

A Major project report on  
**DIGITAL PASSWORD-BASED CAR PARKING SYSTEM FOR APARTMENTS**

submitted to

**Jawaharlal Nehru Technological University, Hyderabad**

in partial fulfillment of the requirement for

the award of degree of

**BACHELOR OF TECHNOLOGY**

in

**ELECTRONICS & COMMUNICATION ENGINEERING**

by

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**DEPARTMENT OF ELECTRONICS & COMMUNICATION ENGINEERING**  
**SUMATHI REDDY INSTITUTE OF TECHNOLOGY FOR WOMEN**

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

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**2022-2023**



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**CERTIFICATE**

This is to certify that the major project entitled "**DIGITAL PASSWORD BASED CAR PARKING SYSTEM FOR APARTMENTS**" submitted to JNTUH is carried out by the following students of IV B. Tech in the partial fulfillment for the award of the B. Tech degree in **Electronics and Communication Engineering** during the academic year 2022-2023.


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## ABSTRACT

The smart parking system project main aim is to provide hassle-free car parking with the help of Arduino and IR sensors and a servo motor, we have built a 4-slot parking with an entry and exit gate.

The system consists of a 16x2 LCD at the entrance of the gate showing the information about the slots available. The system consists of two additional IR sensors at the entrance of the area for detecting a vehicle entering or leaving the parking area, hence whenever these IR sensors detect the car the gate gets open i.e. the SG90 servo motor is operated as a gate. Every uniform householder has their own unique password, which when they use to open the parking gate, then if the password is correct, the user will be prompted to enter the parking area and immediately the slot light will be turned on. If the user fails to enter the correct password, the alarm sound triggers, and the gate will not open.



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