IEEE CONGRESS ON EVOLUTIONARY COMPUTATION

swissôtel THE STAMFORD SINGAPORE

September 25-28, 2007

Call for Papers

Special Session on

Evolutionary Algorithms in Forecasting Support Systems

SPECIAL SESSION ORGANIZER

Dr. Wei-Chiang Samuelson Hong
Department of Information Management
Oriental Institute of Technology, Taiwan
Email: samuelhong@ieee.org

PROGRAM COMMITTEE

Prof. Steven Guan
School of Engineering and Design
Brunel University, UK
Email: steven.guan@brunel.ac.uk

Prof. Lipo Wang
School of Electrical & Electronic Engineering
Nanyang Technological University, SG
Email: elpwang@ntu.edu.sg

Prof. Edward Tsang
Department of Computer Science
University of Essex, UK
Email: edward@essex.ac.uk

Prof. Pedro Isasi
Computer Science Department
University Carlos III of Madrid, Spain
Email: isasi@ia.uc3m.es

Prof. David Quintana
Computer Science Department
University Carlos III of Madrid, Spain
Email: dquintan@inf.uc3m.es

Prof. Asunción Mochón
Departamento de Economía
Universidad Nacional de Educación a Distancia, Spain
Email: amochon@cee.uned.es

Prof. Pei-Chann Chang
Department of Information Management
Yuan Ze University, Taiwan
Email: iepchang@saturn.yzu.edu.tw

Prof. Takashi Washio
Institute of Scientific & Industrial Research
Osaka University, Japan
Email: washio@ar.sanken.osaka-u.ac.jp

Dr. Qingfu Zhang
Department of Computer Science
University of Essex, UK
Email: qzhanq@essex.ac.uk

Dr. Dietmar Maringer
Centre for Computational Finance and Economic Agents (CCFEA)
University of Essex, UK
Email: dmaring@essex.ac.uk

Dr. Wei-yu Kevin Chiang
Department of Information Systems
University of Maryland, USA
Email: wchiang@umbc.edu

Prof. Ping-Feng Pai
Department of Information Management
National Chi Nan University, Taiwan
Email: paipf@ncnu.edu.tw

DOWNLOAD HERE

IMPORTANT DATES

Paper Submission	**March 15, 2007**
Decision Notification	**May 15, 2007**
Camera-ready	**June 15, 2007**
Conference	**September 25-28, 2007**

Motivation

Businesses require accurate forecasts of demand in order to make effective decisions, such as marketing, financial investment, inventory, distribution, human resource planning, purchasing, and so on. These forecasts are usually based on a function combination system (Forecasting support systems; FSS) of traditional statistical methods, evolutionary algorithms, artificial intelligent computation, and management judgment. Although the wide application of FSS concepts, due to lack of abilities to catch the forecast data pattern, FSS resulted in over-reliance on the use of informal judgment and higher expense.

With the advantages of evolutionary algorithms computing capabilities over the traditional optimization approaches, recently, they have been applied to catch the data pattern more accurate via systematical computation process, such as genetic algorithms (GA), simulated annealing algorithms (SA), tabu search algorithms (TA), ant colony optimization (ACO), immune algorithm (IA), and particle swarm optimization algorithm (PSO).

The objective of this special session is to invite together research and application of evolutionary algorithms for any forecasting fields.

Topics

This special session invites contributions in all aspects of applying evolutionary algorithms in any FSS to improve the usage efficiency of those algorithms and aims to promote the discussion and exploration of new ideas. Topics of interests include (but not limited to):

- The usage of evolutionary algorithms in any FSS.
- Theoretical comparison of evolutionary algorithms in FSS.
- Empirical comparison of evolutionary algorithms in FSS.
- Parameter determination by genetic algorithms (GA) in FSS.
- Parameter determination by simulated annealing algorithms (SA) in FSS.
- Parameter determination by tabu search algorithms (TA) in FSS.
- Parameter determination by ant colony optimization (ACO) in FSS.
- Parameter determination by immune algorithm (IA) in FSS.
- Parameter determination by particle swarm optimization algorithm (PSO) in FSS.
- Other application of novel intelligent evolutionary algorithms in FSS.

Paper Submission

Manuscripts should be prepared according to the standard format of regular papers specified in CEC2007 and be restricted to a maximum of **8 pages**. Paper submission is strictly only **PDF format** and online through the regular CEC2007 submission website. Special session papers will be treated in the same way as regular papers and included in the conference proceedings.

Notice

The conference proceedings of CEC have been continuously included in the **EI Compendex Database** and IEEE Xplore.

Sponsors

IEEE Computational Intelligence Society

IEEE

Supported by

NUS National University of Singapore

NANYANG TECHNOLOGICAL UNIVERSITY