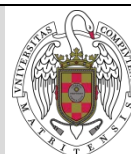


## 7th International Conference on Computational Collective Intelligence Technologies and Applications

21-23 September, 2015, Madrid, Spain



# CIFM 2015

## Special Session on Computational Intelligence in Financial Markets

at the 7th International Conference on Computational Collective Intelligence Technologies and Applications (ICCCI 2015)

Madrid, Spain, September 21-23, 2015

Conference website: <http://antares.sip.ucm.es/iccci2015/>

### Special Session Organizers

#### Prof. Fulufhelo Nelwamondo

<sup>(1)</sup> Modelling and Digital Science Unit

Council for Scientific and Industrial Research, South Africa

<sup>(2)</sup> Department of Electrical & Electronics Engineering

University of Johannesburg, South Africa

E-mail: [fnelwamondo@csir.co.za](mailto:fnelwamondo@csir.co.za), [fnelwamondo@uj.ac.za](mailto:fnelwamondo@uj.ac.za)

#### Mr. Sharat Akhoury

Modelling and Digital Science Unit

Council for Scientific and Industrial Research, South Africa

E-mail: [SAkhoury@csir.co.za](mailto:SAkhoury@csir.co.za)

### Objectives and topics

Over the last few decades, increasingly large amounts of financial data have been stored electronically and this volume is expected to raise exponentially in subsequent years. It is desirable to apply computational intelligence techniques on these large amounts of data, more commonly referred to as Big Data, to automate financial-specific analysis. We aim to provide a common platform where practitioners, industrial representatives and researchers in this field can share their experiences, present current research results and discuss the application of computational intelligence tools for analyzing and forecasting financial markets. Another interesting application of computational intelligence techniques on this type of data is for detecting financial fraudulent activities such as credit card fraud, medical aid fraud, life insurance fraud and financial statement fraud, etc.

The goal of this special session is to bring together researchers from different fields of expertise, lead to a better understanding between them, and to promote interaction in this new and interdisciplinary area. All in all, we want to create an opportunity for the participants to exchange about a wide range of topics related to the application of computational intelligence techniques in financial markets.

Topics of interest include:

- Preprocessing techniques for financial data
- Feature extraction and selection techniques for financial data
- Data mining techniques on market analysis and customer segmentation analysis with an emphasis on Big Data
- Applying computational intelligence techniques to forecast stock price
- Machine learning in automated trading systems
- Building risk management systems using computational intelligence tools
- Detecting financial fraud using computational intelligence techniques
- Application of computational intelligence techniques for e-Forensics
- Mining social networks for enhanced market predictions
- Novel time series analysis on financial data
- Ensemble-based multi-model predictive systems for financial data
- Financial markets and collective intelligence

## Important dates

Submission of papers: **20 March 2015**  
Notification of acceptance: **15 May 2015**  
Camera-ready papers: **15 June 2015**  
Conference date: **21-23 September 2015**

## Program Committee (to be invited)

Prof. Nathalie Japkowicz, University of Ottawa, Canada  
Prof. Herna Viktor, University of Ottawa, Canada  
Prof. Diane Wilcox, University of the Witwatersrand, South Africa  
Dr. Tim Gebbie, University of the Witwatersrand, South Africa  
Prof. Zekeriya Uykan, Aalto University, Finland  
Dr. Shakir Mohammed, Google, United Kingdom.  
Dr. Clement Nyirenda, University of Namibia, Namibia

## Submission

All contributions should be original and not published elsewhere or intended to be published during the review period. Authors are invited to submit their papers electronically in pdf format, through EasyChair. All the special sessions are centralized as tracks in the same conference management system as the regular papers. Therefore, to submit a paper please activate the following link and select the track: ***CIFM 2015: Special Session on Computational Intelligence in Financial Markets.***

<https://www.easychair.org/conferences/?conf=iccci2015>

Authors are invited to submit original previously unpublished research papers written in English, of up to 10 pages, strictly following the LNCS/LNAI format guidelines. Authors can download the Latex (recommended) or Word templates available at [Springer's web site](#). Submissions not following the format guidelines will be rejected without review. To ensure high quality, all papers will be thoroughly reviewed by the CIFM 2015 Program Committee. All accepted papers must be presented by one of the authors who must register for the conference and pay the fee. The conference proceedings will be published by Springer in the prestigious series LNCS/LNAI (indexed by ISI CPCI-S, included in ISI Web of Science, EI, ACM Digital Library, dblp, Google Scholar, Scopus, etc.).