

# **Design and Implementation of Car Park Control System Using Microcontroller**

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## **Abstract**

The system is mainly intended to reduce the wastage of space for car parking control system by using PIC microcontroller. If a car arrives at the ENTRY barrier, the sensor senses and then the program checks and counts. If the count is greater than or equal to 100, the car park is full and message "FULL" is displayed. When the car park is full, the lock mechanism is activated. If a car leaves from the car parking, the EXIT barrier opens and then the count decreases. The lock mechanism is disabled as soon as spaces are available in the car park. If the count is less than 100, then it is assumed that there is space in the car parking and the message "SPCE" is displayed. The numbers of cars are displayed on the monitor. This system uses two programming languages: PICBASIC and C++ programming language.

**Keywords: SPCE, FULL, H-bridge DC Circuit, ENTRY, EXIT, IR Sensor.**