Special Issue

From Science to Recovery: Bridging Sensing Technology and Neurology for a Better Future

Message from the Guest Editors

This Special Issue focuses on the latest advancements in innovative technologies for the assessment, monitoring, and treatment of neurological and neurorehabilitation conditions. As artificial intelligence (Al) and neuroengineering continue to evolve, there is an increasing need for solutions that address the complexities of neurological disorders and enhance patient outcomes.

We welcome submissions that present novel sensors, systems, or techniques for evaluating various aspects of the neurology and neurorehabilitation process. Topics of interest include, but are not limited to, neurophysiological activity, motor control, cardiorespiratory function, sleep monitoring, robotic technologies, and overall neurorehabilitation—critical factors in optimizing recovery strategies.

Key areas of focus include the following:

Advanced neurophysiological monitoring systems for real-time brain and spinal cord assessment.

Wearable sensors for tracking motor function and mobility.

Smart systems for evaluating cardiorespiratory responses during rehabilitation.

Sleep analysis technologies linked to neurological recovery.

Al-driven tools for personalized diagnosis and treatment.

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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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