optical character recognition (OCR) in conjunction with various image processing techniques. Computer vision-based systems, are the most accurate and widely used systems. The techniques used in these systems are designed to improve the performance, cost-efficiency, scalability, and accuracy of number plate recognition software. These ANPR systems use a variety of techniques, including computer vision. These techniques include real-time object detection, image processing, optical character recognition, template matching, and others. The captured image of the vehicle number plate is processed through many steps in an ANPR system, and as a result, it recognizes the numbers and letters of the specific vehicle number plates.

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