

Studies on the Development of Smart Grids, Power Systems and Energy-Efficient Cities

Guest Editor:

Dr. Xiao Yu

School of Electrical Engineering
and Automation, Tianjin
University of Technology, Tianjin
300387, China

Deadline for manuscript
submissions:

10 July 2024

Message from the Guest Editor

Dear Colleagues,

The urban power supply is evolving in response to increasing demands and technological advancements. Modern information technology is being utilized to construct a more reliable, safe, economical, and environmentally friendly power grid system. However, the construction of intelligent power systems still faces challenges including unclear equipment and network topology, inconsistent communication standard protocols, and difficulty in real-time operation data analysis and fault diagnosis. Digital, automatic, and intelligent technologies, such as artificial intelligence, big data, and the Internet of Things, are expected to help in monitoring, controlling, and optimizing the power system process, providing new approaches for sustainable development.

This Special Issue invites papers on innovative research related to power grid construction, including topics such as applications of artificial intelligence and image processing in intelligent cities, smart cities data processing, energy-saving urban development, new energy systems, and machine learning technologies for smart buildings.

Dr. Xiao Yu
Guest Editor



mdpi.com/si/170091

Special Issue

Editor-in-Chief

Prof. Dr. David Arditi

Construction Engineering and
Management Program,
Department of Civil,
Architectural, and Environmental
Engineering, Illinois Institute of
Technology, 3201 South
Dearborn Street, Chicago, IL
60616, USA

Message from the Editor-in-Chief

Current urban environments are home to multi-modal transit systems, extensive energy grids, a building stock, and integrated services. Sprawling neighborhoods are composed of buildings that accommodate living and working quarters. However, it is expected that the cities and communities of the future will face complex and enormous challenges, including maintenance, interconnectivity, resilience, energy efficiency, and sustainability issues, to name but a few. A smart city uses advanced technologies and a digital infrastructure to improve the outcomes in every aspect of a city's operations. A smart building optimizes the experience of occupants, staff, and management by using a modern and connected environment. Innovations in technology that can bring dramatic improvements to design, planning, and policy are critical in developing the cities and buildings of the future.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility: indexed within Scopus, SCIE (Web of Science), Inspec, and other databases.

Journal Rank: JCR - Q2 (*Engineering, Civil*) / CiteScore - Q1 (*Architecture*)

Contact Us

Buildings Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/buildings
buildings@mdpi.com
[X@Buildings_MDPI](https://twitter.com/Buildings_MDPI)