

# Internet of Things in Healthcare

Antony Mathew<sup>1</sup>, Brindha R V<sup>2</sup>, Bindu George<sup>3</sup>

Student, Computer Science, Santhigiri College of Computer Sciences, Thodupuzha<sup>1,2</sup>

Assistant Professor, Computer Science, Santhigiri College of Computer Sciences, Thodupuzha<sup>3</sup>

**Abstract:** Over the last decade web has created important impact in our economies and societies by transfer in exceptional communication and networking infrastructure. The world-wide net has been a significant driver of worldwide data and media sharing. From Desktop networking web is constant to become a lot of pervasive, with the arrival of low value wireless broadband property, by connecting to new embedded devices and handhelds. In continuation with this trend, it's poised to emerge as Associate in Nursing "Internet of things" wherever the online can offer a standard interaction. This fashion the digital data technology will integrate the physical world to the net world to produce a standard interaction platform. The net of things describes a worldwide network of intercommunicating devices. It integrates the ever-present communications, pervasive computing, and close intelligence. At now IOT should be seen as a vision wherever "things", particularly everyday objects, like nearly all home appliances however additionally piece of furniture, clothes, vehicles, roads and sensible materials, and a lot of legible, recognizable, locatable, available and manageable the internet.

**Keywords:** Internet of Things, Sensors, Devices, Health, Medical, Components, Location, Communication, etc.

## REFERENCES

- [1] C. H. Huang and K. W. Cheng, "RFID technology combined with IoT application in medical nursing system," Bulletin of Networking, Computing, Systems, and Software, vol. 3, no. 1, pp. 20-24, January 2013.
- [2] R. Want, An introduction to RFID technology, IEEE Pervasive Comput., vol. 5, no. 1, pp. 25-33, Jan.-Mar. 2006.
- [3] C. Nay, Sensors remind doctors to wash up, IBM Res., Armonk, NY, USA, 2013.
- [4] K. Michaelsen, J. L. Sanders, S. M. Zimmer, and G. M. Bump, "Overcoming patient barriers to discussing physician hand hygiene: Do patients prefer electronic reminders to other methods, Infection Control, vol. 34, no. 9, pp. 929-934, Sep. 2013.
- [5] P. S. Mathew, "Applications of IoT in healthcare," in Cognitive Computing for Big Data Systems over IoT, pp. 263-288, Springer, Berlin, Germany, 2014.
- [6] A. Gatouillat, Y. Badr, B. Massot, and E. Sejdic, "Internet of medical things: a review of recent contributions dealing with cyber-physical systems in medicine," IEEE Internet of @ings Journal, vol. 5, no. 5, pp. 3810-3822, 2015.
- [7] B. Oryema, "Design and implementation of an interoperable messaging system for IoT healthcare services," in Proceedings of the 2017 14th IEEE Annual Consumer Communications & Networking Conference (CCNC), pp. 45-52, Las Vegas, NV, USA, January 2017.
- [8] Y. Yuehong, "The internet of things in healthcare: an overview," Journal of Industrial Information Integration, vol. 1, pp. 3-13, 2016.
- [9] M. Khan, K. Han, and S. Karthik, "Designing smart control systems based on internet of things and big data analytics," Wireless Personal Communications, vol. 99, no. 4, pp. 1683-1697, 2018.
- [10] G. CerruelaGarcía, I. Luque Ruiz, and M. Gómez-Nieto, "State of the art, trends and future of bluetooth low energy, 14 Journal of Healthcare Engineering near field communication and visible light communication in the development of smart cities," Sensors, vol. 16, no. 11, p. 1968, 2018.

- [11] X. M. Zhang and N. Zhang, "An open, secure and flexible platform based on internet of things and cloud computing for ambient aiding living and telemedicine," in Proceedings of the 2011 International Conference on Computer and Management (CAMAN), pp. 1–4, Wuhan, China, May 2018.
- [12] S. Tyagi, "A conceptual framework for IoT-based healthcare system using cloud computing," in Proceedings of the 2016 6th International Conference-Cloud System and Big Data Engineering (Confluence), pp. 503–507, Noida, India, January 2019.
- [13] S. Nazir, "Internet of +ings for Healthcare using effects of mobile computing: a systematic literature review," Wireless Communications and Mobile Computing, vol. 2019, Article ID 5931315, 20 pages, 2019.
- [14] L. Chuquimarca, "Mobile IoT device for BPM monitoring people with heart problems," in Proceedings of the 2020 International Conference on Electrical, Communication, and Computer Engineering (ICECCE), pp. 1–5, Istanbul, Turkey, June 2020.
- [15] M. Mendonça, "An IoT-based healthcare ecosystem for home intelligent assistant services in smart homes," in Proceedings of the EAI International Conference on IoT Technologies for HealthCare, pp. 142–155, Braga, Portugal, December 2020.
- [16] D. Kraft, K. Srinivasan, and G. Bieber, "Deep learning-based fall detection algorithms for embedded systems, smartwatches, and IoT devices using accelerometers," Technologies, vol. 8, no. 4, p. 72, 2020.
- [17] P. Castillejo, J.-F. Martinez, J. Rodriguez-Molina, and A. Cuerva, "Integration of wearable devices in a wireless sensor network for an E-health application," IEEE Wireless Communications, vol. 20, no. 4, pp. 38–49, 2013.
- [18] A. Kelati, "Biosignal monitoring platform using Wearable IoT," in Proceedings of the 22st Conference of Open Innovations Association FRUCT, pp. 9–13, Petrozavodsk, Russia, May 2018

#### **BIOGRAPHY**



**Antony Mathewis** studying Master of Computer Applications in Santhigiri College of Computer Sciences, Vazhithala, Idukki, Kerala. He has completed his Bachelor of Computer Applications from Mahatma Gandhi University, Kerala.



**Brindha R Vis** studying Master of Computer Applications in Santhigiri College of Computer Sciences, Vazhithala, Idukki, Kerala. She has completed her Bachelor of Computer Applications from Mahatma Gandhi University, Kerala. She has published a paper in IJSR.



**Bindu George** received her MCA from Madurai Kamaraj University, Madurai; M.Phil in Computer Science from Bharathiar University, Coimbatore and MBA from Madurai Kamaraj University, Madurai. She is currently doing her Ph.D. in Nehru College of Management, Bharathiar University, Coimbatore. Her research interests include Data Mining and Machineearning.