ISORC 2018
NTU, SINGAPORE

IEEE 21st International Symposium on Real-Time Distributed Computing
29-31 May, 2018

Call for papers

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2018 IEEE ISORC:

ISORC has become established as the leading event devoted to state-of-the-art research in the field of object/component/service-oriented real-time distributed computing (ORC) technology. The conference theme for 2018 will be **decentralized time-sensitive computing and enabling software infrastructures**. This theme will focus on both: Cloud infrastructures and platforms for time-sensitive computation and real-time computing. Algorithms and Computational Infrastructure to support complex social cyber-physical systems combining edge, fog, and cloud.

The topics include, but are not limited to:

- Programming and system engineering: real-time programming challenges, ORC paradigms, object/component models, languages, synchronous languages.
- Embedded distribution middleware such as .NET, RT RMI, RT Java, UML, model-maintenance, system of systems, time-predictable systems and hardware.
- Distributed computing and communication infrastructures: real-time communication, networked platforms, protocols, Internet QoS, peer-to-peer computing, sensor networks, VANETS and V2V and V2I communication, trusted and dependable systems.
- Algorithms for Real Time Analytics: clustering and classification approaches, stream processing algorithms, real time decision tree generation and update, real time machine learning, statistical approaches. Approaches related to stream correlation and sampling.
- System software: real-time kernels and OS, middleware support for ORC, QoS management, extensibility, synchronization, resource allocation, scheduling, fault tolerance, security.
- Real-time algorithms and infrastructure support for decentralized architectures including distributed ledgers with a focus on scalability and resilience.
- Applications: Medical devices, intelligent transportation systems, Industrial automation systems and Industry 4.0, Internet of Things and Smart Grids, Embedded systems (automotive, avionics, consumer electronics, building systems, sensors, etc), multimedia processing, RT Web-based applications.
- System evaluation: performance analysis, monitoring & timing, dependability, end-to-end QoS, overhead, fault detection and recovery time.
- Cyber-physical and Cyber-social systems (e.g. social media analytics)

Important dates:

Submission deadline:
February 2, 2018

Acceptance notification:
March 16, 2018

Camera-ready papers:
March 31, 2018

Request for more information
https://cps-research-group.github.io/ISORC2018/
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