

# Y. SUGANO LAB.

## Visual Intelligence for People and Society



Department of Informatics and Electronics

Department of Information and Communication Engineering,  
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Interactive Visual Intelligence

<http://ivi.iis.u-tokyo.ac.jp>

We conduct research on computer vision across the full range from core algorithms to user interaction, aiming to build AI systems that work for diverse people and that diverse people can participate in.

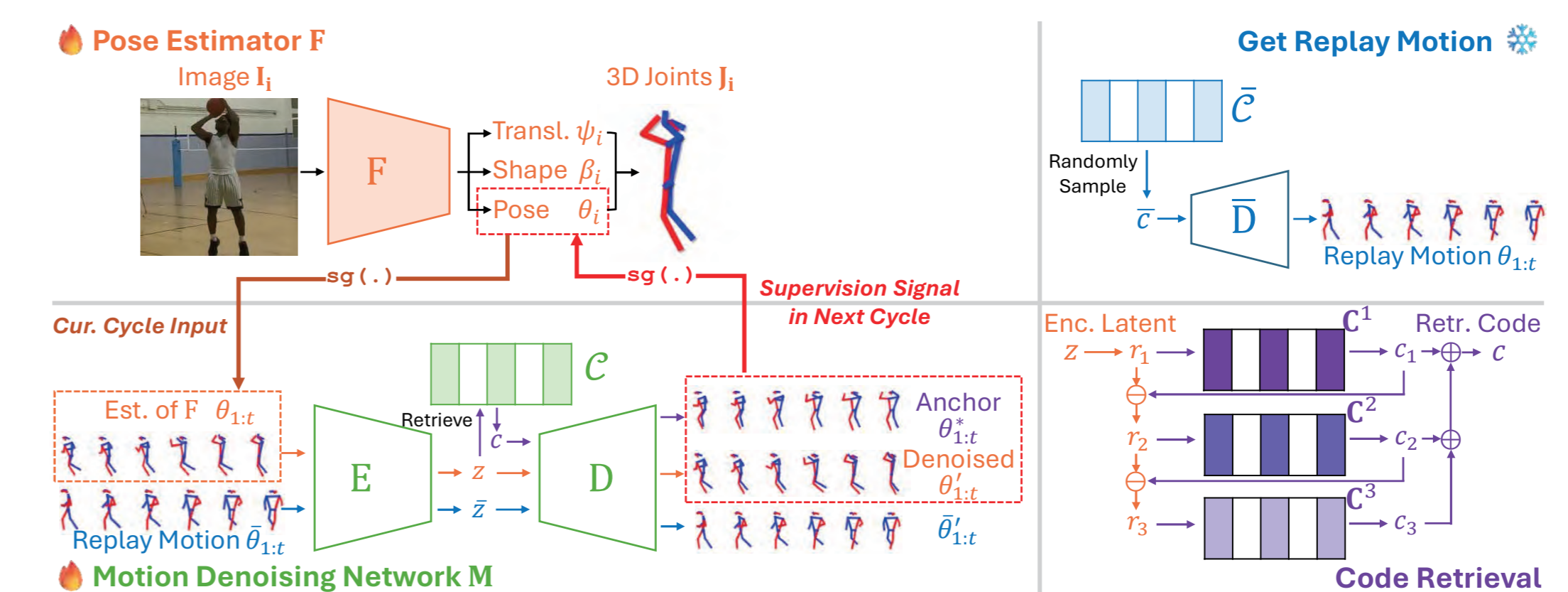
### AI That Understands Diverse People: Gaze and Pose Estimation in the Wild

We study methods for robustly estimating human signals such as gaze and body pose across diverse people and environments. Our goal is to build models that handle the full range of real-world variation, including individual differences, lighting conditions, head poses, and physical characteristics.

