



## Advances in Electrical Systems for Environmental and Human Sustainability

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### Message from the Guest Editors

The increasing demand for sustainable energy solutions has led to the development of advanced electrical systems that can effectively manage and optimize PV, energy storage, and WPT systems. One crucial aspect of this is the modeling and simulation of these kinds of systems, which are widely used in electric vehicles and renewable energy systems. Another important aspect is the modeling of battery behavior that is essential for predicting performance, estimating capacity and voltage, and ensuring safe and efficient operation. The importance of these advances in electrical systems for environmental and human sustainability cannot be overstated. The use of sustainable energy solutions is critical for reducing greenhouse gas emissions and mitigating the impacts of climate change.

This Special Issue is dedicated to exploring the latest advances in research on wireless power transfer, photovoltaic systems, battery storage, electrical vehicles, and artificial intelligence (AI). These are all critical components of modern power systems, and their continued development is essential for ensuring the efficient and sustainable generation, distribution, and consumption of electrical energy.





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## Message from the Editor-in-Chief

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