IEEE conducts virtual roundtable on effects of robotics and blockchain in healthcare

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Artificial intelligence and machine learning, followed by 5G and IoT will be the most important technologies in 2021 which will impact healthcare

IEEE, the world's largest technical professional organisation dedicated to advancing technology for humanity, concluded its virtual roundtable focussed on how technologies like robotics and blockchain are driving transformation in the healthcare sector. With the pandemic emphasising the importance of digital healthcare, IEEE curated this roundtable to discuss how the healthcare industry in India has long been faced with multiple challenges and the role of technology in addressing them.

During the roundtable, Jayakrishnan T, IEEE Member and Founder & CEO, ASIMOV Robotics, said, "Post-pandemic social behaviour has opened up several opportunities in the healthcare robotics domain such as telemedicine and remote management of outpatients. Moreover, contactless dispensing of food, medicine, and consumables have been made possible with the help of AMR and guided robots, concurrently the logistics and supply chain management within hospitals have minimized human interventions."

According to a recent report by The Internet and Mobile Association of India, the pandemic has accelerated the growth of the Indian health tech industry. It is expected to touch $5 billion by 2023 and is also likely to see a compounded annual growth rate (CAGR) of 39 per cent. A recent IEEE study of chief information officers (CIOs) and chief technology officers (CTOs) in the US, UK, China, India and Brazil also revealed that Artificial Intelligence and Machine Learning, followed by 5G and IoT will be the most important technologies in 2021 – 18 per cent of the respondents feel that the healthcare industry will be impacted by these technologies.

"Affordability and scalability are the two major factors that would enable the use of robotics in India. There are indeed very promising use cases that can bring down operational costs significantly and reduce risks. Not only this, but robots on duty 24x7 will also substantially reduce the cost per patient to healthcare organisations and increase profitability," On the other hand, providing robot as a service (RaaS) may be a better workable business model for India," he further added.

Commenting on the same, Ramalatha Marimuthu, Senior IEEE Member said, "We can slowly overcome these challenges through increasing the infrastructure, technology and the number of users, thus dividing the cost between them. Recent blockchain algorithms are claiming to provide anonymity, where a generated address protects the real identity of the user. Moreover, shared databases have become a necessity thanks to the distributed nature of patient monitoring systems – the same patient suffering from multiple ailments will require treatments by various healthcare experts. This expertise may be available in different clinics or geographies and blockchain can ensure timely provision of healthcare through faster diagnosis, treatment, monitoring and thus personalised healthcare plans."

The same survey of CIOs and CTOs from IEEE revealed that 55 per cent of the respondents have accelerated adoption of cloud computing due to the pandemic. Therefore, fortifying digital architecture with a robust plan for a sustainable future is the need of the hour. While healthcare is a major concern today, it presents a huge opportunity to fast-track technology adoption in India.