# Special Issue

# Enhancement of Battery Lifespan, Safety, and Performance through Estimation and Control Theory and Algorithms

## Message from the Guest Editors

Rechargeable batteries have become ubiquitous in wide-ranging applications, such as electric vehicles, consumer electronics, power equipment, household appliances, and aerospace equipment. Batteries promise a way to greener transportation; however, cost and limited battery lifespan impede progress in the electrification of transportation. An increasing number of battery fire incidents indicate the inadequacy of state-of-the-art battery management systems. Consequently, it is vital to develop an in-depth understanding on the issues affecting the battery lifespan, safety, and performance so that appropriate control algorithms can be developed to improve them. This Special Issue aims to publish recent works that are focused on improving battery lifespan, safety, and performance. The topics of interest to this Special Issue include but are not limited to:

- State-of-health modeling of rechargeable batteries;
- Thermal modeling and management strategies of battery packs;
- Strategies for optimized battery charging under different constraints;
- Battery-pack cell balancing strategies;
- Experimental studies on battery life, safety, and performance.

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## Deadline for manuscript submissions

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*Energies* is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

## Editor-in-Chief

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