Special Session Chairs:

Yu Guo, Bioengineering department, Tianjing University, China.
guoyu@tju.edu.cn

Su Ruan, LITIS, University of Rouen Normandy, France.
su.ruan@univ-rouen.fr

IEEE France Section

GENOPOLE
VIVRE L'INNOVATION

université evry val d'essonne
université PARIS-SACLAY

CALL FOR PAPERS: Special Session

Advanced Computational Intelligence in Medical and Biomedical Imaging

Medical and Biomedical imaging techniques, revealing structural and functional properties of biological systems at the molecular, cellular, tissue, and organ scales, are widely used for medical researches and clinical practices. Computational intelligence plays an essential role in the medical and biomedical imaging fields for diagnosis, treatment and follow up of patient diseases, including image reconstruction, image enhancement, segmentation, registration and fusion, computer aided diagnosis, image-guided therapy. Recently, the imaging modalities advancement lead to the increased complexity of medical and biomedical image data. The wide range of scientific and clinical backgrounds involved also results in the difficulty of medical image processing and analysis. Thus, more sophisticated and efficient computational methods are needed.

This special session aims to present original algorithms, models and applications in the field of medical and biomedical image processing and analysis. The best papers will be selected for publication in the Elsevier IRBM (Innovation and Research in BioMedical engineering) journal.

The session welcomes papers on the following research topics (but not limited to):

- Image segmentation of anatomical structures or lesions
- Image enhancement (e.g., de-noising or super-resolution dedicated to fMRI, DWI, MRI or CT).
- Mono and multimodal image registration.
- Multi-modality fusion for diagnosis, image analysis and image guided interventions
- Cellular image analysis
- Pathological image analysis
- Machine learning in medical imaging and image analysis
- Computer-aided detection, diagnosis and grading
- Radiomic and radiogenomic analysis

For further information, please contact **iptta20@gmail.com**