# RTU - POORNIMA HACKATHON 2021

## TEAM – ANONYTECH

## IDEA – IOT BASED VEHICLE PARKING SYSTEM

# Contents

# Objective

- The main aim of this project is reduces the risk of finding the parking slots in any parking area.

- It eliminates the unnecessary traveling of vehicles across the filled parking slots in a city.

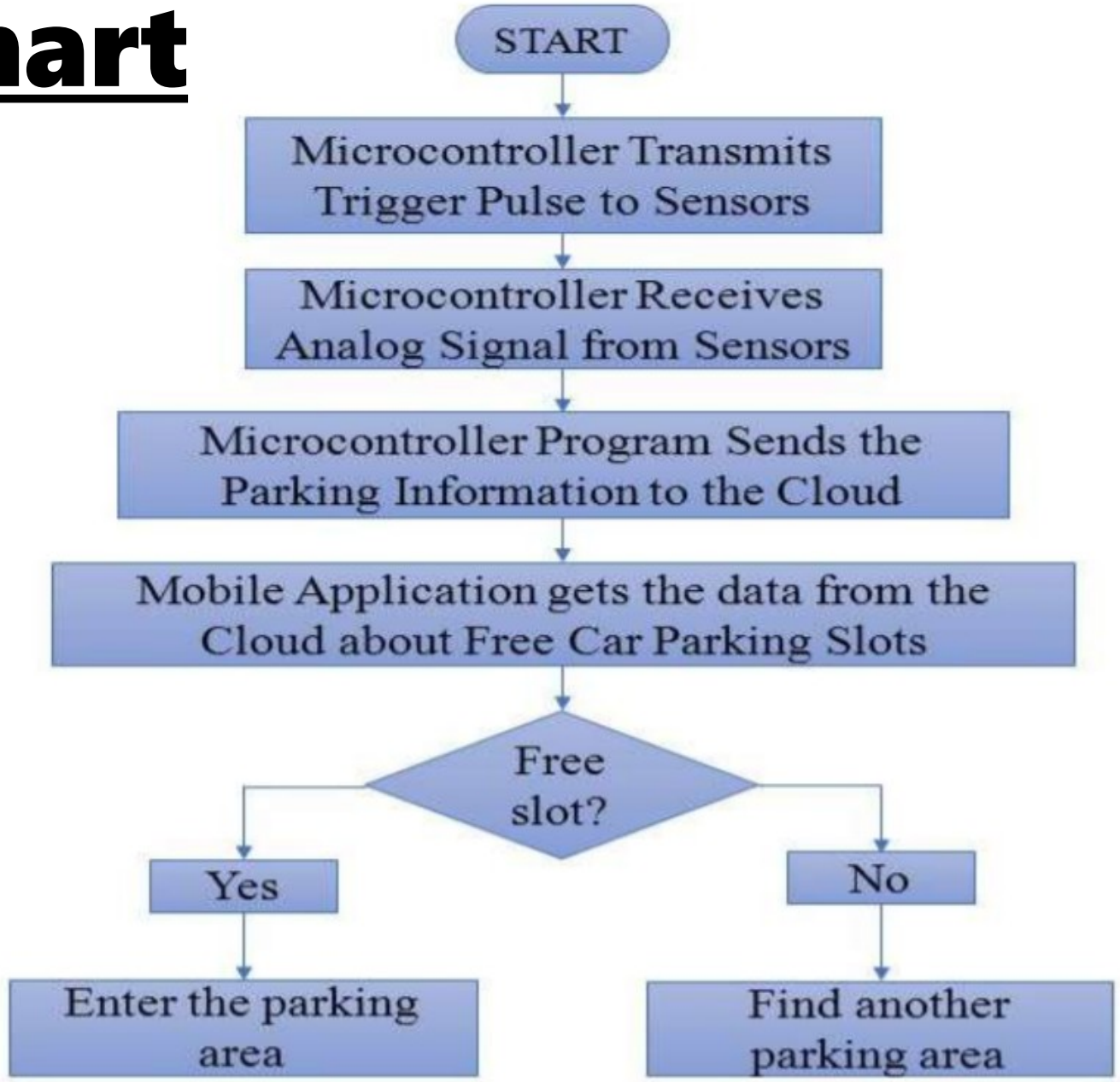
## Introduction

- Smart Car Parking System is an integrated system to organize cars in public areas.
- All vehicles enter into the parking and waste time for searching for parking slot .

## Component description

| Hardware | Software |
| --- | --- |
| • Nodemcu | • Arduino IDE |
| • ARDUINO UNO | • Firebase |
| • IR Sensors | |
| • Servo Motors | |

# Flow Chart


START
Microcontroller Transmits Trigger Pulse to Sensors
Microcontroller Receives Analog Signal from Sensors
Microcontroller Program Sends the Parking Information to the Cloud
Mobile Application gets the data from the Cloud about Free Car Parking Slots
Free slot?
Yes
No
Enter the parking area
Find another parking area

## Advantages

- Shorter waiting time at parking place.
- It saves fuel, money, space and time.
- Reduced pollution.
- Reduced traffic.
- Carbon emission is reduced.
- Efficiency

## Applications

- The smart car parking system can be implemented in …
  - Shopping malls
  - Restaurants
  - Theatres

# Conclusion

- This project focuses on implementation of car parking place detection using Internet of Things.
- The system benefits of smart parking go well beyond avoiding time wasting.
- Developing a smart parking solutions with in a city solves the pollution problem.