

# 2017 TRON Symposium (TRONSHOW)

## Call for Papers

DATE 13th-14th December 2017

(TRONSHOW EXHIBITION 13th-15th)

VENUE Tokyo Midtown, Akasaka, Minato, Tokyo



### Organized and Sponsored by

TRON Forum <http://www.tron.org/>

(T-Engine Forum that has supported TRON Project has changed its name to TRON Forum as of 1st April, 2015.)

Institute of Infrastructure Application of Ubiquitous Computing (IAUC), Interfaculty Initiative in Information Studies, The University of Tokyo  
<http://www.ubinsoc.org/>

### Technical Co-sponsorship:

IEEE Consumer Electronic Society (CES)  
<http://cesoc.ieee.org/>

### Organization

#### TRON Symposium Technical Program Committee

Chair Ken Sakamura  
Chair of TRON Forum  
Professor of The University of Tokyo

#### Symposium Publicity

Chair Chiaki Ishikawa  
YRP Ubiquitous Networking Laboratory

#### Symposium Registration

Chair Noboru Koshizuka  
Professor of The University of Tokyo

#### Symposium Publication

Chair Toshihisa Muto  
Personal Media Corporation

### Important Dates:

#### DEADLINES EXTENDED

**Jul. 19, 2017:**

Panel Discussion Proposal deadline

**Aug.:** Registration starts

**Sep-6: Oct. 4**

Final paper submission deadline

**Oct-5: Nov. 2**

Notification of acceptance

**Nov-8: Nov. 24**

Final version deadline (for accepted papers)

Author's registration deadline

**Dec. 11:** Registration closes

**We are pleased to announce 2017 TRON Symposium, the 33rd TRON Project Symposium to be held on 13th-14th of December 2017, in Tokyo, Japan. The Symposium, with technical co-sponsorship of IEEE Consumer Electronics Society, will feature presentation sessions of papers, poster sessions, panel discussions, tutorial sessions and an accompanying exhibition, TRONSHOW (13th-15th December.)**

### Submission of Papers

Accepted and presented full papers to the FULL track will be submitted to IEEE for inclusion in IEEE Xplore® online publication database. Prospective authors in the embedded systems industry and the emerging field of the IoT are encouraged to submit full papers or extended abstract for presentation. Only original papers that have not been published or submitted for publication elsewhere will be considered.

Papers presented at the Symposium should be full papers or extended abstract, in English of maximum 9 pages including figures and pictures, using the supplied template. The minimum length is 2 pages for an extended abstract from busy practitioners. See "Topics of Interest" at the end of this call for relevant topics that are of interest to the Symposium per se, and the visitors to the accompanying exhibition.

**We are using EDAS now!**

### Abstract

Those wishing to submit papers or extended abstract should first register your paper with an abstract (up to approximately 300 words) into EDAS with the provisional title: <https://edas.info/N23233>

**This step must be finished BEFORE the submission of the final draft.** But please see the symposium web page for the importance of the screening of topics in advance to save the time of authors and reviewers.

### Full Paper / Extended Abstract

The authors then should submit the final draft by 6th September to EDAS in Portable Document Format (PDF). Notification of acceptance for presentation will be sent by 5th October. For papers that are accepted for presentation, the final version is to be submitted by 8th November to IEEE PDF eXpress plus website. An author must be at the TRON Symposium to present the paper. (See the author's guideline posted at the Symposium website and web pages for details).

### Topics of Interest

Broadly speaking there are two categories. One is embedded systems and the other is the IoT (or Ubiquitous Computing) application and services. The boundary of these categories have become blurred thanks to the real-world services applications of the IoT. Topics of the symposium include the following, but not limited to: (continued on the next page.)

## Topics of Interest

### Embedded Systems:

Home electronic appliances  
 Smart Houses, Smart Buildings, and Smart Cities  
 Intelligent Mobility (automotive, construction machinery)  
 Power-aware computing and energy harvesting  
 Smart-grid application  
 Intra-system and inter-systems electromagnetic compatibility  
 Human Machine Interface for embedded systems  
 Security of embedded devices  
 Functional safety, fault tolerance  
 Real-time OS development and application  
 Embedded systems software and optimization  
 Hardware/Software co-design of embedded systems

Embedded systems design automation  
 ASICs and FPGAs  
 System/Network-on-chip  
 The use and development of RTOS and the middleware  
 Comparative study of RTOSs including TRON RTOS Family  
 Theory and practice of embedded systems education/training

### IoT

USN (Ubiquitous Sensor Network)  
 M2M communications  
 Cyber Physical Systems (CPS)  
 Computer-Augmented Environment  
 IoT architectures  
 IoT infrastructures  
 IoT applications and IoT services  
 IoT architectures and application frameworks (uID architecture, SmartM3, etc.)

Implementation of servers for uID Architecture (1.0, 2.0), ucode, etc.  
 RFID tags, ucode tags, etc.  
 Location-based Information Systems  
 Theory and practice of building real-world IoT application systems  
 Cloud computing  
 Open Data, Big Data processing for the IoT  
 IoT security  
 Aggregate Computing

### General

Assistive technology (such as Enableware)  
 Impact of technology on society  
 Security and privacy  
 Standardization efforts, regulatory aspects and governance of the IoT

**Technical Program Committee:** tpc@tron.org

**Chair:** Dr. Ken Sakamura, Professor of the University of Tokyo, Chair of TRON Forum

### Vice Chairs:

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 Director, Strategic Networks and Operations,  
 VTT Technical Research Centre of Finland

Dr. Tomohiro Hase,  
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### About TRON Project and TRON Symposium:

TRON Project was established in 1984. It aims to build the open architecture of advanced embedded systems. It has developed very popular TRON real-time OS (RTOS) family: ITRON specification, and T-Kernel, for example. TRON Project's original goal included the vision of "Computer Everywhere" is basically the same as ubiquitous computing or the IoT (the Internet of Things). See <http://www.tron.org/> for the detailed background on TRON Project.

To disseminate the result of the project and foster communication of interested parties, TRON Project has held the annual TRON Symposium since 1986. TRON Symposium is the place to discuss the applications and services of the IoT in the future such as the home electronic appliances, homes, buildings and cities of the future, and to discuss the nuts and bolts of embedded systems such as RTOS kernel, the implementation issues such as interaction of the IoT paradigm and Cloud. We welcome discussions of the impact of technology on society.