The 29th International Conference on Real-Time Networks and Systems

CALL FOR PAPERS

RTNS 2021

April 7-9, 2021   Nantes, France

RTNS'2021

The 29th International Conference on Real-Time Networks and Systems will take place in Nantes from 7 April to 9 April 2021.

RTNS is a friendly and inclusive conference with a great sense of community that presents excellent opportunities for collaboration. The current plan is for the conference to be delivered in a hybrid manner, with a mix of physical (at the University of Nantes, France) and virtual presentations, however due to COVID-19 the conference may have to move to fully virtual.

Original unpublished papers on all aspects of real-time systems and networks are welcome. For this year, RTNS particularly welcomes position papers and papers defining open challenges.

RTNS'2021 is the 29th edition of the conference formerly known as RTS (Real-Time Systems, Paris). The first 12 editions of RTS were french-speaking events held in Paris in conjunction with the RTS Embedded System exhibition. Since its 13th edition, the conference language of RTNS has been English.

Organizer

General Chair:
Audrey Queudet, University of Nantes, France

PC co-chairs:
Iain Bate, University of York, UK
Giuseppe Lipari, University of Lille, France

Publicity chair:
Xiaotian Dai, University of York, UK

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Joël Goossens, Université Libre de Bruxelles, Belgium
Isabelle Puaut, IRISA, Université de Rennes I, France
Emmanuel Grolleau, LIAS, ISAE-ENSMA, France

Conference Topics

• Real-time applications design and evaluation: automotive, avionics, space, railways, telecommunications, process control, multimedia.

• Real-time aspects of emerging smart systems: cyber-physical systems and emerging applications, real-time big data, real-time edge/fog and cloud computing, smart grid.

• Real-time system design and analysis: real-time tasks modeling, task/message scheduling, evaluation, mixed-criticality systems, Worst-Case Execution Time (WCET) analysis, quality of service, security.

• Software technologies for real-time systems: model-driven engineering, programming languages, compilers, WCET-aware compilation and parallelization strategies, middleware, Real-time Operating Systems (RTOS), virtualization, hypervisors.

• Formal specification and verification: application of formal models, such as model checking, satisfiability modulo theories or constraint programming, to solve real-time problems.

• Real-time distributed systems: fault tolerance, time synchronization, task/messages allocation, adaptability and reconfiguration, publisher/subscriber protocols, distributed real-time database

• Real-time networks: Networks on Chip (NoC), wired and wireless sensor and actuator networks, Time-Sensitive Networks (TSN), industrial IoT, SDN, 5G, end-to-end latency analysis.

• Hardware support for real-time systems: hardware/software co-design, power/temperature-aware techniques, design of predictable hardware, multi-core and many-core platforms, hardware accelerators, cache related issues, interconnect and memory.

Important Dates

• Conference: April 7-9, 2021
• Paper submission deadline: November 27, 2020
• Notification of acceptance: January, 18, 2021
• Camera-ready papers submission: February, 15, 2021

JRWRTC Workshop

The 15th Junior Researcher Workshop on Real-Time Computing (JRWRTC) is organized jointly with RTNS. Details to be confirmed.