26ᵗʰ International Conference on Real-Time Networks and Systems RTNS'2018

October 10-12, 2018   https://rtns2018.ensma.fr   Poitiers, Futuroscope, France

RTNS

2018

❖ Scope and Background

RTNS is a friendly and inclusive conference with a great sense of community that presents excellent opportunities for collaboration. Original unpublished papers on all aspects of real-time systems and networks are welcome. RTNS covers a wide-spectrum of topics in real-time and embedded systems, including, but not limited to:

- **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.
- **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), 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), Time-Sensitive Networks (TSN), end-to-end latency analysis, wired and wireless communication networks, fieldbuses, networked control systems, sensor networks.
- **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.

The 12th Junior Researcher Workshop on Real-Time Computing (JWRTC) is organized jointly with RTNS.

❖ Submission and Evaluation Process

Authors are invited to submit English-language research and application papers representing original, previously unpublished work. Duplicate submissions are not allowed. Papers must be submitted as a single PDF document, via the Easychair system (URL will be specified on the website). Submissions are limited to **maximum 10 pages for technical content and up to two for bibliography and acknowledgments** in a font no smaller than 10 points and must conform to ACM Latex style. Submitted papers will be carefully evaluated based on originality, significance, technical soundness, and clarity of exposition. All accepted papers will be published in ACM ICPS (approval pending). Each accepted paper must be presented at the conference by one of the authors. A selection of the best papers will be identified as outstanding papers; it is planned that the authors of these papers will be invited to submit extended versions to a **special issue** of the Springer Real-Time Systems journal.

❖ Conference Organization

General Chairs	Program Committee Chairs
• Emmanuel Grolleau, ISAE-ENSMA, France • Yassine Ouhammou, ISAE-ENSMA, France • Frédéric Ridouard, University of Poitiers, France	• Mathieu Jan, CEA LIST, France • Moris Behnam, Mälardalen University, Sweden

Steering Committee		Important Dates
• Sanjoy Baruah • Liliana Cucu-Grosjean • Rob Davis • Sébastien Faucou • Laurent George	• Joël Goossens (chair) • Isabelle Puaut • Emmanuel Grolleau • Jean-Luc Scharbarg	▪ Submission deadline (firm): 26 June 2018 **(23:59 UTC-12)** ▪ Notification of acceptance: 3 August 2018 ▪ Camera-ready papers: 7 September 2018

❖ Conference Venue

The conference will be held in ENSMA (*Ecole Nationale Supérieure de Mécanique et d'Aérotechnique*). It is located beside the Futuroscope, which is a French theme park focused on multimedia and audio-visual techniques, and 10 kilometers north of the Poitiers city center which has been a Gallo-Roman provincial capital with an outstanding architectural heritage.