



Details

Date : 30 December 2021 (Thursday)

Venue : Online Seminar via Zoom

Time : 6:30pm – 8:00pm

Technical Seminar on Fault Detection and Diagnosis in HVAC systems using Big Data Analytics

Programme Highlight:

Due to sensor issues, equipment deterioration, improper system control and settings, the Heating, Ventilation and Air Conditioning (HVAC) systems often fail to operate at the efficient performance, leading to the unnecessary energy use.

However, some of the system and control issues (e.g. sensor biases, equipment deterioration, system instability) cannot be effectively detected using the traditional methods (e.g. rule-based) as HVAC systems involve the complicated interrelationship between the water side and air side systems. The detection and diagnosis of these complex system faults often require advanced analytical techniques for detailed analysis.

This seminar discusses how advanced technologies (e.g., AI and Big Data) can be used to examine building system performance, identify faults, as well as improve the overall energy performance. Five layers of monitoring, including data quality, fault detection and diagnosis, energy performance, control stability, as well as thermal comfort will be introduced. A case study is used to demonstrate the above applications.

Speaker:

Dr. Pan LEE

BEng, PhD

Dr. Lee is currently a R&D Manager at ATAL Building Services Engineering Ltd. He specialises in smart building applications and energy management. At ATAL, he leads a R&D team in developing innovative solutions, including HVAC energy optimisation, fault detection and diagnosis (FDD), data visualisation, as well as artificial intelligence in building control. In 2021, he won an international award - 'Energy Innovator of the Year' from the Association of Energy Engineer.

Language:

Cantonese with English Terminology

CPD Certificate:

Only accepted register participants will receive an electronic CPD certificate: i.e. sharing of the register link to others are prohibited and HKIE BSD reserves the right to disqualify and terminate those non-properly registered participants to attend the Seminar.



Registration & Enquiry:

The Seminar is free of charge and prior registration is required. For registration, please register ONLINE via the website of HKIE(BSD) - <https://forms.gle/ZMDYNWGPpKZ7tXoeA> . Under the current COVID-19 spreading issue, special arrangement is adopted to limit the maximum number of participants to be 200. Those successful participants are requested to attend the Seminar by their own. Application will be accepted on a first-come-first-served basis. Successful members will be informed by confirmation email with a zoom meeting link few days before the event. Transfer or sharing of the registration is prohibited.

To facilitate the time efficient, registration will be done when entering the Seminar so please provide your membership number and name (same as registration name) when joining the online session.

For enquiry, please contact Ir Felix Chan at 2844-3897.