RTCSA 2021
The 27th IEEE International Conference on Embedded and Real-Time Computing Systems and Applications
Call-for-Papers

Location: Online Virtual Conference

Date: Aug 18-20, 2021

Important Dates:

- Paper Abstract Submission Deadline (not obligatory): Wednesday April 7th, 2021, 23:59 UTC-12 (Abstract submission is not required for full paper submission.)
- Paper Submission Deadline: Wednesday April 28th, 2021, 23:59 UTC-12
- Acceptance Notification: Tuesday May 25th, 2021, 23:59 UTC-12
- Camera-Ready Submission Deadline: June 16, 2021
- Conference Date: Aug 18-20, 2021

The RTCSA conference series (now at its 27th edition) brings together researchers and developers from academia and industry for advancing the technology and the theory to design and develop time-sensitive applications. All traditional applications in which temporal aspects need to be considered are in the scope of the conference. CPS, (Industrial) IoT, embedded systems, fog/edge/cloud computing are just notable examples. RTCSA welcomes both research and industrial papers that describe research or technical aspects in the area of embedded and real-time systems. Proceedings will be published by the IEEE Computer Society on IEEExplore and will be indexed by most search engines including Scopus, Web of Science, DBLP.

Submission of a paper should be regarded as a commitment that, should the paper be accepted, at least one of the authors will register and attend the conference to present the work. RTCSA 2021 reserves the right to exclude a paper from distribution after the conference (e.g., removal from the digital library and indexing services), if the paper is not presented at the conference.

Topic of Interest

The 27th edition of RTCSA will bring together researchers and developers from academia and industry to promote cross-fertilization and discuss advances and trends in the technology of embedded and real-time systems and their emerging applications, including the Internet of Things and Cyber-Physical Systems. RTCSA 2021 seeks papers that describe original research in the following areas, but are not limited to:

REAL-TIME SYSTEMS TRACK

- Real-Time Scheduling
- Workload models for real-time systems
- Temperature/Energy-aware Scheduling

- Scheduling over heterogeneous architectures
- Scheduling over distributed architectures
- Timing Analysis
- Formal methods for temporal guarantees
- Programming Languages and Run-Time Systems
- Middleware Systems
- Communication Networks and Protocols of Real-Time Systems
- Time-Sensitive Media Processing and Transmissions
- Latency and throughput in Real-Time Databases

IoT, CPS, AND EMERGING APPLICATIONS TRACK

- Systems, Technology and Foundations of IoT and CPS
- Applications and Case Studies of IoT and CPS
- Smart and Connected Health
- Industrial Internet and Industry 4.0
- Smart City Technology and Applications
- Smart Transportation and Infrastructure
- Cyber-Physical Co-Design
- Medical CPS
- Cloud, Middleware and Networks for IoT and CPS
- Wireless Sensor-Actuator Networks for IoT and CPS

EMBEDDED SYSTEMS TRACK

- Multi-Core Embedded Systems
- Operating Systems
- Non-Volatile Memory and Storage
- Power/Thermal Aware Design
- Fault Tolerance and Security
- Sensor-based Systems and Applications
- Reconfigurable Computing Architectures and Software Support
- Ubiquitous and Distributed Embedded Systems and Networks
- Embedded Systems for Machine-Learning

Keynote Speakers

- *Why is it so hard to make self-driving cars? (Trustworthy autonomous systems)*, Joseph Sifakis, ACM A. M. Turing Award recipient, Verimag Laboratory.
- *Determinism in Time-Sensitive Cyber-Physical Systems*, Edward A. Lee, Distinguished Professor, University of California at Berkeley.

Submission Guidelines

Both research and industry papers are solicited. The submitted manuscript must describe original work not previously published and not concurrently submitted elsewhere. We welcome high quality papers, adhering to the following two formats:

- Full Paper format: paper must fit within 10 pages
- Short Paper format: paper must fit within 6 pages

Both types of submission must be formatted according to the [IEEE conference proceedings](#) format (two-columns, single-space, 10pt) and must include references and acknowledgements within the page limit. The prospective authors should submit their papers through the submission web page at https://easychair.org/conferences/?conf=rtcsa2021.

In some cases, the Program Committee may decide to accept a full paper submission as a short paper, in which case, the authors will be required to reduce its length for the final version. Conference content will be published by the IEEE Computer Society on [IEEExplore](#) and will be indexed by most search engines including [Scopus](#), [Web of Science](#), [DBLP](#).

By submitting a paper, authors implicitly agree that at least one author will register at full registration rate to the conference and present the paper (in person or via a teleconferencing system).

COVID-19

The diffusion of COVID-19 ("coronavirus") is constantly monitored by the conference organizers. Since safety of participants is of paramount importance to the organizers, would the infection pose a threat to participants according to the [World Health Organization](#) (WHO), we will allow speakers the remote presentation via a video-conferencing system.