

Trans. of the Inst. of Measurement and Control
Special Issue on
Control and Automation in Cyber Physical Systems

Guest Editors

Lianqing LIU, Shenyang Inst. of Automation, Chinese Academy of Sciences, China
Hiroyasu IWATA, Waseda University, Japan

Submission deadline for review: Feb 15, 2011

We welcome contributions to the *Special Issue on Control and Automation in Cyber Physical Systems* of the *Transactions of the Institute of Measurement and Control (TIMC)*. This special issue will only include selected accepted papers (with substantial modifications) from the **IEEE-CYBER 2011 conference** (www.ieee-cyber.org/2011). Interested authors should submit their 4 to 6 page of Full Paper online for review to IEEE-CYBER 2011 by December 30, 2010. If their paper is accepted by the conference (notification of conference paper acceptance on January 07, 2011), the authors should substantially improve and re-submit a 6 to 8 page manuscript through the TIMC on line submission system (<http://mc.manuscriptcentral.com/timc>) by Feb 15, 2011 for possible inclusion in the Special Issue.

Overview

Cyber Physical Systems are typically designed as networks of interacting elements with physical input and output. In the near future, expected advances in science and engineering will improve the link between computational and physical elements, and dramatically elevate the autonomy, efficiency, functionality, reliability, and safety level of Cyber Physical Systems. These advances will expand the applicability of Cyber Physical Systems in many technology areas, including: intervention (e.g., collision avoidance); precision (e.g., robotic surgery and nanoscale manufacturing); operation in dangerous or inaccessible environments (e.g., search and rescue, firefighting, and deep-sea exploration); and augmentation of human capabilities (e.g., tele-robotics, haptic-interface, and healthcare monitoring/ delivery).

Scope

Topics of interest for this Special Issue include but are not limited to:

- Advanced “Internet-of-Things” technologies and applications, including tele-robotics, tele-healthcare, and networked sensors.
- Cyber Technology to protect critical infrastructures such as financial system, electric power grid, air traffic control system, and communication networks.
- Integrated sensing, communication, and computational systems.
- Sensors, actuators, and electronic Interfaces.
- Environmental and early-warning monitoring systems.
- Distributed control of multi-agent systems with embedded computation for sensor and adaptive networks.
- Electric power networks and grids, including generation, transmission and integration of renewable, sustainable and distributed energy systems.

Important Dates

Initial Manuscript Submission: **Dec 30th, 2010** (submit a 4 to 6 pages of IEEE formatted paper for online IEEE-CYBER 2011 review: <http://cyber2011.confmaster.net>);

Final Manuscript Submission: **Feb 15, 2011** (if your paper is accepted by the conference, then you may submit a 6 to 8 pages of final manuscript for additional reviews by the *Transactions of the Institute of Measurement and Control* for possible inclusion in the *Special Issue on Control and Automation in Cyber Physical Systems*; The manuscript should be submitted through the TIMC on line submission system (<http://mc.manuscriptcentral.com/timc>) by this deadline).

Acceptance Notification: **April 15, 2011** (If your paper is accepted by the *Transactions*, you will be notified by this date; if you do NOT present your paper at IEEE-CYBER 2011, your paper will be automatically rejected).

Revised Final Manuscript Due: **April 30, 2011** (If your paper is accepted by the *Transactions*, you MUST provide a revised final manuscript, based on the review comments from the *Transactions*, by this date, but sending your final version through the TIMC on line submission system).

Transactions Publication Date: Tentatively in July 2011.

Manuscript Submission Information

Any questions regarding this Special Issue should be directed to the Guest Editor Lianqing LIU: lqliu@sia.cn. Manuscript submissions must conform to the layout and format guidelines of the *Transactions of the Institute for Measurement and Control*, which can be found in the following site: <http://www.ieee-cyber.org/2011/archives/325>.

Details regarding the on line submission process can be found in the following site:
<http://www.ieee-cyber.org/2011/download/2011/01/How-to-submit-your-IEEE-CYBER2011-paper-to-TIMC-Special-Final.pdf>