

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY,  
BELAGAVI- 590 018**



**A PROJECT REPORT ON**

**“SMART PARKING SYSTEM”**

Submitted in partial fulfilment for the award of Degree of,

**BACHELOR OF ENGINEERING**

**IN**

**COMPUTER SCIENCE & ENGINEERING**

**Submitted By**

**Ms. ANUSHA**

**4AL15CS011**

**Ms. ANUSHRI**

**4AL15CS012**

**Ms. ARSHITHA M S**

**4AL15CS015**

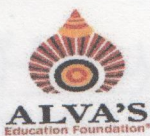
**Ms. GEETANJALI BISHTANNVAR**

**4AL15CS035**

**Under the Guidance of**

**Ms. MEGHA D. HEGDE**

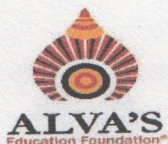
**ASSISTANT PROFESSOR**



**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING  
ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY  
MOODBIDRI-574225, KARNATAKA**

**2018-2019**

ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY  
MIJAR, MOODBIDRI D.K. -574225 KARNATAKA



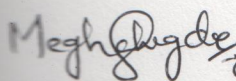
DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING

CERTIFICATE

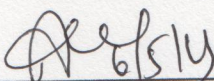
This is to certify that the project work entitled **"SMART PARKING SYSTEM"** has been successfully completed by

Ms. ANUSHA	4AL15CS011
Ms. ANUSHRI	4AL15CS012
Ms. ARSHITHA M S	4AL15CS015
Ms. GEETANJALI BISHTANNVAR	4AL15CS035

the bonafide students of Department of Computer Science & Engineering, Alva's Institute of Engineering and Technology in partial fulfilment for the award of **BACHELOR OF ENGINEERING** in **DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING** of the **VISVESVARAYA TECHNOLOGICAL UNIVERSITY, BELAGAVI** during the year 2018-2019. It is certified that all corrections/ suggestions indicated for internal assessment have been incorporated in the deposited in the departmental library. The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the Bachelor of Engineering Degree.

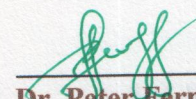
  
26/5/19

Ms. Megha D. Hegde  
Project Guide

  
26/5/19

Dr. Manjunath Kotari  
Head of the Department

External Viva

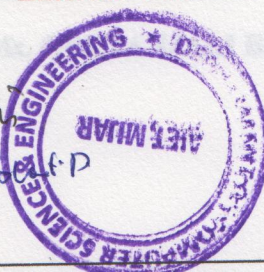


Dr. Peter Fernandes  
Principal

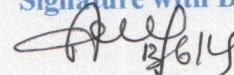
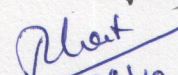
Alva's Institute of Engg. & Technology,  
Mijar, MOODBIDRI - 574 225, D.K.

Name of the Examiner

1. Dr. Manjunath Kotari
2. Dr. Venkataramana Reddy



Signature with Date

  
26/5/19  
  
13/6/19

# ABSTRACT

The project entitled "THE SMART PARKING SYSTEM" presents an IOT based smart parking system which provides an optimal solution for the parking problem in metropolitan cities. Due to rapid increase in vehicle density especially during the peak hours of the day it is difficult task for the users to find the parking space to park their vehicles. The proposed smart parking system consists of an onsite deployment of an IoT module that is used to monitor and signalize the state of availability of each single parking space. This helps the end user in utilizing the time efficiently and reach their destination in desired time. A web application is also provided allows end user to check the availability of parking space and book a parking slot accordingly.

1.1	Introduction	1
1.2	Problem statements	2
1.3	Objectives and motive of the project	2
1.4	Existing system and Drawbacks	2
1.5	Proposed system and Advantages	3
LITERATURE SURVEY		4-11
SYSTEM REQUIREMENTS SPECIFICATION		7-12
3.1	Functional requirements	8
3.2	Non-functional requirements	9
3.3	User interface requirements	9
3.4	Hardware requirements	10
3.4.1	Arduino UNO	10
3.4.2	Ultrasonic sensors	13
3.4.3	Resistors	14
3.4.4	Bulb	15
3.5	Software requirements	16
3.6	Software description	16
3.6.1	Arduino ide	16
3.6.2	What does Arduino ide do?	17
3.6.3	Embedded C	17