Computer Vision for Sensing Human Behaviors and Assisting Human Interactions

Toward the development of information systems that can casually offer assistance to those who need it, we develop various computer vision techniques for sensing and understanding human behaviors including visual focus of attention and human interactions in real world. In addition, we have developed interactive systems for supporting human activities.

### Understanding Human Attention and Activities

1. Discovering objects of joint attention from multiple first-person videos
2. Grasp recognition for first-person videos
3. Predicting gaze position in first-person videos

### Recognizing and Supporting Human Interactions

1. Forecasting future locations of people in first-person videos
2. Ego-scanning interface for browsing first-person videos
3. A Sonic Collision Avoidance System for Blind Travellers