IWCIM 2017
Call for Papers

International Workshop on Computational Intelligence for Multimedia Understanding (IWCIM) is the annual workshop organized by the working group *Multimedia Understanding through Semantics, Computation and Learning* (MUSCLE) of the European Research Consortium for Informatics and Mathematics (ERCIM). This year, IWCIM takes place as a satellite workshop to EUSIPCO-2017, to be held in Kos, Greece, on Saturday, September 2, 2017.

Multimedia understanding is an important part of many intelligent applications in our social life, be it in our households, or in commercial, industrial, service, and scientific environments. Analyzing raw data to provide them with semantics is essential to exploit their full potential and help us managing our everyday tasks. Nowadays, raw data normally come from a host of different sensors and other sources, and are different in nature, format, reliability and information content. Multimodal and cross-modal analysis are the only ways to use them at their best. Besides data analysis, this problem is also relevant to data description intended to help storage and mining. Interoperability and exchangeability of heterogeneous and distributed data is a need for any practical application. Semantics is information at the highest level, and inferring it from raw data (that is, from information at the lowest level) entails exploiting both data and prior information to extract structure and meaning. Computation, machine learning, statistical and Bayesian methods are tools to achieve this goal at various levels.

Besides the regular track, a special theme for 2017 has been selected: **"Signal Processing for Surveillance and Security Applications**.

Signal processing is an indispensable technology and research field for surveillance and security applications. With the advance of sensor technology and increased computational power, multimodal security and surveillance systems exploiting several modalities become more prevalent than conventional surveillance systems depending solely on single-channel visible-range video. In that respect, methods and techniques for multimodal sensor and signal analysis play instrumental role for surveillance and security applications.

This workshop aims at bringing together researchers working on different aspects of multimedia understanding, machine learning, multimodal systems and signal processing for surveillance, security and environmental monitoring applications.

Original contributions are welcome on the following topics:

General track:
- Multisensor systems
- Multimodal analysis
- Crossmodal data analysis and clustering
- Mixed-reality applications
- Activity and object detection and recognition
- Text and speech recognition
- Multimedia labeling, semantic annotation, and metadata
- Multimodal indexing and searching in very large data-bases
- Big and Linked Data
  - Search and mining Big Data
  - Large-scale recommendation systems
  - Multimedia and Multi-structured data
  - Semantic web and Linked Data
- Case studies

Special track "Signal processing for surveillance":
- Multimodal Surveillance and Security
- Activity/interaction understanding
- Intention estimation, situation awareness and decision making
- Real time signal and image processing
- Saliency analysis, compression and summarization
- Smart camera networks and pervasive computing
- Airborne and remote sensing
- Environmental monitoring
- Forensics
- Applications and case studies

Important Dates

Paper Submission: 18 June 2017

Notification of Acceptance: 16 July

Publication-ready Papers: 20 July 2017

Author/Speaker Registration: 20 July 2017

Workshop: **Sept. 2, 2017**