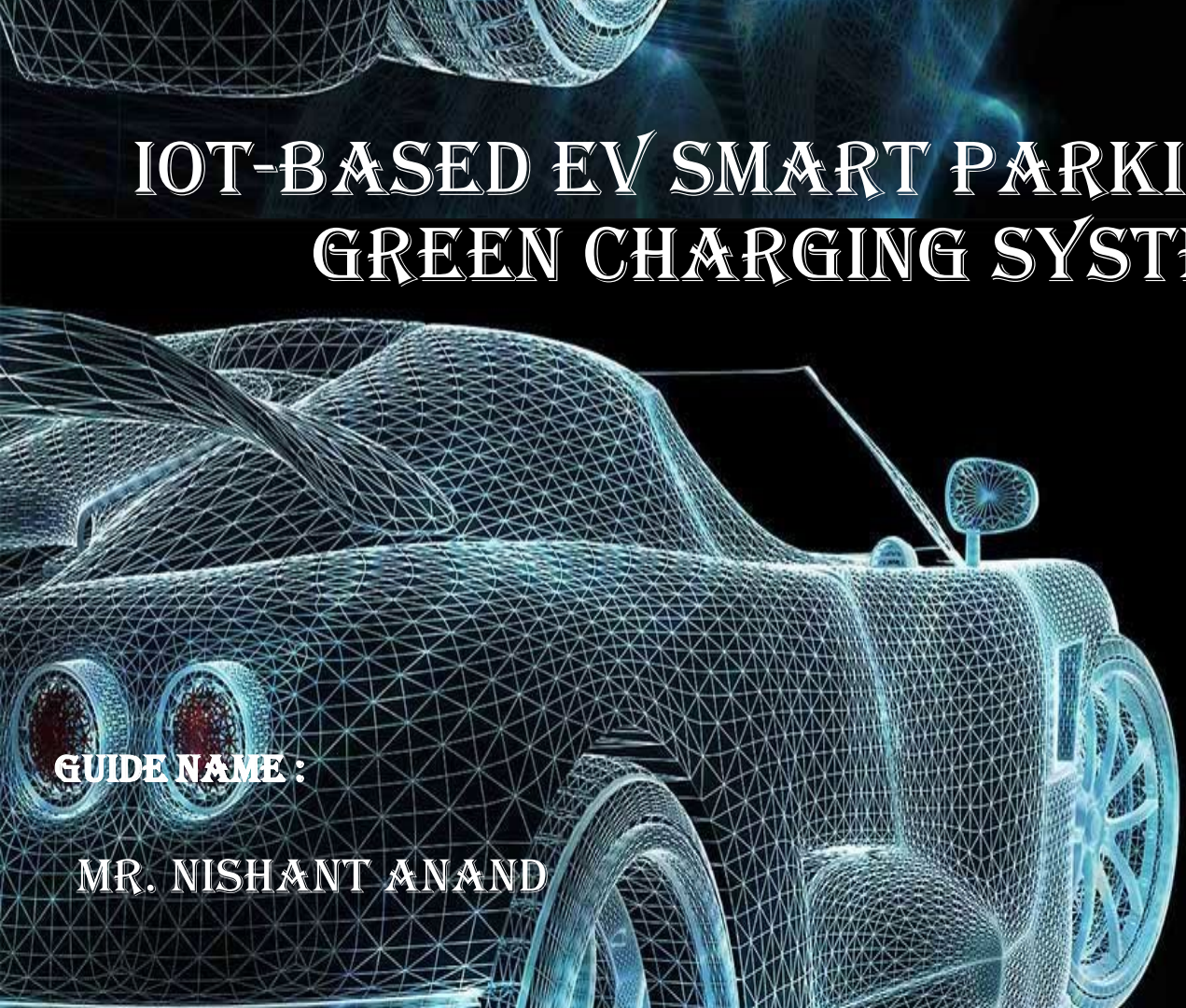
IOT-BASED EV SMART PARKING AND GREEN CHARGING SYSTEM



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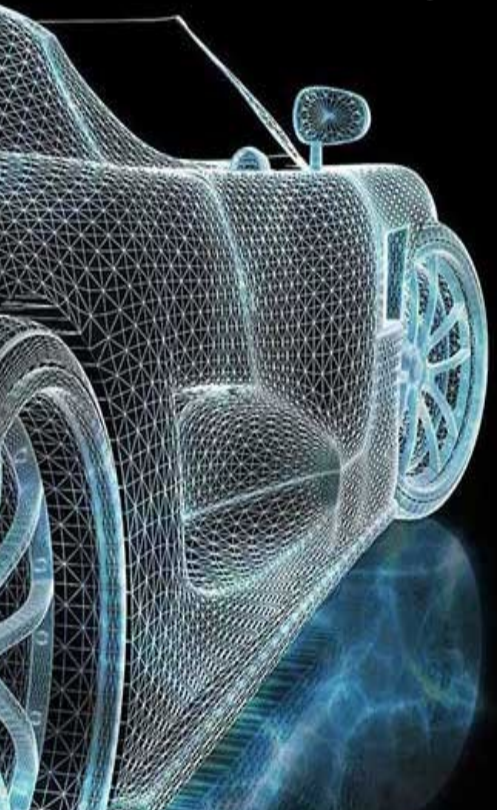
Problem Statement :



Urban living needs centralized public facilities.

