"3 Days Workshop on Internet of Things"

in Association with SCHEMA TECHNOLOGIES

Organized by

Department of Information Technology

From 30th Jan to 01st Feb, 2020

Venue: LAB: 106, IT Department

List of Working Models Developed

AUTO BOREWELL LID

RESOURCES USED:

- ➢ Arduino Board
- ➢ Ultrasonic Sensor
- ➢ Servo Motor
- ➢ Jumper Wires
- ➢ USB Cable

PROJECT MEMBERS :

S. NO	H.T. No	Name of the Student
1	17J41A1215	GAJULA AKHILA
2	17J41A1219	INDRAGANTI SHANMUKHA PRIYA
3	17J41A1224	KUCHARIKANTI MANIKANTA REDDY
4	17J41A1227	M ROHIT

DESCRIPTION   : Generally, small children while playing fall into borewells because of not closing the lid and covering it with temporary covers, to overcome this problem we came

up with the idea. That is why we are working on this project where the lid of the borewell is closed automatically sensing the movement of any object by the ultrasonic sensor which is connected to the Arduino board and then gives the command to the servomotor and then the servomotor directly closes the lid of the borewell.

CAR RADAR SYSTEM

RESOURCES USED:

- ➤ jumper wires
- ➤ Aurdino Uno
- ➤ Bread Board
- ➤ 3-Ultra Sonic sensors
- ➤ 3- RedLed bulbs
- ➤ Remote control Car

PROJECT MEMBERS :

S. NO	H.T. No	Name of the Student
1	17J41A1226	Kushal Arya N
2	17J41A1229	M Sathwik
3	17J41A1256	T Dheeraj

DESCRIPTION   :

This project is based on the collision avoidance using arduino board with ultrasonic.using ultrasonic sensors we can detect objects coming in the range so the utrasonic constantly sends sound pulses and if the sound waves are received back then there is a object in in front of the sensor. if there is any object infront of the sensor led bulb glows in that direction.

PHANTOM

RESOURCES USED:

- ➤ ULTRASONIC SENSOR
- ➤ ARDUINO BOARD
- ➤ BUZZER
- ➤ JUMPER WIRES
- ➤ USB CABLE FOR ARDUINO BOARD

PIPE PROJECT MEMBERS :

S. NO	H.T. No	Name of the Student
1	17J41A1225	K.KEERTHI REDDY
2	17J41A1248	R.VINUTHNA REDDY
3	17J41A1242	P.SAMEER REDDY
4	17J41A1235	N.RUGVED

DESCRIPTION   :

We see many blind people often taking help from others to go around places. This way they are dependent on fellow beings. We want to give a helping hand to such people. So, we came up with the project "phantom".

How this works ?

The phantom detects any object under certain distance with the help of ultrasonic sensor. When it detects an object within a range the sensor sends a signal to the buzzer and the buzzer buzzes. This helps the blind person be indenpendent and safe

SMART HOME

RESOURCES USED:

- Jumper Wires
- Arduino Board
- Node MCU
- LED
- Fan
- DHT Sensor
- Connecting Cables

PROJECT MEMBERS :

S. NO	H.T. No	Name of the Student
1	17J41A1201	Rohith Reddy
2	17J41A1213	Venkateshwar Rao
3	17J41A1230	Adithya Vardhan
4	17J41A1239	Rajashekar Reddy

DESCRIPTION   :

'Smart Home' developed by us is a prototype of a smart houses that are perfect

examples for the evolution of technology and it's use in our daily life. Through 'Smart Home', we intend to show how one can control appliances and other electronic gadgets without moving a muscle, i.e., When temperature of the room increases, speed of the fan also increases according to that room temperature. Here, one doesn't have to get up from their place to regulate speed of the fan. Main aim of our project is to show how IOT plays a vital role in making our routine life even simpler

SMART IDEAL SPEED PROCESSOR(SISP)

RESOURCES USED:

- ➢ Arduino board,
- ➢ PIR sensor,
- ➢ Ultrasonic sensor,
- ➢ LED lights,
- ➢ Bread board,
- ➢ Jumper wires,
- ➢ USB cable,
- ➢ model car

