



International

*Innovation in Knowledge Based and Intelligent
Engineering Systems*



INVITED SESSION SUMMARY

Title of Session:

Data Analytics Technologies in Building Energy Applications

Name, Title and Affiliation of Chairs:

Associate Professor Donal Finn
University College Dublin, Ireland
donal.finn@ucd.ie

Associate Professor Alfonso Capozzoli
Politecnico di Torino, Torino, Italy
alfonso.capozzoli@polito.it

Details of Session (including aim and scope):

Data analytics technologies are emerging as a promising concept in the future evolution of building energy systems, where energy management is becoming increasingly a data-centric task. Data analytics allow knowledge to be extracted from monitoring data and be translated into smart control strategies aimed at better management of energy in buildings. As a result, the building energy sector is harnessing the benefits of AI developments and its associated momentum. Accordingly, an increasing number of building management systems are exploiting advanced data analytics techniques to support the decision-making process for enhancing energy efficiency.

The aim of this technical session is to provide a platform for the exposition of the latest developments in the application of data analytics technologies in the building energy domain. Contributions are welcome that consider the application of data analytics technologies to energy utilisation in buildings.

Topics of interest within the scope of the session could include, inter alia:

- Big data / data analytics in buildings energy applications,
- Artificial intelligence for the control of building of energy systems,
- Data-driven analysis and optimisation of building energy usage,
- Internet-of-things in building energy applications,
- Hybrid data-driven and physical modelling for building energy analysis.

Main Contributing Researchers / Research Centres (tentative, if known at this stage):

Website URL of Call for Papers (if any):

Email & Contact Details:

Associate Professor Donal Finn
University College Dublin
donal.finn@ucd.ie

Associate Professor Alfonso Capozzoli
Politecnico di Torino, Torino
alfonso.capozzoli@polito.it