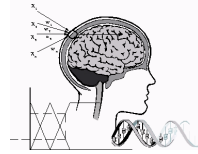




# International

*Innovation in Knowledge Based and Intelligent  
Engineering Systems*



## INVITED SESSION SUMMARY

**Title of Session: Intelligent Decision making for Uncertain Unstructured Big Data**

**Name of Chair:**

**Mr. Bharat Singh, Big Data Analyst, Hamburg, Germany**

**Mr. Neel Mani, CNGL, Dublin City University, Ireland**

**Dr. Pandian Vasant, PETRONAS University of Technology, Malaysia**

**Prof. Junzo Watada, Waseda University, Japan**

**Details of Session:**

Big data is still in its early stages and has led to numerous critical issues and challenges to rise such as the speed of transfer, data expansion, diversity of data and security issues. For instance, managing and exploiting huge amounts of data make it more useful and meaningful has become a challenge driving critical knowledge for intelligent decision-making and in gaining an insight into the overall situation. Big data has received unprecedented attention from public and private sectors as well as from the academia worldwide. It can be concluded that the challenges arising while using big data are:

- Managing and benefiting from massive and growing amounts of data,
- Handling data uncertainty,
- Handling unstructured data, and
- Exploiting big data in a timely and cost - effective fashion.

Uncertainty can be found in many applications due to various factors such as data randomness and incompleteness, limitation of equipment, and delay or loss in data transfer. Uncertain data refers to the data that contains some uncertainty. It is a special type of data reality, where each field of data is no longer deterministic but instead it is subsequent to some random/ error distribution. Unstructured data contains a significant amount of uncertain and imprecise data. Effective intelligent decision-making under unstructured uncertainty data is fundamentally different from those structured and certain data cases. The scope of this session to make intelligent decision, which support better business decision-making in organizations. Particular interest is addressed to theory, algorithms, and applications that give some advances in this field. Major topics of interest include but are not limited to:

- Uncertain Unstructured Big Data Analytics as a Service
- Architectural Design for Uncertain Unstructured Big Data
- Uncertain Unstructured Big Data Governance
- Conceptual/cognitive/programming Models for Uncertain Unstructured Big data analytics
- Clustering of Uncertain Unstructured Big Data
- Uncertain Unstructured Data Fusion and Multi Modal Analytics
- Data Models for Uncertain Unstructured Big Data Analytics
- Domain-specific Uncertain Unstructured Big Data Analytics
- Index Structures for Uncertain Unstructured Big Data Analytics
- Interaction Design for Exploratory Uncertain Unstructured Big Data Analytics
- Machine Learning techniques for Uncertain Unstructured Big Data
- Large-scale recommendation systems and graph analysis for Uncertain Unstructured Big Data
- Model Discovery from Uncertain Unstructured Big Data
- Physical Data Organization for Uncertain Unstructured Big Data
- Predictive Modeling for Uncertain Unstructured Big Data
- Privacy Issues in Uncertain Unstructured Big Data Analytics
- Rule Mining from Uncertain Unstructured Big Data
- Scalability and Performance issues for Uncertain Unstructured Big Data
- Security, privacy and legal issues specific to Uncertain Unstructured Big Data
- Semantics and Uncertain Unstructured Big Data

- Topic Modeling for Uncertain Unstructured Big Data
- Unstructured and Semi-structured Data Mining
- Visual Analytics for Uncertain Unstructured Big Data

The session aims at addressing such issues from practical and theoretical perspectives.

**INFORMATION FOR AUTHORS:**

The submitted papers should present results of the original and unpublished research. The papers will be reviewed by the International Program Committee. The best submissions will be selected for presentation and will be included in the conference proceedings.

The conference proceedings will be published by Springer as book chapters in a volume of the KES Smart Innovation Systems and Technologies series, submitted for indexing in Scopus and Thomson-Reuters Conference Proceedings Citation Index (CPCI) and the Web of Science.

Submitted papers should be prepared in Springer style and should be limited to 10 pages. All papers must be submitted electronically via conference submission system.

**IMPORTANT DATES:**

Submission of papers: 31 January 2016

Notification of acceptance: 25 February 2016

Camera ready papers submission: 7 March 2016

Conference: 15-17 June 2016

More details is available at the KES-IDT 2016 website( <http://idt-16.kesinternational.org/> ).

**Website URL (if any):**

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