DETECTING HUMAN USING SENOR IN IOT PLATFORM

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ABSTRACT

The ubiquity of wireless technologies has lately increased towards almost any location and physical scenario, mainly ignited by the ever-decreasing hardware costs of radio interfaces, higher chip integrability and enhanced efficiency of the underlying protocols at different communication layers. This increased multiple connectivity has been specially notable in Internet of Things (IoT) environments, where the heterogeneity of devices and standards coexisting in the same physical space has propelled the massive incorporation of wireless networking capabilities to IoT devices we present and describe a new open dataset with wireless signals captured over diverse physical IoT environments the proposed system deals with sending the number of count in online. This will be a quick way for the user to know about the place instantly this is possible only if IOT is used & also through the GPS which is found itself in the smart phone .The main aim of the project is to make aware of the place to the people who enter the desired organization or else any hospital, or library . In this proposed system also shows the data analytics of the entering of people.

Keywords: IOT- Internet of Things, Data Analytics, GPS-Global Positioning System.

We're entering a new era of computing technology that many are calling the Internet of Things (IoT). Machine to machine, machine to infrastructure, machine to environment, the Internet of Everything, the Internet of Intelligent Things, intelligent systems—call it what you want, but it's happening, and its potential is huge. We see the IoT as billions of smart, connected "things" (a sort of "universal global neural network" in the cloud) that will encompass every aspect of our lives, and its foundation is the intelligence that embedded processing provides. The IoT is comprised of smart machines interacting and communicating with other machines, objects, environments and infrastructures. As a result, huge volumes of data are being generated, and that data is being processed into useful actions that can "command and control" things to make our lives much easier and safer— and to reduce our impact on the environment.Arduino is an open-source electronics platform based on easy-to-use hardware and software. Arduino boards are able to read inputs - light on a sensor, a finger on a button, or a Twitter message - and turn it into an output - activating a motor, turning on an LED, publishing something online. Arduino has been the brain of thousands of projects, from everyday objects to complex scientific instruments.ARM makes 32-bit multi-core processors.ARM processors are extensively used in consumer electronic devices such as smartphones, tablets, multimedia players and other

mobile devices,such as wearables. Wifi is used for the transformation of the data.

PROTOCOL

    A   .UART

    B   .MQTT **UART:**

In UART communication, two UARTs communicate directly with each other. The transmitting UART converts parallel data from a controlling device like a CPU into serial form, transmits it in serial to the receiving UART, which then converts the serial data back into parallel data for the receiving device. Only two wires are needed to transmit data between two UARTs. Data flows from the Tx pin of the transmitting UART to the Rx pin of the receiving
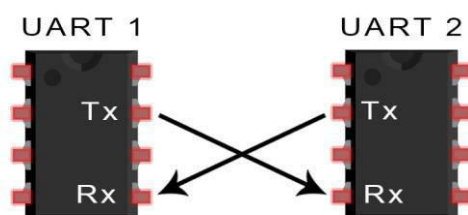
UARTs transmit data asynchronously, which means there is no clock signal to synchronize the output of bits from the transmitting UART to the sampling of bits by the receiving UART. Instead of a clock signal, the transmitting UART adds start and stop bits to the data packet being transferred. These bits define the beginning and end of the data packet so the receiving UART knows when to start reading the bits. When the receiving UART detects a start bit, it starts to read the incoming bits at a specific frequency known as the *baud rate.* Baud rate is a measure of the speed of data transfer, expressed in bits per second (bps). Both UARTs must operate at about the same baud rate. The baud rate between the transmitting and receiving UARTs can only differ by about 10% before the timing of bits gets too far off.
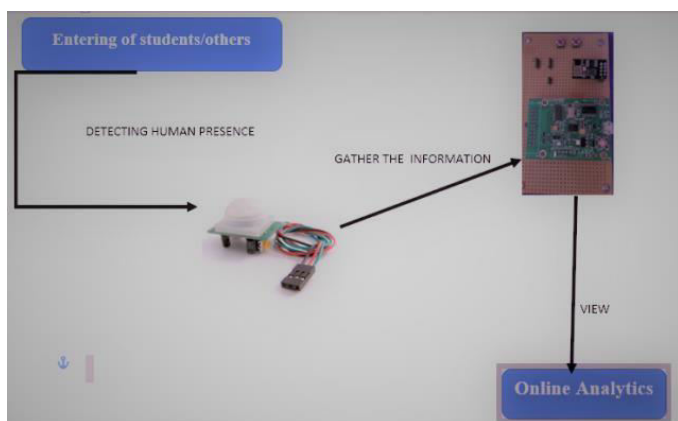
MQTT:

MQTT (MQ Telemetry Transport) is a lightweight messaging protocol that provides resource-constrained network clients with a simple way to distribute telemetry information. The protocol, which uses a publish/subscribe communication pattern, is used for machine-to-machine (M2M) communication and plays an important role in the internet of things (IoT).

