



# LSMS & ICSEE 2010 Call for Papers



## International Conferences on Life System Modeling and Simulation & Intelligent Computing for Sustainable Energy and Environment

Wuxi, China, September 17-20, 2010

**SPONSORS:** Chinese Association for System Simulation (CASS), IEEE SMCS Systems Biology Technical Committee

**ORGANIZERS:** Shanghai University, Queen's University Belfast, Jiangnan University, System Modeling and Simulation Technical Committee of CASS, Embedded Instrument and System Technical Committee of China Instrument and Control Society

**CO-ORGANIZERS:** Tsinghua University, Peking University, Zhejiang University, Shanghai Jiaotong University, Fudan University, Delft University of Technology, University of Electronic Science Technology of China, Donghua University

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**TECHNICAL CO-SPONSORS:** IEEE CC Ireland Chapter, IEEE SMC Ireland chapter, Shanghai Association for System Simulation, Shanghai Instrument and Control Society, Shanghai Association of Automation



The 2010 International Conference on Life System Modeling and Simulation (LSMS'10) and the International Conference on Intelligent Computing for Sustainable Energy and Environment (ICSEE'10) aim to bring together researchers and practitioners in the field of life system modeling and simulation as well as intelligent computing theory and methodology with applications to sustainable energy and environment from across the world. These events build upon the success of two previous LSMS conferences held in Shanghai in 2004 and 2007 and are based on the large-scale UK-China Science Bridge project on sustainable energy and built environment. At LSMS'10 and ICSEE'10, technical exchanges within the research community will take in the form of keynote speeches, panel discussions, special sessions, as well as oral and poster presentations. In addition, participants will be treated to a series of social functions, receptions and networking sessions, which will serve to establish new connections, foster friendships, and forge collaborations.

### PROGRAM TOPICS

#### A. COMPUTATIONAL METHODS AND INTELLIGENCE IN LIFE SYSTEM MODELLING AND SIMULATION

- A1 Biological and biomedical data integration, mining and visualization
- A2 Biomedical signal processing, imaging, and visualization
- A3 Biorobotics, surgical robotics and surgical planning
- A4 Brain stimulation, neural dynamics and neural interfacing
- A5 Computational intelligence in bioinformatics and biometrics
- A6 Computational methods and intelligence in modelling genetic and biochemical networks and regulation
- A7 Computational methods and intelligence in modelling molecular, cellular and multi-cellular behaviour and dynamics
- A8 Computational methods and intelligence in organism modeling
- A9 Computational methods and intelligence in ontology and taxonomy study and drug design
- A10 Computational methods and intelligence in modelling and design of synthetic biological systems
- A11 Computational methods and intelligence in biomechanical systems, tissue engineering and clinical bioengineering
- A12 High performance bio-computing
- A13 Modelling software and markup language in systems biology
- A14 Intelligent medical apparatus and clinical applications
- A15 Intelligent design of biochips, bioinstrumentations
- A16 Modelling and simulation of societies and collective behaviour
- A17 Innovative education in systems modeling and simulation

#### B. INTELLIGENT COMPUTING AND APPLICATIONS, INCLUDING SUSTAINABLE ENERGY AND ENVIRONMENT

- B1 Advanced neural network theory and algorithms
- B2 Advanced evolutionary computing theory and algorithms, such as particle swarm optimization, differential evolution, ant colonies, artificial life, artificial immune systems and genetic algorithm
- B3 Advanced theory and methodology in fuzzy systems and soft computing
- B4 Autonomy-oriented computing and intelligent agents
- B5 Fuzzy, neural, and fuzzy-neuro hybrids
- B6 Intelligent modelling, monitoring, and control of complex nonlinear systems
- B7 Computational intelligence in utilization of clean and renewable energy resources, including fuel cell, hydrogen, solar and wind power, marine and biomass
- B8 Intelligent modelling, control and supervision for energy saving and pollution reduction
- B9 Intelligent methods in developing vehicles, engines and equipments
- B10 Intelligent methods in power and energy infrastructure development
- B11 Intelligent computing and control in distributed power generation systems
- B12 Intelligent modeling, simulation and control of power networks
- B13 Intelligent road management and electricity marketing strategies
- B14 Intelligent construction and energy saving techniques for sustainable and green built environment
- B15 Intelligent modeling and simulation of climate change
- B16 Intelligent water treatment and waste management technologies
- B17 Innovative education for sustainable energy and environment

### PAPER SUBMISSION

Prospective authors are invited to submit full-length papers by the submission deadline through the online submission system. Further, proposals for special sessions within the technical scopes of the conference are mostly welcomed. Papers submitted for special sessions will be peer-reviewed with the same criteria for the normal contributed papers. A special session proposal should include the session title, a brief description, names, contact details and bio-sketch of the organizers.

Accepted papers will be published in the **Lecture Notes in Computer Science** and **Lecture Notes in Bioinformatics (EI and ISTP, www.springer.com/lncs)**. All papers accepted into LNCS in the last conference have been included into EI Compendex and ISTP. Some high-quality papers will be recommended for publication in SCI indexed international journals after expansion and further review, such as Transactions of the Institute of Measurement and Control. And selected expanded papers will be published in a post-Conference Special Issue of Springer's Cognitive Computation journal - [www.springer.com/12559](http://www.springer.com/12559).

#### IMPORTANT DATES

Paper submission----- April 25, 2010  
 Acceptance----- May 20, 2010  
 Final paper submission----- June 15, 2010

