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Simulated Evolution and Learning

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Proceedings

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Preface

We are very delighted to present this LNCS volume, the proceedings of the Sixth International Conference on Simulated Evolution And Learning (SEAL 2006). SEAL is a prestigious international conference series in evolutionary computation and learning. This biennial event was first held in Seoul, Korea, in 1996, and then in Canberra, Australia (1998), Nagoya, Japan (2000), Singapore (2002), and Busan, Korea (2004).

SEAL 2006 received a record 420 paper submissions this year. After an extensive peer review process involving more than 1100 reviews, the best 117 papers were selected by the programme committee to be presented at the conference and included in this volume, resulting in an acceptance rate of less than 30%.

The papers included in this volume cover a wide range of topics in simulated evolution and learning: from evolutionary learning to evolutionary optimisation, from hybrid systems to adaptive systems, from theoretical issues to real-world applications. They represent some of the latest and best research in simulated evolution and learning in the world.

The conference featured four distinguished keynote speakers: Karl Sigmund, Zbigniew Michalewicz, Han La Poutré and Gary Yen. Karl Sigmund's talk was on "The Evolution of Cooperation in Groups." Zbigniew Michalewicz's talk was on "Adaptive Business Intelligence." Han La Poutré's talk was on "Learning Agents in Socio-economic Games." Gary G. Yen's talk was on "Adaptive Critics for Fault Tolerant Control". We were very fortunate to have such distinguished speakers giving talks at SEAL 2006 despite their busy schedules. Their presence at the conference was yet another indicator of the importance of SEAL on the international research map.

SEAL 2006 also included five tutorials, which were free to all conference participants. The five tutorials covered some of the hottest topics in evolutionary computation and its applications, i.e., Evolutionary Multiobjective Optimization and its Applications (Gary Yen), Evolutionary Computation for Real-World Problems (Zbigniew Michalewicz), Automatic Decomposition in Evolutionary Computation for Optimization and Learning (Hussein Abbass), Particle Swarm Optimization (Xiaodong Li) and Recent Advances in Real Parameter Optimization (P.N. Suganthan). They provided an excellent start to the four-day event.

Furthermore, Jim Kennedy, a pioneer in particle swarm optimisation, also gave a brilliant plenary speech at SEAL 2006.

The success of a conference depends on its authors, reviewers and organisers. SEAL 2006 was no exception. We were very grateful to all the authors for their paper submissions and to all the reviewers for their outstanding work in refereeing the papers within a very tight schedule. We relied heavily upon a team of volunteers to keep the SEAL 2006 wheel turning. They were true heroes working behind the scene. In particular, Wenjian Luo from USTC in Hefei, China,

played a crucial role in organising the conference. We are most grateful to all the volunteers for their great efforts and contributions.

August 2006

Xin Yao
Tzai-Der Wang
Xiaodong Li

Organisation

The Sixth International Conference on Simulated Evolution And Learning (SEAL 2006) was organised and hosted by the University of Science and Technology of China, Hefei, China.

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