License Plate Recognition System
designed for Parking Lot Access Control

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ABSTRACT

License Plate Recognition System is an automatic plate vehicle identification system which is primarily designed for parking lot access control. The system utilizes image processing which is an advance information processing technology. Plate extraction, character segmentation and character recognition are the three main processes applied to develop the system. Artificial neural network serves as the technique in order to allow the system to train and learn on its own given the training data acquired. LPR System is designed to recognize plate characters in the shortest possible time, as efficient as possible in order to be stored in designated database for parking automation. The system reads a plate number upon entry of a vehicle and then provides an identification ticket that will be presented when the vehicle exits. Parking ticket serves as the main output which includes all information on the activity made inside the parking area (time in and time out) and the computation of fees. The system also displays the available parking slots.

Misdetection rate is 8.22 % while false detection is 24.01 %. Over-all accuracy of the system in performing all processes is 73.72 %.

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