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SMART FOOD ORDERING SYSTEM IN HOTEL

Prof. Wangikar. S.N[1], Snehal Pote1, Bhagyashri Jagtap[2], Snehal Taigade[3]

[1]Assistant Professor, Department of Electronics & Tele-communication Engineering, Dr. Daulatrao Aher College of Engineering Karad, Maharashtra, India.
[2]Student-Bachelor of engineering, Electronics & Tele-communication Engineering Department, Dr. Daulatrao Aher College of Engineering Karad, Maharashtra, India.
[3]Student-Bachelor of engineering, Electronics & Tele-communication Engineering Department, Dr. Daulatrao Aher College of Engineering Karad, Maharashtra, India.
[4]Student-Bachelor of engineering, Electronics & Tele-communication Engineering Department, Dr. Daulatrao Aher College of Engineering Karad, Maharashtra, India.

Abstract –*The project is Smart Food Ordering System in Hotel. In this project, menu and cost of item are going to be available at customer's seating area with calculation of billing on the display of the LCD. Customer does not have to wait for the waiter to order. It is very easy and handy method for customer. Placed order will be sent to the kitchenf's display using Bluetooth module, The Thermal Printer is used for bill printing which is placed at counter. This integration solution can add or expand hotel software system in any size of hotel chains environment. This system increases quality and speed of service. This system also increases attraction of place for large range of customers. Implementing this system gives a cost efficient opportunity to give your customers a personalized service experience where they are in contro tol choose what they want.*

Key Words: Bluetooth Module, Thermal Printer, LCD.

1. INTRODUCTION:

Restaurants are one of the favourite premises. With no regard to the actual reasons for visiting restaurants, customer will make orders and wait for the ordered meals. However, it is common if customers complain for not feeling satisfied about the services offered. There are many reasons leading to the feeling of dissatisfaction including being entertained late in terms of order taking by the waiter and meals serving. The issue of being late entertained could be solved with help of the advancement in the technologies of communication.

Many times when we visit any restaurant due to overcrowd when order is being placed it takes m ore time to process and increases the man power. Hence to overcome such disadvantages a system is being implemented called as Smart Food Ordering System in Hotel. Where users table consists of a keypad and LCD display on pressing the relevant code of the food item. User can send that through the wireless technology to the kitchen where chef can take the order and serve the customer on time

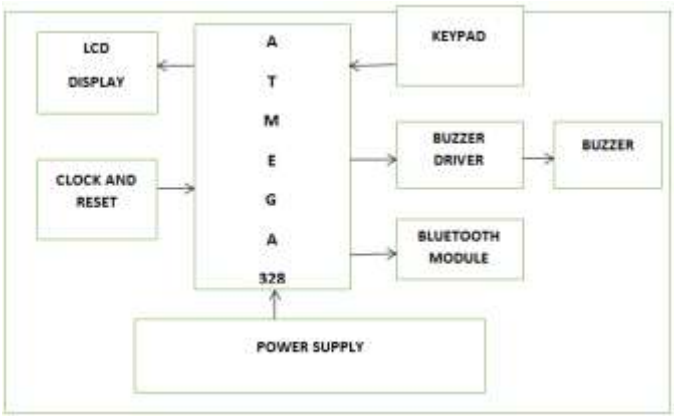
This project deals with Digital ordering system for restaurant. This topic includes scope of the project, project characteristics, Operating environments, Assumption and dependencies, design and implementation constraints. Scope of the project includes features that can be implemented. Design part includes the method and way of designing the product. It also explains certain constraints on designing and implementation.

2. OBJECTIVE:

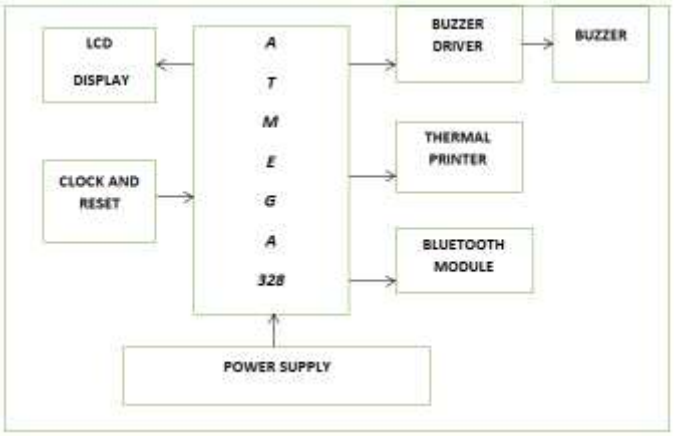
The main objective of this project are to increase customer's comfort ability with encouraging them to use modern technology. As the work for waiters reduces the paying cost for them will also reduce. And there will be no mistake by waiter in order. As the customer will order by itself then they will not waste their time.

