# IOT BASED ORGANIC FORMING BY USING AQUAPONICS METHOD

**Project Requirements**

**Aim:**

The parking system is in development for a long time, until now most of the shopping malls have the parking slot status display through Ultrasonic for car presence and light for indication.in this system Camera can be used as a sensor.The proposed System can capture the circles which are plot at parking slot and containing the information of free car’s parking space. In this project Camera is acting as sensors so it can take the image that are under process show occupancy of car parks also free parking slots. By having its image, the pointing car park empty space can be known rather than wasting time and wasting fuel to find one this proposed system been developed in both software and hardware platforms. This automatic parking system makes the whole process of parking cars more efficient and less complex for both drivers and administrators. For the smart parking system, everything should be turned into autonomous like auto-detection of money, slots availability etc.Smart Parking system helps to create database for visitors and it has authentication as well as auto detection of fee based on parking time.we can also set parking amount automatically and reduce contact based payment of amount.the data of parking slots can be displayed out side for both drivers and administrators

This paper aims to present an intelligent system for parking space detection based on image pro-

cessing technique. The proposed system captures and processes the rounded image drawn at

parking lot and produces the information of the empty car parking spaces. In this work, a camera

is used as a sensor to take photos to show the occupancy of car parks. The reason for a camera is

used is because with an image it can detect the presence of many cars at once. Also, the camera can

be easily moved to detect different car parking lots. By having this image, the particular car parks

vacant can be known and then the processed information was used to guide a driver to an availa-

ble car park rather than wasting time to find one. The proposed system has been developed in

both software and hardware platform. An automatic parking system is used to make the whole

process of parking cars more efficient and less complex for both drivers and administrators

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Smart Aquaponic with Monitoring and Control

System Based On IoT

Abstract— One of agricultural cultivation technology

Development that is worth disseminating is the aquaponic

Agricultural technique that will be our idea in this writing. With

Some light, temperature, and humidity manipulation of the plant,

It will be well suited to be applied to indoor systems. Agricultural

Technology design with aquaponics is also using the concept of

Internet of Things because the information from the sensor and

Control actuator values can be accessed through applications

Installed on the smartphone from anywhere with the Internet

Connection. Agricultural cultivation technology with indoor

Aquaporin agricultural technology provides an alternative for

anyone who has no land for farming but can still conduct

Business activities that can be used as an adequate source of food

Or income. The agricultural techniques applied to aquaponics are

Very different from conventional farming techniques. With

Technology using the concept of Internet of Things has more

Advantages compared with conventional farming.

**Hardware & Software Requirements:**

1. NODE MCU
2. CAMERA
3. PYTHON
4. LCD
5. MOBILE APP
6. POWER SUPPLY
7. TRANSFORMER
8. 5V ADAPTER
9. SIGNAL PIN FEMALE TO FEMALE CONNECTORS-40
   1. **Project Flow:**

RASPBERRY PI

LCD

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CAMERA

Cloud

Power supply

**PROPOSED SYSTEM**

**Dashboard:**

**Mobile app dashboard**

1. In mobile app each patient have separate id and indication mark to every module
2. The data from raspberry pi will stores in server and helps to check slots available
3. Data will be available to admin and drivers
4. In app there is entry time and exit time indication along with fair amount

**Admins(public/private):**

1. In admins portal there is a details of number of vechicles are parked today,total fair collected ,present status of parking details etc..

**Vehicle/driver:**

1. In this portal number of vacancy or filled slots available in parking area will displayed
2. Booking status will also display
3. Fair for parking will available
4. Alerting of duration time of parking will be displayed