



CRTS 2014

Co-located with IEEE Real-Time Systems Symposium (RTSS 2014)
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Call for Papers

7th International Workshop on Compositional Theory and Technology for Real-Time Embedded Systems (CRTS 2014)

Background: The increasing complexity of real-time embedded systems requires advanced platforms and methodologies that can reduce the cost of their design and analysis, while ensuring that requirements on functional correctness, real-time behavior, and performance are met. Compositional theories and technologies facilitate the decomposition of a complex system into components, as well as their integration via interfaces. Component interfaces hide the internal details of the components, thereby reducing integration complexity. A system is said to be composable if the properties established and validated for components in isolation hold once the components are integrated to form the system.

Topics include, but are not limited to:

- *Composition of single processor, multiprocessor, and distributed systems*
- *Composition of multi-criticality and multi-mode systems*
- *Composition of policies, services, and system layers*
- *Composition of validation and verification techniques*
- *Composition of real-time networks*
- *Component-based design and analysis*
- *Interface models, interface theories, and integration techniques for real-time components*
- *Compositional schedulability analysis, execution time analysis, and performance analysis*
- *Compositional formal methods, including real-time calculus*
- *Compositional theories for virtualization*
- *Hardware/software architectures for composable systems*
- *Trade-offs between optimality, associativity, and complexity in compositional theory*
- *Practical issues in composition including performance penalties and overheads*
- *Experimental and implementation frameworks for compositional theory*
- *Decomposition of requirements for component-based development*
- *Policing of non-CPU resources (e.g. resources in the memory system)*

CRTS invites papers that describe state-of-the-art research, present work-in-progress, or suggest open problems covering one or more of the topics of interest to the workshop. Submissions should not exceed 8 pages in two-column, single-space, 10pt format. Check the ACM SIG proceedings templates and ACM SIGBED Review submission guidelines.

By submitting a paper, the authors agree and confirm that: neither this paper nor a version close to it is under submission or will be submitted elsewhere before notification by CRTS 2014, and if accepted, at least one author will register for the CRTS 2014 workshop by the special registration deadline set in the notification of acceptance, and present the paper at the workshop in person. Please note that papers that do not fall within the scope of the workshop will not be accepted. Submissions will be refereed for quality and relevance. Submissions exceeding the page limit may be rejected without review.

All accepted papers will appear in a special issue of ACM SIGBED Review (tentative schedule is Spring 2015). By submitting to the workshop, the authors are granting permission for ACM to publish the paper in print and digital formats for the newsletter and the ACM Digital Library. Authors retain copyright.

Important dates:

Deadline for paper submissions (extended)	October 6 th , 2014
Notification of acceptance	October 27 th , 2014
Camera-ready version	November 3 rd , 2014
CRTS Workshop	December 2 nd , 2014

FURTHER INFORMATION: <http://rtcl.skku.edu/crts2014>