

## Smart Analytical Optimization Tools for Building Management System

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A meaningful seminar about new analytical tools for Building Management System (BMS) was held in the evening of 1 September 2017. It was jointly organized by the Young Members Committee (YMC), Control, Automation & Instrumentation Division (CAD) and Associate Members Committee (AMC) and it attracted more than 100 members to join.

This seminar was presented by Ir Timothy Lee of Johnson Controls who had profound experience in control and monitor various building services systems over the years. Ir Lee firstly gave a brief introduction on BMS. He pointed out some limitations of the Conventional BMS; for example, it required large amounts of server space for storing data and computing.

Then, Ir Lee presented two new BMS solutions which featured in utilizing a cloud-based optimization tool. The solutions provided platforms for users to collect and analyse building services systems' data through the cloud technology. By analysing systems' data, the optimization tool is able to tell if any pre-fault symptoms are found. Therefore, it could help to improve the performance of the building services facilities. Moreover, the tool is able to identify issues related to equipment performance and suggest opportunities for operational savings.

Ir Lee also illustrated its application to chillers. The cloud-based platform is able to collect chillers operational data and diagnose the data with manufacture's professionals in back-stage. Therefore, chillers performance, operation and its energy consumption could be refined to reduce unplanned outage/downtime and increase system reliability.

A fruitful discussion was conducted after the presentation. Questions about cyber security and management of the BMS system are widely discussed. Ir Lee replied the questions in detail.

Participants were impressed by the insight brought by Ir Lee. On behalf of YMC, CAD and AMC, we would like to express our sincere gratitude to Ir Lee for his sharing and insights.



<Photo Caption: Ir Timothy Lee presenting one of the new cloud-based BMS solutions>