

Republic of Iraq Ministry of Higher Education and Scientific Research University of Babylon College of Information Technology Department of Information Network



## **Car Parking System**

A Graduate Project Submitted to the department of Information Networks of the College of Information Technology, University of Babylon, in Partial Fulfillment of the Requirements for the Bachelor's degree in the Information Networks of Information Technology.

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## 2024

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## Abstract

In the early times the concept of smart cities have gained great popularity. The proposed Smart Parking system consists of an on site deployment of an IOT module that is used to monitor and signalize the state of availability of single parking space. This paper introduce an IOT based coordinated framework for efficient and easy way of parking the vehicles by checking the availability of slots. The proposed Smart Parking framework comprises of an IOT module that is utilized to screen and signalize the condition of accessibility of single parking spot. The paper additionally depicts an abnormal state perspective of the framework engineering. Towards the end, the paper examines the working of the framework in type of an utilization case that demonstrates the rightness of the proposed show.

The Ultrasonic Range Detection Sensor is utilized with Arduino to indicate the empty slot. By measuring the distance using ultrasonic sensor drivers are able to find the empty slot in parking to park the car and help the driver to find the slot easily and reduce the searching time. As the parking place is found to be empty it is detected using ultrasonic sensors which report it further. We achieved this by programming the sensors and Arduino.