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Important Dates

Submission Deadline:
January 31, 2006
Author Notification:
March 15, 2006
Camera-ready Papers:
April 15, 2006

WCCI2006 Website

http://www.wcci2006.org

Call for Papers

Evolutionary Computation in Dynamic and Uncertain Environments (ECiDUE'06)

A Special Session for the 2006 Congress on Evolutionary Computation
Part of the 2006 IEEE World Congress on Computational Intelligence
July 16 - 21, 2006, Vancouver, BC, Canada
Sponsored by the IEEE Computational Intelligence Society (CIS), IEE, and Evolutionary Programming Society

Submission Deadline: January 31, 2006

Many real-world optimization problems are subjected to dynamic and uncertain environments that are often impossible to avoid in practice. For instance, the fitness function is uncertain or noisy as a result of simulation/measurement errors or approximation errors (in the case where surrogates are used in place of the computationally expensive high fidelity fitness function). In addition, the design variables or environmental conditions may also perturb or change over time. For these dynamic and uncertain optimization problems, the objective of the evolutionary algorithm is no longer to simply locate the global optimum solution, but to continuously track the optimum in dynamic environments, or to find a robust solution that operates optimally in the presence of uncertainties. This poses serious challenges to conventional evolutionary algorithms.

Handling dynamic and uncertain optimization problems in evolutionary computation has received an increasing research interests over the recent years. A variety of methods have been reported across a broad range of application backgrounds. This special session aims at bringing researchers from academia and industry together to review the latest advances and explore future directions in this field. Topics of interest include but are not limited to:

- Benchmark problems and performance measures
- Tracking moving optima
- Dynamic multi-objective optimization
- Adaptation, learning, and anticipation
- Handling noisy fitness functions
- Using fitness approximations
- Searching for robust optimal solutions
- Comparative studies
- Hybrid approaches
- Theoretical analysis
- Real-world applications

Paper Submission: Manuscripts should be prepared according to the standard format and page limit of regular papers specified in CEC2006. Instructions for preparing the paper are provided at http://www.wcci2006.org. Paper submission is strictly only in PDF format and through the regular CEC2006 submission website. Special session papers will be treated in the same way as regular papers and included in the conference proceedings.