

## EDITORIAL

# Recent Advancement in the Healthcare Domain Using Various Methods

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## 1. Introduction

In cities, the world's population is rising at an exponential rate, and the more people there are, the greater the strain on resources. Even though cities have medical resources and facilities, which are growing by the day, the level of adequacy has not yet been reached, putting an undue strain on government resources. Cities' healthcare systems have evolved, bringing with them the necessary solutions to lightning-related issues. Because a huge number of sensors are being used to produce a new multidimensional monitoring approach for the activity of a wide range of diseases, the new research represents a significant stride in e-health<sup>[1]</sup>. The real-world medical industry<sup>[2]</sup> is a major impediment to IoT integration. Lo-

rem's students' lives have several safety implications, and by lowering medical costs, it achieves that aim while also enhancing the accuracy of sickness prediction in general. When applying IOT in the real world of healthcare, this piece presents a technical tune model, as well as lucrative worries used for uncomplaining reassuring and open space challenges<sup>[3]</sup>.

The Learning (ML) / Deep Learning (DL) system has benefitted a variety of industries, including manufacturing, transportation, and government. In terms of population, DL has just exceeded the state. Computer visualisation, text analysis, and word processing are just a handful of the disciplines where art is flourishing. In addition, the ML/DL calculation approach is having a growing posi-

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tive impact on health-care delivery. Treatment of diseases has long been hampered by large-scale technology [4]. Body organ identification in medical imaging, long-range pneumonia categorization, lung cancer diagnosis, image reconstruction treatment, and brain tumour sections are just a few of the areas where machine learning and deep learning have made significant progress.

Clinician-assisted analysis has moved to the top of the list of potential application areas for ML/DL models, and several models have already been created to meet this demand. In domains including clinical pathology, radiation therapy, eye diseases, and skin difficulties, human doctors are being phased out and replaced by DL models. Many studies have been published on DL models, which, according to the findings, outperform human physicians in various areas [5,6]. Furthermore, technology and machine learning/deep learning may aid in the evaluation of results and the creation of intellectual solutions based on human intelligence. Peripheral medical services play a critical role in the modernisation of health-care technology in rural and low-income areas, and they make a substantial contribution [7,8].

## 2. Possible Method

This device can monitor a patient's electrocardiogram (ECG), temperature, electromyography, and muscle activity in breathing, sweating, and blood sugar, as well as infections like arrhythmias, passion nerve diseases, muscular disorders, blood stress, and diabetes. Sensors can now be easily placed to the skin, and many sections of the body have seen considerable improvements, so proceed with caution. Sensors implanted in the bodies of patients acquire a variety of physiological data, including numerous physiological indices. The data are then delivered via a small handheld device running pre-purchased data and communications software. Sensors should be compact and light in weight to avoid getting in the way of the patient's motions. Small, low-energy batteries are recommended for powering these sensors. This means that the sensors can be used indefinitely without needing to be sent or recharged. With the correct transmission components, transmitting patient data from the health center's accurate and secure location should be doable. Bluetooth can be used to carry out the transmission. It is possible to activate the system's connected devices via the hub, which can be done using a Smartphone. Figure 1 shows a possible data transmission solution.

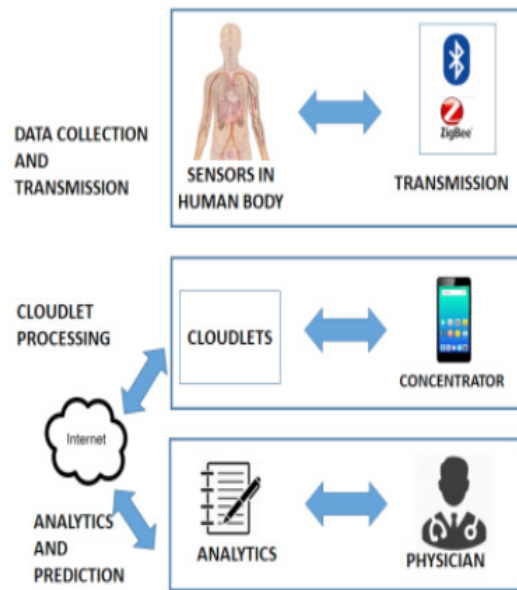


Figure 1. Data Transmission Approach

## 3. Conclusions

The proposed solution aims to give patients with better-connected economic health services, allowing experts and doctors to build on this knowledge and reach more rapid and favourable conclusions for their patients, using IOT, machine learning, and a cloud-based information system. At any one time, the final model comprises all of the features that a doctor is looking for in a patient. As a result of the connected economic support to unwell nations, the suitable expert would take action against the healthcare victim in the clinic, resulting in shortened hospital lines and direct consultation with physicians, minimising contextual dependence, and allowing full use of the website. The proposed method's main purpose is to provide patients with a high-quality financial existence that is linked to their services.

Doctors may be able to use this information to deliver a rapid and cost-effective solution to their patients. Several features of the finished product allow the doctor to test the patient at any time and from any location. This would result in a financial benefit for sick persons who desire to go to the hospital and have doctor consultations in order to lower their family's health-care costs.

## Conflict of Interest

The authors declare no conflict of interest.

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