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energy institute Hong Kong

WEBINAR

TRAINING COURSE ON ENERGY AUDIT FOR BUILDING ENERGY EFFICIENCY

(21st Intake)

12, 14, 19 & 21 January 2027

Supporting Organisations

ASHRAE Hong Kong Chapter

BEAM 建築環保評估協會

BSOMES Building Services Operation and Maintenance Executives Society 屋宇設備運行及維修行政人員學會

CIBSE Hong Kong

cie HONG KONG International Commission on Illumination

(TBC)

CIPHE The Chartered Institute of Plumbing and Heating Engineering 英國特許水務工程師學會 Hong Kong Branch 香港分會

AIR CONDITIONING AND REFRIGERATION ASSOCIATION HONG KONG

(TBC)

HKAEE 香港能源工程師學會 Hong Kong Association of Energy Engineers

haesco hong kong association of energy service companies ltd

(TBC)

HKGBC 香港綠色建築議會

HKIE THE HONG KONG INSTITUTION OF ENGINEERS 香港工程師學會 Building Services Division 屋宇裝備分部

(TBC)

HKIE THE HONG KONG INSTITUTION OF ENGINEERS 香港工程師學會 Gas & Energy Division 燃氣及能源分部

IFMA Hong Kong Chapter International Facility Management Association

Institution of MECHANICAL ENGINEERS Hong Kong Branch

(TBC)

soe engineering success soe hong kong region 營運工程師學會 香港分會

(TBC)

[1] *The Energy Institute Hong Kong Branch is Incorporated in Hong Kong with limited liabilities.*

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Course Objectives

The main purpose of this course is to provide the participants with the fundamental principles, skills and guidelines needed to carry out effective energy audits in accordance with the Buildings Energy Efficiency Ordinance. After taking the course, the participants would appreciate the approach to identify energy saving measures and perform quantitative analysis to predict the energy savings, environmental and economic benefits. Moreover, the participants should be able to measure and verify the performance of implemented energy saving measures.

Key Speakers (in alphabetical order by speaker name)

- **Ir Gary Chiang**, Past Chairman, Energy Institute Hong Kong / Principal Manager – Business Development & Support Customer Success & Experience / Customer Success & Sales, CLP Power Hong Kong Limited
- **Ir Dr TM Chung**, Past Chairman, CIE (Hong Kong) / Past Chair, CIBSE Hong Kong Region
- **Ir Prof. Michael KH Leung**, Past Chairman, Energy Institute Hong Kong / Shun Hing Education and Charity Fund Professor of Energy and Environment / Chair Professor of Renewable Energy in School of Energy and Environment, City University of Hong Kong
- **Ir Dr Edward Lo**, Honorary Associate Professor, Department of Electrical and Computer Engineering, The University of Hong Kong
- **Ir Dr Albert So**, Ex-Director, Asian Institute of Built Environment

General Information

Date & Time:	**Trial Run for Webinar**	5 January 2027 (Tue): Between 7:00 pm – 9:00 pm
	Lectures (webinar only)	12, 14, 19 & 21 January 2027 (Tue & Thu): 6:30 pm – 9:45 pm
	(Please also reserve 26 January 2027 (Tue) as a fallback date for this course)	
Means:	Webinar *(Link to be advised)*	
Medium of Instruction:	English / Cantonese (TBC)	
Target:	Practicing engineers, energy managers, energy auditors, environmental officers, building services managers, plant managers, etc.	
Course Fee:	HK$2,800 per person (Members of EI) HK$3,000 per person (Members of Supporting Organisations) *(including training materials)* HK$3,500 per person (Non-members)	
Training Materials:	Soft copy ONLY / BOTH hard copy and soft copy *Participants can collect the hard copy in Kowloon (details to be advised)*	
Registration:	Please register via online system: https://bit.ly/energyaudit21 (copy this link and paste it into the browser if it cannot be linked directly) for seat reservation. We will advise you of the payment details after receiving your registration. *(Note: Enrolment will only be confirmed upon receipt of course fee.)*	

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Registration Deadline:	28 December 2026 (Mon)
CPD:	• CPD certificate will be issued to all participants by the Organiser. • 9 CPD hours can be claimed by RCx Practitioner / RCx Professional for HKGBC RCx Training and Registration Scheme.
Enquiry:	Course Secretariat Tel: 2967 8855 Email: events@agchk.com

Course Contents

Lecture 1 [12 January 2027 (Tue)]
Introduction to the Buildings Energy Efficiency Ordinance (BEEO) (Ir Gary Chiang) – Legislative Framework – Requirements of Energy Audit – Qualification and Duties of Registered Energy Assessors (REAs) **Energy Audit (Ir Gary Chiang)** – Management procedures for energy audit: walk-through inspection, detailed energy audit and identification of energy management opportunities (EMOs). **Energy Saving Measurement and Verification (M&V) Methods (Ir Gary Chiang)** – International Performance Measurement & Verification Protocol; instrumentation and measurement techniques; baseline adjustment; error and uncertainty analysis; third-party verification. **Economic Analysis and Environmental Impact Assessment (Ir Gary Chiang)** – Discussion of common economic analysis methods used to determine the cost effectiveness of energy efficiency measures. – Life-Cycle carbon emission analysis for energy efficiency measures.
Lecture 2 [14 January 2027 (Thu)]
Electrical Systems and Power Quality Improvement (Ir Dr Edward Lo) – Energy efficiency for electrical distribution systems, including transformers and wires. – Procedures of measuring and improving power quality for buildings due to low power factor and/or high harmonics (typically caused by electronic equipment). – Experimental tests suitable for evaluating energy use of electrical systems and for identifying any power quality problems. – Calculation of energy and cost savings due to improvement in electrical systems performance and power quality.

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Lecture 3 [19 January 2027 (Tue)]
Lighting Systems (Ir Dr TM Chung) – Photometry, light and colour measurements. – Lamps and lighting energy efficiency.
Lift and Escalator (Ir Dr Albert So) – Maximum allowable electrical power requirements. – Energy consumption measurements of lift and escalator systems. – Total harmonic distortion and total power factor of motor drive systems. – Energy efficient designs.
Lecture 4 [21 January 2027 (Thu)]
Heating Ventilating and Air-Conditioning (HVAC) (Ir Prof. Michael KH Leung) – Measurements and evaluation of energy efficiency of chillers, water-side systems and air-side systems; coefficient of performance (COP) analysis. – Provision of thermal comfort and good indoor air quality in an energy-efficient manner. – Qualitative analyses of effective energy management opportunities for HVAC systems, including temperature settings for chilled water supply and indoor air, building envelops meeting the overall thermal transfer value (OTTV) requirements, evaporative cooled condensers, variable-speed pumps, automatic cleaning devices for seawater cooled condensers, Fresh air intake control and more. **Water Heating Systems (Ir Prof. Michael KH Leung)** – Evaluation of fuel-fired water heater and energy efficiency of condensing water heater. – Heat pump water heater and integrated heat pump for cogeneration (water heating and air-conditioning). **Commercial Cooking (Ir Prof. Michael KH Leung)** – Evaluation of gas cookers, electric cookers, induction cookers. – Energy saving by innovative heat-pump steamers.

** Contents are subject to change without further notice*