IEEE Symposium on CIDM 2017

Special Session on Computational Intelligence and Financial Engineering: Now and Future
Call for Papers

November 27 to December 1 2017 Honolulu, **Hawaii**
Conference Website: http://www.ele.uri.edu/ieee-ssci2017/index.html
Session Website: http://www.ele.uri.edu/ieee-ssci2017/CIDM.htm

Financial engineering is a multidisciplinary research area that draws from a wide range of quantitative analysis disciplines (e.g. statistics, data mining, machine learning, artificial intelligence, neurocomputing, fuzzy and genetic methods, etc.) to optimize and facilitate various kinds of financial decisions related to, e.g. risk and investment management, financial planning, trading, hedging, pricing and asset valuation, and fraud detection. Undoubtedly, the introduction of several recent international financial and accounting standards (such as Basel II, Sarbanes-Oxley, IFRS) is having a significant impact on this field. For example, by allowing banks and financial institutions to use their internal risk assessment models as inputs to the minimum regulatory capital calculations, the Basel II framework is providing financial institutions with additional incentives to develop new or further refine existing financial engineering models. Hence, there has been a growing interest throughout the financial world in research on techniques to support the implementation of these guidelines.

For some time now, researchers have studied and reported the performance of various computational analysis techniques for financial engineering problems. These studies have provided very useful insights into the modelling characteristics of the problems considered. This special session further builds on the results from these studies, thereby paying special attention to the interpretation, implementation, and evaluation of the financial decision models built. We consider these as key activities for the successful development and deployment of intelligent information systems for financial engineering, since they are proving essential not just in ensuring adoption by practitioners, but also to meet the growing demand for transparency imposed by the aforementioned guidelines.

This special session aims at promoting the exchange of ideas not only concepts and operational basis for artificial intelligent (AI) but also techniques for implementing and evaluating information systems on economic and financial domain, forecasting, and analysis. Submissions that derive theories of AI modeling, construct AI model and apply it to financial market, develop techniques for linking AI model and other types of models are all welcome. Hence, this session invites papers that apply AI or other computational intelligence methodologies to the following topics, but never exclusive:

Topics
- Application Areas
  - Artificial Stock Markets
  - Behavioral Finance
  - Experimental Economics
  - Financial Engineering
  - Financial Data Mining
  - Trading Strategies
  - Hedging Strategies
  - Portfolio Management
  - Derivative Pricing
  - Financial Time Series Forecasting and Analysis

- Techniques
  - Ant Algorithms
  - Artificial Neural Networks
  - Bio-Inspired Computing
  - Cluster Analysis
  - Data Mining
  - Deep Learning
  - Evolutionary Programming
  - Fuzzy Logic
  - Genetic Algorithms
  - Genetic Programming
  - Grey Models
  - Hybrid Models and Systems
  - Learning Classifier Systems
  - Reinforcement Learning
  - Rough Sets
  - Self-Organized Map
  - Sequential Monte Carlo Methods
  - Statistical Classifiers
  - Swarm Intelligence
  - Wavelets

Important dates
Full paper submission due: **2017.07.02**
Paper acceptance notification date: **2017.08.27**
Final (Camera-ready) paper submission due: **2017.09.24**

Submission
Manuscripts must be submitted as PDF files prepared for US Letter size paper. Submissions in any other format will be discarded. Submission should be in IEEE two column conference format, 4-8 pages in length, with a maximum file size of 4MB. Up to four additional pages will be permitted for a charge of $100 per additional page. Illustrations and references are included in the page count. You are responsible for ensuring that your submission is in valid format and that it will be readable and printable. Please double check your file before submitting it. All IEEE publications are indexed in IEEE Xplore and are searchable by Inspec.

The detail paper format can be referred to
http://www.ele.uri.edu/ieee-ssci2017/static/files/SSCI2016_CFP_Final.pdf

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