

Webinar on Healthcare IoT

The Sixth Edition



IEEE Communication Society
Technical Committee on eHealth
Special Interest Group on "IoT for eHealth"
and



Technical Committee on Green Computing and Communications
Special Interest Group on "Pandemics"

All participants need to pre-register by 5:00 PM March 16, 2023, by filling up the following form: [Registration Link](#)



Prof. Edward Chang
Stanford University, USA

Knowledge-Guided Generative AI in Healthcare: Progress, Shortcomings, and Future Directions

Abstract: In 2017, I co-led a team with Professor Peng at Harvard that won a top prize in the Tricorder XPRIZE contest. The Tricorder is a Geo and health sensing device used by Spark, a leading character in the Star Trek TV series, for diagnosis and treatment. The contest challenged over 300 teams to develop a lightweight (less than 2.5 kg) device capable of diagnosing 12 health conditions. The challenge of weight placed on IoT devices was significant, and accurate diagnosis relied on AI algorithms powering the devices. IoTs acted as sensors, collecting body signals, while AI acted as the brain to make sense of the data for accurate diagnosis. In this talk, I will discuss the challenges we faced then, progress made in precision medicine to-date, and propose using domain-knowledge to improve



Prof. Amir M. Rahmani
University of California,
Irvine, USA

Utilizing Big Data from Daily Life to Promote Holistic Mental and Physical Health

Abstract: Future Health requires leveraging the fact that each individual is unique due to his/her/their omics, lifestyle, environment, and socioeconomic factors. Progress in sensors, mobile and ubiquitous computing and AI allows gathering information about individuals to build their own personal models for predictive and preventive guidance. Given these models, we give precise recommendations to best suit the prediction for that individual. In this talk, I describe how AI and wearable technologies enable big health data collection in everyday settings, analytics to assess physical and mental health, and smart recommendations objectively. I present examples of how IoT-based remote monitoring and intervention systems are being used to address real-life health and well-being issues and how sense-making

Dr. Arijit Roy, IIIT Sri City, India
Dr. Ayan Mondal, IIT Indore, India
Prof. Sudip Misra, IIT Kharagpur, India

More details can be found [here](#)
Date: March 17, 2023
Time: 8:30 PM - 10:30 PM, Indian Time (IST)

