Special Issue

Sensing Technologies in Neuroscience and Brain Research

Message from the Guest Editor

This Special Issue focuses on novel neurotechnology methods in neuroscience and brain research. Recent advancements in implantable and non-invasive sensing devices have significantly improved their size, flexibility, and biocompatibility. The rise of multielectrode arrays, both in vivo and in vitro, has propelled innovations in optical approaches. Currently, optical and electrical modalities are converging, with transparent neurotechnology devices gaining traction. The aim is to gather contributions from researchers, engineers, and scientists in the neurotechnology and neuroscience fields. Topics will include novel electrode designs for early detection, monitoring, and treatment evaluation of neurological conditions such as epilepsy, Alzheimer's disease, Parkinson's disease, and attention deficit hyperactivity disorder (ADHD). Additionally, we will explore the application of machine learning algorithms to analyze neuronal population activity and cellular compartments. The objective is to provide a comprehensive overview of the latest advancements, challenges, and future directions in novel neurotechnology devices.

Guest Editor

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Message from the Editor-in-Chief

Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. Sensors organizes Special Issues devoted to specific sensing areas and applications each year.

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