



Indian Institute of Space Science and Technology

Valiamala, Thiruvananthapuram - 695 547, Kerala

## Sensors for Better Living: A Future Connected Healthcare System

A Colloquium by **Dr. Subhas Mukhopadhyay**, Macquarie University, Australia



**03:30 PM**



**14**

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IIST

Council Hall

Sensors for Better Living is a combination of wearable, healthcare and medical devices along with applications that can connect all the healthcare information systems through networking technologies. It's a very big market that was reported to have a worth of 22.5 billion USD in 2016 and it's expected to become a USD 142.45 billion by 2026.

Wearable and Medical devices can collect, analyze and send data across the web using this technology. It can connect both, digital such as heart monitor and non-digital devices like patient beds to the internet.

An increase in world population along with a significant aging portion is forcing rapid rises in healthcare costs. The healthcare system is going through a transformation in which continuous monitoring of inhabitants is possible even without hospitalization. The advancement of sensing technologies, embedded systems, wireless communication technologies, nanotechnologies, and miniaturization makes it possible to develop smart medical systems to monitor activities of human beings continuously. Wearable sensors monitor physiological parameters continuously along with detect other symptoms such as any abnormal and/or unforeseen situations which need immediate attention. Therefore, necessary help can be provided in times of dire need. The seminar will review the latest reported systems, the trends on wearable and medical devices to monitor activities of humans and issues to be addressed to tackle the challenges to make our lives much better and more comfortable.



**About Speaker:** Dr. Subhas Mukhopadhyay is a Professor of Mechanical/Electronics Engineering, Macquarie University, Australia and is the Discipline Leader of the Mechatronics Engineering Degree Programme. His fields of interest include Smart Sensors and sensing technology, instrumentation techniques, wireless sensors and network (WSN), Internet of Things (IoT), Mechatronics, Robotics, Healthcare and Environmental monitoring etc. He has supervised over 200 Honours students. He has published over 450 papers in different international journals and conference proceedings and written ten books.

He is a Fellow of IEEE (USA), a Fellow of IET (UK), a Fellow of IETE (India). He is an associate editor of IEEE Transactions on Instrumentation and Measurements and IEEE Transactions on Review of Biomedical Engineering. He was a Distinguished Lecturer of the IEEE Sensors Council from 2017 to 2022. He is the chair of the IEEE Instrumentation and Measurements Society NSW chapter.



Live Stream: <https://tinyurl.com/2p8c4wmx>