



THE CHINESE UNIVERSITY OF HONG KONG
Department of Electronic Engineering
Seminar

**Towards Multi-modality Medical Data Analysis:
Explainability, Robustness, Security**

Yixuan YUAN
Assistant Professor

Date: 11 September 2024 (Wednesday)

Time: 11:00 a.m.

Venue: Room 222, 2/F, Ho Sin Hang Engineering Building, CUHK

Abstract

Artificial intelligence has transformed the healthcare industry, from providing personalized health information to enabling virtual consultations and robotic surgery. Automatic medical data analysis, the foundation of AI in healthcare, is expected to provide decision support for clinicians and improve accuracy and efficiency but faces new challenges in clinical application. This talk will highlight our recent developments in AI in healthcare by addressing multi-modality medical data analysis with an emphasis on explainability, robustness, and security. The proposed models have already been validated in the collaborated hospitals and demonstrated that these models can enhance the decision diagnosis and advance precision medicine.

Biography

Prof. Yixuan YUAN is currently an assistant professor in the Department of Electronic Engineering at the Chinese University of Hong Kong. Her research interest is AI in healthcare to promote precision medicine. During 2018-2022, she was an assistant professor in the Department of Electrical Engineering at the City University of Hong Kong. She received the B.S. degree in Automation from Northwestern Polytechnical University (NPU), China in 2010, the Ph.D. degree in Electronic Engineering from the Chinese University of Hong Kong (CUHK) in 2016 with Hong Kong Postgraduate Fellowship (HKPFS). She was a postdoctoral Fellow in Department of Radiation Oncology, Stanford Cancer Center, Stanford University during 2017-2018. She received several premium awards including the ICBIR 2023 Best Paper Award, CVPR 2022 Best Paper Nomination, MICCAI 2022 Young Scientist Award (supervisor), Outstanding Teacher Award 2018/19 in CityU EE, 2017 Young Scientist Award in Engineering by Hong Kong Institute of Science, ICMA 2013 Best Paper Award, School of Medicine Dean's Postdoctoral Fellowship at Stanford University.

***** ALL ARE WELCOME *****

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