Mobile cloud and GSM based e-ticketing system to prevent revenue leakage, vehicular parking and surveillance

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Abstract

This paper presents Mobile cloud and GSM based e-ticketing and surveillance System for vehicles within a city to take 300 parking lots under monitoring control and surveillance .The system is mainly deployed to help protecting revenue leakages and vehicular theft. A handheld device is utilized, which works in conjunction with GSM technology combining all parking lots with a remote server. Parking is the major part of transportation in all parts of the worlds and almost every vehicle on the road must park on Public land i.e. street, road etc. The discussed cases study is under practice within Punjab , Pakistan , whereas the total cost for deploying this project is US$ 9.7 Million .A recent report by Transport Department Govt. of the Punjab, states that approximately 0.5 Million vehicles get to park on street, roads, markets, public officer, hospitals and near public amusements places within 300+ parking stands on daily basis. Government is receiving 200 Million per year from public parking, however after successful automation of this system, it is expected to re-gain Rs. 500 Million revenue per annul, which is actually covering the cost of leaked revenue   of Transport ministry. Furthermore according to Law enforcement agencies, 33 cars and 93 motor bikes are snatched on monthly basis within the city of Lahore which is expected to get controlled with successful implement of this infrastructure . In this Mobile Cloud based e-ticketing and surveillance system a handheld device has been given utilizing GSM Technology over , for each of the parking lot , where a person is appointed to monitor car number and to sent the data to connected cloud server.

This presented case study is a successful automation of parking system including surveillance designed for all vehicles within a city which is comprise of 1,172 km^2 of area.