

1. Wireless Sensor Network System using Raspberry Pi and Zigbee for Environmental Monitoring Applications
2. An Internet of Things Approach for Motion Detection using Raspberry Pi
3. Raspberry PI Based Global Industrial Process Monitoring Through Wireless Communication
4. Design of Tracked Robot with Remote Control for Surveillance
5. A Smart System Connecting e-Health Sensors and the Cloud
6. Web based Automatic Irrigation System using wireless sensor network and Embedded Linux board
7. WSN for traffic monitoring using Raspberry Pi board
8. Smart Home with vision based home surveillance system on Linux small computer.
9. Smart phone controlled robot over Bluetooth – raspberry Pi
10. GSM SMS controlled Robot – Raspberry Pi

IoT Projects with Raspberry Pi

1. **Exploring IOT Application Using Raspberry Pi:** This project shows the functioning of raspberry pi as server. Several computers are connected to it and files are accessed and deleted over the network. These are accessed through password to provide security.
2. **Raspberry Pi as Internet of Things hardware: Performances and Constraints:** This paper compares the key elements, performance of present existing IOT platforms with raspberry pi. It shows that raspberry pi is the best with some disadvantages.
3. **IoT Based Biometrics Implementation on Raspberry Pi:** Here a low cost IOT based biometric system was built. The application of raspberry pi and cloud computing lead to new way in the research of IOT.
4. **Review on Temperature & Humidity Sensing using IoT:** Here is the temperature and humidity sensing using IOT. This is a novel method using raspberry pi scripting.
5. **Raspberry pi Based Smart Supervisor using Internet of Things (IoT):** The smart supervisor system consists of a USB camera, it is encoded on arm-Linux platform, then it is transmitted, and is decoded and displayed as H.264 video.
6. **Internet Of Things with Raspberry Pi – 1:** This project shows the controlling of an LED over the LAN using Raspberry pi-1
7. **Pi Zero IOT Led Matrix Beamer:** IOT LED matrix beamer displays the messages and pictures on wall from the internet. It uses raspberry pi0 board, Lamp, OGT cable.
8. **IoT Temperature Sensor with Raspberry Pi 2 and Thermistor:** This project shows the temperature monitoring with raspberry pi. A thermistor is used for monitoring the temperature.
9. **Motion Controlled Servos using IoT:** Real time data streaming using IoT is demonstrated in this project. A Raspberry Pi based motion control of servo motors with live data streaming over the internet is implemented. Leap Motion controller is used for motion tracking and PubNub library is used for data

streaming. Four servos and two 8x8 RGB LED matrices are used for detecting motion of the hands and displaying colors according to the spacing between fingers.

10. **IoT based Stepper Motor Control with Raspberry Pi:** The combination of Raspberry Pi and IoT is an exciting one. Raspberry Pi has many general purpose I/O pins and has the ability to control different actuators like stepper motors. In this project, an internet control of stepper motor using Raspberry Pi computer is developed. The connectivity is divided into server side software and client side software.
11. **IoT Weather Station:** A Raspberry Pi and Arduino based IoT weather station is designed in this project. Raspberry Pi provides the necessary network or internet connections while Arduino is associated with the sensors like temperature. The data from the sensor is collected by the Raspberry Pi and is uploaded to a cloud server via SAMI API. The collected data can be monitored and analyzed remotely.
12. **Home Automation using Raspberry Pi 2 and Windows 10 IoT:** This project utilises raspbeery pi and arduino for home automation using IOT.
13. **Multi Room Music Player:** An IoT based multi room audio or music streaming system is explained here. A multi room audio system can be used to listen to music in every room of the house. The system uses a Raspberry Pi as the main controller with IR control and relay board for enabling or disabling speakers in specific room. Can be used with Ethernet or Wi-Fi and has the ability to play audio from PC, iPhone or online.
14. **Minimizing Electricity Theft by Internet of Things:** Energy theft is a serious issue as energy is a valuable but limited resource. The aim of the system mentioned here is to detect electricity theft. It also monitors the energy usage and intimates the customer. A Raspberry Pi based system is used with Wi-Fi connectivity as it implements the IoT network. Any discrepancies in electricity usage, the data is transferred to the remote server over internet.