

**Fourth ACM/IEEE International Conference on Internet of Things Design and Implementation (IoTDI)**  
**April 15-18, 2019 --- Montreal, Canada**  
**Call for Papers**

<http://conferences.computer.org/iotdi/2019/>

The ACM/IEEE International Conference on Internet of Things Design and Implementation (IoTDI) is a premier venue on IoT. To reflect the interconnection of IoT with both cloud computing and cyber-physical systems, IoTDI is co-located in even years with IEEE IC2E and in odd years with CPSWEEK. In 2019, IoTDI will be held for the fourth time, and will be part of CPSWEEK 2019.

A confluence of technological advances marks the advent of a new era. World data volume is growing at an unprecedented pace, much of it from embedded devices. Smart cities are expected to grow, fed by millions of data points from multitudes of human and physical sources. Cyber-attacks grow more nefarious, bringing down physical systems. Social networks are becoming ubiquitous, offering information on physical things. The separation between cyber, physical, and social systems is blurring. Collectively, these developments lead to the emergence of a new field, where the networking and physical realms meet. It is the field of the Internet of Things (IoT). This conference is an interdisciplinary forum to discuss challenges, technologies, and emerging directions in system design and implementation that pertain to IoT. This conference invites researchers and practitioners from academia, industry and government, and accepts original, previously unpublished work on a range of topics related to IoT.

Topics of interest include, but are not limited to:

- Analytic foundations and theory of IoT
- Reliability, security, timeliness, and robustness in IoT systems
- Novel protocols and network abstractions
- Data streaming architectures and machine learning analytics for IoT
- IoT-motivated cyber-physical and Industrial IoT (IIoT) systems
- Novel quality requirements and their enforcement mechanisms
- Cloud back-ends and resource management for IoT applications
- Edge and fog computing
- Personal, wearable, and other embedded networked front-ends
- Social computing and human-in-the-loop issues
- Applications domains (e.g., smart cities, smart health, smart buildings, smart transportation)
- Deployment experiences, case studies & lessons learned
- Evaluation and testbeds

Accepted papers of particular merit will be invited to submit an extended version to *ACM Transactions on the Internet of Things (TIOT)*.

**Joint statement from the IPSN and IoTDI Program Chairs**

IPSN and IoTDI are collaborating to create new synergies, and also exploiting their CPSWEEK bi-annual co-location. Prospective authors are thus strongly encouraged to consider these guidelines when submitting papers:

- Contributions of an embedded nature and applying to network segments from the IoT gateway to field devices should be submitted to IPSN. Examples include localization, low-power wireless networking, and embedded data processing.
- Contributions with an end-to-end perspective or applying to network segments from the IoT gateway to the cloud should be submitted to IoTDI. Examples include cloud data processing, edge computing, and systems covering multiple network segments.

The TPC chairs of both conferences may agree to move a submitted paper from one to the other if they see a better fit, subject to the authors' consent. The final decision about where to submit, and therefore what program committee will review the work, ultimately rests with the authors.

**Important Dates**

Abstract registration: October 5, 2018 (firm deadline)  
Paper submission: October 12, 2018 (firm deadline)  
Author rebuttal due: December 10, 2018  
Notification deadline: January 15, 2019  
Camera-ready submission: February 15, 2019

**General Chairs**

Klara Nahrstedt, University of Illinois at Urbana-Champaign, USA  
Olaf Landsiedel, Chalmers University, Sweden

**Program Chairs**

Gian Pietro Picco, University of Trento, Italy  
Prashant Shenoy, University of Massachusetts at Amherst, USA