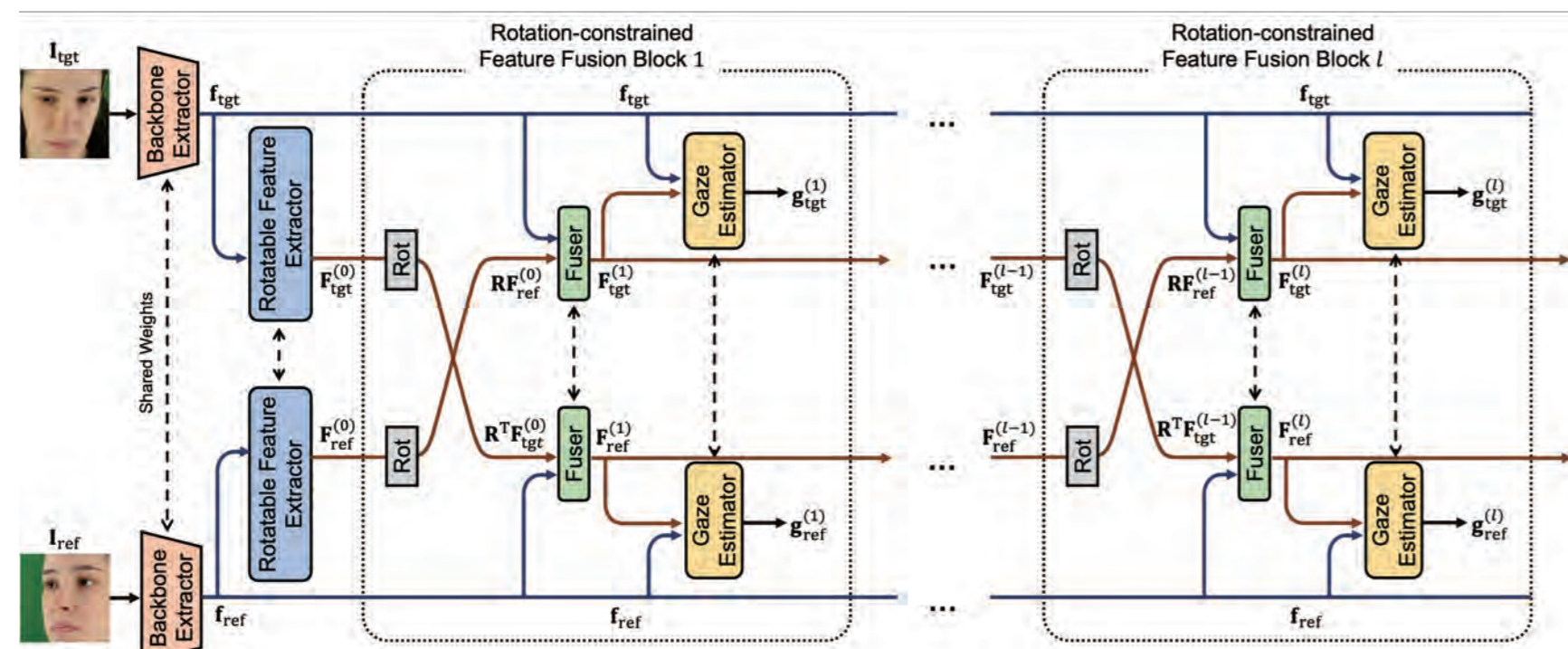
#### Universal Gaze Estimation via Large-Scale Pre-Training



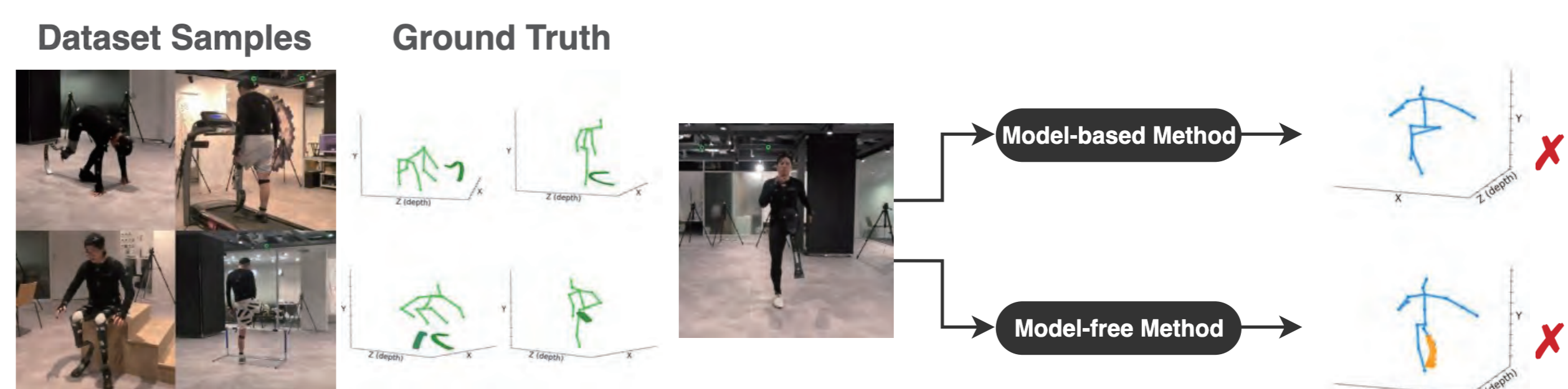
#### 3D Body Pose Estimation with Test-Time Personalized Adaptation



