

Y. SATO LAB.

Computer Vision



Department of Informatics and Electronics

Department of Information and Communication Engineering, Graduate

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Emerging Design and Informatics Course, Graduate School of Interdisciplinary Information Studies

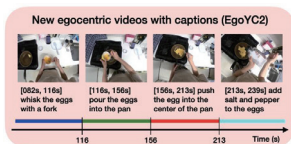
Visual Media Engineering

<https://www.ut-vision.org/sato-lab/>

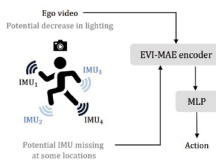
Computer Vision for Sensing and Understanding Human Behavior

Computational understanding of human behavior in the real environment is essential for the realization of AI systems that can accompany people and provide them with necessary support when needed. In this laboratory, we specialize in computer vision, and are working on the development of technologies to acquire knowledge about interactions between people and objects, people and people, and people and environments, using different types of videos, such as first-person view videos captured by wearable cameras and fixed-view videos from cameras installed in the environment.

Understanding human actions

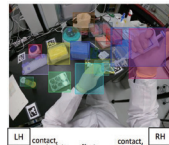


Dense video captioning on egocentric videos



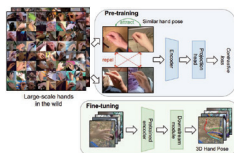
Action recognition from egocentric videos and IMU sensors

Deep understanding of actions involving complex procedures

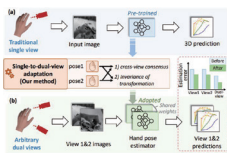


Visual understanding of biological experiments

3D hand pose estimation



Pre-training with large-scale data



Single-to-dual view adaptation

Understanding hand-object interactions



Active object segmentation based on action labels

