INTERNET OF THINGS – NEED OF THE CHANGING TRENDS OF THE SOCIETY

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ABSTRACT

In the today’s world, the trends of the society are changing every moment. Everywhere the use of internet has become essential in the day to day activities. For every second moment, people are using internet for varied things like messaging, purchasing, bookings, monetary transactions, socio cultural transmissions, exchanging the educational material, employment related activities etc. This research paper is based on the concept and its practical use in the society. Use of internet has become one of the essential parts of the life today.

Keywords: Internet of Things, society

INTRODUCTION

The globalization and use of technology is rapidly changing the world in all the different sectors. Use of internet has been increased tremendously in the last decade in almost all the fields like different verticals of industries, agriculture, education, medical, space and technology, service sector industries, food industries, astrology, all the public as well as private organizations etc. Without the use of internet, no business can be run faster, smoother, accurately and effectively.

Fig:1

Source: thedrum.com

Internet has taken place in the list of basic requirements of the human being and also it has the top most position in the requirements of the industries all over the globe. In our day to day life we are doing many things easily, faster and accurately, with minimum efforts just because of the internet.
Hence it has taken place in our life, which can’t be avoided, eliminated or neglected for any reason. We are now unknowingly using the internet in our daily activities which has made our life easy and faster.

OBJECTIVES OF THIS PAPER

1. To understand what is Internet of Things (IOT)?
2. To study the concept of IOT.
3. Review on the use and spread of internet.
4. Review on the challenges for IOT.
5. Future and scope of IOT.

INTERNET OF THINGS (IOT): MEANING

1. The Internet of Things means the network of the physical objects that are accessible through internet.
2. The IOT is nothing but the network of the physical objects that contains the embedded technology to communicate and sense or interact with the internal states or the external environment.
3. The IOT is the network of the physical objects/devices, instruments, buildings, vehicles and other such items embedded with the technological supports like electronics, sensors, softwares and the internet connectivity, which enables the physical objects to collect & exchange the data.
4. The IOTs are also called the Internet of Objects. These refer to a wireless network between these objects.

HISTORY OF INTERNET OF THINGS

The concept of the Internet of Things was first established in MIT’s Auto ID centre in 1999. The first Auto ID centre was founded in MIT in 1999. The term Internet of Things or IOT was coined by Kevin Ashton. The Radio frequency identification i.e. RFID was first seen as a prerequisite for IOT at that time. In 1991, the first web page was created by Tim Bemers Lee. Steve Mann created the first wearable Cam in 1994. The first Electronic Product Code (EPC) Global was founded in MIT in the year 2003.

HOW IOT WORKS?

Fig:2

- **RFID**: To identify & track the data of things
- **SENSOR**: To collect & process that data to detect the changes in the physical
- **SMART TECH**: To enrich the power of the Network by developing the processing capabilities at
- **NANO TECH**: The ability of the smaller and smaller things to connect and interact.
The IOT allows the physical objects to be sensed and to be controlled with the help of a remote across the present network. The system of IOT consists of the sensors and devices which interact with the cloud through some sort of connectivity. When the data gets to the cloud, it gets processed by the software and then decides to perform an action in a way of sending the alert or automatically adjusts the sensors and the devices without the need of the human user.

**The Scope and Importance of IOT**

In the IOT technology, it enables the devices or objects to observe the situation, understand it or the surroundings without the help of the human being. In IOT technology, we can reduce the waste of time, cost and the losses. Basically IOT is in the most popular phase. In future it will definitely clear the security threats and will be standardizing the whole ecosystem. In the coming years the field of IOT may be well equipped with low power and wide range devices for the better performance. This will result into more consumer’s trust and adaption of this technology.

![Fig:4](image)

Internet of things may connect technology embedded devices in different systems to the internet. The devices and objects can be controlled from anywhere, when they can represent themselves digitally. This type of connectivity will definitely help us capture more data from different places, which will ensure many more ways for increasing the efficiency. In the coming years, huge number of things will be connected to internet. One important reason to use IOT technology is that the software enabled devices are easier to manage and does the huge data gathering.

IOT certainly provides the better relationship between the nature and the human beings. IOT improves the ratio of resource utilization. We have a dynamic control of the industries and also on our daily life. Internet of Things is very much important for the improvement in almost all the fields. It will certainly enhance the efficiency of the present resources.

IOT is a transformation which will help the companies to improve their performance through the analytics of IOT with better results. In all the different industries like manufacturing sector, processing units, service sector, medical field, education, transportation, telecommunication, town planning, media etc will be improved certainly by applying the IOT technology.
CHALLENGES OF THE IOT

1. There are few challenges to the Internet of Things. Security is the major challenge to IOT. In coming years we are going to use the IOT technology in our maximum day to day activities but it should also guarantee security.

2. The second important challenge is the internet connectivity. The IOT technology should be restored safely in case the connectivity comes online.

3. The third challenge is the signaling. It should be assured that the data collection, routing between the IOT devices and the main servers is streamlined.

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