**Technical Track on**

**Smart Building Technologies**

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# Scope

This track covers latest advances and research results on digital technologies in buildings, addressing building automation, IoT applications, home automation, artificial intelligence and related research fields to enable user friendly, robust and interoperable systems.

# Topics

* Semantic technologies, ontologies, taxonomies and meta-data representations in buildings
* Data analytics, data modelling technologies for building components, analysis of smart sensor data, information processing of monitoring data
* Home Assistants and their applications
* Applications of artificial intelligence, data mining and machine learning (reasoning, fault and failure detection, user interaction, autonomous operation)
* Augmented and virtual reality in buildings
* Research on Information models (OPC UA, MQTT, BIM – Building Information Modeling, BACnet, LonWorks, KNX and other information models)
* Dependable building automation: Self-configuring components, Unattended operation and automatic configuration, self-healing systems
* Open ecosystems for home and building automation
* Security management of building automation systems: secure updating, engineering and deployment
* User experience: technology for non-tech users addressing installation, operation and maintenance
* Integration and convergence aspects (Interoperability and development of highly integrated applications, cloud computing, integration with smart grids and industrial automation)

The Track is sponsored by the Technical Committee on Building Automation, Control, and Management (TC BACM).