Center for Socio-Global Informatics

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

http://www.csgi.iis.u-tokyo.ac.jp
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Center for Socio-Global Informatics 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.

Period of installation: April 2013 ~ March 2018

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
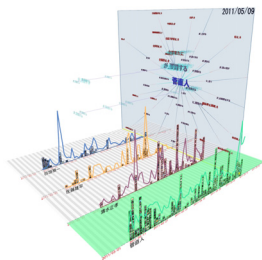- Reliable network control technologies for cloud computing

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

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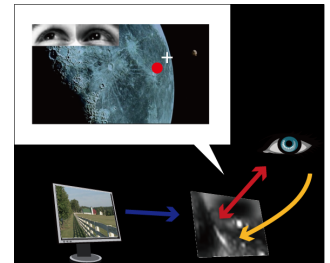- Privacy preserving in sensing

Environmental monitoring leveraging animal behavior

Y. SATO Lab. — Ee-402

- Computer vision
- Human activity recognition
- Gaze sensing and analysis
- Reflectance analysis and material recognition
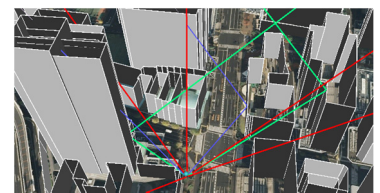- Face recognition under varying illumination

Gaze estimation using visual saliency

KAMIJO Lab. — Ew-403

- Autonomous driving and onboard sensor fusion
- Navigation technology
- V2V, P2V communication
- Behavior understanding for security cameras
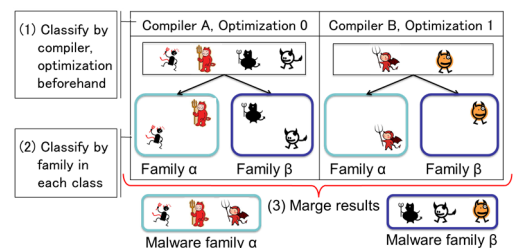- Traffic signal control of the next generation ITS

GPS pseudorange calculation using 3D map

MATSUURA Lab. — Ew-401

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

(1) Classify by compiler, optimization beforehand

Compiler A, Optimization 0 | Compiler B, Optimization 1

(2) Classify by family in each class

Family α | Family β | Family α | Family β

(3) Marge results

Malware family α | Malware family β

Improving anti-malware technologies by compiler estimation

Institute of Industrial Science