

Uniform Gum spreading system for cardboard sheets

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Abstract:

The aim of this project is to monitor the machine body parameters and alert during hazardous conditions. Data monitoring systems are in great demand in industry and consumer applications. Human beings have been replaced by unmade devices that will acquire the data and relay back to the server section with new updates. A single person can monitor and even interact with ongoing work from server room. Data monitoring control and intelligent is one of the most important criteria for maximization of production and process of plant availability. System required is able to detect the output, alert in problematic conditions and send all updates to server room from wireless technology.

Keywords: Transmitter, zigbee, Receiver, X-CTU software, visual basics, Temperature sensor, ultrasonic sensor, level sensor

Introduction-

This project is a uniform gum spreading system for cardboard sheets. The aim of the system is to measure machine body parameters like gum level detection, to measure speed of rotating body and temperature of heater. All objectives are achieved by using specific sensors. In this project, transmitter and receiver sections have been taken. In the transmitter section, all sensors, LCD display, and zigbee are used. The receiver section provides PC and zigbee. We are using wireless communication technology with the help of Zigbee, with very little energy can relay data through radio waves from one sensor to another sensor.

OBJECTIVE:

1. Measure the machine parameters like gum level detection,
2. To measure the temperature of heater.
3. To detect the speed of rotating body.
4. Access the parameters to the server room with a monitoring data base.

5. If any hazardous condition occurs, alarm indications are there

Transmitter section:

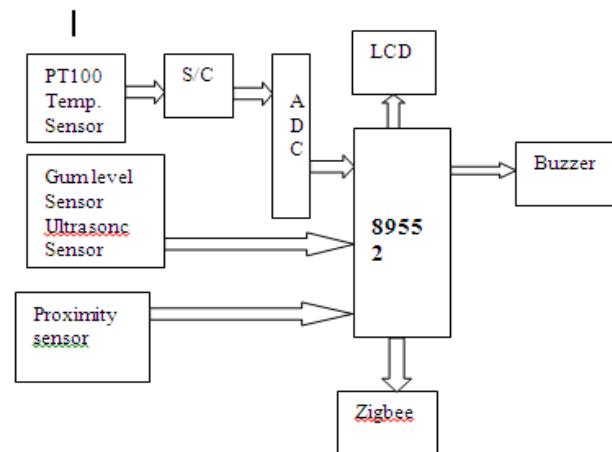


Fig: 1.1 Transmitter section

1.2. Receiver Section :

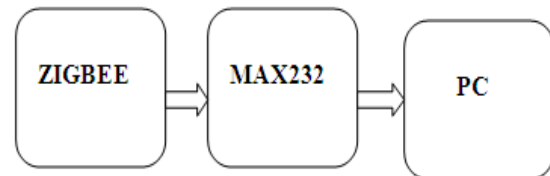


Fig1.2 Receiver Section

In the receiver side, zigbee and PC are connected in such a way that all updates are appropriately received. The receiver receives a signal from the transmitter, decodes that signal, and sends it to the PC. Then the information is updated to the supervisor through the LCD display, and if any abnormal condition occurs, like if the gum level goes to the decided limit level, then an alarm indication is given for intimation. On this side, Max 232 IC is used for serial communication between Zigbee and PC.

X-CTU :

This software is used for wireless data communication between the transmitter and receiver using Zigbee. After using this software, all the data updates are displayed on the

receiver side(PC).So this software plays important role in the system success.

Fig1.3: X-CTU Software before processing

After processing the data through this software we get all system updates on PC. Selecting proper "COM" port and processing Read write operation system updates can display on the PC(server room).

- **Visual basic:**

Visual Basic is a tool that allows you to develop Windows (Graphic User Interface - GUI) applications. The applications have a familiar appearance to the user. Visual Basic is a fairly easy programming language to learn and it is for anybody who is interested in programming but lack professional training in software engineering. Learning VB will help young children to improve their logical thinking skills and develop their minds. You can choose to program in VB purely for fun and enjoyment or you can create more advanced applications such as educational courseware and commercial software.

- Visual Basic operates in three modes.

Design mode - used to build application

Run mode - used to run the application

Break mode - application halted and debugger is available.

