

Center for Socio-Global Informatics

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

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

Director: Yoichi SATO

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 2023

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

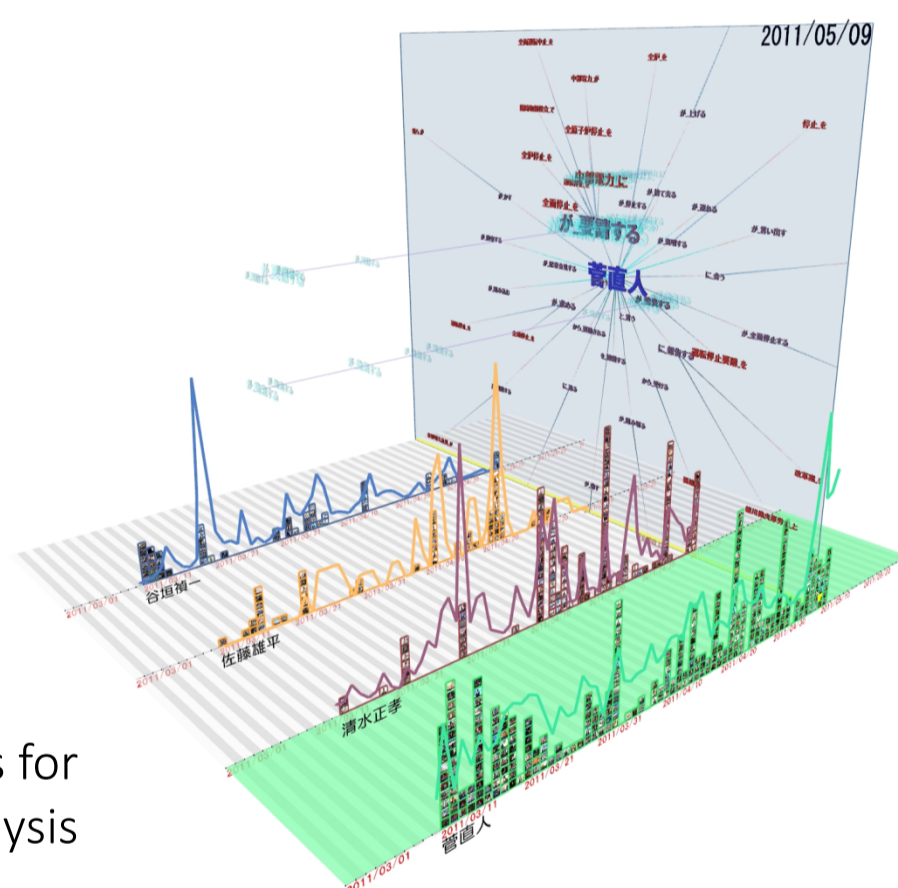


Huge-scale spatio-temporal visualization system on the display wall

TOYODA Lab.

Ew-503

- Web mining
- Web solutions
- Big data platform for mobility data analysis
- Large scale information visualization
- Advanced user interface



Visualization of time-varying topics for inter-media analysis

Yoshinaga Lab.

Ew-503

- Natural Language Processing
- Computational Linguistics
- Efficient Real-World Text Analysis
- Machine Translation and Dialogue System

Real-Time Parsing / [tweet+retweet](#) 怖い grep: * follow: 0 2011/03/11 14:00 → 2011/03/12 14:00 , per

