

THE CHINESE UNIVERSITY OF HONG KONG Department of Information Engineering Seminar

## Towards Wearable Sensing: Bridging The Gap Between Physical and Cyber Worlds

By

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## <u>Abstract</u>

Wearable devices are at the forefront of ubiquitous mobile computing and sensing, profoundly shaping the interfaces between our physical world and cyber systems. Enhanced by the advancements in AI and embedded computing technologies, we now witness a new generation of wearable systems that harness multi-modal data for the creation of intelligent applications in ubiquitous environments. This talk will delve into a series of novel wearable sensing systems and edge computing technologies. These include wearable sensing systems with induced body electric potentials, an acoustic-based robocall alarm system, a multi-modal earable sensing system, and an open-set embedded recognition system with foundation models.

## <u>Biography</u>

Dr. Zhenyu Yan is a Research Assistant Professor at The Chinese University of Hong Kong. Dr. Yan has extensive experience in sensing systems, signal and information processing, cyber-physical systems, and machine learning in IoT systems. His works have been published in top international conferences and journals, such as MobiCom, SenSys, IPSN, IEEE Transactions on Mobile Computing, and ACM Transactions on Sensor Networks. He is the recipient of the Kan Tong Po International Fellowship from the Royal Society in the UK and the Rising Star Award (Early Career Award) from ACM SIGBED China. His papers also received the Best Community Contributions Award at ACM MobiCom 2023, the Best Paper Award Runner-up at ACM MobiCom 2022, and the Best Artifact Award Runner-up at ACM/IEEE IPSN 2021.

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