Call FOR Papers

RTAS is a top-tier conference with a focus on systems research related to embedded systems and time-sensitive systems. RTAS’21 invites papers describing original systems, applications, case studies, methodologies, and algorithms that contribute to the state of practice in design, implementation, verification, and validation of embedded systems or time-sensitive systems. RTAS’21 welcomes both papers backed by formal proofs as well as papers that focus exclusively on empirical validation of timing requirements. RTAS’21 consists of two tracks:

Track 1: Systems, Architecture and Applications

focuses on research of an empirical nature pertaining to systems, architecture and applications for time-sensitive or embedded systems. Track 1 also welcomes applied systems papers that focus on practical issues other than timing. Topics include, but not limited to:
• real-time and embedded operating systems,
• middleware and runtime systems for real-time and embedded systems,
• CPS and IoT infrastructure,
• hardware architectures for real-time/embedded systems, and
• WCET analysis and WCET-oriented software design.

Authors must include a section with experiments on a real implementation, or demonstrate applicability to realistic systems. Simulation-based results are acceptable if authors can clearly motivate why it is infeasible to develop and evaluate a real system.

Track 2: Applied Methodologies and Foundations

focuses on fundamental models, techniques, methods, and analyses that are applicable to time-sensitive systems. Submissions to this track must consider some form of timing requirements. Topics include, but not limited to:
• scheduling and resource allocation,
• specification languages and tools,
• system-level optimization and co-design techniques,
• design space exploration, and
• verification and validation methodologies.

Authors must include a section on experimental results, preferably including a case study based on information from a real system. The use of synthetic workloads and models is acceptable if appropriately motivated and used to provide a systematic evaluation.

Submission Guidelines

Submitted papers must describe original work not previously published or concurrently submitted elsewhere. RTAS 2021 is using a double-blind peer-reviewing process. The main body of each paper is limited to 11 pages of technical content, with additional pages permitted for the bibliography and acknowledgments only and an optional appendix of at most 2 pages. Submissions must be formatted according to IEEE conference paper guidelines (10pt font, default margins, default line-spacing). A submission based on previous work presented in a workshop with no digital object identifier (DOI) is eligible for acceptance; provided it contains at least 30% new material. The peer-review process at RTAS incorporates a rebuttal process. Submissions can be made here: https://rtas2021.hotcrp.com/