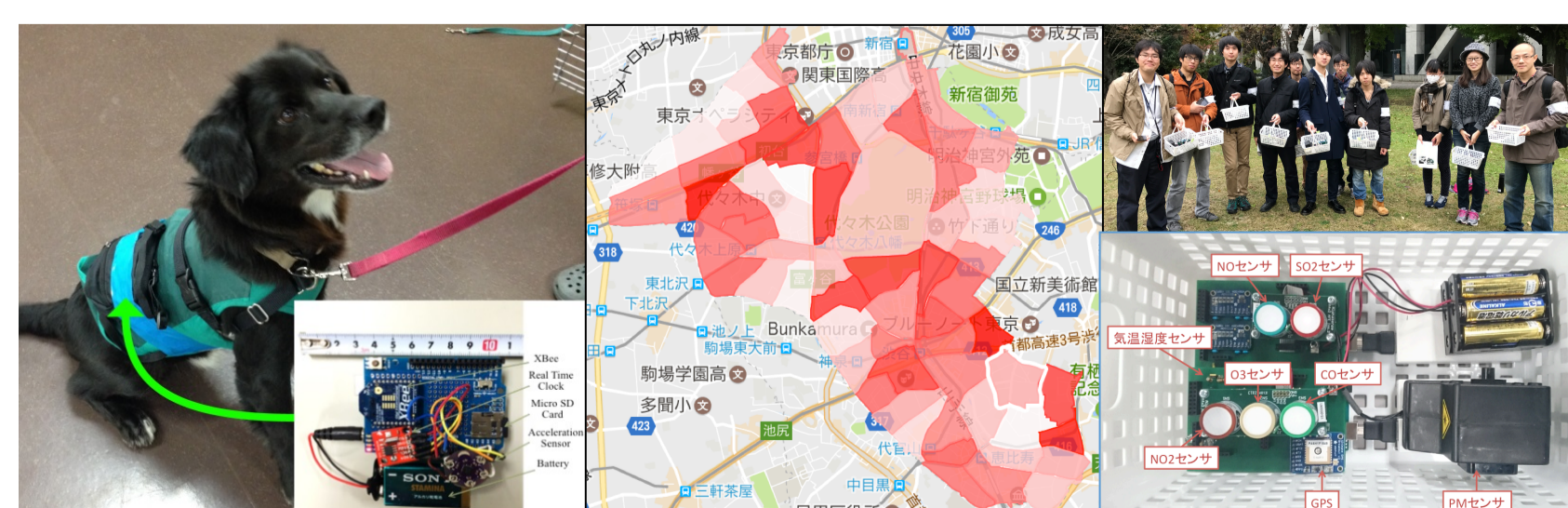
怖い	ツイート数	単語
2011/03/11 14:00 - 16:00	36907	が 1824 地震 750 余震 514 津波 120 映像 61 火車 51 火災 39 通電火災
2011/03/11 16:00 - 18:00	31028	が 986 余震 873 地震 512 津波 142 映像 70 二次災害 53 災害 40 音
2011/03/11 18:00 - 20:00	20857	が 702 地震 578 余震 214 津波 93 映像 71 人災↑ 59 二次災害 46 災害
2011/03/11 20:00 - 22:00	19288	が 816 余震 762 地震 243 津波 84 映像 68 映像 45 災害 38 映像
2011/03/11 22:00 - 00:00	26359	が 931 余震 682 地震 511 津波 450 外出↑ 118 映像 75 災害 49 火災↑
2011/03/12 00:00 - 02:00	25726	が 1114 余震 470 地震 291 外出 262 津波 90 運転手さん↑ 60 映像 36 音
2011/03/12 02:00 - 04:00	10980	が 381 余震 211 地震 199 妹↑ 171 外出 96 津波 50 音 41 映像
2011/03/12 04:00 - 06:00	19261	が 425 音↑ 360 余震 338 地震 252 外出 73 緊急地震速報 66 津波 37 音↑
2011/03/12 06:00 - 08:00	8313	が 190 余震 190 地震 114 音 93 津波 62 映像 60 外出 38 緊急地震速報

Public emotions on microblogs

SEZAKI Lab.

