

Call for Paper -- The 33rd ACM Symposium on Applied Computing - Cyber-Physical Systems Track, Pau, France April 9 - 13, 2018

Background: Cyber-Physical Systems (CPS) are next-generation embedded systems featuring a tight integration of computational and physical elements. The ability to interact with, and expand the capabilities of, the physical world through computation, communication, and control is a key enabler for future technology developments. The CPS foundations (CPSF) area focuses on core science and technology for developing fundamental principles that underpin the integration of cyber and physical elements. Application domains include transportation, energy, water, agriculture, ecology, supply-chains, medical and assistive technology, sensor and social networks, and robotics. Among the relevant research areas are security, control, optimization, machine learning, game theory, mechanism design, mobile and cloud computing, model-based design, verification, data mining / analytics, signal processing, and human-in-the-loop shared or supervisory control.

Aim: The aim of the track is to bring together researchers and practitioners from industry and academia and provide them with a platform to report on recent developments, deployments, technology trends and research results, as well as initiatives related to embedded systems and their applications in a variety of industrial environments.

Topics include, but are not limited to:

Cyber-physical system application: Cyber-physical system for communication; cyber-physical system for energy; cyber-physical system for infrastructure; cyber-physical system for health care; cyber-physical system for manufacturing; cyber-physical system for military; cyber-physical system for robotics; cyber-physical system for transportation.

Cyber-physical system security: Networking and distribution of cyber-physical system; adaptation and prediction of of cyber-physical system; intelligence of of cyber-physical system; time domain of cyber-physical system.

Cyber-physical system feedback: Resilience of cyber-physical system; privacy of cyber-physical system; intrusion detection of cyber-physical system.

Submission of Papers: Manuscripts must be submitted electronically in PDF format, according to the instructions contained in the main Conference web site. Please anonymize the paper submitted for review. The paper length is 8 pages, with the option to add 2 additional pages at extra charge (80 USD per page), up to a maximum of 10 pages. The poster length is 3 pages, with the option to add 1 additional page at extra charge (80 USD per page), up to a maximum of 4 pages Contributions must contain original unpublished work. Papers that have been concurrently submitted to other conferences or journals (double submissions) will be automatically rejected. Each paper will be double-blindly reviewed by the technical program committee.

Paper Acceptance: Paper registration is required, allowing the inclusion of the paper/poster in the conference proceedings. An author or a proxy attending SAC MUST present the paper: This

is a requirement for the paper/poster to be included in the ACM/IEEE digital library. No-show of scheduled papers and posters will result in excluding them from the ACM/IEEE digital library.

Student Research Competition at ACM SAC

Graduate students seeking feedback from the scientific community on their research ideas are invited to submit abstracts of their original unpublished and in-progress research work in areas of experimental computing and application development related to SAC 2018 Tracks. The Student Research Competition (SRC) program is designed to provide graduate students the opportunity to meet and exchange ideas with researcher and practitioners in their areas of interest.

All research abstract submissions will be reviewed by researchers and practitioners with expertise in the track focus area to which they are submitted. Authors of selected abstracts will have the opportunity to give poster presentations of their work and compete for three top winning places. The SRC committee will evaluate and select First, Second, and Third place winners. The winners will receive cash awards and SIGAPP recognition certificates during the conference banquet dinner. Authors of selected abstracts are eligible to apply to the SIGAPP Student Travel Award program for support.

Submission - Graduate students are invited to submit abstracts (minimum of two pages; maximum of four pages) of their original unpublished and in-progress research work following the instructions published at SAC 2018 web-site. The submissions must address research work related to a SAC track, with emphasis on the innovation behind the research idea, including the problem being investigated, the proposed approach and research methodology, and sample preliminary results of the work. In addition, the abstract should reflect on the originality of the work, innovation of the approach, and applicability of anticipated results to real-world problems.

Please note SRCs and regular papers must be submitted at different pages of the START web system. Submitting the same abstract to multiple tracks is not allowed. It is recommended to refer to the official SRC Information Sheet for further details.

For regular papers <https://www.softconf.com/i/sac2018/>

For SRC papers <https://www.softconf.com/i/sac-src2018/>

Important Dates

Submission deadline:	September 25, 2017
Notification of acceptance:	November 10, 2017
Deadline for final manuscript:	November 25, 2017