



INTERNATIONAL

INVITED SESSION SUMMARY

Title of Session:

Real-time image and video processing in Industrial and IoT Applications using Big Data Analytics

Name, Title and Affiliation of Chair:

Awais Ahmad, Assistant Professor, Yeungnam University, Korea
Marco Anisetti, Assistant Professor, University of Milan, Italy
Ernesto Damiani, Professor, Khalifa University, UAE
Gwanggil Jeon, Associate Professor, Incheon National University, Korea

Details of Session (including aim and scope):

Data induction through electric smart devices is greater compared to information processing capacity. Now a day, data becomes humongous even coming from the single source, therefore, when data emanates from all heterogeneous sources distributed over the globe, its magnitude makes it harder to process up-to a needed scale. Big data have become standard in providing well-known solutions built-up using algorithms and techniques in resolving data processing issues. IoT makes device capable to emanate data paving the way to a number of applications even in the classical industrial manufacturing scenario. For instance, a device can benefit of an inline upgrade of specific features or specific environmental settings, increasing its performance and its ability to react to environmental changes. These improvements can derive from an underlying big data processing occurred in real time based on the data collected from the device as well as from other devices of the same type.

The intelligence after an era of distribution in the peripherals is becoming centralized again, and the central entity, the big data engine, is then able to distribute processing and storing needs.

Map reduce feature of big data supports massive data oriented process execution using distributed processing. Continuous training, and deep learning for improvements of distributed IoT device as well as advanced predictions are nowadays enabled by such an architecture making behavioural prediction available for many vertical applications.

This workshop focused but not restricted to in image- and video- related applications in IoT and Industrial scenario that can exploits big data features. It is intended to present the current state-of-the-art in this field as well as the future trends.

The topics of interest include, but are not limited to:

- IoT based real-time communication system using image processing techniques
 - Image and video enhancement approaches
 - Image processing techniques in big data analysis
 - Image based big data storage management for IoT applications
 - Image data collection, mining, and prediction methods based on big data
 - Video and image data processing in industrial applications
 - Human behavioural extraction and monitoring in big data and IoT applications
 - Models and parallel algorithms for medical imaging for IoT
 - Real-time human behavioural measurement, modelling, evaluation, reputation generation, and tools for IoT
- Big Data
- Formal models and ontologies for information and human behaviour human feature extraction and behaviour recognition
 - Real-time behaviour assessment in big data transmission with efficiency for IoT
 - Administration and interpretation of multimedia big data
 - Image base content and structure-based analytics
 - Behavioural feature based learning from big data to facilitate monitoring
 - Scalable and semantics-driven indexing of ever growing multimedia data

SPECIAL ISSUES

Relevant best papers presented at IIMSS 2018 can be extended and submitted to the special issue of “**Real-time Behavioral Monitoring in IoT Applications using Big Data Analytics,**” **Concurrency and Computation: Practice and Experience** (<http://www.cc-pe.net/journalinfo/issues/2018.html>).

The extended versions must contain at least 30% of new materials and include results related to the major topics of interest.

Main Contributing Researchers / Research Centres (tentative, if known at this stage):

Website URL of Call for Papers (if any):

Email & Contact Details:

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