Ew-601

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



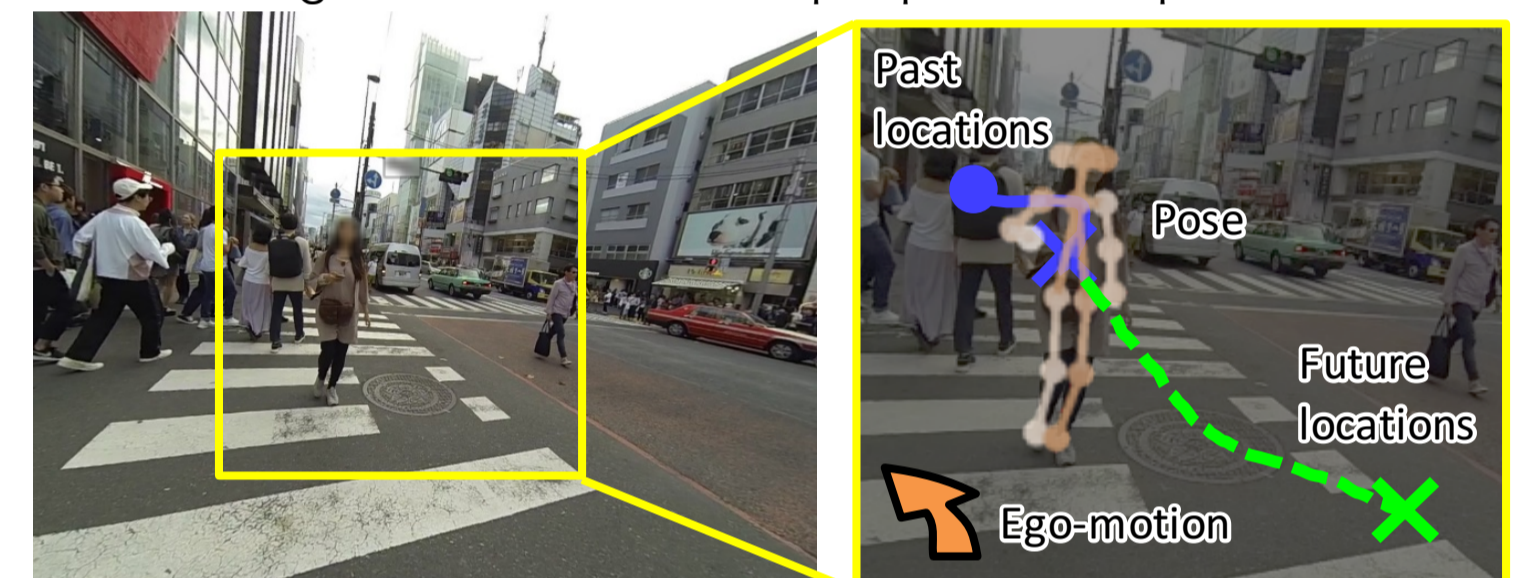
Environmental monitoring for urban and natural environment

Y. SATO Lab.

Ee-402

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

Forecasting Future locations of people in first-person videos

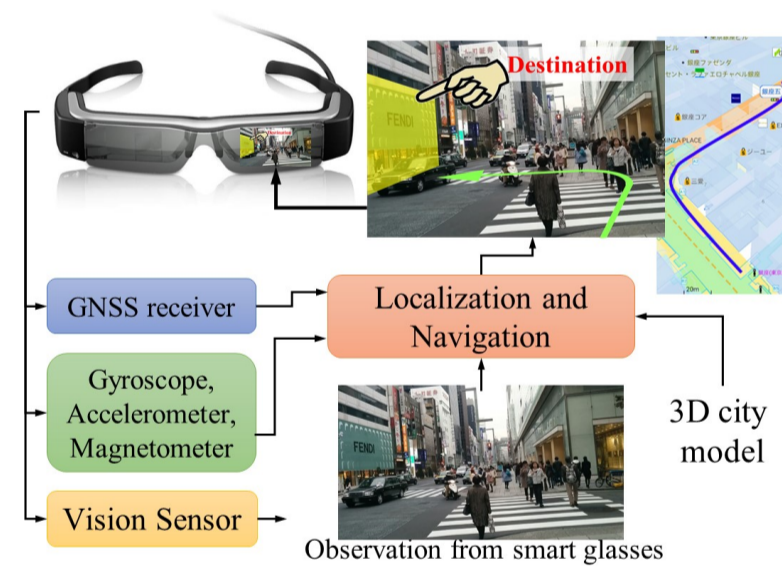


KAMIJO Lab.

