

# Special Session on

## Evolutionary & Soft Computational Paradigm in *Business Intelligence: from Process to People*

This session is organized as a part of

7<sup>th</sup> International IEEE Workshop on Soft Computing & Applications,

Romania

### Introduction

At present, commercial organizations are significantly moving towards crucial decision-making processes that are based on information and data grabbed from diversified sources envisaging from social media to web transactions. The decision making processes seems to be predictive from behavioral choices of customer with opinion analysis and effective recomender system. Eventually, the voluminous multi- dimensional *big data* is one of the emerging challenge to address and mine to achieve certain meaningful decision. Hence, analytics is an automatic option to foster data analysis with substantial intelligence, intuition and learning.

*Business Intelligence (BI)* is coined as an umbrella term that represents computer architectures, tools, technologies and methods to enhance managerial decision making in public and corporate enterprises, from operational to strategic level. Analytics with intelligence is the errand of the present focusing *big data*, *Internet of Things (IoT)* and *Internet of People (IoP)*.

Human becomes a self cyber entities and thus *Internet of People (IoP)*, emphasizes on the collection of personal information, characters modeling, and a wide range of applications. Together with the Wearable Devices and Brain informatics developing, Brain Research Plan and Social Computing will enrich the Physical, Social, Cyber and Thinking worlds and their fusion (Hyper world). It is believed that due to the due pervasion of *IoP* and its impacts on human sentiment, soon it will become an important field and truly interdisciplinary. The analytics therefore has been demanding more natural intelligence and learning phenomena and thereby touching evolutionary and machine learning to be its prime initiative tool to lick-off.

*IoP* topics include: Biometric Sensors and Biometric Identification Technology, Wearable Technology and Application, Brain Informatics Sensing and Processing, Body Area Network (BAN) technology and services, Social Computing and Collective Intelligence Network, Internet of Brain, Intelligence and Creation, Security and Privacy, Human Body signal collection, processing and communication theory, technology for Biomedical and healthcare application etc.

Subsequently, Business Intelligence solicits different predictive analytics through machine learning and evolutionary soft computational intelligence in the plethora of both on-line and off line activities concerning people, choices, finance and market.

Embedding the lateral entry of *Data Science* has also become inevitable, as the data science deploys techniques and theories drawn from diversified avenues within the broad areas of mathematics, statistics, information science, including signal processing, probability models, machine learning, statistical learning, data engineering, pattern recognition and learning, data visualization, predictive analytics, uncertainty modeling, data warehousing, and high performance computing. The processes that adhere to the scale of big data are definitely of prime interest in data science, although the discipline is not generally considered to be restricted to such big data, and it is found that big data solutions are often focused on organizing and preprocessing the data instead of analysis. The development of machine learning has enhanced the growth and importance of data science.

Hence, the aim of this workshop is to act as bridge and connection between business intelligence, big data and computational intelligence with the latest research in evolutionary business intelligence. In particular, papers that describe experience and lessons learned from real life projects and/or present business and organizational impacts using soft computational intelligence, are welcome. Finally, we encourage papers that deal with the interaction with the end users, taking into its impact on real organizations.

This special session seeks to bring forward and highlight the latest developments in this promising research area by bringing together researchers and practitioners of diverse interdisciplinary fields. Authors are invited to submit their original and unpublished work to this Special Session. Topics of interest include, but are not limited to:

- Business intelligence Applications and analytics
- Productive practices in business intelligence
- Business intelligence and CRM
- Business intelligence and market basket analysis
- Strategic marketing & planning
- Evolutionary Supply chain management
- Evolutionary data mining
- Evolutionary intelligent agents
- Evolutionary learning systems
- Evolutionary techniques in economics, finance and marketing
- Knowledge discovery from large scale social data
- Fuzzy and rough set modeling in pervasive social network
- Brain Informatics Sensing and Processing,
- Body Area Network (BAN) technology and services,
- Social Computing and Collective Intelligence Network, Internet of Brain,
- Intelligence and Creation, Security and Privacy,
- Human Body signal collection, processing and communication theory,
- Technology for Biomedical and healthcare application
- Analytic Frameworks, Storage & Databases

- Graph Analytics: structure, traversals, analytics, PageRank, community detection, recursive queries, semantic web
- Visualization, data products, visual data analytics

#### **IMPORTANT DATES**

Submission of full papers	29 April, 2016
Notification of acceptance	16 May, 2016
Submission of final paper and early Registration	22 July, 2016

#### **Track Chairs**

**Soumya Banerjee ( Ph.D)**  
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