IPTA 2014

International Conference on Image Processing Theory, Tools & Applications

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

October 14-17, 2014, Paris – France

Call For Special Session

Special Session Chair(s):

1) **Chair 1 : Hamouche OULHADJ**

2) **Chair 2: Amir NAKIB**

3) **Chair 3: Patrick SIARRY**

Special Session on Image Processing using Metaheuristics Optimization Algorithms (IP-MOA)

Aims & topics:

The aim is to provide an overview of the use of metaheuristics optimization algorithms in image processing, in particular to solve the problem of segmentation. Located at the beginning of the processing chain, the segmentation is a critical step that affects widely the processing tasks carried further down (feature extraction, classification, pattern recognition, scene analysis and interpretation). Therefore, it is essential to optimize the segmentation step properly in order to minimize its impact on the other processing tasks performed thereafter. The literature abounds with research on image segmentation, which can be categorized in summary way into region or edge-based approach. Whatever the approach developed, the results of image segmentation are generally in-below expectation when we face problems such as those posed by the low contrast images or very blurred and noisy images. In recent years, new methods of image segmentation, using metaheuristics optimization algorithms, provide a new avenue of research on how to solve the challenge of image segmentation, especially when the data are imprecise or uncertain. The robustness of these methods lies in their ability to better manage the uncertainty problem of assigning a pixel to a region. All works involving metaheuristics optimization algorithms to face the problem of image segmentation, or other problems of image processing such as image denoising, image compression, restoration or image registration, can be submitted to this session.

Topics of interest:

- Metaheuristics optimization algorithms,
- Image segmentation, Image denoising,
- Compression,
- Restoration and Image registration.

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