

# FACTS OF INTERNET OF THINGS

By Ms. Vandana Mundrathi, IEEE VEC SB

Department of Electronics and Communication Engineering

Vaagdevi Engineering College

Bollikunta, Warangal, Telangana, 506005, India

Date: 03<sup>rd</sup> November 2019

## THE INTERNET OF THINGS – EDITION 1

**Abstract:** The **Internet of Things**, or IoT, is a system of interrelated computing devices, mechanical and digital machines, objects, animals or people that are provided with unique identifiers (UIDs) and the ability to transfer data over a network without requiring human-to-human or human-to-computer interaction. IoT (Internet of Things) is a new paradigm which provides a set of new services for the next wave of technological innovations. IoT applications are nearly limitless while enabling seamless integration of the cyber-world with the physical world. However, despite the enormous efforts of standardization bodies, alliances, industries, researchers and others, there are still numerous problems to deal with in order to reach the full potential of IoT. These issues should be considered from various aspects such as enabling technologies, applications, business models, social and environmental impacts

---

## THE INTERESTING FACTS RELATED TO INTERNET THINGS ARE

1. The first internet connected appliance in the world of IoT is a coke machine modified at Carnegie Mellon university as early as 1982. This is the best proof to show that IoT is running from decades.
2. GE (General Electric) is one of the massive names in the world. It is using the IoT for years in building its jet engine technology. They attested investment in the IoT would hit \$60 trillion over the span of next 15 years.
3. Automated teller machines (ATMs) represented the first generation of IoT products when they started coming online in 1974.
4. The most interesting fact is that there are already more internet connected devices then there are human beings on the planet by 2008 itself. By this we can easily conclude that IoT is going to rule the world in future.
5. Complex sensors stationed around each airplane can generate up to 14 gigabytes of data per flight. Engineers use this data to make improvements to the plane's engines and other systems.
6. According to sources, IoT is already revolutionizing the delivery of healthcare. The association for competitive technology estimates that by 2020, the connected device healthcare market will be worth \$117 billion.



Figure showing Facts of Internet of Things

7. Amazing thing is that, out of all business that have implemented some kind of IoT initiative, 94% have seen a return on their investment.

8. We use many appliances in our daily life but we never know that they are actually connected to IoT. The devices we have in our homes, from smart thermostats to smart fridges all are connected to IoT. Google bought smart thermostat maker, Westland, for \$ 3.2 billion, and Samsung purchased connected home company smart things for \$ 200 million.

9. The most wondering thing is that by 2020, the number of internet- connected things will reach or even exceed 50 billion.

10. By 2020, a quarter of a billion vehicles will be connected to the internet, giving us completely new possibilities for in- vehicle services and automated driving. And in fact, we already have cars that can drive on their own.

11. Miracle is going to happen soon and yes, internet connected clothing is coming. Estimates predict that 10.2 million units of smart clothing will ship by 2020.

12. In 2015, over 1.4 billion smart phones have been shipped and by 2020 we will have a staggering 6.1 billion smartphone users.

13. Globally, 60% of healthcare organizations have already introduced the IoT into their facilities.

Some of the current uses of IoT include insulin delivery, ingestible sensors, depression -fighting apps, and coagulation testing.

14. General Electric's believe that the IoT can be used to improve oil and gas exploration. Unbelievable thing is that just a 1% improvement could result in \$ 90 billion in savings.

15. In one survey, 57% of smart device owners say their gadgets save them money and 72% say the technology makes them feel safer. Amazing thing is that there is now a smart mirror which that will analyze your face for wrinkles. It can also play music to you and all this is because of IoT.



16. IoT devices are finding widespread use in farming as well. A smart greenhouse that uses IoT sensors and automation is up to 30% more energy efficient than a standard greenhouse over a 20-year period.

17. About 94% business that used IoT is some way have registered a higher ROI.

18. According to the industry experts, the development in the IoT field will generate millions of job opportunities in the IoT field in the years to come.

19. Morgan Stanley via BL Intelligence estimated that there will be more than 75 billion active IoT devices by the end of 2020, that means approximately 7 devices per person.



Figure showing the Rise of Internet of Things

20. Besides smartwatches, the emerging wearables market will also include heart rate straps, baby and pregnancy monitors, headbands, posture monitors, movement sensors, and wearable patches. According to Report Buyer, overall shipments of these IoT items will increase from 7 million units in 2015 to 68 million in 2021.