

## Special Issue

# Emerging Trends in Energy Management: Techniques, Applications and Future Directions

### Message from the Guest Editors

Advances in smart home technologies, such as sensors, automation, and real-time data analytics, are enabling homes to optimize energy use, enhance comfort, and integrate renewable resources like solar panels more effectively. Simultaneously, smart grids are enhancing communication between energy providers and consumers, improving grid stability, and facilitating the integration of renewable energy. Technologies like artificial intelligence (AI) and machine learning are providing advanced tools for predictive analytics and dynamic energy management. Additionally, advancements in energy storage are boosting the reliability and scalability of renewable sources, while digital innovations are enhancing the security and efficiency of energy transactions. This Special Issue invites researchers to submit contributions that explore these advancements, focusing on techniques, applications, and future directions in energy management, including but not limited to these aspects. The aim is to gather high-quality scientific papers that offer insights into how these technologies are transforming the field and to identify opportunities for further research and innovation.

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### Guest Editors

Dr. Roberto Romano

Dr. Alessandro Lampasi

Dr. Sabino Pipolo

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### Deadline for manuscript submissions

20 September 2025



## Applied Sciences

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### Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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### Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo  
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