



# IEEE ISORC 2019

Valencia, Spain May 7-9, 2019

The 22<sup>nd</sup> IEEE International Symposium  
on Real-Time Distributed Computing

**CALL FOR PAPERS**

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## IEEE ISORC 2019

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. In addition to the main conference, for the first time, ISORC 2019 will organize a special session dedicated to posters and demos, where the objective is to allow participants to show prototypes, tools, simulators and systems, which demonstrate the applicability of real-time computing to different applications. Best papers from ISORC 2019 will be invited for submission to a Special Issue of Journal of Systems Architecture. More information including submission guideline can be found at: <https://isorc2019.github.io/>.

Accepted papers will be invited to submit an extended version to a special issue of the Elsevier Journal of Systems Architecture (JSA).

## 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, 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; stream correlation and sampling approaches.
- System software: real-time kernel/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).
- Time-sensitive social dispersed computing.

## Important dates

### Main Track

Submission deadline

January 15, 2019

Acceptance notification

March 1, 2019

Camera-ready papers

March 8, 2019

### Poster/Demo Session

Submission deadline

March 7, 2019

Acceptance notification

March 21, 2019

Camera-ready papers

March 28, 2019