Call for Papers

Brain Informatics

Special Issue on
Cognitive Intelligence for Brain Imaging

Guest Editors

Gunasekaran Manogaran, University of California, Davis, USA, gmanogaran@ucdavis.edu
Hassan Qudrat-Ullah, York University, Canada, hassanq@yorku.ca
Qin Xin, University of the Faroe Islands, Faroe Islands, qinx@setur.fo

Brain imaging is the process of studies and researches done with the use of imaging techniques of the structure or function of the brain. These images are captured by inducing x-ray, radio frequency process or the magnetic field in the neural system. Some of the image capturing techniques like Functional magnetic resonance imaging (fMRI), Computed tomography (CT), Positron Emission Tomography (PET), Electroencephalography (EEG), Magnetoencephalography (MEG), and Near infrared spectroscopy (NIRS) are used for both clinical and research purposes. They help in the process to learn the normal functionality of the brain, occurrence of different variation during injuries and diseases, activity based task studies and many more.

Cognition is the process of sensed information from various devices, which are then transformed or recovered accordingly for the perusal of the data. Providing an intelligent environment for a Cognitive can be more instinctive and will have the capabilities of tuning the received shaped into analytical based actions. Brain imaging is considered to be one of the most important research areas. When cognitive intelligence is applied in the process of imaging the learning and understanding of the brain related stimulus can be more accurate and it can transform the problems into implemental solutions. Several imaging techniques mentioned above can be used to understand the machine based learning functions with respect to the brains based activities to develop sophisticated human cognitive functions. Intelligent methods of handling the brain imaging system can make the scientists and researchers to have a smart environment where the processing of the data has a statistically significant level of importance. In cognitive intelligence the predicting of brain images using various techniques can do something that a very experienced neuroscientist cannot do. This is where the importance and essentiality of cognitive intelligence stands.

This special issue on Cognitive Intelligence for Brain Imaging has the significance of providing an improved understanding the various factors contributing to the views of the working of human brain with powerful brain-imaging techniques. This issue will also discuss the new and intelligent methods of analysis which have also expanded the cognitive landscape to the next level. Researchers and practitioners working in related areas are invited to submit research papers for possible publication in this issue. The following topics are welcome but not restricted to:

- Methodological challenges for understanding cognitive development in brain imaging
- The emerging cognitive intelligence in brain imaging process
- Functional and structural brain imaging study on cognition based intelligence
- The role of cognitive intelligent architectures for brain imaging
- Various Computational Models used in the process of brain imaging
- The latest advances in the structural analysis of brain-behavior relationship
- Intelligent cognitive analytics for brain and mental health
- Computational Methods in processing and analysis of brain imaging
- Cognitive Model for understanding Brain MRI and Pathology Images
- Intelligent and automatic synthesis of human functional brain imaging data
- Cognitive brain imaging techniques and their applications in intelligent decision making
- Challenges and future directions of brain imaging studies with focus on understanding brain functions

**Important Dates**

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**Submission Instructions**

For submission instructions please visit journal website [https://braininformatics.springeropen.com/](https://braininformatics.springeropen.com/) or contact Dr Gunasekaran Manogaran, gmanogaran@ucdavis.edu.

The complete manuscript should be submitted through online submission system at: [https://www.editorialmanager.com/brai/](https://www.editorialmanager.com/brai/).