

# Chapter 16

## Surveillance of Type I and II Diabetic Subjects on Physical Characteristics: IoT and Big Data Perspective in Healthcare@NCR, India

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### **ABSTRACT**

*The Delhi and NCR healthcare systems are rapidly registering electronic health records and diagnostic information available electronically. Furthermore, clinical analysis is rapidly advancing, and large quantities of information are examined and new insights are part of the analysis of this technology experienced as big data. It provides tools for storing, managing, studying, and assimilating large amounts of robust, structured, and unstructured data generated by existing medical organizations. Recently, data analysis data have been used to help provide care. The present study aimed to analyse diabetes with the latest IoT and big data analysis techniques and its correlation with stress (TTH) on human health. The authors have tried to include age, gender, and insulin factor and its correlation with diabetes. Overall, in conclusion, TTH cases increasing with age in case of males and not following the pattern of diabetes variation with age, while in the case of females, TTH pattern variation is the same as diabetes (i.e., increasing trend up to age of 60 then decreasing).*

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## **INTRODUCTION**

It is a technology that has made the non-connectivity appliance a connectivity appliance. The appliances that contain technology that helps us to communicate us with human and technology. Let us take some example the GPS is a latest technology that are inbuilt in car help the driver to make it easy to travel within the road, i.e. it is that technology in which we require internet base technique. (Rastogi, Chaturvedi, Satya, Arora, Yadav et al, 2018)

## **HISTORY OF IOT**

IoT has evolved when the major language that are not famous on that days such as machine language, commodity analysis etc. Now a days Automation, control system, wireless sensor networks that are connect to internet and helps us to make us easier to do work.

Kevin Ashton in 1999 was first who coined the term IoT i.e. “Internet of Things”. But in earlier the concept of IoT was purposed in Carnegie Mellon University in 1982 that work on the concept of Network smart devices.

Now a days the technology is increasing day by day is increasing day by day like CISCO is introducing a new technology and in future the technology will replace every human work with this technology. (Rastogi, Chaturvedi, Satya, Arora, Yadav et al, 2018)

## **IoT AS MEDICAL HEALTH CARE**

IoT helps in medical field to make our future bright such as, major technology has being evolved in this field such as pacemaker. With the help of IoT we can create digitalized health care facilities; we can connect to medical resources easily and can get medical facilities easier.

Devices enabled with IoT services are applicable for remote health monitoring and especially in emergency notification facilities. They may help us in from blood pressure and heart rate monitors and latestgadgets like pacemakers to monitor specialized implants.

Now a days “smart beds” can be seen in the medical facilities that is a another a feature of IoT. Doctor can interrogate their patient with the help of video call from far away from the place, even the nurses can be appointed through internet facilities. A 2015 Goldman Sachs reported that by increasing revenue and decreasing cost, gadgets being used for health care devices in USA are helping to save nearly \$300 billion in annual expenditures in health sector.

## **FUTURE PERSPECTIVE OF IOT**

With the base of IoT wireless design has been made which can enhance our technology and made our work easier. Much wireless technology has been developed and these technology has been categorized in three ways i.e. short, medium and long range wireless.

- Short Range Wireless-With short frequency and applied for home purpose.

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