SMART CAR-
PARKING
SYSTEM USING
IoT
 Contents
 Objective
 Introduction
 Literature survey
 Existing System
 Problem definition
 Proposed system
 Block D...Objective
The main aim of this project is reduces
the risk of finding the parking slots in any
parking area.
It eliminat...Introduction
Smart Car Parking System is an integrated
system to organize cars in public areas.
All vehicles enter into ...Literature survey
GSM based vehicle parking system in the
year 2017 by M.YUAVARAJU &
M.MOUNIKA.
RFID based car parking s...Existing system
The problem in the existing system is whether
parking slot is available or not doesn’t know
before reach ...Problem Definition
 With increase in the population, number of
vehicles increases and due to unmanaged
parking it leads t...Proposed system
 To find the parking space from any where by
using the mobile applicaton.
 Block Diagram
End user
Arduino
UNO
Parking slots
Node MCU
Esp8266
Power supply
Green led’s
Red led’s
LCD display
16*2
IR s...Hardware
Nodemcu
ARDUINO UNO
IR Sensors
Servo Motors
LED lights
LCD Display
Software
 Arduino IDE
 Cayenne
Compone...Arduino Uno
 Microcontroller: ATmega328
 Operating Voltage: 5V
 Input Voltage (recommended): 7-12V
 Input Voltage (lim...Node MCU
 32-bit RISC CPU 80MHz
 64KB of instruction RAM
 4MB flash
 96 KB of data RAM
 13- GPIO pins
 SPI, I2C
 Ca...IR - Sensor
 Active output level: Outputs Low logic level when
obstacle is detected
 On board Obstacle Detection LED ind...LCD Display
 A 16x2 LCD display is very basic module and is very
commonly used in various devices and circuits. A 16x2 LC...Servo Motor
 Servo motors are used to lift the gates at the
entry and exit of the parking area
 LED
 A light-emitting diode (LED) is a semiconductor
light source. LED’s are used as indicator lamps in
many devices, and...Arduino IDE
 The Arduino IDE supports the languages C and C++ using
special rules of code structuring. The Arduino IDE su...Cayenne
 The cayenne platform provides a user friendly platform for
IOT companies to connect sensors and view data intell...Project planning
Implementation of the proposed system.
To study Software & Hardware
components.
Experimental setup of ...Flowchart
 Working:
Stage-1:
When car enters the parking area IR sensor that is
present before IN gate will detects the passing vehic...Stage-2:
The car will enter into the parking area at that time
person doesn’t know which slot is empty, for this there
wil...Stage-3
The operation of exit side will be same as that of
the entrance. When the car is leaving the parking area,
the IR ...Stage-4
In front of the parking area, there will be an
LCD display that is used to show the status of
the parking slots, w...Stage-5
The main advantage of the current system is the
user will register in CAYENNE application/website.
From this appli...Advantages
Shorter waiting time at parking place.
It saves fuel, money, space and time.
Reduced pollution.
Reduced tra...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 b...