## Operation and Maintenance to Improve Energy Efficiency and Sustainability of Existing Buildings





Sam C. M. Hui
BENG(Hons) PhD CENG CEM MCIBSE MHKIE MASHRAE MIESNA LIFEMAEE ASSOCALA
Department of Mechanical Engineering
University of Hong Kong
Pokfulam Road, Hong Kong
E-mail: cmhui@hku.hk

## **Abstract**

Operation and maintenance (O&M) of existing buildings is very important to many countries because the existing structures constitute a large portion of building stocks and they consume significant amount of energy and resources. To improve the energy efficiency and sustainability of existing buildings, effective measures are needed to overcome the barriers and technical difficulties in building O&M. With the development of new energy saving technologies and a greater attention to building management and control, there are opportunities to enhance the O&M practices and evaluate the performance of existing buildings in a more holistic way. An integrated approach to building facilities management is being developed to provide the platform for effective O&M. Relevant policies and management techniques are required to foster the transformation into a reliable and accountable system for building O&M. It is hoped that the outcomes can help reduce the environmental impacts and increase the productivity of existing buildings.

## **Speaker**

**Ir Dr. Sam G. M. Hui** is a Teaching Consultant and an Honorary Assistant Professor of the Department of Mechanical Engineering, The University of Hong Kong. He has a strong technical background in the study of energy efficiency in buildings and is active in promoting sustainable building technology. He has good experience in practical building services design and has carried out teaching, research and consultancy studies on building energy efficiency, renewable energy and sustainable architecture. He has published more than 60 technical articles in academic/professional journals and conferences and has acted as a visiting fellow to research institutes in Japan, Germany and USA. He has acted as a Technical Expert in building energy code and green building assessment projects in Hong Kong, Mainland China and Thailand. He was President of ASHRAE Hong Kong Chapter in 2006-2007. He is elected as a Distinguished-Lecturer of ASHRAE U.S. Headquarters for 2009-2011.

