

A Brief Review of IOT And Its Applications

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Abstract

Iot is the internet of things. It is referred to connecting different devices, through network. The Internet of Things integrates everyday “things” with the internet. Computer Engineers have been adding sensors and processors to everyday objects since the 90s. However, progress was initially slow because the chips were big and bulky. Low power computer chips called RFID tags were first used to track expensive equipment. As computing devices shrank in size, these chips also became smaller, faster, and smarter over time.

1 INTRODUCTION

Many application are vehicle system, home appliances, medical field, Agriculture sector. There are many ways vehicles, such as cars, can be connected to the internet. It can be through smart dashcams, infotainment systems, or even the vehicle's connected gateway. They collect data from the accelerator, brakes, speedometer, odometer, wheels, and fuel tanks to monitor both driver performance and vehicle health. Smart home devices are mainly focused on improving the efficiency and safety of the house, as well as improving home networking. Devices like smart outlets monitor electricity usage and smart thermostats provide better temperature control. Hydroponic systems can use IoT sensors to manage the garden while IoT smoke detectors can detect tobacco smoke. Home security systems like door locks, security cameras, and water leak detectors can detect and prevent threats, and send alerts to homeowners. IoT applications have made urban planning and infrastructure maintenance more efficient. Governments are using IoT applications to tackle problems in infrastructure, health, and the environment.

1.1 Iot Applications

1.1.1 Iot Application means connected different devices

1.1.2 Industrial IoT

Smart Manufacturing
Connected assets and preventive and predictive maintenance
Smart power grids
Smart cities
Connected logistics
Smart digital supply chains

IoT connects machines and devices in industries such as manufacturing, transportation, oil and gas, power generation and transmission, mines, and ports. Commercial, enterprise, or consumer IoT also simply known as IoT is used to describe connected devices within

homes and office spaces, such as cameras, badge readers, and control systems.

1.1.3 Iot Business: IoT connections span the globe and permeate nearly all places: homes, offices, factories, farms, vehicles and even space.

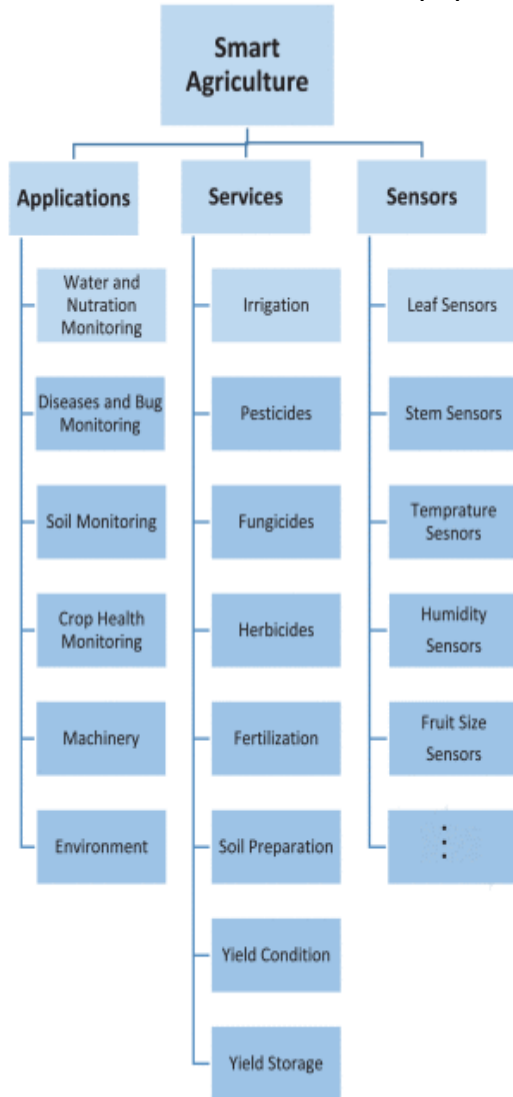
- Self driving and connected vehicles
- Traffic management
- Smart Grids & Meter.

1.1.4 Agriculture:

In advanced agriculture practices, like vertical farming (VF), hydroponics, and phenotyping, to manage the issues of increased urban population. IoT can help to improve the solutions of many traditional farming issues, like drought response, yield optimization, land suitability, irrigation, and pest control.

- Soil sampling & Mapping
- Irritation
- Fertilizer
- Pest management
- Growth of plants

- Wireless sensors are used various purpose



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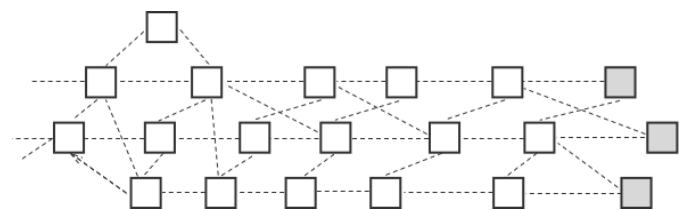
- Wearable Sensor & Central Nodes
- Short-Range Communications
- Long-Range Communications

1.1.6 Home Automation:

When it comes to automation and smart homes, the Internet of Things (IoT) is a new generations IoT is a cloud computing network that allows users to access physical objects or control equipment over a wireless network from any distance, at any time and in any location. One example of IoT technology is smart home automation.

- Lighting control
- Improved home safety and security
- Lawn and Gardening monitoring
- Smart switches
- Home air and water quality monitoring

Home iot connected and services

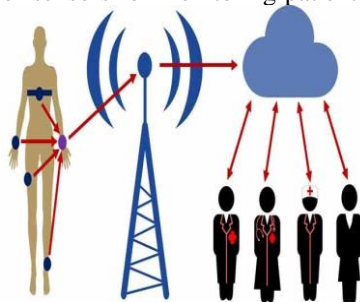


CONCLUSION

The advantages of IoT in commercial and industrial applications are many. Most of them center around efficiency not only because efficient operations help reduce costs and reduce our impact on the planet, but because in some cases, the efficiency of a given process, or the delivery of information and process automation, is mission critical. In many cases, lives depend on it.

1.1.5 Health Care:

Main part of our life is healthcare and its healthy life. We use different body checkup and its medical diagnosis. It use of sensors for monitoring patient health.



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