



2014

# International Conference on Image Processing Theory, Tools & Applications

<http://ipta14.ibisc.univ-evry.fr>

October 14-17, 2014, Paris – France



## Call For Papers



**General Chair:**  
Khalifa Djemal (France)

**Honouree Chairs:**  
Hichem Maaref (France)  
Sos Agaian (USA)  
Hichem Frigui (USA)

**Program Chairs:**  
William Puech (France)  
Samir Otmane (France)  
Rachid Jennane (France)

**Program Co-chairs:**  
Gilles Gesquière (France)  
Adrian Bors (UK)

**Invited Speakes & Tutorials  
Chairs:**  
Su Ruan (France)  
Hadid Abdennour (Finlande)

**Special Sessions Chairs:**  
Christine Toumoulin (France)  
Mourad Ousallah (U K)

**Organization members:**  
Florent Perciot (France)  
Frédéric Davesne (France)  
Rostom Kachouri (France)  
Junior GOUBALAN (France)  
Ryma DAOUDI (France)



For further information, the  
contact secretariat is at:

[iptta@ibisc.univ-evry.fr](mailto:iptta@ibisc.univ-evry.fr)

The fourth edition of the International Conference on Image Processing Theory, Tools and Applications IPTA'14 aims at gathering challenging international researchers, innovators, educators, and practitioners in image processing theory and tools, for attending extensive educational high level materials, sharing their achievements, exchanging their experiences and discussing future orientations. The conference will also offer an opportunity to fill the gap between image processing researchers and people working in other application fields such as doctors, radiotherapists and industrial parts. Closer link will be focused on between image processing algorithms and the way to implement these algorithms for best performances. To address these challenges and explore these new opportunities, the conference aims to provide an excellent forum for all experts in these areas to meet and discuss various important issues on image processing and applications. Four areas compose the conference topics:

### 1: Image acquisition, coding and compression tools

- Image acquisition systems and information extraction,
- Algorithm-architecture adequacy in image processing
- Images processing tools
- Images coding and compression
- Geometrical Compression of 3D data,
- Watermarking

### 2: Image and video processing, computer vision:

- Image filtering and restoration,
- Image segmentation and detection,
- Image modelling,
- Estimation, representation and image analysis,
- Multivariate image processing
- Pattern recognition and shapes analysis,
- Tracking and dynamical analysis,
- Geometrical image description,
- Features extraction and description,
- Image interpretation and recognition,
- Statistical Learning methods for images classification,
- Complex systems for images analysis.
- Hyperspectral image analysis and its applications,

### 3: Virtual and augmented reality, visualization and interaction:

- Software architecture for VR and AR system
- Real time modelling and animating virtual environments
- Multimodal rendering (visual, haptic,...)
- 3D interaction techniques and user assistance
- Interaction based on tangible interface
- 3D tracking based on hybrid sensors (vision, inertial, GPS,...)
- Natural User Interaction (NUI) in Virtual/AR
- Systems and Software Architectures for Design NUIs
- Methods and tools for Evaluation of NUIs
- User experiences and Applications based on NUI
- NUI in Handheld AR Environments

### 4: Applications:

- Content based image retrieval systems,
- Biological and medical imaging,
- Image processing for biological systems,
- Visual information processing,
- Biometric authentication, face and iris recognition,
- Robotics applications,
- Diagnosis optimization methods,
- Medical imaging systems technology,
- Classification tools for image-based diagnosis,
- Vision systems

### IMPORTANT DATES:

**Regular paper submissions:** May 5<sup>th</sup> 2014

**Regular paper notification:** June 5<sup>th</sup> 2014

**Final Paper Submission and Registration:** June 20<sup>th</sup> 2014

**PAPER SUBMISSION:** Papers describing general surveys, image processing fundamental theory, specific image processing applications, advanced prototypes, tools and methodologies are welcomed. Paper submission to IPTA conference should be done via: <http://gsc11.cemif.univ-evry.fr/ipta14/myreview/SubmitAbstract.php>

Accepted and Extended papers describing original contributions are encouraged in the conference topics mentioned above and are subject of selection for following international journals:

- International Journal of Signal and Imaging Systems Engineering (IJSISE),inderscience:  
<http://www.inderscience.com/ijsise>
- BioMedical Engineering and Research (IRBM), elsevier:  
<http://www.sciencedirect.com/science/journal/19590318>

### SPECIAL SESSIONS:

- Special Session on Statistical Image Analysis for computer-aided detection and diagnosis on Medical and Biological Images (SIA-MBI)
- Special Session on Features Extraction methods for Medical Images Analysis (FEMIA)
- Special Session on Image Processing using Metaheuristics Optimization Algorithms (IP-MOA)

### KEYNOTE SPEAKERS:

- ❖ Prof. Laurent D. Cohen, CEREMADE Laboratory, UMR CNRS 7534, University Paris Dauphine PSL\*, France  
<http://www.ceremade.dauphine.fr/~cohen>
- ❖ Prof. Matti Pietikäinen, University of Oulu, Finland <http://www.cse.oulu.fi/MattiPietikainen>
- ❖ Prof. Yoichi Sato, Institute of Industrial Science, University of Tokyo, Japan  
<http://www.hci.iis.u-tokyo.ac.jp/~ysato>
- ❖ Prof. Antoine Manzanera, U2IS-RV / ENSTA-ParisTech, Palaiseau, France  
[http://www.ensta-paristech.fr/~manzaner/index\\_eng.html](http://www.ensta-paristech.fr/~manzaner/index_eng.html)
- ❖ Prof. Abbas Amira, University of the West of Scotland, United Kingdom  
<http://www.uws.ac.uk/staff-profiles/computing/abbes-amira/>

### PUBLICATION:

Accepted papers will be published and indexed by IEEE Xplore, by Thomson Reuters Conference Proceedings Citation Index (ISI) and Scopus.