

IEEE Communication Society Technical Committee on eHealth: Special Interest Group on "IoT for eHealth" and Technical Committee Green Computing and Communications: Special Interest Group on "Pandemics"



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Title: Towards Ambient Intelligence in Smart Healthcare

Abstract: Is the *Internet of Healthcare Things* (IOHT) hype or on the cusp of a healthcare revolution? We believe that wearables, in-situ sensors, machine learning, natural language processing, and the Internet are providing the technological backbone to achieve a true revolution in healthcare. Many challenges remain due to numerous factors including the complexities of human health and the realisms of deployment of the technology especially for the elderly. This talk describes our progress towards establishing an ambient intelligence for healthcare. Descriptions of several wearable and conversational based solutions that support taking medications, exercising, and quality of handwashing will be presented. Voice will be a major modality for this coming revolution. We also present a machine learning solution for detecting emotions via speech even at significant distances from a microphone and in realistic settings.

Title: Towards Dynamic infastructures for healthcare - Edge Intelligence and Beyond

Abstract: As humans, things, software and AI continue to become the entangled fabric of distributed systems, systems engineers and researchers are facing novel challenges. In this talk, we analyze the role of IoT, Edge, Cloud, and Human-based Computing as well as AI in the co-evolution of distributed systems for the new decade. We identify challenges and discuss a roadmap that these new distributed systems have to address. We take a closer look at how a cyber-physical fabric will be complemented by AI operationalization to enable seamless end-to-end distributed systems.

Principal Host: **Prof. Sudip Misra, IIT Kharagpur, India** Co-Host: **Dr. Arijit Roy, University of Luxembourg, Luxembourg** Co-Host: **Dr. Ayan Mondal, Univ Rennes, INRIA, CNRS, IRISA, France** More details can be found <u>here</u> Date: **September 11, 2021** Time: **5:00 pm – 6:30 pm, Europe/Zurich Time (CEST)**



All participants need to pre-register by September 10, 2021 by filling-up the following form: **Registration Link** WebEx sign-in details will be shared with the registered participants using the email address provided in the registration form.