



## The 4th International Conference on Natural Computation The 5th International Conference on Fuzzy Systems and Knowledge Discovery

25-27 August 2008, Jinan, China

<http://www.icnc-fskd2008.sdu.edu.cn>

### Call for Papers & Invited Session Proposals

The 4<sup>th</sup> International Conference on Natural Computation (ICNC'08) and the 5<sup>th</sup> International Conference on Fuzzy Systems and Knowledge Discovery (FSKD'08) will be jointly held in Jinan, China. Jinan is the capital of Shandong Province, which is known for the home of Confucius, the Taishan Mountain, and the Baotu Spring. ICNC'08-FSKD'08 aims to provide an international forum for scientists and researchers to present the state of the art of intelligent methods inspired from nature, particularly biological and physical systems, with applications to data mining, manufacturing, design, and more. This is an exciting and emerging interdisciplinary area in which a wide range of theory and methodologies are being investigated and developed to tackle complex and challenging problems. Previously, the joint conferences in 2005, 2006 and 2007 each attracted over 3000 submissions from more than 30 countries.

All accepted papers will appear in conference proceedings published by the IEEE and will be indexed by both EI and ISTP. Furthermore, extended versions of selected papers will be published in a special issue of *Soft Computing: An International Journal* (SCI indexed).

Submissions of papers describing original work in, but not limited to, the following topics are enthusiastically encouraged.

<b>ICNC'08</b>	
<p><b>Neural Computation</b> - Learning algorithms, Neural network architectures, Stability and convergence analysis, Feed forward &amp; recurrent networks, Neurodynamics &amp; spiking neuron systems, Statistical neural network models, Cellular neural networks, Support vector machines, Principal and independent component analysis, Self-organizing maps.</p> <p><b>Cognitive Science</b> - Neurobiological systems, Perception, Emotion, Cognition, Selective attention, Vision and auditory models.</p> <p><b>Evolutionary Computation</b> - Evolutionary algorithms, Ant colony optimization, Particle swarm optimization, Classifier systems, Multi-objective evolutionary algorithms, Artificial life, Evolutionary intelligent agents, Artificial Immune systems, Evolutionary data mining.</p> <p><b>Other Types in Natural computation</b> - Quantum computing, Molecular &amp; DNA computing, Bayesian network, Membrane computing.</p>	
<b>FSKD'08</b>	
<p><b>Fuzzy Theory and Foundations</b> - Fuzzy theory and models, Stability of fuzzy systems, Mathematical foundations of fuzzy systems.</p> <p><b>Fuzzy Methods and Algorithms</b> - Fuzzy data analysis, Fuzzy image, speech and signal processing, vision and multimedia, Fuzzy control and robotics, Fuzzy hardware and architectures, Soft Computing, Fuzzy systems and the internet, Fuzzy optimization and modeling, Fuzzy decision and support.</p> <p><b>Knowledge Discovery Foundations</b>- Association rules, Classification, Clustering, Privacy preserving data mining, Statistical methods, Parallel/Distributed data mining, KDD Process and human interaction, Knowledge management, Knowledge visualization, Reliability and robustness Issues.</p> <p><b>Knowledge Discovery in Specific Domains</b> - High dimensional data, Temporal data, Biomedical domains, Data streaming, Scientific databases, Semi-structured/unstructured data, Multimedia, Text, Web and the Internet, Graphic model discovery, Software warehouse and software mining.</p>	
<b>Applications and Hybrid Systems</b>	
Computational intelligence, Bioinformatics, Neuroinformatics, Computer security, Web Intelligence, Web-based support systems, Fuzzy neural systems, Evolutionary neural systems, Evolutionary fuzzy systems, Evolutionary neuro-fuzzy systems, Financial engineering.	
<b>Organizing Committee</b>	
<b>General Co-Chairs</b>	Jun Ma, Shandong University, China Yilong Yin, Shandong University, China
<b>Steering Committee Chair</b>	Lipo Wang, Nanyang Technological University, Singapore
<b>ICNC'07 Program Committee Co-Chairs</b>	Liang Zhao, University of São Paulo, Brazil Maozu Guo, Harbin Institute of Technology, China
<b>FSKD'07 Program Committee Co-Chairs</b>	Jian Yu, Beijing Jiaotong University, China Shuigeng Zhou, Fudan University, China
<b>Local Arrangement Chair</b>	Liming Han, Shandong University, China
<b>Proceedings Chair</b>	Jingsheng Lei, Hainan University, China
<b>Publicity Chair</b>	Ting Jin, Hainan University, China
<b>Sponsorship Chair</b>	Haiyang Wang, Shandong University, China
<b>Deadlines</b>	
<b>Paper Submission</b> 25 March 2008	
<b>Invited Session Proposal</b> 25 March 2008	
<b>Decision Notification</b> 25 April 2008	
<b>Author Registration &amp; Final Paper</b> 15 May 2008	
<b>General Inquiries</b>	
<a href="mailto:nc2008@sdu.edu.cn">nc2008@sdu.edu.cn</a>	

Prospective authors are invited to submit manuscripts written in English. All submissions will be peer-reviewed by experts in the field based on originality, significance, quality and clarity. Authors should use the Latex style files or MS-Word templates obtained from the conference site to format their papers. Authors should submit pdf files of their manuscripts via the [online submission system](#).

To promote international participation of researchers from outside the country/region where the conference is held (i.e., China), foreign experts are encouraged to propose invited sessions. Each invited session should have at least 4 papers. Invited session organizers will solicit submissions, conduct reviews and recommend accept/reject decisions on the submitted papers. All invited session organizers will be acknowledged in the conference proceedings. Each invited session proposal should include the following information: (1) the name(s) and contact information of invited session organizer(s); (2) the title and a short synopsis of the invited session. Please send your proposal to [nc2008@sdu.edu.cn](mailto:nc2008@sdu.edu.cn).

