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The Sixth International Conference on Simulated Evolution And Learning
   (SEAL'06)
  15-18 October 2006, Hefei, Anhui, China
              http://nical.ustc.edu.cn/seal06/

Hosted and Sponsored by
 Nature Inspired Computation and Applications Laboratory (NICAL)
 Department of Computer Science and Technology
 University of Science and Technology of China
 Hefei, Anhui 230027, China

AIMS AND SCOPES

Evolution and learning are two fundamental forms of adaptation. SEAL'06
is the sixth biennial conference in the highly successful series that
aims at exploring these two forms of adaptation and their roles and
interactions in adaptive systems. Cross-fertilisation between evolutionary
learning and other machine learning approaches, such as neural network
learning, reinforcement learning, decision tree learning, fuzzy system
learning, etc., will be strongly encouraged by the conference.
The other major theme of the conference is optimisation by evolutionary
and other nature inspired approaches. The topics of interest to this
conference include but are not limited to the following:

1. Evolutionary Learning

Fundamental Issues in Evolutionary Learning   Co-Evolutionary Learning
Modular Evolutionary Learning Systems   Classifier Systems
Representation Issues in Evolutionary Learning   Artificial Immune Systems
Interactions Between Learning and Evolution Credit Assignment
Swarm Intelligence   Collective Intelligence
Comparison between Evolutionary Learning and Other Learning Approaches,

2. Evolutionary Optimisation

Combinatorial Optimisation   Numerical/Function Optimisation
(e.g., scheduling, allocation, planning,   Hybrid Optimisation Algorithms
packing, transportation, etc.)   Comparison of Algorithms
Nature-Inspired Algorithms (ant colony optimisation, particle swarm
optimisation, memetic algorithms, simulated annealing, ...)

3. Hybrid Learning

Evolutionary Artificial Neural Networks   Evolutionary Fuzzy Systems
Evolutionary Reinforcement Learning   Evolutionary Clustering
Evolutionary Decision Tree Learning   Evolutionary Unsupervised Learning
Genetic Programming   Other Hybrid Learning Systems
Developmental Processes

4. Adaptive Systems

Complexity in Adaptive Systems   Evolutionary Robotics
Evolvable Hardware and Software   Artificial Ecology
Evolutionary Games   Self-Repairing Systems
Evolutionary Computation Techniques in Economics, Finance and Marketing

5. Theoretical Issues in Evolutionary Computation

Convergence and Convergence Rate of Evolutionary Algorithms
Computational Complexity of Evolutionary Algorithms
Self-Adaptation in Evolutionary Algorithms

6. Real-World Applications of Evolutionary Computation Techniques

KEYNOTE SPEAKERS

Professor Karl Sigmund, University of Vienna, Austria
Professor Zbigniew Michalewicz, University of Adelaide, Australia
Professor Gary Yen, Oklahoma State University, USA
Dr. Han La Poutre, Centrum voor Wiskunde en Informatica (CWI), Netherlands

IMPORTANT DATES
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21 April 2006   Deadline for submission of full papers (<=8 pages)
19 June 2006   Notification of acceptance
14 July 2006   Deadline for camera-ready copies of accepted papers
15-18 October 2006 Conference sessions (including tutorials and workshops)

PAPER SUBMISSION

All manuscripts must be prepared in LaTeX according to Springer's
lncs style (URL: http://www.springeronline.com/lncs). It is absolutely
essential that you follow the instructions there. Each submitted paper
must include a title, an abstract, a list of keywords, the names and

addresses of all authors (including email addresses, and telephone and
fax numbers), and the body. The length of submitted papers must be no more
than 8 single-spaced, single-column pages including all figures, tables
and bibliography. Shorter papers are strongly encouraged.
All papers must be submitted electronically via the conference website
(http://nical.ustc.edu.cn/seal06/). Papers submitted via other means
will not be considered.

PUBLICATIONS

All accepted papers which are presented at the conference will be included in
the conference proceedings, published by Springer in their Lecture Notes in
Computer Science series. The best papers will be invited to further revise and
extend their work to one of the following prestigious journal special issues:
Genetic Programming and Evolvable Machines (Springer), Connection Science
(Taylor and Francis), International Journal of Computational Intelligence
and Applications (World Scientific), and Journal of Computer Science and
Technology (Springer and China Computer Federation).

SPECIAL SESSIONS AND TUTORIALS

Special sessions and tutorials will be organised at the conference.
The conference is calling for special session and tutorial proposals.
The tutorials will be offered on 15 October 2006 (subject to
sufficient number of registrations).

CONFERENCE COMMITTEE

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Tutorials and Special Sessions Chair: Xiaodong Li (Australia)

Organising Chair: Wenjian Luo (China)

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