



# ANNUAL CONFERENCE OF THE IEEE INDUSTRIAL ELECTRONICS SOCIETY

Chicago | Illinois, November 3-6, 2024

**Special Session on**

**Building and Home Automation**

**Organized and co-chaired by:**

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## Call for Papers

### Technical Outline of the Session and Topics:

Building automation is the key to successful building operation. By integrating all building systems it can leverage comfort, energy efficiency and cost efficiency. The integration of monitoring, alarming, energy management, flexible operation and many more requires advances in tools and methods. Methods from the domains of control, simulation, machine learning, and business intelligence can help to solve the problems.

### Topics of the Session include, but are not limited to:

- Advanced control (predictive control, model-predictive control, event-based control, cooperative systems, agent-based optimization)
- Simulation support for building automation (simulation-based optimizations, grey box modeling, stochastic modeling, forecasting, aggregation, tools for assessment of optimization measures)
- Data analytics (building performance analysis, forecasting, adaptive alarming)
- Fault Detection and Diagnosis (monitoring, fault detection, model-based diagnosis)
- Sensor and actuator networks (wireless networks, wired networks, hybrid technologies)
- Low-power solutions (design of ultra-low power wireless sensor networks and embedded systems)
- Availability (self-adaptation, fault tolerance, reliability, safety and security)
- Interoperability (design automation, system modeling, self organization, deployment optimization)
- Integration aspects (component-based architectures, service-oriented architecture, semantics, information modeling and ontologies, cloud computing, integration into smart grids and the Internet of Things)
- Applications and demonstrations (practice, methodologies, and architectures)

### Author's schedule:

Deadline for submission of special session papers	April 15, 2024
Notification of acceptance	June 10, 2024
Deadline for submission of final manuscript	July 01, 2024
Early submission is highly encouraged for early decision notifications!	



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All the instructions for paper submission are included in the conference website:

[www.iecon-2024.org](http://www.iecon-2024.org)