

# First International Conference on Smart Technology & Urban Development (STUD 2019)

The First International Conference on Smart Technology & Urban Development (STUD 2019) aims to facilitate technology and knowledge exchange between International researchers/scholars in the field of smart technology & urban development and related systems intensively in December 2019. The conference will cover a broad range of research topics in the fields of smart technology & urban development, knowledge engineering and science, information technology, creativity support systems and complex system modeling. They include, but

# December 13-14, 2019, Chiang Mai, Thailand











### **Important Dates**

Paper Submission

October 27, 2019

Acceptance Notification

**November 1, 2019** 

Camera-Ready Submission

November 15, 2019

STUD2019 Conference December 13-14, 2019

# **Paper Submission Page**

http://saki.siit.tu.ac.th/stud2019/

#### Host and Co-Host\

Japan International Cooperation Agency (JICA) Japan Science and Technology Agency (JST) Al Association of Thailand (AIAT, Thailand) Sirindhorn International Institute of Technology (SIIT, Thammasat University, Thailand)

### **General Co-Chair**

Yoshitsugu Hayashi (Chubu University, Japan) Thanaruk Theeramunkong (SIIT, Thailand)

### **International Advisory Committee**

Abdul Sattar, Griffith University, Australia Min-Ling Zhang, Southeast University, China Kentaro Inui, Tohoku University, Japan Chengqing Zong, Institute of Automation, Chinese Academy of Sciences, China

#### **Program Co-Chair**

Thepchai Supnithi (NECTEC, Thailand) Teerayut Horanont (SIIT, TU, Thailand) Masanobu Kii (Kagawa University, Japan) Kenji Doi (Osaka University, Japan) Hiroto Inoi (Toyama University, Japan) Kazuki Nakamura (Meijo University, Japan) Hiromichi Fukui (Chubu University, Japan) Ryosuke Shibasaki (University of Tokyo, Japan) Hiroyuki Miyazaki (University of Tokyo/, Japan and Asian Institute of Technology, Thailand) Ikuo Sugiyama (Kobe Institute of Computing, Japan) Yuii Iwahori (Chubu University, Japan) Naoki Shibahara (Chubu University, Japan) Hiroyuki Takeshita (Chubu University, Japan) Kento Yo (Osaka University, Japan) Yuki Akiyama (Tokyo University, Japan)

### Webmaster

Thanasan Tanhermhong (SIIT, TU, Thailand) Wirat Chinnan (SIIT, TU, Thailand)

### **Local Organizing Co-Chair**

Narit Hnoohom (MU, Thailand)

# **Track 1: Information and Communication Technologies**

- Ambient Assisted Living Mobility Support Robotic Companions

are not limited to:

- Intelligent vehicle-to-infrastructure integration Support for Productive Collaborations
- Technology Supported Education Smart city for Special Needs

- Smart economy development Smart environment and policy development
- Artificial and Computational Intelligence Citizen engagement and smart governance
- Digital city and smart growth
- Environmental capital reduction
- Multimodal Human-Computer Interaction
- Reliability, Privacy and Trust Internet of Things, Ubiquitous and Pervasive Computing
- Virtual, Mixed and Augmented Reality Intelligent infrastructure

- Pedestrian and bicyclist safety; mobility systems Smart city theory, modeling and simulation
- Technology, Methodologies and Tools

### Track 2: Circuits, Systems and Signal Processing

- Context awareness and situation awareness
- Image/video processing and computer/robot vision Internet of things, Ambient intelligence and pervasive computing Augmented reality and human-computer interaction
- Motion detection and activity recognition User modeling and personalization
- Robotics for e-Health
- Computing/storage infrastructures for e-Health such as clouds and virtualization
- Software, systems and performance engineering for e-Health Applications for the Internet of Things
- Novel quality requirements and their enforcement mechanisms Cloud back-ends and resource management for IoT applications
- Reliability, security, timeliness, and robustness considerations in IoT systems
- IoT-motivated cyber-physical, Industrial Internet, and/or embedded system challenges
- Social computing and human-in-the-loop issues Sensing, control, and actuation in IoT architectures
- Novel protocols and network abstraction Energy Efficiency
- Smart Farming Services and Applications
- Systems and Infrastructures

#### **Track 3: Transportation Technologies and Applications**

- Smart health and emergency management
- Smart manufacturing and logistics Smart mobility and transportation
- Novel Urban Mobility
- Autonomous driving
- Shared mobility (e.g. sharing bicycles, car sharing; ride pooling, shared commuting, park sharing/renting, boat sharing)
  MaaS (Mobility as a Service)
- EVs, hybrid, hydrogen vehicles mobility Other new forms of mobility.

- Location, Transport and Land-use Location and individual accessibility
- Spatial-temporal theory and technology Transport oriented development (TOD)
- Land use and high-speed rail Urban and transport planning
- Transportation and land use systems in growing and shrinking

#### **Track 4: Urban Development**

- Urban Logistics Innovations
- Infrastructures (such as urban consolidation centers, loading
- Regulations and governance (such as low emission zones, subsidies
- and allowances for night deliveries, congestion charge etc.)
  Technology (for example, intelligent transport systems, big data analysis)
- Management (e.g.collaborative freight delivery, crowd-sourced deliveries)
  - Urban strategies
  - Planning, development and management
- Urban metabolism Quality of life
- The community and the city
- Infrastructure and society The S3 city: smart, sustainable and safe
- Eco-town planning
- Spatial conflicts in the city
- Urban transportation and planning
- Architectural issues
- Sustainable energy and the city Cultural heritage sites
- Urban conservation and regeneration Landscape planning and design Environmental management and flood risk Waste management

- Urban air pollution Urbanization of rural areas
- Urban agriculture

### **Paper Submission**

All submitted papers must be original contributions that neither have been submitted to any other conference or journal, nor will be submitted to any other conference or journal during the review process. Accepted and presented papers will be published in the STUD 2019 Conference Proceedings and submitted to IEEE Xplore. The first page should include the paper title, the names and the complete mailing addresses of all authors, and the e-mail address of the corresponding author. Each paper should consist of up to 200-word abstract, up to 5 keywords. No page number should be printed. All the text, figures and reference must be between 4-6 double-column A4 pages with font size of 10 pts. Authors MUST use IEEE manuscript submission guidelines for their initial submissions. All papers must be submitted electronically in PDF format only, using the conference management tool. The submitted papers must not be published or under consideration to be published elsewhere. Short papers and poster papers will be published in a proceedings and will be invited to JIIST journal (jiist.aiat.in.th).

# **Special Issue**

A number of selected papers will be considered to publish in a special issue of a journal with impact factor.

### More Information

Any question can be sent to process, e-mail: admin@aiat.or.th and ohideshi@gmail.com

### **Publication Co-Chair**

Nongnuch Ketui (Rajamagala University of Technology Lanna, Nan)

## **Secretary General**

Choermath Hongakkaraphan (SIIT, TU, Thailand) Chutima Beokhaimook (Rangsit University, Thailand)