2. BLOCK DIAGRAM

- **TRANSMITTER SECTION:**



- **RECEIVER SECTION:**



2.1 BLOCK DIAGRAM DESCRIPTION:

2.1.1. ARDUINO UNO:

The Arduino Uno is a microcontroller board based on the ATmega328. It has 14 digital input/output pins (of which 6 can be used as PWM outputs), 6 analog inputs, a 16 MHz ceramic resonator, a USB connection, a power jack, an ICSP header, and a reset button. It contains everything needed to support the microcontroller; simply connect it to a computer with a USB cable or power it with a AC-to-DC adapter or battery to get started.

2.1.2. LCD DISPLAY:

One of the most common devices attached to a micro controller is an LCD display. Some of the most common LCD's connected to the microcontroller is 20x4. This means 20 characters per line by 4 lines. The LCD requires 3 control lines as well as either 4 or 8 I/O lines for the data bus. The user may select whether the LCD is to operate with a 4-bit data bus or an 8-bit data bus.

2.1.3. ATmega328:

The high-performance Atmel Pico-Power 8-bit AVR RISC-based microcontroller combines 32KB ISP flash memory with read-while-write capabilities, 1024B EEPROM, 2KB SRAM, 23 general purpose I/O lines, 32 general purpose working registers, three flexible timer/counters with compare modes, internal and external interrupts, serial programmable USART, a byte-oriented 2-wire serial interface, SPI serial port, a 6-channel 10-bit A/D converter (8-channels in TQFP and QFN/MLF packages), programmable watchdog timer with internal oscillator, and five software selectable power saving modes. The device operates between 1.8-5.5 volts.

2.1.4. BLUETOOTH MODULE (MASTER/SLAVE): HC-05:

HC-05 module is an easy to use Bluetooth SPP (Serial Port Protocol) module, designed for transparent wireless serial connection setup. Serial port Bluetooth module is fully qualified Bluetooth V2.0+EDR (Enhanced Data Rate) 3Mbps Modulation with complete 2.4GHz radio transceiver and baseband. It uses CSR Blue core 04-External single chip Bluetooth system with CMOS technology and with AFH (Adaptive Frequency Hopping Feature). It has the footprint as small as 12.7mmx27mm.

2.1.5 .KEYPAD:

It is at transmitter site. It is used to place the order. These are normally push to ON switch. We are using matrix keyboard to place the order. We are using 4 X 4 Keypad .

2.1.6. BUZZER:

This is output device. When there is order received then Buzzer turns ON. Buzzer will take the attraction from waiter.

2.1.7. THERMAL PRINTER:

Thermal printing is a digital printing process which produces a printed image by selectively heating coated thermo chromic paper, or thermal paper as it is commonly known, when the paper passes over the thermal print head. The coating turns black in the areas where it is heated, producing an image.

3. ADVANTAGES:

1. Low power consumption.
2. No need of a person to take order from the table.
3. Long life.
4. Highly sensitive
5. Easy to install because of wireless interface.
6. Usage of Android touch screen smart phone in performing the task.
7. Wi-Fi wireless transmission
8. Useful for even illiterates and dumb people.
9. Can be used with any language. Easy to install because of wireless interface.
10. Fast response.
11. Efficient and low cost design.

4. APPLICATIONS:

1. Touch screen based wireless ordering project can be used in hotel for the customers.by using this project customer can give the order immediately

2. With little bit modification this project can be used in library. In some libraries, users are not allowed to enter inside library.in this case if any user needs books then he has to give book names to librarian .then librarian finds out books and gives it to user. In such situations, this project can be used by users of library.

5. CONCLUSION:

After doing this project we come to conclude that our project is very useful for hotel. In this we are giving order directly in kitchen and we are also making the order processor automatic. So there is no need to attend the table order by waiter with pen and paper The costumer will give order wireless through Bluetooth And the waiter will take the order directly from receiver.

6. REFERENCES

[1] Khairunnisa K." The Application of Wireless Food Ordering System" in MASAUM Journal of Computing, Volume 1 Issue 2, September 2009

[2] N. M. Z. Hashim "Smart Ordering System via Bluetooth" in International Journal of Computer Trends and Technology (IJCTT) – volume 4 Issue 7–Month

[3] Ashwini Bankar "Review paper on - Design of Intelligent Restaurant with a Touch Screen Based Menu

[4] Sushmita Sarkar "Integration of Touch Technology in Restaurants using Android" in International Journal of Computer Science and Mobile Computing 2014