

SMART SOCKET SYSTEM USING WI-FI TECHNOLOGY

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Abstract:- Here we are creating the data logger. Monitoring the environmental problem. Environment pollution is one among the core problems which is hampering the natural inhabitants. The most common examples of environment pollutions are massive emissions of Carbon-dioxide (CO₂) gas, smoke from chimneys, SO WE ARE IMPLEMENTING THE PROJECT WHICH LIKE ENVIRONMENT MONITORING SYSTEM WITH AUTOMATION. Human can't imagine their life without technology in this modern era. Various sorts of technologies help people to measure their life with luxury. The cattle industry is an integral a part of the planet economy. Additional benefit scan be realized from this class of technology, such as the ability to identify the presence of disease early and thereby prevent its spread. environmental parameters such as temperature, humidity. In this system Arduino UNO microcontroller is used to sense the various and environmental parameters.

Keyword -Pollution, Environment monitoring system, Automation

I INTRODUCTION

The utilization of electrical machines requires human endeavors to fill in according to prerequisite. As there is need for human endeavors without fail, the framework has gotten unwieldy and tedious. Up to this point for controlling electrical apparatuses switches were utilized. These days different innovations have been created to control these machines with least endeavors without utilizing switches. The significance of climate checking is existed in numerous angles. The climate conditions are needed to be checked to keep up the solid development in harvests and to guarantee the protected workplace in enterprises, and so forth Because of innovative development, the way toward perusing the natural boundaries got simpler contrasted with the previous days. The sensors are the scaled down electronic gadgets used to gauge the physical and ecological boundaries. By utilizing the sensors for observing the climate conditions, the outcomes will be precise and the whole framework will

be quicker and less force burning-through. The framework proposed in this paper portrays the actualized stream of the climate observing station. In our task there are numerous sensors are utilized to distinguish the movement by PIR sensor, temperature by LM35 sensor, object recognize by ultrasonic sensor, gas identify by gas sensor, for example, different sorts of boundary identified. With the assistance of this venture people can do the many errand at the same time and they live there life keenly.

II. LITERATURE SURVEY

Brilliant home computerization framework has wide potential for usage in 21st century. Different home robotization frameworks are being created by different analysts around the world. In any case, the majority of them have restrictions in the conditions of significant expense effectiveness and adaptability. Seeing restriction of different other home robotization frameworks, we propose a novel practical cum productive home mechanization framework. In this paper

shrewd home mechanization framework is being proposed through utilization of pinnacle innovation using pic16f877a microcontroller. The framework contains hc05 Bluetooth sensor for long reach and effective remote correspondence. IN this report, we can utilize Wi-Fi module innovation over Bluetooth for overall reach. In this paper savvy energy effective home computerization framework is recommend that can access and control the house hardware's from each side of the world. For this framework web availability module is joined to the primary stockpile unit of the home framework which can access through the web. For remote availability, static IP address is utilized. For this report, we can improve the home mechanization framework to generally speaking wide thickness region like armed force apparatuses, modern wide region, and air terminal by dispatching or delivering next adaptation of the sensors (steering huge systems administration territory.

III. METHODOLOGY

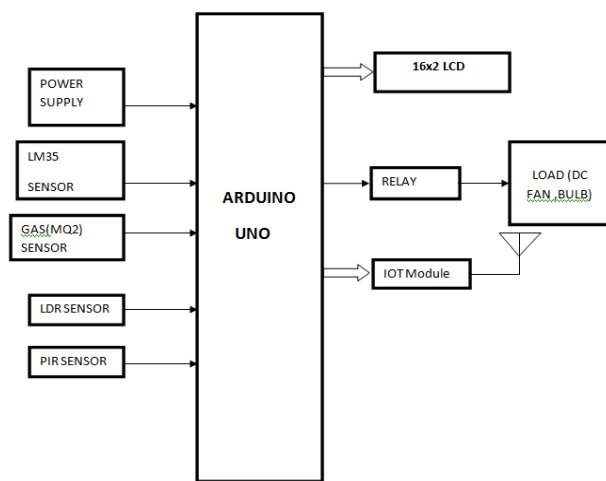


Fig.1: Block diagram

The working of System:

1. Show The Details Of Sensors On LCD And Cloud Like IOT MODULE (ESP8266).
2. The system functionality includes the working process of the entire system after integrating all the peripherals along with software. The system works in three phases, one is reading the data from the sensors, and another one is sending the data to the controller and finally controlling the devices as per the data obtained.

3. In This Project, We Are Using Sensors like PIR Sensor, temp sensor; gas Sensor, LDR Sensor, ultrasonic sensor, soil moisture sensor. Then all output is display on 16x2 LCD.

