



# Multimedia Tools and Applications

An International Journal

Editor-in-Chief: Borko Furht

## *Call for Papers*

Special issue on “Advances in Visual Analytics and Mining Visual data”

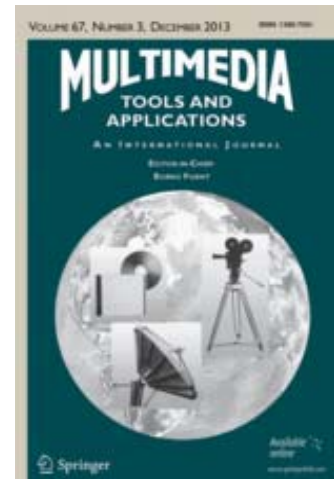
### **Guest Editors**

#### **Dr. Shadi A. Aljawarneh**

Associate Prof. in Software Engineering and Security,  
Editor of IJCAC, IGI-Global, USA;  
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#### **Dr. Oguz Bayat**

Associate Prof. in the Department of Electrical and  
Electronics Engineering of Istanbul Kemerburgaz University, Turkey



### **Aim and Scope:**

Visual and multimedia analytics is an emerging field of research combining strengths from information analytics, geospatial analytics, scientific analytics, statistical analytics, knowledge discovery, data management & knowledge representation, presentation, production and dissemination, cognition, perception and interaction. Its goal is to gain insight into homogeneous, contradictory and incomplete data through the combination of automatic analysis methods with human background knowledge and intuition.

While the scope of visual analytics is broad, one principle that has emerged over the years is the need for visual analytics systems to leverage computational methods in data mining, knowledge discovery, and machine learning for large-scale data analysis. In these systems, the human operator works alongside the computational processes in an integrated fashion - the computer can sift through large amounts of data and identify the relevant information, while the human interactively explores the reduced data space to discover trends and patterns and make informed decisions. The two components operate in coordination, allowing for a continuous and cooperative analytical loop.

This special issue will publish papers that address how computational methods can be integrated into interactive visualization systems from a variety of perspectives. The dimensions listed below indicate the range of work that is relevant to the special issue.

This special issue will be intended for researchers and practitioners who are interested in issues that arise from using visual analytics and mining visual data.

**Topics to be discussed in this issue include the following:**

**Mining Visual data**

- Information Extraction from Visual Data
- Visual Analytics and Summarization Techniques
- Visual Clustering Algorithms
- Dimensionality Reduction and Topic Modeling
- Transfer Learning from Visual Mining
- Graphical models and Probabilistic models
- Text Mining in Multimedia
- Text Analytics in social medial
- Visual Analytics in Social Media

**Models, Theory, and Methods for Interactive Computational Visual Analytics**

- Mathematical foundations of data transformations
- Data management and knowledge representation
- Integration of multiple or disparate simulation models
- Interaction, analytical discourse, and sensemaking
- Analytic provenance and quantification and storage of interactions

**Real-World Applications Using Interactive Computational Visual Analytics**

- Large-scale (real-world scale) data
- High-dimensional data
- Real-time data
- Streaming data
- Geospatial data

**Evaluation of Interactive Computational Visual Analytics**

- Empirical and observational studies
- User studies with general implications
- Novel evaluation techniques

**Paper Selection:**

Each paper for submission should be formatted according to the style and length limit of Multimedia Tools and Applications. Please refer complete Author Guidelines on the website. Note that published papers and those currently under review by other journals or conferences are prohibited. Each paper will be reviewed rigorously, and possibly in two rounds, i.e., minor/major revisions will undergo another round of review. Prospective authors are invited to submit their papers directly via the online submission system at <https://www.editorialmanager.com/mtap/>.

**Important Dates:**

**Submission of manuscript:** May 26, 2017

**First notification:** July 14, 2017

**Submission of revised manuscript:** August 26, 2017

**Final notification:** September 26, 2017



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