

# Call for Papers and Panel Proposals

## 10th International Workshop on Software Cybernetics **IWSC 2013**

In conjunction with COMPSAC 2013, July 22-26, 2013

**Kyoto, Japan, July 22, 2013**

### **IMPORTANT DATES**

Deadline for submission:

**31 March 2013**

Notification of Acceptance:

**21 April 2013**

Camera-ready copy due

**5 May 2013**

### **COMMITTEES**

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### **WEBSITE:**

<http://compsac.cs.iastate.edu/iwsc2013.php>

### **SUBMISSION WEBSITE:**

<http://myreview.cs.iastate.edu/IWSC2013/>

### **CONTACT:**

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With the advent of service-oriented computing, cloud computing, cyber-physical systems, and many other emerging computing, communication and control technologies, software systems are required to be more and more autonomic, self-organized, evolutionary and collaborative. The effectiveness of software technology and the quality of generated software have ever greater impact on products and services, economic activities, defense, scientific research and social life. This is particularly true as software tends to be services and operate in open and volatile environments, such as the Internet. In order to achieve the objective that software can serve well in dynamic environments with changing user requirements, the software must be adaptive based on the external input and feedback of the application physical system.

This workshop, the 10th International Workshop on Software Cybernetics, which has been held in conjunction with the annual international Computer Software and Applications Conference (COMPSAC) since 2004, will focus on the Software as a Control System (SaaCS) and the principles underlying their engineering methodologies and techniques. It provides an international forum for researchers and practitioners to exchange new research results, identify future research problems, and report the current best practices in the industry.

Tentative list of topics of emphasis will include, but not limited to, the following:

- Modeling of cyber-physical systems for critical applications
- Formalization and quantification of feedback and self-adaptive control mechanisms in software
- Adaptation of control theory principles to software processes and systems
- Integration of software, networking and control engineering to achieve adaptive software
- Situation-aware, self-adaptive, self-managing, and learning software
- Dynamic decision-making methods for requirement engineering
- Feedback control in fault-tolerant computing and security
- Adaptive testing and test case generation

- Control of adaptive software rejuvenation
- Relationship between simulation and controllability
- Adaptive system design and architecture
- Modeling of evolving environments and dynamic situations
- Web services modeling, testing and evaluation
- Practice and experience of SaaCS
- Machine learning for software engineering and QoS control
- Use of cybernetic theory in application and systems software

### **SUBMISSION**

Authors are invited to submit original, unpublished *research papers* as well as *industrial practice papers*. Simultaneous submissions to other publications or conferences are not permitted. Detailed instructions for electronic paper submission, panel proposals and review process can be found at <http://www.compsac.org>.

The length of the camera-ready of an accepted paper will be limited to 6 pages (IEEE Proceedings style) with up to two additional pages (with charges for each of the additional pages), and printed on 10-12 point fonts.

The authors must follow the IEEE Computer Society Press Proceedings Author Guidelines to prepare your papers. At least one of the authors of each accepted paper is required to pay full registration fee and present the paper at the workshop. Arrangements are being made to publish selected accepted papers in reputable journals. The submissions must be in PDF, Postscript, or RTF format and uploaded at [compsac.org](http://compsac.org).

Submit panel proposals in plain text via email to program co-chair Professor Chao Liu at [liuchao@buaa.edu.cn](mailto:liuchao@buaa.edu.cn) or Professor Hong Zhu at [hzhu@brookes.ac.uk](mailto:hzhu@brookes.ac.uk)