4. If temp increases above threshold voltage then fan will get ON automatically. It detects the room temperature called as humidity sensor. Here LM35 is temperature measuring device having an analog output voltage proportional to the temperature. It provides output voltage in celcius.As temperature increases, output voltage also increases.

5. LDR sensors check its day or night. It is light dependent resistors; LM393 sensor has resistance that changes with the light intensity that falls upon it. A light dependents resistor works on the principle of photo conductivity.

6. PIR sensors detect any motion. If motion is detected then one load will get on automatically.PIR sensor hcsr501 are ideal for large spaces and areas that have awkward or where find motion is detected. This detector sense motion between the person or thing and static charges.

7. Ultrasonic sensors it measures the distance between the object and us. This sensor can measure the distance to a wide range of object regardless of shape, color or surface texture.HC-SR04 ultrasonic sensor used for this socket. The maximum range of this sensor is presently 20 meters and varies by model.

8. Soil moisture it detect whether the soil is dry or wet.Soil moisture sensor FC28 measures the volumetric water content in soil. Since the direct gravimetric measurement of free soil moisture requires removing, drying, and weighting of a sample, soil moisture sensors measure the volumetric water content indirectly by using some other property of the soil, like electric resistance , dielectric constant, or interaction with neutrons, as a proxy for the moisture content.

9. All data will be updated over IOT MODULE (ESP8266). It is small electronic device embedded in object, machine and things that connect to wireless networks and send and receive data.IOT is simply the network of interconnected things/devices which are embedded with sensors, software, network connectivity

and necessary electronics that enables them to update to the arduino uno responsive.

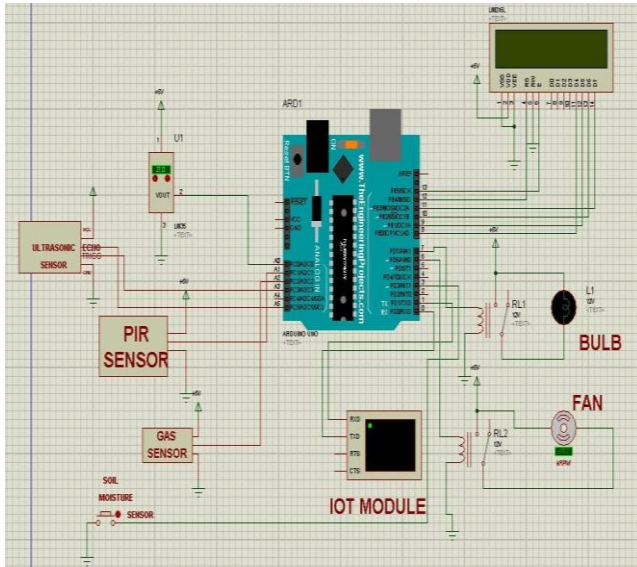


Fig.2: Circuit diagram of the system

TEMPERATURE SENSOR –It is required to detect or sense the temperature present in environment. If the temperature increases above the edge value then fan or ac will get automatically activate and if the temperature decreases below the edge value then the fan or ac will close up automatically. consistent with the environment we will adjust the edge value. Range of this sensor is -55`c to 150`c.

PIR SENSOR- It detect motion, if a person is enter in room then the motion detect consistent with that command the one load will get activate automatic by With help of this sensor power required for the load is a smaller amount .

GAS SENSOR- It detects the gases which are present in environment. A gas detector could also be a tool that detects the presence of gases during a neighborhood , often as a neighborhood of a security system. this sort of kit is used to detect a gas leak or other emissions and should interface with an impression system so a process are often automatically close up .

SOIL capacitance to live the water content of soil (by measuring the dielectric permittivity of the soil, which may be a function of the water content). Simply insert this rugged sensor into the soil to be tested, and thus the volumetric water content of the soil is reported in percent **MOISTURE**=The Soil Moisture Sensor uses.

ULTRASONIC SENSOR- it measures the space between the thing and us. This sensor can measure the space to a good range of object no matter shape, color or surface texture.HC-SR04 ultrasonic sensor used for this socket. the utmost range of this sensor is presently 20 meters and varies by model.

V. CONCLUSION

- Proposed technique is effectively executed and tried on equipment and programming. This task planned utilizing ARDUINO UNO microcontroller. This executed effectively.
- Trial results show that the planned framework is sufficiently quick to ON AND OFF the lights and fan. And furthermore every day gadgets we utilized can likewise be controlled adroitly and all the more productively.
- So this venture is helpful for controlling numerous gadgets all the while.
- This task can make a home climate mechanized. Individuals can handle their electrical gadgets effectively by tapping on catches.

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