

Special Issue

Advances in Sensors and Metering Solutions for Smart Grids

Message from the Guest Editors

The global transition toward Smart Grids requires networks that are increasingly observable, controllable, and automated. At the core of this transformation are advanced sensing and metering solutions, which provide the high-quality data necessary for real-time monitoring. As distributed energy resources become widespread, traditional infrastructures face critical challenges regarding power quality, synchronization, and data analytics. This Special Issue addresses the convergence of advanced instrumentation and electrical grids modernization. It covers the full measurement chain, from physical transducers to signal processing and system integration, with a particular focus on sensors design, development, and applications. We invite contributions focusing on novel sensor designs, distributed measurement architectures, and measurement techniques that emphasize metrological performance and uncertainty analysis. The ultimate goal is to propose optimized sensing technologies and novel measurement systems to enable active management and control of future power grids.

Guest Editors

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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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