Forms - Windows that you create for user interface.

The **Main Window** consists of the title bar, menu bar, and toolbar. The title bar indicates the project name, the current Visual Basic operating mode, and the current form. The menu bar has drop-down menus from which you control the operation of the Visual Basic environment. The toolbar has buttons that provide shortcuts to some of the menu options. The main window also shows the location of the current form relative to the upper left corner of the screen (measured in twips) and the width and length of the current form.

The **Form Window** is central to developing Visual Basic applications. It is where you draw your application.

2. TRANSMITTER AND RECEIVER SYSTEM VIEW:

Transmitter:

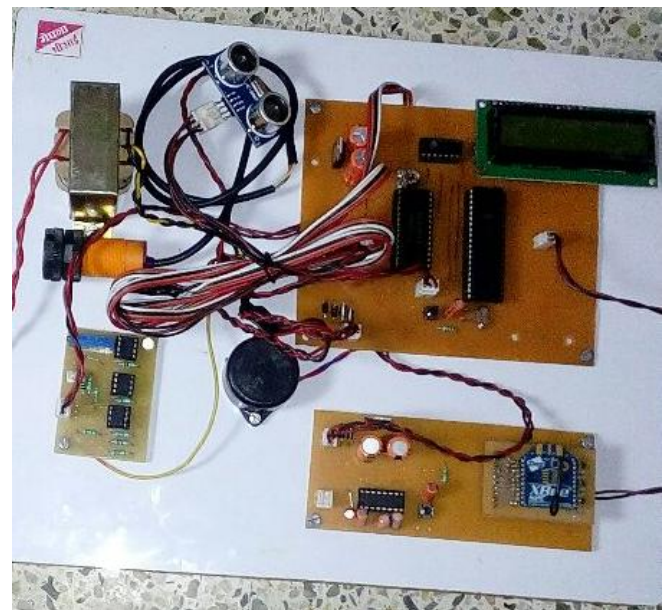


Fig2.1 Transmitter system view

Receiver :

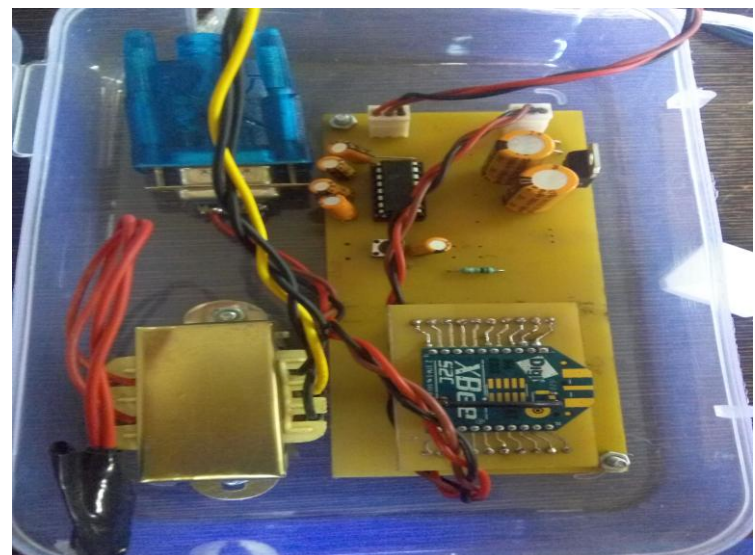


Fig2.1 Receiver system view

ACKNOWLEDGEMENT

We take the opportunity to express our reverence to Sanjay Ghodawat group of Institutes, Atigre, Kolhapur for the support and available facilities during this project. We are very thankful towards Dr. V. A . Raikar, the Director and Mrs. S. R. Chougule HOD of E&TC department, for their valuable guidance and encouragement. deserve special thanks for encouraging us. We thank all our teachers for their contribution in our studies.

2. CONCLUSIONS

In this project we get output with the help of various sensors like Gum level detection, to detect the temperature of stream, to detect the speed of the rotating body and alarm indication for hazardous condition. A single person can monitor and even interact with the ongoing work from the single base station. With the development of the information electrical technology, network and wireless communication, real time control network has been received peoples recently

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