

A  
Major Project Report  
on  
**AUTOMATIC CAR PARKING SYSTEM WITH EMPTY SLOT  
DETECTION**

*Submitted to*

**Jawaharlal Nehru Technological University, Hyderabad**  
*in partial fulfilment of the requirements for the award of Degree of*  
**BACHELOR OF TECHNOLOGY**

*in*  
**ELECTRONICS AND COMMUNICATION ENGINEERING**  
BY

|                            |                   |
|----------------------------|-------------------|
| SHIVANI DIWAN              | 196Y1A0482        |
| <b>NALLABELLY RISHITHA</b> | <b>196Y1A0470</b> |
| VEMULA SREELEKHA           | 196Y1A04A1        |
| THUMMA DEEPTHIMAI          | 196Y1A0493        |

Under the guidance  
Of  
**MRS.D.RAGHAVAKUMARI**  
Assistant professor



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**SUMATHI REDDY INSTITUTE OF TECHNOLOGY for WOMEN**

*(Approved by AICTE, New Delhi; Affiliated to JNTU, Hyderabad)*  
Ananthasagar(Vill), Hasanparthy(M), Warangal - 506 371(T.S.), Website: [www.sritw.org](http://www.sritw.org)

**2022-2023**



*Rajan*

**PRINCIPAL**

Sumathi Reddy Institute of Technology for Women  
Ananthasagar (V), Hasanparthy (M)  
WARANGAL - 506 371(T.S.)

# SUMATHI REDDY INSTITUTE OF TECHNOLOGY for WOMEN

(Approved by AICTE, New Delhi; Affiliated to JNTU, Hyderabad)


Ananthasagar(Vill), Hasanparthy(M), Warangal - 506371(T.S.), Website: www.sritw.org

## DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING



### CERTIFICATE

This is to certify that the Project Entitled “AUTOMATIC CAR PARKING SYSTEM WITH EMPTY SLOT DETECTION” is submitted by D.SHIVANI(196Y1A0482), **N.RISHITHA(196Y1A0470)**, V.SREELEKHA(196Y1A04A1), T.DEEP THIMAI(196Y1A0493) in the partial fulfilment of requirement for the award of degree of Bachelor Technology in Electronics and Communication Engineering during academic year 2022-2023.

  
**Mr.D.Ragavakumari**  
Project Guide

  
**Dr.K.MAHENDER**  
Head of the Department

External Examiner

  
**PRINCIPAL**



## ABSTRACT

Our system consists of an LCD display that is used to demonstrate as a parking gate entrance display. The display displays empty slots to new car arriving at gate of parking area. If no parking space is available the system does not open the gate and displays parking full. If slot is empty system allows car to enter the lot and displays empty slots where user can park. To detect vehicle slot occupancy the system uses IR sensors. Also system uses IR sensors to detect vehicle arriving at parking gates to open the gates automatically on vehicle arrival. The microcontroller is used to facilitate the working of the entire system.



*Rijan*

**Principal**

Sumathi Reddy Institute of Technology for Women  
Ananthasagar (V), Hasanparthy (M)  
WARANGAL - 506 371 (TS)