Mobile Health Research Towards Democratizing Healthcare

Speaker: **Md Mahbubur Rahman**

Digital Health Lab, Samsung Research America, Silicon Valley, California, USA

Abstract

Dr. Md Mahbubur Rahman is working as a Staff Researcher at Digital Health Lab in Samsung Research America, Silicon Valley, California. His research interests include wearable physiological computing, acoustic sensing, and multi-modal sensor fusion to develop novel algorithms and mobile systems to track human health and behavior in free-living conditions. He has been publishing papers in top tier computing venues including CHI, IMWUT, MobileHCI, PerCom among several others. He has published 40+ peer-reviewed papers and filed 11+ patents. His paper has received the industry track best paper award at IEEE PerCom 2020. His vision is to democratize healthcare and improve quality of life by making healthcare services available through low-cost mobile devices. He also worked as a Research Scientist at Nokia Digital Health Lab in Silicon Valley.

He has completed his BSc in Computer Science and Engineering from Bangladesh University of Engineering and Technology (BUET), and finished his PhD in Computer Science specialized in Mobile Health from the University of Memphis, Tennessee, USA in 2016. His dissertation was on utilizing wearable physiological sensors for monitoring psycho-social stress in the field. His current research focus is on monitoring chronic respiratory patients using mobile devices.

Respiratory diseases are the third leading causes of death. There are mainly two types of respiratory diseases - chronic (e.g., asthma) and infectious (e.g., COVID-19). Mobile, non-invasive assessment of respiratory diseases using commodity smartphones and smartwatches is an unmet need for patient monitoring at home. The global pandemic caused by COVID-19 further highlights the need for in-home monitoring technologies when both chronic and infectious patients are staying at home. Moreover, costly healthcare resources in low and middle income countries are mostly accessible to the wealthy citizens. This talk will focus on the feasibility of developing low-cost, low-effort respiratory assessment technologies towards making them available anywhere, anytime through users' own mobile devices. It will highlight the promise and potential of mobile health research towards democratizing healthcare for all.

When: Saturday, 8th August, 2020 (8:00 PM)

Where: Online. Zoom Meeting ID: 615 7794 6817, Password: 704904

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