CHAPTER 1

INTRODUCTION

# **1.1 Motivation**

The country is said to be developed, when the standard of living in that country improved. we can improve our life style by using automation in each and every sector. By using technology, we can reduce the efforts of the people. Now a days IoT is a popular technology which enables us to exchange

A group of people working in a room

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Figure 1.1: Traditional Method

information though the internet. By using IoT we can replace the traditional method of taking orders using paper and pen as in traditional restaurant system. . The customer can sit anywhere in the restaurant and they can select the items from display provided at each and every table. The system uses a TFT touch plus LCD display module which is placed on each customer’s table for them to make orders. Order is made by selecting the items displayed on LCD. The order will be sent from the customer section using Bluetooth communication. The corresponding dish name will be displayed at kitchen section which is in the site of chefs. The bill will be displayed with table number at the manager/billing section. The project will reduce the time spent on making the orders and paying the bills, whereby the cost and man power also can be reduced. The advancement of information and communication technology has led to an increasing number of industries to use electronic media and corresponding application for information exchange.

# **Objectives**

Nowadays automation systems are everywhere whether its home, office or any big industry, all are equipped with automation systems. Restaurants/Hotels are also adopting recent automation trends and are installing robots to deliver food and tablets for taking orders. People are looking forward for a system that will satisfy their needs more comprehensibly. Most of the restaurants are looking for any application that enhances the dining experience as well as that increase the profit.

To replace the traditional restaurant system in which the customers have to wait for a long time to give their orders to the waiters and there may be mistakes while taking and delivering food items to the customers and there will be a lot of work on the waiters when massive people present in the restaurant at a time especially during this pandemic situation. So, if we provide an automation in the restaurant by IOT we can overcome all these drawbacks.

Here in this project, we are building an IoT based restaurant menu ordering system using Arduino. Here a TFT touch display is used to make the order and the HC-05 Bluetooth module is used to send the data to Arduino. Blynk app is used as an IoT platform where all the data is uploaded and can be monitored from anywhere in the world.

IoT based food ordering systems are replacing the traditional food ordering system in restaurants. Instead of using paper-based menu cards, Restaurants are now installing touch screen displays.

Using this digital menu system, customers can easily select the dishes. This information will be sent to the kitchen of the Restaurant and also displayed on the display.

**Design and Development of Product**

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# **Purchasing information**

# 

A close-up of a circuit board

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Arduino UNO

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TFT LCD display

A close-up of a circuit board

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HC-05 Module

|  |  |
| --- | --- |
| COMPONENT | COST |
| Arduino UNO | 585 |
| TFT LCD display | 550 |
| HC-05-Module | 250 |

# **Development Process**

Diagram

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Arduino Section

### **Blynk App Section (receiver)**

Diagram

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# **Final Product**

# IoT Based Restaurant Menu Ordering System

**CONCLUSION**

This project helps to solve the problem faced by the restaurant entrepreneur in the attempt to organize the restaurant more efficiently skilled. It can also be used to reduce the lateness and the error caused on ordering foods by the customers by waiters.

By using this system, the complaints about the services are eliminated. Time is a very important factor in the present world.

Also making the use of Internet of Things concept for the benefit of each individual can accomplished through such innovations. Making this reach to the most basic level of the society is a task which greatly improve the lives of the common man.

The presence of each and every component has been reasoned out and placed very carefully, thus contributing to the best and efficient working of the unit. Secondly using very highly advanced ICs with the help of up growing technology, the project has been successfully developed and implemented.

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