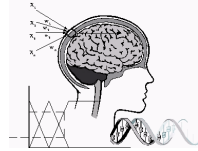# *International*

Innovation in Knowledge Based and Intelligent Engineering Systems

## INVITED SESSION SUMMARY

**Title of Session:**

Knowledge-based Data Analysis for Complex Data

**Name, Title and Affiliation of Chair:**

Prof. Mika Sato-Ilic, Institute of Systems and Information Engineering, University of Tsukuba, Japan

**Details of Session (including aim and scope):**

As the amount of data increases, data analysts face a more challenging phase for knowledge extraction from the complex and huge amount of data. Such complex data is obtained in many forms, such as high-dimensional data, big data, high-dimensional low sample-size data, sparse data, etc., in many areas. During such a dynamically changing period, the theoretical and application-oriented treatment of complex data will be more important. In such a phase, the fusion of theory and application should be accelerated for development based on knowledge extraction from the data.

From this background, in this invited session, papers are welcomed on all aspects of the theory and applications of a wide range of complex data analysis as well as knowledge processing. Some of these topics include but are not limited to:

- Soft data analysis and/or applications for complex data

- Statistical analysis and/or applications for complex data

- Decision analysis and/or applications for complex data

- Clustering/Classification and/or applications for complex data

- Pattern analysis and/or applications for complex data

- Knowledge extraction from data

- Knowledge processing and case studies related to real-world applications in fields including science, engineering, education, healthcare, and so on.

- And so on.

**Main Contributing Researchers / Research Centres (tentative, if known at this stage):**
University of Tsukuba
University of Aizu

**Website URL of Call for Papers (if any):**

**Email & Contact Details:**

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