PROJECT MEMBERS :

S. NO	H.T. No	Name of the Student
1	17J41A1228	M V Akshay Raj
2	17J41A1240	P Pavan Reddy
3	17J41A1254	Srikanth Ch
4	17J41A1236	N Rakesh Nayak

DESCRIPTION   :

When a car is approaching a signal and if the signal is green, the car gets the information which displays the speed at which it needs to travel so that it can cross the signal. At the back end, when the car is approaching the signal, the ultasonic sensor in the car calculates the distance and the speed is calculated based on the time of green signal and the distance calculated

SMART STREET LIGHTING SYSTEM

RESOURCES USED:

- ➢ AURDINO UNO BORAD
- ➢ JUMPER WIRES
- ➢ ULTRA SONIC SENSOR
- ➢ BREAD BOARD
- ➢ LED LIGHTS-(2)
- ➢ CONNECTING WIRE

PROJECT MEMBERS :

S. NO	H.T. No	Name of the Student
1	17J41A1232	NIHARIKA
2	17J41A1259	SAI MOUNIKA

DESCRIPTION   :

As it was stated earlier , It is seen in a number of cities that the street light is one of the huge expenses in acity. The cost spent on the sodium vapour lmaps is huge and it also consumes more power. So, the expenses spent on this treet lights can be used for the development of street lighting system in villages located in the rural areas. Currently a manual system is used where the light is ON/OFF (the light will be made to switch ON in the evening and will be OFF in the morning. This is the one of the major causes of shifting to the automatic system,since there is less wastage of power and thus saving a lot of monetary expenses.

ADVANTAGES OF PROPOSED SYSTEM:

- ➢ Automatic switching of street lights

- ➢ Maintenance cost reduction

- ➢ Reduction of CO2 emission

- ➢ Reduction of light pollution

- ➢ Wireless communication

- ➢ Reduction of manpower

SMART WASTE MANAGEMENT SYSTEM

RESOURCES USED:

- ➢ Jumper wires
- ➢ Arduino UNO board
- ➢ Buzzer
- ➢ Ultrasonic sensors
- ➢ Connecting cable

PROJECT MEMBERS :

S. NO	H.T. No	Name of the Student
1	17J41A1260	Zareena Naaz
2	17J41A1251	P.Sarayu

DESCRIPTION   :

In many colonies we a municipal garbage bins placed at a point where everyone dump waste in it ,which many times get overflow and there is no one to take care of the bin and to replace it. Although municipality people replace those bins but still they get overflow so we came up with a technique called Smart waste management system is a smart technique where the sensors placed   will detect whether the dust bin is filled or not .If a dust bin is filled more than half then a ultrasonic sensor will detect that the garbage bin is about to fill and then a buzzer will buzz which is an indication that the garbage bin in about to fill.

Advantages:

- ➢ Save costs.
- ➢ Improve health and safety.
- ➢ Be environmentally responsible.
- ➢ Easy collection

WATER LEVEL CONTROLLER

RESOURCES USED:

- Ultrasonic sensor
- Arduino Uno
- Bread board
- Jumper wires
- LED,
- buzzer

USB cable PROJECT MEMBERS :

S. NO	H.T. No	Name of the Student
1	17J41A1222	K.SAI SHANKAR
2	17J41A1238	P.YAMINI
3	17J41A1257	P.YAMINI

DESCRIPTION   :

For tank filling ,two persons has to involve to check the water level in tank.To overcome this problem,we came up with an idea i.e,water level controller which detects water level at two points,when tank is empty and when it is filled .In this process,we get an alert message with an LED and buzzer sound.so,this controller is connected to motor,and works automatically in tank filling without manforce

Pros

- No involvement of human

- Less time consumes

- Cost effective

- Immediate action

MALLA REDDY ENGINEERING COLLEGE
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WOMEN & CHILD WELFARE, TELANGANA STATE
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SMART WASTE MANAGEMENT System