MQTT enables resource-constrained IoT devices to send, or publish, information about a given topic to a server that functions as an MQTT message broker. The broker then pushes the information out to those clients that have previously subscribed to the client's topic. To a human, a topic looks like a hierarchical file path. Clients can subscribe to a specific level of a topic's hierarchy or use a wild-card character to subscribe to multiple levels.

The MQTT protocol is a good choice for wireless networks that experience varying levels of latency due to occasional bandwidth constraints or unreliable connections. Should the connection from a subscribing client to a broker get broken, the broker will buffer messages and push them out to the subscriber when it is back online. Should the connection from the publishing client to the broker be disconnected without notice, the broker can close the connection and send subscribers a cached message with instructions from the publisher.
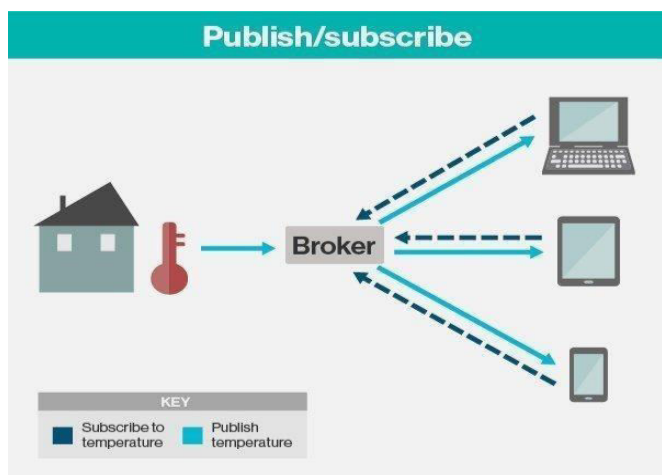
ARCHITECTURE

TECHNIQUES

In this work describe a very simple approach to working with a IOT device within the context of Embedded C application. MQTT is one of the most commonly used protocols in IoT projects. It stands for Message Queuing Telemetry Transport. Like any other internet protocol, MQTT is based on clients and a server. Likewise, the server is the guy who is responsible for handling the client's requests of receiving or sending data between each other. MQTT server is called a broker and the clients are simply the connected devices. So When a device (a client) wants to send data to the broker, we call this operation a "publish". When a device (a client) wants to receive data from the broker, we call this operation a "subscribe".
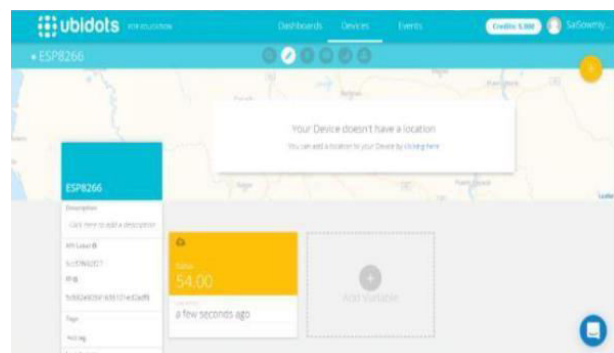
FIGURE

FIG: Online Viewing

CONCLUSION

As our project is generic project can be utilized in any sector very much efficient to use and to know about the human enter the room without manually .this project is fully deal with iot device which is cost effective and easily to implement ,anyone one to handle it from anywhere.

FUTURE ENHANCEMENT

In the proposed work can deal with security process,the major aim in our project for future enhancement will be for children and womens security ,now a day atehnology can track the vehicle and the device,but our project tracking and detect the human sensor exactly by the longitude and latitude axis (location) without using of the GPS. No other kind of kit or extendable work will be carried out for the future enhancement just the few changes in the coding will make the project much more extendable .It can be embedded in watches and phone for safety purpose.

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