



International Conference on Computers & Industrial Engineering CIE45



**Call for papers -- Special Session on:
Mining and classification models for Biomedical data or image analysis
for CIE45
October 28-30, 2015 - Metz, France**

Session chair

HdR- Dr. Camel Tanougast, LCOMS, University of Lorraine, France.

Dr. Ahmad Chaddad, University of Texas MD Anderson Cancer Center, France

Session description

Biomedical data has a high impact on nowadays society and is of particular interest for the scientific community. Indeed, signals and images have become an essential component in many fields of biomedical research and clinical practice. Compared with data from general application domains, biomedical data present particular characteristics and specificities because biomedical data are often characterized as having large volumes, complex structures, high dimensionality, evolving biological concepts, and insufficient data modeling practices. As a consequence, the mining and processing data techniques must be adapted and dedicated to such signals for a wide variety of contexts in the field of computer vision, with applications ranging from object recognition and classification to image alignment and tracking.

For this special session we wish to highlight the potential of using models for advancing scientific research in biomedical image and data analysis. We are looking for original, innovative and models and inference algorithms, which demonstrate the advantages in terms of accuracy or interpretability over other state-of-art methods in the analysis of biomedical data. This special issue will bridge the gap between researchers in computer vision and complex, biomedical data or image analysis and machine learning by providing a platform for the mining or exploration of biomedical big data aspects for difficult clinical problems within a variety of biomedical data or imaging contexts for the advancement of modeling and analysis of biomedical imaging data. Topics for this session include, but are not limited to:

Topics

- ▶ *Medical Image Processing, Analysis, and Visualization (application enables quantitative analysis and visualization of medical images of numerous modalities such as PET, MRI, CT, or microscopy),*
- ▶ *Biomedical image analysis and classification applications: Image segmentation/parcellation, Image registration/data fusion, Image reconstruction,*
- ▶ *Develop tools, computational methods and algorithms to analyze, quantify and visualize biomedical data to biomedical research problems and to support the discovery and advancement of biomedical knowledge,*
- ▶ *Mining and classification Methodologies: Modeling of multi-modal data, Model comparison and averaging*
- ▶ *Big visual Biomedical image data formation, storage, coding and transmission, Big visual Biomedical information summarization and representation,*
- ▶ *Biomedical Imaging, Computer-Aided Detection and Diagnosis, Signal and Image Processing, Imaging Radiomics, Brain-Computer Interfaces and Medical Imaging Analysis, Computational Biology & Bioinformatics, Clinical Engineering, Healthcare Information Systems & Telemedicine.*

Submission

Please submit your full paper on the EasyChair website:

<https://easychair.org/conferences/?conf=cie45>

- May 31, 2015:** deadline for paper submission
- June 21, 2015:** notification of acceptance/reject
- July 15, 2015:** deadline for final paper
- August 16, 2015:** deadline for registration.

<http://cie45.event.univ-lorraine.fr/>

Practical information

All papers must be written in English and should describe original work. The length of the paper is limited to a maximum of 8 pages (in the standard CIE conference format). For up-to-date information and paper submission, please visit the conference submission page:

<https://easychair.org/conferences/?conf=cie45>

The proceedings of CIE 45 will be published on the web page of the conference and that of Computers & Industrial Engineering. They carry the identifier ISSN of 2164-8670 for the CD-ROM version and 2164-8689 for the Online version. A special issue of the international journal "COMPUTERS & INDUSTRIAL ENGINEERING" will be dedicated to the best papers presented at the conference after rigorous reviews.

For any practical issue please write to: cie45@easychair.org

