J-BHI Special Issue on "Interactive Virtual Environments for Neuroscience"

Virtual and augmented reality are computational technologies that provide artificial sensory feedback, allowing a subject to experiment activities and events similar to those that can be found in real life and to develop motor and cognitive abilities in immersive three-dimensional environments that resemble the real world, besides being economically viable. Virtual systems with clinical purposes have an important role in health care: they are easily manipulated by specialists as well as by patients, acting as a motivational source for continued treatment that is less aggressive and tedious than traditional treatments, thus, be an interesting approach as a complement and alternative to conventional treatment for these patients, establishing a new standard in the individual's rehabilitation strategy.

This special issue is based on the technological advances considered in the process of neurorehabilitation using virtual environments, serious games among other technologies for a playful, non-invasive treatment and that has shown to be quite efficient and effective in improving the clinical condition of the patients and their (re) insertion into society. Furthermore, it aims to introduce the recent progress of virtual environments in Neuroscience and addresses the challenges in developing dedicated systems for various clinical applications, while proposing new ideas and directions for future development.

Potential topics include but are not limited to the following:
- Virtual and Augmented Reality
- Brain Image Analysis and Processing
- 3D Visualization, Modeling and Animation Techniques
- Motion Capture
- Human Computer Interaction
- Brain Computer Interfaces/ Interaction
- Internet of Brain Things
- Serious Game
- Neurorobotics

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