

Special Issue on
Sensing and Data-Driven Control for Smart Building and Smart City Systems

CALL FOR PAPERS

The emergence of dense networked embedded sensor systems in monitoring and control applications has enabled the collection of data, information processing, decision, and actuation at previously unseen temporal and spatial resolution and scale. The built environment offers significant opportunities and challenges for the application of such intelligent sensor systems with tangible economic, environmental, and social benefits. Buildings in particular, as hallmark of global urbanisation tendencies, have great potential to leverage modern technologies to operate more efficiently and provide better living and working conditions. This addresses, among others, aspects related to energy management, occupancy detection and prediction, safety, and security. At a larger scale, smart city infrastructures are able to implement these advances towards wider benefits in environmental monitoring, traffic management, improved utilities networks, and social services. Design of human-in-the-loop approaches offers citizens valuable direct feedback mechanisms towards the intelligent systems and administrators for real-time adaptation and responsiveness.

The special issue aims to collect contributions covering the state of the art and recent advances in this area, addressing both theoretical and applied implemented approaches.

Potential topics include but are not limited to the following:

- ▶ Intelligent sensors in smart building applications, for example, environmental, occupancy detection and activity tracking, air quality, safety, and energy efficiency
- ▶ Adaptive and distributed sensing strategies including virtual sensors
- ▶ Large scale monitoring systems for data collection through wireless sensor networks
- ▶ Data management and computational intelligence approaches for knowledge extraction from raw sensor streams
- ▶ Data-driven methods for modelling, simulation, and control of smart building and smart city systems
- ▶ Open hardware and software architectures to support complex sensor systems integration
- ▶ Bridging heterogeneity and proprietary systems through standardisation
- ▶ New sensing, computing, and control paradigms, for example, CPS, Industry 4.0, and MAS

Authors can submit their manuscripts through the Manuscript Tracking System at <https://mts.hindawi.com/submit/journals/js/sbcs/>.

Papers are published upon acceptance, regardless of the Special Issue publication date.

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