

Internet of Things

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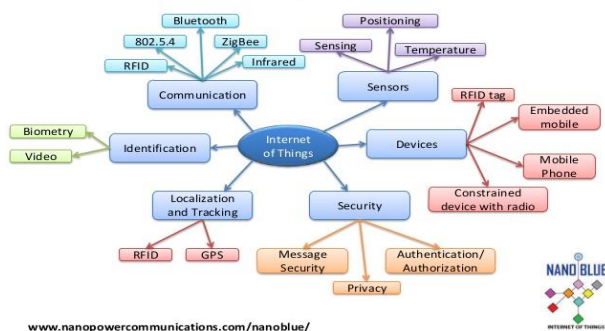
Abstract: Internet of Things has become the gaming technology where the sensors were deployed on the objects surrounded by in-order to know their functioning and the work being done on them. These sensors were connected by the wi-fi routers and the most advanced technology like 5G technology at that surrounding area and the data is being carried to the Cloud. As we people were listening about IoT past 2-3 years that its applications were going to be revolution in the technology. Whereas, IoT has a history of 16 years. Kevin Ashton is known for coining the term "the Internet of Things" to describe a system where the Internet is connected to the physical world via ubiquitous sensors. He is a British technology pioneer who co-founded the Auto-ID Center at the Massachusetts Institute of Technology (MIT), which created a global standard system for RFID and other sensors.

Keywords— Internet of Things, Cloud etc.

INTRODUCTION

Internet of Things is an architecture of connecting the hardware components with the software based application on a device. There are about 16 billion objects around us that can be connected by IoT application. The data of this architecture can be obtained on the same device or the E-mail or through any other platform. This data can even be stored on Cloud so that the loss of the data or information can be prevented. We require a network for connecting these hardware components and the software application. The network can be wi-fi routers surrounding the objects or the next Generation 5G technology. As, the 5G technology is based on the IoT applications. It consumes very less amount of energy and provides a speed upto 1GB per sec. In a survey, it is estimated that more 5 billion objects will work on the IoT based application. The future Generations will talk about the M2M communications, Machine Learning, Cloud computing. By 2025, these technologies will come into existence and plays a vital role in the advancement of the technology.

The IoT Connectivity



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RELATED APPLICATIONS BASED ON IOT:-

Home Appliances:-

IoT tries to make the Internet for the easy alluring and monitoring the things such as the home appliances, valuable goods, surveillance cameras, vehicles etc. IoT has its applications in the various domains like home automation, smart cities, environment, smart grid, traffic management, smart parking, earthquake detection etc. The Internet of Things can be used to monitor all the home based devices through a application which is deployed on a device to control their functioning according to the user requirement like diming the power to it in order to reduce the power consumption and minimise the wastage of the resources.



Waste Management:-

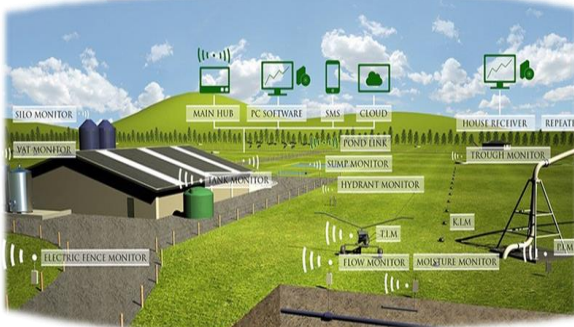
The devices that were connected by the sensors will provide the current status of that particular object and the amount of the energy consumed by those objects can be recorded basing on these sensors in-order to reduce the over-consumption of the energy by the objects.

IoT application can be used to detect the wastage either in the form of the solid state or the gaseous form from the surrounding areas. It helps in the ecological balance and hence the environment can be saved from the pollution. It helps in preventing the pollution and leads to the management of the resources and their usage can be reduced based on the pollution created by their usage and thus we can save ourselves from the pollution and the natural resources from being extinct.



Agriculture:-

The application of IoT can be used in the field of the agriculture. It helps in the monitoring the current moisture level of the soil. By adding Intelligence to this application through AI, it helps in providing the information regarding the crop that is best suitable for the soil at that particular monsoon. With the help of the AI, the sensors run the motors automatically basing on the requirement of the water the soil and the crop. Based on the biological data of the plants, AI helps IoT in identifying the disease that is being attacked on the crop and provides the information degrading the data or pesticides that are required for protecting the crop.



Future enhancement:-

Since Internet Of Things is being the revolution in all the sectors of the applications. It is going to be the trending technology for the future generations. By 2020, all the objects will be connected by the sensors to them and these

objects are controlled by the application that is deployed on the device and operated by using the Internet as a source for communication between them. A number of employees will be replaced by the IoT technology. Future Generations will be talking about the CoT, IIoT, M2M etc., By adding Intelligence to these IoT objects, the result will be very high and we will have a huge applications of them and will be highly advanced one.

CONCLUSION

The Internet of Things (IoT) can be incorporated clearly and seamlessly in a large number of heterogeneous end systems. By 2020 there will be Mega city networked corridors, more than 60 percent of the world population is expected to live in urban cities by 2025. The future generations will be working on the applications based on the Artificial Intelligence, M2M, Cloud. This technology will completely replace the human in the fields of technology and communication system.

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