

# Center for Socio-Global Informatics

## [ Cyber-Physical Systems based on Deep Understanding of Human Activities ]

Established in April 2013 for a 5-year period  
Director: Yoichi SATO

Center for Socio-Global Informatics, established in April 2013, aims to establish and advance the emerging field of socio-global informatics on the integration of the cyber and physical worlds based on deep understanding of human activities at various levels ranging from each individual to a society.

### KITSUREGAWA Lab. Ew-503

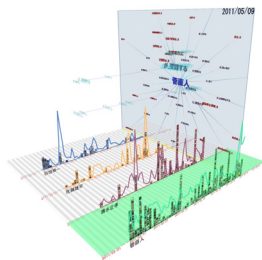
- Database engineering
- High performance database engine
- Cyber-physical Services
- Ultra-large-scale Web archive system
- Cyber space analysis system
- Global environment information fusion system
- Reliable network control technologies for cloud computing



Huge-scale spatio-temporal visualization system on the display wall

### TOYODA Lab. Ew-503

- Web mining
- Web solutions
- Large scale information visualization
- Advanced user interface

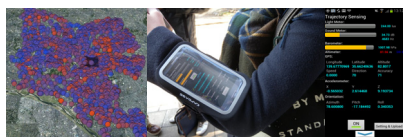


Visualization of time-varying topics for inter-media analysis

### SEZAKI Lab. Ew-601

(collaborative member)

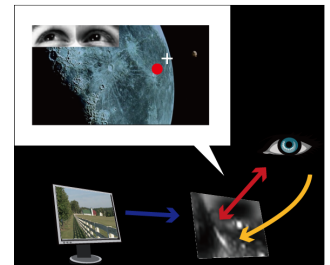
- Urban environment sensing
- Wireless sensor networks
- User mobility
- Privacy preserving in sensing



User participatory urban sensing

### Y. SATO Lab. Ee-402

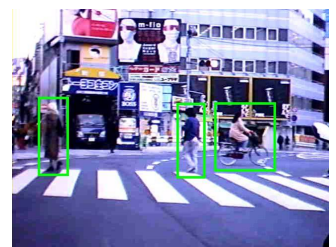
- Computer Vision
- Sensing and Understanding of Human Activities
- Gaze and Attention Estimation
- Reflectance Analysis and Material Recognition
- Face Recognition under Varying Illumination



Gaze estimation using visual saliency

### KAMIJO Lab. Ew-403

- Robust Object Tracking using the Spatio-Temporal MRF Model
- Real-time Detection of Abnormal Traffic Flow
- Technology for On-board Sensing
- Advanced Driver Assistance System
- Surveillance of pedestrian in Public Space

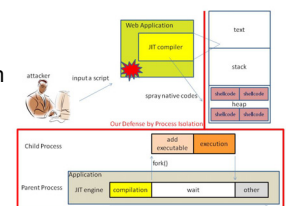


Pedestrian detection and tracking using on-board monocular camera

### MATSUURA Lab. Ew-401

(collaborative member)

- Cryptography
- Cybersecurity
- Anonymous communication system
- Economics of information security



JIT Spraying attack and our countermeasure