**Internet of things ( IoT )**

The physical objects (are a group of objects) that are able to read or analyze the data and are able to transfer the data back and forth with other devices over the internet or a network without human interaction. Such types of things are called the Internet of things.

There are many things such as smartwatch with heart monitor are fitness tracker and autonomous driving systems that are part of Internet of things

**IoT in Embedded systems**

IoT is a part of embedded systems. Embedded systems equipped with IoT can share the sensor data or processed data to another embedded system and also it can acquire and process the data from other systems. Sensor collects the data and sends it to the processing unit and then to the IoT gateway. Gateway uploads it to the internet, through internet data is shared to destined devices without human interaction.

In embedded systems a unique part can be connected to the internet whereas a whole system can be connected to the internet.

We can connect as many as systems to the cloud and make them work together.

**Uses**

Embedded systems equipped with IoT makes our lives easier and helps us to gain control over our lives. Example a smartband is an embedded system with IoT. It tracks our daily activities like walking, sleeping and doing many health checks and sends it to the app on our mobile without our interaction. Sometimes if blood pressure is not stable it can record our pulse rate and send it to the doctor for analysis.

IoT is used in many industries for various tasks, it is also used in households which convert homes into smart homes. IoT enables automation and also it cuts down the wastage of several things. In home or office through smart lights we can save a lot of electricity. Sensors in the room detect the person and send the data to the network, lights can turn on and turn off based on that data.

In IoT there are different types of communications, system to system communication - which is communication between two different systems, device to device communication - It is communication between two devices in the system itself, system to human communication - Here we can communicate with the system and we can have a look at data.

**Cons of IoT**

Every device is connected to the internet, while every device is connected to the internet there is a chance to get attacked by hackers.

So we have to include security to protect our data from hackers.