



Call for Papers: ICNC International Workshop on Cyber-Physical System (CPS) and its Computing and Networking Design

28-31 January, San Diego, USA

In recent years, cyber-physical system (CPS) has become one of the hottest research topics in both computing and engineering disciplines. *CPS is a very important application of CNC (Computing, Networking and Communications)*. For example, we can use implanted pacemakers to sense abnormal heart beats and launch electrical pulses to stimulate the heart if necessary. In CPS, the "cyber objects" (such as sensors, actuators, etc.) can both sense and actuate the "physical object". This is different from general sensor networking systems that typically have only sensing functionalities without the capability of actuating the physical world.

A few decades ago, the invention of Internet started to transform the way people interact with information. Today, CPS is transforming the way we interact with surrounding physical systems. This is due to the following CPS features: (1) the computing capability could exist in each physical component to achieve comprehensive sensing or control; (2) the networking capability could exist in multiple and extreme scales. This ranges from nano-communications to large-scale networks; (3) the automation and control loops could be applied to each physical sub-system.

This one-day workshop, co-located with ICNC 2013, brings the researchers together to exchange ideas on CPS advanced computing and networking design. It emphasizes the applications of accurate computing models and communication technologies for cyber-physical system design such as biomedical systems, structure health monitoring, smart grid, robots, GENI, and other systems with tight cyber and physical coupling. The authors should follow the general ICNC paper format guideline (see: <http://www.conf-icnc.org/2013/>) to submit a paper to this workshop.

Topics of interest include (but are not limited to) the following:

- Computing, networking and control theoretic foundations of CPS
- CPS Modeling, Analysis, and Synthesis Techniques
- Network Architectures for Cyber-Physical Systems
- Hardware /Software Building blocks for Cyber-Physical Systems
- CPS Systems Abstractions, Services and OS Support
- CPS Evaluation approaches and metrics
- Novel CPS applications and Detailed CPS Case Studies
- CPS Security and Privacy Issues

This workshop's co-chairs: (1) Dr. Fei Hu (E-mail: fei@eng.ua.edu), Department of Electrical and Computer Engineering, The University of Alabama, Tuscaloosa, Alabama, USA. (2) Dr. Sunil Kumar (E-mail: skumar@mail.sdsu.edu), Department of Electrical and Computer Engineering, San Diego State University, Dan Diego, CA, USA. The submission link is (make sure to have your EDAS username / password ready): <http://edas.info/N12927> .

Important Dates:

Workshop Paper Submission	August 20, 2012
Workshop Paper Acceptance	Sep. 30, 2012
Workshop Camera-Ready Paper:	Oct. 20, 2012
Paper Presentation & Posters:	Jan. 30, 2013