



# 2005 International Conference on Intelligent Computing (ICIC2005)



Organized by The Institute of Intelligent Machines, The University of Science and Technology of China and The Hong Kong Baptist University

Technically Co-Sponsored by IEEE Computational Intelligence Society and Hong Kong Computational Intelligence Chapter

Venue: Sofitel Grand Park Hefei, China  
August 23-26, 2005, China

## CALL FOR PAPERS

ICIC 2005 – International Conference on Intelligent Computing will be held in August 23-26, 2005, in Hefei, China. This conference will be organized by the Institute of Intelligent Machines, and the University of Science & Technology of China, Chinese Academy of Sciences as well as the Hong Kong Baptist University, and technically co-sponsored by the IEEE Computational Intelligence Society as well as the IEEE Hong Kong Computational Intelligence Chapter, and supported by funding from the Natural Science Foundation of China. The conference invites new and original submissions addressing theoretical and practical topics in intelligent computing fields including (but not limited to these topics):

### A. PERCEPTUAL AND PATTERN RECOGNITION

- Vision Signal Processing
- Audition Signal Processing
- Speech Signal Processing
- Image Processing
- Computer Vision and Applications
- Biometric Recognition
- Handwriting Recognition
- Motor Control and Response

### B. INFORMATICS THEORY AND APPLICATIONS

- Neuroinformatics and Brain Models
- Bioinformatics
- Cheminformatics
- Aeroinformatics
- Artificial Immune Systems
- Knowledge Discovery and Data Mining
- Statistical Data Analysis
- Ant Colony Optimization

### C. COMPUTATIONAL NEUROSCIENCE & BIOSCIENCE

- Systems Neurobiology and Neural Modeling
- Adaptive Numerical Computation
- Quantum and Molecular Computations
- Computations Inspired from Nature
- Biological Computing
- DNA Computing
- Parallel Computing
- Artificial Life

### D. MODELS & METHODS

- Models of Neurons & Local Circuits
- Modular Neural Networks and Neural Trees
- Neural Learning Committee Machines
- Biology Networks
- Radial Basis Function Networks
- Recurrent Neural Networks
- Adaptive Resonance Theory
- Self-Organizing Maps

### E. LEARNING SYSTEMS

- Competing Algorithms
- Learning and Memory
- Reinforcement Learning
- Genetic Algorithms
- Genetic Programming
- Cultural Algorithms
- Memetic Algorithms
- Mixture Models & EM algorithms

### F. GENOMICS AND PROTEOMICS

- Molecular Sequence Analysis
- Molecular Evolution
- Protein Structure & Analysis
- Gene Expression
- Gene Networks
- RNAi Analysis
- Evolution and Phylogenetics
- SNPs and Haplotyping

### G. ADAPTATION AND DECISION MAKING

- Adaptive Critics
- Markov Decision Processes
- Fuzzy Neural Systems
- Intelligent Agents
- Neural Genetic Systems
- Neural-Fuzzy Systems
- Neural-Fuzzy-Genetic Systems
- Chaotic and Complex Systems

### H. APPLICATIONS & HARDWARE

- Diagnostics and Quality Control
- Robotics & Control
- Telecommunication Applications
- Prediction & Time Series Analysis
- Biomedical Applications
- Financial Engineering
- Computer Security Applications
- Power System Applications

The complete list of topic is available at <http://www.icic2005.org/>. Selected conference papers will be included in Lecture Notes in Computer Sciences. For more information, please visit the conference website <http://www.icic2005.org/>.

#### Important Dates:

Submission of Papers: **April 1, 2005**  
Notification of Acceptance: **May 1, 2005**  
Final Camera-Ready Papers: **May 20, 2005**

**SPECIAL SESSIONS:** The ICIC 2005 Organizing Committee is inviting proposals for special sessions. Authors who planned papers for special sessions which were not accepted can submit their papers as regular submissions. Proposals should be submitted in ELECTRONIC FORM to Dr. Xiao-Ping Zhang, The Program Co-Chair, Ryerson University. Important Deadlines: **December 31, 2004: Special session proposal deadline; January 31, 2004: Acceptance notification; March 1, 2005: Extended abstracts/full papers due to be submitted through the regular submission site (marked for appropriate special sessions).**

Manuscripts should be written in English with a single-column, single-space format. Each paper should not exceed eight pages including figures and references. Authors should submit their manuscripts to the ICIC2005 by the On-Line Electronic Submitting System. Please visit the conference web site at <http://www.icic2005.org/> for instructions on the manuscript format and submission details.

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More please see Organization Session