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Modelling of Internet of Things (IoT) for Healthcare

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MODELLING OF INTERNET OF THINGS (IOT) FOR HEALTHCARE

by

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ABSTRACT

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Purpose: Information technology benefits the world, and it's required for health care system, such as electronic medical records (EMR). We have proposed systematic model to study hoe IoT with 5g network has potential to benefit various healthcare services. For example, telemedicine may have some usage restrictions in rural areas and physicians may find it difficult to provide continuous monitoring to patients from such area. There are higher chances that the calls or video conferences getting significantly affected by poor networks and signals as well as non-compatible devices and patient may not get the treatment on time. 5G networking with IoT devices are believed to be the game changer for communication technology. The IoT model assists in attaining information by measuring its benefits through criteria which include 5G and IoT features along with a healthcare service requirement. Purpose of this paper is to present a model using Internet of Things (IoT) and 5G technology which will help to understand improved efficiency and efficacy of healthcare services. Our main research methodologies are literature review and modeling. The obtained results can be used for information technology applications in healthcare for various healthcare services and assist in increasing health quality in the healthcare industry.

Method: Created a model to set the standard for incorporating 5G IoT devices health related technology and services. Reviewed through several models that serve as potential model to involve key factors that are unique certain healthcare services. We picked one model that can be easily incorporated in the system and can be revised to fit within the requirements using 5G IoT devices. Gathering of related literature served as a foundation in understanding the benefits of 5G IoT in the healthcare systems and parameters were pooled from it to revise the IoT model.

Results: Incorporating 5G IoT features into a chosen model gave an overview of various determinants that can help understanding how IoT can influence any healthcare service and improve the quality of health. There are no rules and restrictions for use and utilization of this technology for health management yet in developing stage however, healthcare systems can rely on the 5G IoT devices for quality betterment.

Conclusion: IoT with 5G has potential to improve healthcare management. The 5G world with an IoT will allow us to enter an era where real-time health services will become the part of the daily routine rather than the exception. However, further research needs to be done about its usage within any kind of specific health technology. Future research directions can utilize our model for other lesser known healthcare services.

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