#### Multi-Camera Gaze Estimation via Cross-View Feature Fusion



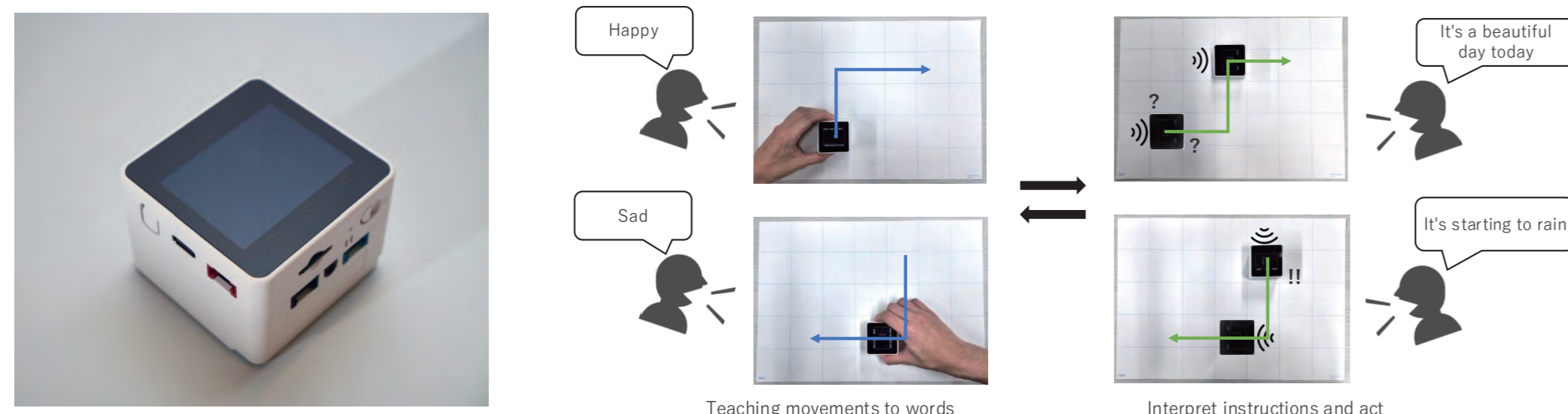
#### 3D Body Pose Estimation Inclusive of Prosthesis Users



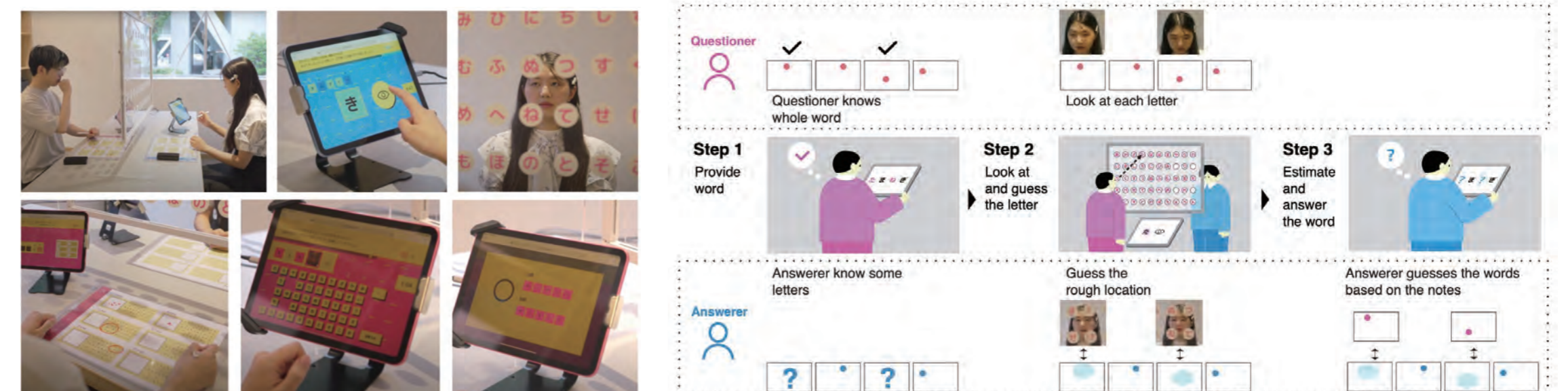
### AI Built by Diverse People: Participatory Data Collection and AI Experience Design

We design and study systems that enable more people to contribute to and engage with AI development and evaluation. By creating spaces for contribution and exploration without requiring expertise, we aim to open up the AI development cycle itself.

#### A Spatio-Physical Device for Hands-On AI Experience



#### Gamified Data Collection for Gaze Estimation



#### Analytical Study of Hands-On Machine Learning Events



#### A Game for Discovering AI Weaknesses

