



# Graduate School of Information Science, University of Hyogo

## 12<sup>th</sup> International Research Seminar

### SUBTLE VISUAL COMPUTING

Wed. 23 Apr. 2025 (13:00 ~ 14:00) JST

### ONLINE SEMINAR

Subtle visual signals, though often imperceptible to the human eye, contain subtle yet crucial information that can reveal hidden patterns within visual data. By applying advanced computer vision and representation learning techniques, we can unlock the potential of these signals to better understand and interpret complex environments. This ability to detect and analyze subtle signals has profound implications across various fields, e.g., 1) from medicine, where early identification of minute anomalies in medical imaging can lead to life-saving interventions, 2) from industry, where spotting micro-defects in production lines can prevent costly failures, 3) from affective computing, where understanding micro-expression and micro-gesture under human interaction scenarios can benefit the deception detection. In this talk, we will introduce foundation models and methods to detect and decode these 'subtle visual signals' on representative downstream applications.

**Register here (free)**

<https://shorturl.at/mUtdQ>

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### Guest Speaker



**Zitong Yu**

Assistant Professor of Computer Science, Great Bay University, Dongguan, China

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Zitong Yu received the Ph.D. degree in Computer Science and Engineering from the University of Oulu, Finland, in 2022. Currently, he is an Assistant Professor at Great Bay University, China. He was a Postdoctoral researcher at ROSE Lab, Nanyang Technological University. He was a visiting scholar at TVG, University of Oxford, from July to November 2021. He is a Senior Member of IEEE. His research focus on subtle visual computing. He has published more than 40 works on top-tier journals and conferences such as TPAMI/IJCV/CVPR/ICCV/ECCV, and received 5900 google citations. He was AC/SPC of ICME'23, BMVC'24, IJCB'24, and IJCAI'25. He organized the 1st Workshop & Challenge on Subtle Visual Computing on ACM MM'25 and Special Issue Subtle Visual Computing on Machine Intelligence Research. He won the 1st Place in the ChaLearn Multi-Modal Face Anti-spoofing Attack Detection Challenge with CVPR'20. He was a recipient of IAPR Best Student Paper Award, IEEE Finland Section Best Student Conference Paper Award, second prize of the IEEE Finland Jt. Chapter SP/CAS Best Paper Award, Best Paper Candidate of ICME'24, Best Paper Honorable Mention Award of CCB'24, and World's Top 2% Scientists 2023/2024 by Stanford.

**For more details:**

<https://zitong-yu.github.io/yzt/>