

## Intelligent Control and Automation Science

Chengdu, China, 2-4 September 2013

### Call for papers



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University of Electronic Science and Technology of China, UESTC  
Institute of Automation,  
Chinese Academy of Sciences, CASIA

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TC3.2. Computational intelligence in Control  
Chinese Automation Association (CAA)

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#### Objectives

The 3rd IFAC International Conference on Intelligent Control and Automation Science (ICONS 2013) will be held in Chengdu, China, 2-4 September 2013. The ICONS serves as a platform for scientists, researchers, and practitioners to discuss their forefront research results and findings, to shape their future directions and development, and to exchange their knowledge and perspectives in the field of intelligent control, automation science, engineering, and integration into the industry and society. It constitutes the primary forum for cross-industry, multidisciplinary research, and provides an opportunity to have a unique and rich cultural experience with excellent technical and social programs. The conference welcomes original, peer reviewed papers submissions in all areas related to intelligent areas, control systems, and automation science, especially innovative ideas, novel concepts, new discoveries and distinguished applications.

#### Topics

We look forward to receiving your paper submission in the areas including, but not limited to the following:

- Computational intelligence methods in modeling, systems identification and control; stability, sensitivity and robustness issues
- Search methods and decision-making: neural networks, evolutionary computing, fuzzy techniques (single or multiple objective)
- Swarm Intelligence (ant colony, particle swarm, differential evolution, cultural algorithms)
- Neurodynamic optimization and adaptive dynamic programming
- Biologically plausible neural networks, computational neuroscience, neurodynamics and regulatory networks
- Brain computer interface and cognitive architectures
- Neuroinformatics and bioinformatics
- Hybrids of computational intelligence systems (neuro-fuzzy systems, neuro-genetic programming, etc.)
- Intelligent systems and instrumentation: smart systems, sensors, actuators and distributed systems
- Data fusion and data mining; fault management and knowledge processing and representation; use of internet technology; intelligent agents;
- Signal Processing;
- Nonlinear Control and Its Applications;
- Real-time aspects of intelligent control; training and adaptation algorithms, constructive algorithms, structures for computational intelligence, design methodologies
- Architectures for real-time intelligent-control (special processors, parallel processing, FPGAs, etc.); reconfigurable control
- Applications to include transport, medical and biomedical, biology, aerospace, automation, biotechnology, mechatronics, automation,
- Manufacturing, process control, power systems, agriculture, environmental systems, robotics and autonomous systems, economics and business systems
- Emerging areas

#### Paper submission and instructions for authors

Prospective authors are invited to submit their full papers in six (6) page, A4 paper size, and PDF file format, complying with the IFAC style rules. Detailed and current information on paper style as well as templates for MS Word and Latex could be found at the IFAC website:

[www.ifac-control.org/events/information-for-ifac-authors](http://www.ifac-control.org/events/information-for-ifac-authors).

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#### Important dates

- **Invited Session Proposal Submission:** 10 April 2013
- **Conference / Invited Paper Submission:** 10 April 2013
- **Notification of Paper Acceptance:** 15 May 2013
- **Final Manuscript Submission:** 01 June 2013
- **Registration and Reception:** 01 September 2013

Submission and general information can be found at: <http://risit.org/icons2013>.

#### Venue

The beautiful modern cultural city of Chengdu is proud to be the host for the ICONS 2013. Chengdu is not only a venerated settlement but also a thriving modern cultural city. As one of China's earliest modernized regions, Chengdu is the center of commerce trade and finance in West China, a comprehensive industrial base of advanced technology and a modernized international metropolis opening in all directions.

#### Co-SPONSORS

IFAC ICONS is technically cosponsored by, IEEE Control/CSM/R&A/ Chapters, Singapore, Institute of Control, Robotics and Systems (ICROS), Korea, IFAC TC1.1. Modeling, Iden, and Signal Processing, TC1.2. Adaptive and Learning Systems; TC2.4. Optimal Control, TC3.1. Computers for Control, TC3.3. Telematics:Control via Com Networks, TC7.5. Intelligent Autonomous Vehicles

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