



# ICANNGA'07

International Conference on Adaptive and Natural Computing Algorithms

Warsaw, Poland, 11-14 April 2007

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## Call for papers and participation



The ICANNGA series of international conferences has a long history of promoting the principles and understanding of computational intelligence paradigms within the scientific community. Starting in 1993, it has established itself as a reference for scientists and practitioners in this area. The series has also been of value to young researchers wishing not only to extend their knowledge and experience but also to have a chance to meet specialists in their fields. The 2007 Conference, eighth in the ICANNGA series, will take place at the Warsaw University of Technology in Poland, combining regular and special sessions as well as plenary lectures by renowned scientists, with tutorials and workshop panels.

## TOPICS

Contributions are sought in the following topic areas (the list is not exhaustive):

- **Neural Networks:** architectures, algorithms, approximation, complexity, associative memory, biological foundations, computational neuroscience, neurodynamics, neurocognition.
- **Learning:** kernel methods, support vector machines, supervised and unsupervised learning, reinforcement learning, Bayesian learning.
- **Evolutionary Computation:** genetic algorithms, genetic programming, multi-objective optimization, biological computation, classifier systems, artificial life, artificial immune systems, evolution strategies, ant colony optimization, particle swarm optimization, swarm intelligence, evolvable hardware.
- **Soft Computing:** fuzzy systems, rough systems, uncertain systems, hybrid systems, neurofuzzy controllers, embedded computing for intelligent systems, random search methods, probabilistic computing, chaotic computing, symbolic computing.
- **Bioinformatics and Computational Biology:** molecular computing, DNA computing, bioinformatics databases, computational genomics, computational proteomics, clustering, mapping gene expression and micro arrays, gene identification and annotation, molecular evolution, molecular sequence analysis, protein structure, protein classification.
- **Quantum Computing:** quantum control, supercomputing, autonomic computing,
- **Applications:** medicine, environment, quantitative socio-dynamics, pattern recognition, classification, signal processing, control, simulation, robotics, diagnostics, transport, defence, security, power systems, finance and business, data mining and intelligent databases, speech recognition and natural language processing, image processing and computer vision, real-time computational intelligence and games, grid computing, biometrics.

## PROCEEDINGS

The conference proceedings will be published by Springer-Verlag in the series **Lecture Notes in Computer Science (LNCS)**.



## IMPORTANT DATES

- Tutorials and Special Sessions Proposals: 4 June 2006
- Paper Submission: 10 September 2006
- Notification of Acceptance: 7 December 2006
- Camera-ready Manuscripts: 9 January 2007
- First Day of the Conference — Tutorials: 11 April 2007
- Main Part of the Conference — Sessions: 12-14 April 2007

## ORGANISERS

Warsaw University of Technology, Faculty of Electrical Engineering  
Institute of Control and Industrial Electronics

**Control Division**

Conference Chair: Bartłomiej Beliczyński