Special Research Seminar

日時: 2022年9月8日(木)午後 | 時-2時

場所: 理学館415講義室

Hacking Consumer Electronics for Biomedical Sensing



Prof. En-Te Hwu

Technical University of Denmark

Leveraging the billions of USD invested in consumer electronics, mass-produced, high-quality, and low-cost components lead to many benefits such as higher performance, shorter time-to-market, and lower production cost. This approach has resulted in high value-adding technologies/patents and six startup companies.

CV: Edwin En-Te Hwu is currently an Associate Professor of the center of Intelligent Drug Delivery and Sensing Using Microcontainers and Nanomechanics (IDUN) in the Department of Health Technology at the Technical University of Denmark. He was a postdoctoral fellow in working group 5.25 Scanning Probe Metrology at German National Metrology Institute. He has a Mechanical Engineering and system integration background. Moreover, he builds instruments to perform unique research, which commercial systems cannot fulfil. His early research carrier in Taiwan mainly focused on nanometrology instrumentation. He actively collaborated with research institutes in Japan, Denmark, Germany, the United Kingdom, and the United States. Later, he started his carrier in Denmark in drug delivery, biosensing, lab-on-a-disc, and high-resolution 3D printing research. He often builds instruments with an unorthodox approach, implementing consumer electronics components. This is more complicated than using standard research-grade parts. For example, Blu-ray-based 3D printing led to a startup: Atto3D. Another startup, BluSense Diagnostics, used a Blu-ray drive for disease diagnostics and was nominated for the 2021 European Inventor Award. His Nt-Unit and Atto3D teams received the largest TW and DK governmental pre-startup prizes.