

Tentative Outline

Special Thematic Issue for Current Medical Imaging

Title: Deep Transfer Learning Used in Biomedical Imaging and Data

Guest Editors: *Honghao Gao, and Ramón J. Durán Barroso*

Aims & Scope:

In recent years, the development of biomedical imaging techniques, integrative sensors, and artificial intelligence, brings many benefits to the protection of health. We can collect, measure, and analyze vast volumes of health-related data using the technologies of computing and networking, leading to tremendous opportunities for the health and biomedical community. Biomedical intelligence is considered one of the most promising directions for healthcare development. Meanwhile, these technologies have also brought new challenges and issues.

The aims of this SI are 1) to present the state-of-the-art research on Deep Transfer Learning Used in Biomedical Imaging and Data, and 2) to provide a forum for experts to disseminate their recent advances and views on future perspectives in the field. Researchers from academic fields and industries worldwide are encouraged to submit high quality unpublished original research articles as well as review articles in broad areas relevant to Deep Transfer Learning theories and technologies for Biomedical Imaging and Data.

Keywords:

Deep Transfer Learning, AI, Biomedical Imaging, Healthcare

Subtopics:

The subtopics to be covered within this issue are listed below:

1. Informatics of multi-modal biomedical data, such as genetic data, biomedical data, and data collected from mobile healthcare devices.
2. Prescriptive and predictive analytics based on genetic sequencing data
3. Collection, visualization, analysis, and mining of data about mobile health.
4. Deep learning-based processing and diagnostic analysis of biomedical images, such as nodule detection in CT images, enhancement of low-quality images, etc.
5. Intelligent interrogation systems for biomedical Imaging.
6. Construction, analysis, and use of health-related knowledge graph for biomedical Imaging.

Schedule:

- ✧ Manuscript submission deadline: Oct 1, 2020
- ✧ Announcement of acceptance by the Guest Editors: Nov 15 2020
- ✧ Final manuscripts due: Dec 15 2020

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