

An Automated Vehicle Parking Monitoring and Management System Using ANPR Cameras

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Abstract—Car parking has become a serious problem of everyday occurrence for educational institutions with the decreasing parking supply, increasing enrollments and high percentage of vehicle ownership, in result causing congestion, time and money wastage. This problem is getting worse and more frustrating in Jazan University due to the fact that majority of students, faculty and staff members own cars and drive through them to the University. The most common problem is to find out people (evidence) who are responsible for the damages (hitting, scraping, scratching and dents) to other cars. Another problem is the blockage of car due to wrong car parking which takes much time to locate the owner of the car. Moreover, another difficulty that is often faced by the students/faculty is to locate their cars on forgetting their car park location. The existing cameras located at the parking lots are only for video surveillance and cannot help in such situations as there is a lack of proper car parking management and guidance system. To remedy the above mentioned problems and to ensure a better parking experience by accommodating increasing number of vehicles in a proper convenient manner, we propose an automated car parking management and monitoring system (CPMMS) which employs Automatic Number Plate Recognition (ANPR) cameras to efficiently manage, monitor and protect the parking facilities of the University. We have also conducted a survey to analyze the parking problems around the University campus faced by the students, faculty and staff members.

Keyword— Car Parking Management, Monitoring, License Plat Recognition, Locating Car, Mobile Computing.



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