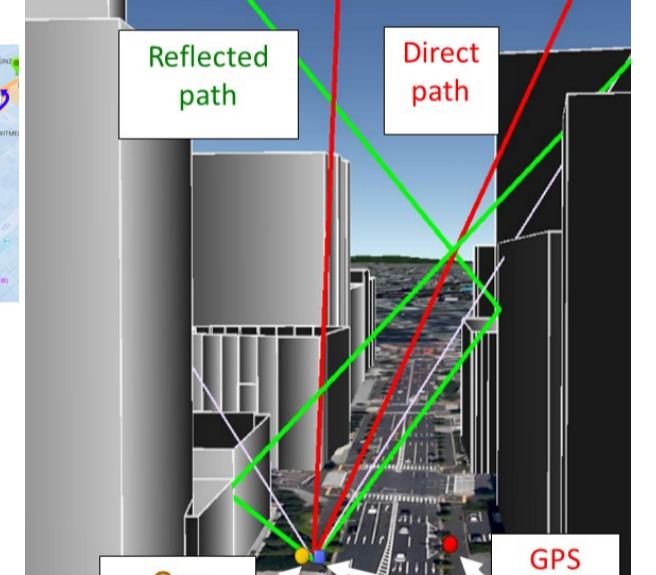
Ew-403

- GNSS Positioning
- 3D Map Construction
- Vehicle Self-localization
- Traffic Scene Understanding
- Intelligent Application in Smartphone and Smart Glasses
- Customer Behavior Recognition
- V2V, V2P Communication
- Traffic Surveillance

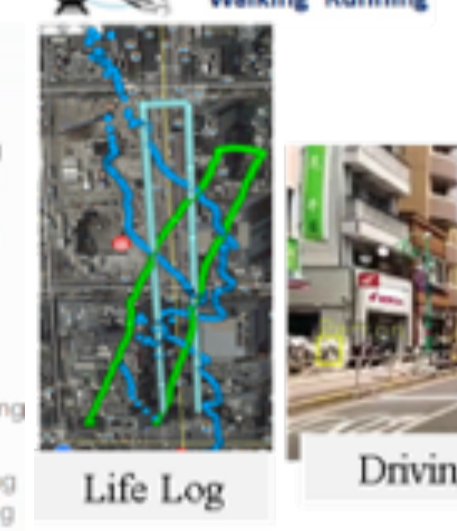
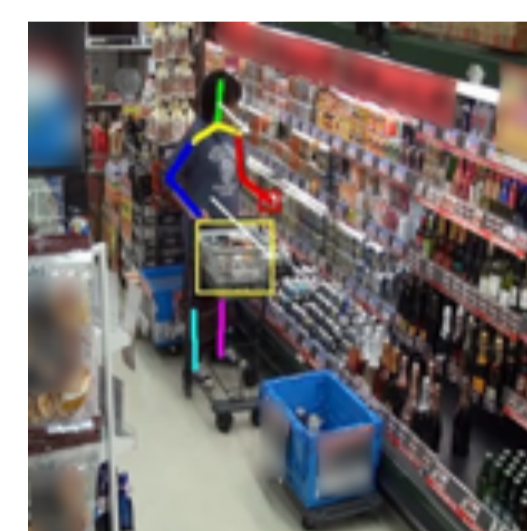
Pedestrian navigation utilizing wearable devices



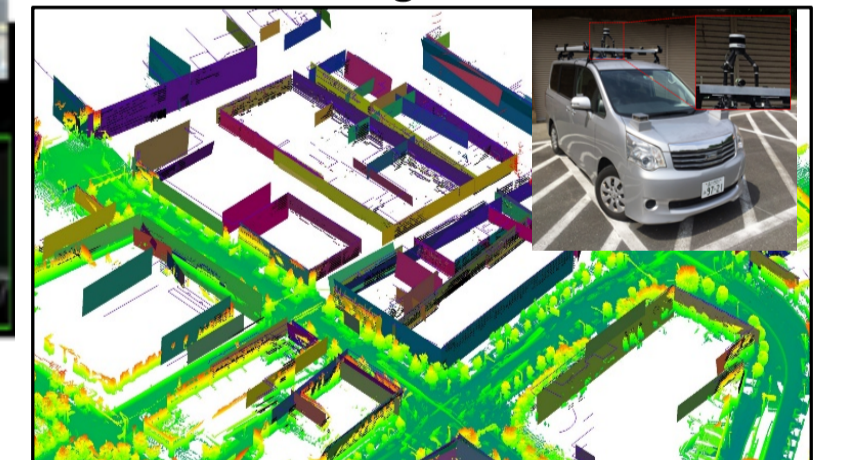
3D-GNSS positioning and 3D map construction



Customer behavior recognition



On-board sensing for scene understanding and localization



Intelligent application for consumer electronic

MATSUURA Lab.

Ew-401

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

