

Automatic Number Plate Recognition System (ANPR)

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Abstract: Object detection and Image processing are combinedly vast area of research. Various Notable works have been done in the field of transportation in order to ensure a healthy and lawful traffic environment. A precise and quick vehicle number plate recognition system is a solution to traffic control and resultant in improved regulations. This paper is based on optical character recognition which uses improved techniques and ensures optimized results. A full fledged algorithm of number plate recognition is proposed and the same acquires upgraded accuracy over existing system. The entire system can be mounted as a solution traffics issues related to law and security. Automatic Number Plate Recognition (ANPR) system consists integration of machine learning together with image processing and pattern identification. Optical character recognition (OCR) is an algorithm that plays an important role in automatic number plate recognition and it is one of the main aspect of Research in machine learning and computer vision that has evolved immensely since its inception.

Keywords: Machine learning, ANPR, Software Development Life Cycle - Spiral Model, OCR-Optical character Recognition, KNN classifier, openCV2 image processing; computer vision; intelligent transportation system; smart vehicle technologies; object detection and tracking; Character and digit recognition

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