Almost no car parking facilities in operation today can handle the flood of vehicles. It takes time to look for a vacant parking space.

It causes increased traffic congestion since many vehicles may compete for limited parking spaces.

After that there is also a problem with EV charging points across the city.

EV charging points are yet to upgrade to a renewable source of energy.

Proposed Solution :

- To provide information about slot availability for parking using **IoT App/Browser.**
- To provide **wired charging** of Electric Vehicle .
- To provide green charging using **solar panels.**

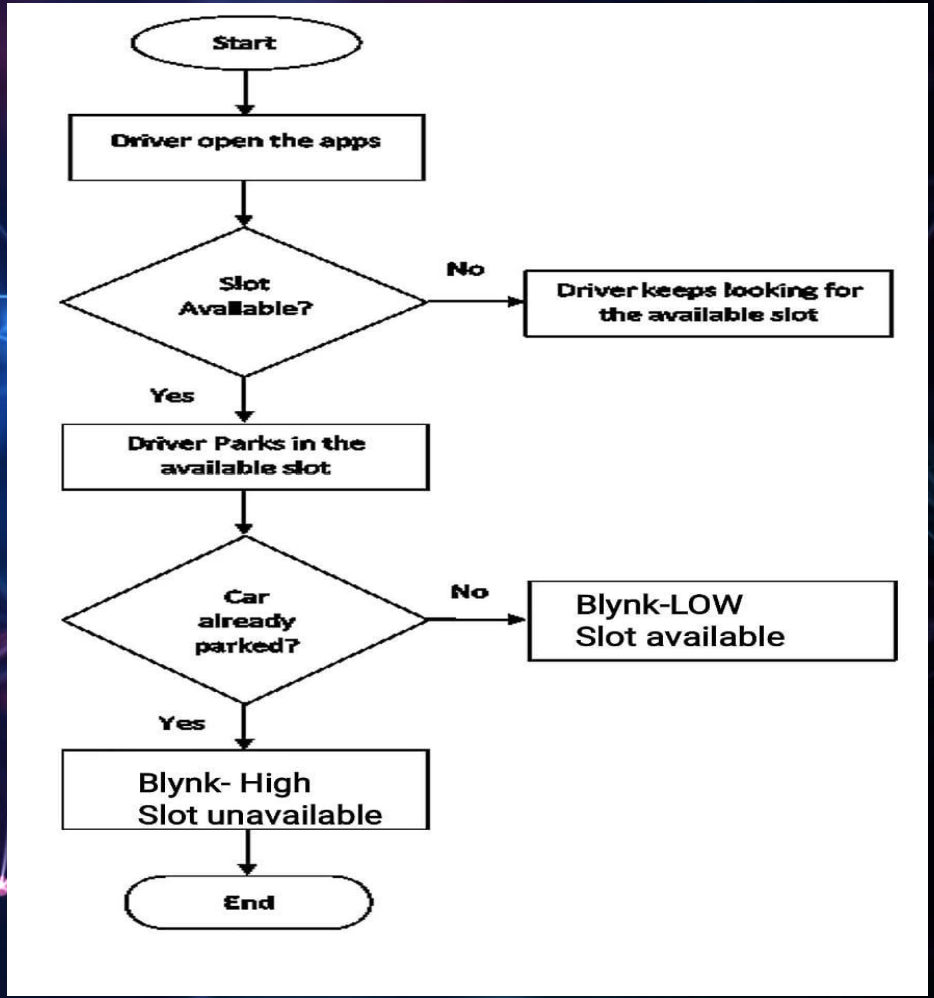
Hardware components :

- Node MCU/ Wi-Fi ESP-32
- Arduino UNO
- Power hub
- 6 IR Sensors
- Servomotor
- 16x2 LCD Display
- Solar Panel(15V)
- Programming cables
- LM35 Temperature Sensor
- Diode, LED, Capacitor
- Battery(12V)
- Regulator 7805

Software Used :

- Arduino IDE 1.8.15
- Internet of Things (IoT) App.

Flow diagram:



Conclusion :

- Optimised Parking
- Reduced Traffic and Reduced Pollution
- Green charging system
- New Revenue Options
- Fast Payments
- Decreased Management Costs
- Real-Time Data and Trend Insight


THANK YOU