

# **iPARKER - ADVANCED CAR PARKING SYSTEM WITH SMART PARKING METHODOLOGY**

**A PROJECT REPORT**

*Submitted by*

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*in partial fulfillment for the award of the degree*

*of*

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**IN**

**COMPUTER SCIENCE AND ENGINEERING**



**UNIVERSITY COLLEGE OF ENGINEERING, BIT CAMPUS,  
TIRUCHIRAPPALLI**

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## **BONAFIDE CERTIFICATE**

Certified that this project report “**IPARKER – ADVANCED CAR PARKING SYSTEM WITH SMART PARKING METHODOLOGY**” is the bonafide work of “**R. PAVITHRA (810015104311) and T. HEMASUBHANITHA (810015104705)**” who carried out the project work under my supervision.

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## **DECLARATION**

We hereby declare that the work entitled “**IPARKER – ADVANCED CAR PARKING SYSTEM WITH SMART PARKING METHODOLOGY**” is submitted in partial fulfillment of the requirements for the award of the degree in B.E.-Computer Science and Engineering, University College of Engineering, BIT Campus, Tiruchirappalli, is a record of our own work carried out by us during the academic year 2018-2019 under the guidance of **Ms. M. MONICA BHAVANI**, Teaching Fellow, Department of Computer Science and Engineering, University College of Engineering, BIT Campus, Tiruchirappalli. The extent and source of information are derived from the existing literature and have been indicated through the dissertation at the appropriate places. The matter embodied in this work is original and has not been submitted for the award of any other Degree, either in this or any other University.

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## **ABSTRACT**

Parking in major cities, particularly with dense traffic, directly affects the traffic flow and people's life. In this system, we introduce a new smart parking system that is based on intelligent resource allocation, reservation, and pricing. The proposed system solves the current parking problems by offering guaranteed parking reservations with the lowest possible cost and searching time for drivers and the highest revenue and resource utilization for parking managers. New fair pricing policies are also proposed that can be implemented in practice. The new system is based on mathematical modeling using mixed-integer linear programming (MILP) with the objective of minimizing the total monetary cost for the drivers and maximizing the utilization of parking resources.

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