Call For Papers

IEEE Transactions on Industry Applications

Special Issue on

Smart Buildings for Smart Cities

Aims and Scope

It is a global challenge to reduce environmental impact and the carbon footprint. At the same time, societal development needs to be addressed for societal resilience. Modern cities are facing the challenge of combining competitiveness on a global city scale and sustainable urban development to become smart cities.

The huge concern in increased greenhouse gas emissions, and evolving laws and regulations leads to a focus in smart building to reduce energy demand and improve energy efficiency.

Smart Building is the basic building block that will enable a true transformation of our cities through which one can have safe, sustainable, connected, and smart environments for the majority of the world's population as the buildings get smarter. There are various supporting technologies and requirements of smart buildings for smart cities. When equipped with smart home systems, data-driven energy modeling and simulation techniques can significantly transfer the world of smart cities.

It is now essential to consider not only the smart building environmental impact, but also its overall social performance and cost reduction over the building's lifecycle.

To gain insight into how the industry and companies are achieving smart building sustainability goals in a complex, challenging situation that is undergoing increasing and evolving environmental issues, regulations, and expectations, it is important to drive innovation and technology deployments that will ultimately enable vital data collection and analysis needed to assess, monitor, and maintain sustainability in a smart building and across campus environments, smart communities, and smart cities as a whole.

This special issue supports and encourages researchers, engineers, managers, academics and practitioners who collaborate in a multidisciplinary way to converge towards a unique, complex, adaptable, marketable and resilient global solution. It will also provide a practical aid for decision-makers to push for low-carbon economy, supported by scientific contributions, which make smart buildings for smart cities feasible.

The special issue aims to publish work on multidisciplinary research for novel, scientific, technological insights, principles, algorithms, and experiences on technologies, case studies, novel approaches, and visionary ideas related to data-driven innovative solutions and big data-powered applications to cope with the real world challenges for smart buildings.

Topics of interest include, but are not limited to:

- Big data collection and analysis for smart and connected buildings

- Social computing big data and networks for smart buildings
- Big data security and privacy for smart buildings
- Practical deployment and case studies, and industry applications
- Net-zero energy buildings
- Architectures and protocols for smart buildings
- Building management system
- Power electronic for management of energy flows in buildings
- Sensors networks
- Prosumer side management
- Smart homes
- Blockchain
- Cyber-physical systems and society
- Reliability, security, privacy and trust
- Applications, business and social issues
- Data fusion strategies for energy efficiency for individual buildings
- Building certificate
- Standards development
- Policy formulation
- Data-driven simulation for energy-consumption prediction in smart buildings
- Artificial intelligence based future smart building modeling and simulation

Paper Submission Format and Guidelines

All submitted papers must be clearly written in English and must contain only original work, which has not been published by, or is currently under review for, any other journal, conference, symposium, or workshop. Submissions must follow the current requirement for the IEEE Transactions on Industry Applications. Detailed submission guidelines are available under "Guide for Authors" at:

https://ias.ieee.org/publications/ieee-transactions-on-industry-applications/information-for-authors.html

Invitations will be given by the Technical Committee Paper Review Chair (TCPRC), Georges Zissis, Toulouse 3 University, France.

The papers are peer reviewed in accordance with the requirements set forth in the IEEE Publication Services and Products Board Operations Manual (https://pspb.ieee.org/images/files/files/opsmanual.pdf). Each published paper was reviewed by a minimum of two independent reviewers using a single-blind peer review process, where the identities of the reviewers are not known to the authors, but the reviewers know the identities of the authors. Papers will be screened for plagiarism before acceptance.

Requests for additional information should be addressed to the guest editors.

Guest Editors

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Important Deadlines

Activity	Deadline
Submission of Abstract (as per the Call for Papers)	1-Dec-21
Submitting Invitations	12-Jan-22
Initial Submission of Manuscript and Copyright Transfer	9-Feb-22
Paper Status Decision	10-Aug-22
Submission of Final Files in ScholarOne Manuscripts	7-Sep-22
All Manuscripts transmitted electronically to IEEE for Publication	21-Sep-22
Paper Publication	**Transactions Jan/Feb 2023**