IEEE Transactions on Pattern Analysis and Machine Intelligence Special Issue:

<u>The Computational Face</u>

Aims and scope

Automated face analysis is a research topic that has received so much attention from the Computer Vision and Pattern Recognition communities in the past, that research progress has made some think that problems such as face recognition or face detection are solved. However, many aspects of face analysis are still open problems, including the implementation of *large scale* face recognition/detection methods for images captured in *real* application conditions; 3D face analysis and face pose estimation from 2D; face analysis under extreme pose variation and occlusion, or going beyond identity recognition, (e.g., emotion recognition, micro-expression analysis, etc). Luckily, these are also areas in which the community is now making rapid progress, with the constant improvement of new published methods (e.g. Deep Learning) that push the state-of-the-art. Applications are countless, like security and video surveillance, human computer/robot interaction, communication, entertainment, and commerce, while having an important social impact in assistive technologies for education and health.

Topics and guidelines
Manuscripts making **fundamental or practical** contributions on Computational Face Analysis are solicited, including, but not limited to, the following topics:

- Deep learning for face analysis
- Face detection
- Face alignment and tracking
- Face recognition/verification,
- Representation learning for face analysis
- Facial attribute detection including age, gender, ethnicity recognition
- Multimodal approaches to face analysis
- Facial expression analysis
- Large scale computational approaches to face analysis
- 3D face analysis, 3D face analysis from 2D
- Application of automatic face analysis

This issue is a follow up to of a series of events (see gesture.chalearn.org), including academic challenges and workshops organized at CVPR 2011, CVPR 2012, ICPR 2012, ICMI 2013, ECCV 2014, CVPR 2015, ICCV2015 and CVPR 2016. Submission by participants and attendees to these events is encouraged, although the special issue is open to the public in general. All papers will undergo the same rigorous TPAMI review process. Please refer to the TPAMI website for detailed instructions on paper submission https://www.computer.org/web/tpami

Important dates:
Submission system starts receiving submissions: January 15th, 2017
Paper submission deadline: March, 1st, 2017
Tentative paper acceptance/rejection notification: July, 1st, 2017
Tentative paper publication: November, 15th, 2017

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