

Organized by:



Supporting organizations:



Title: Operation and Maintenance of Heating, Ventilating, Air-Conditioning and Refrigeration (HVACR) systems To Foster Sustainable Buildings (with 3-hour CPD certificate for each session)

Speakers: Prof Roberto R. Aguilo; Ir Dr Joseph Lai; Dr Om Taneja

Date: From 12 March 2013 to 26 March 2013 (3 evening sessions)

Time: 6:30pm - 9:30pm (for each session)

Venue: BC215, Main Campus, The Hong Kong Polytechnic University

Programme Highlight:

Buildings' Heating, Ventilating, Air-conditioning and Refrigeration (HVACR) systems, including Chiller plants, cooling towers and fan rooms are heavy users of energy and water. These systems offer an enormous opportunity to transfer the sustainable technologies and practices on a large scale and help transform the marketplace. This workshop series consists of three technical sessions. Each session will focus on one particular topic of application, operation and maintenance of HVACR systems and management. After completion of the workshops, you will gain an understanding of flow control methods of refrigeration systems and its energy analysis and how CO₂ to be an environmental friendly refrigerant. One of our ASHRAE Distinguish Lecturer will also share with us latest operations and maintenance best practices through trained staff incorporating advanced metering, measurements and verification tools, commissioning and retro-commissioning in US. In addition to overseas experts, a local expert will present on how the operation and maintenance costs of air-conditioning systems should

be categorized and collected. Besides sharing his experience in collecting such cost data and the difficulties commonly encountered, he will illustrate on how to apply the relevant theories to analyze the empirical data in order to inform decisions in managing air-conditioning facilities.

Biography:



Prof Roberto R. Aguilo

Roberto R. Aguilo, owner and principal engineer of Estudio Ing. Aguilo & Asoc. has work in the Refrigeration Industry during 26 years leading the projects of a big number of supermarkets and the other industrial applications. Actually he is President of AAF (Asociación Argentina del Frio) for the fifth time (since 1994 until today) and Past President of FAIAR (Federation of Iberoamerican Societies of Air –Conditioning and Refrigeration) and the Argentina ASHRAE Chapter. He received his degree in Industrial Engineering from Buenos Aires University in 1981, and is a registered professional engineer in Argentina (CPII). He has been President of Cotein S. A. and has worked in design and maintenance in other companies previously. In the field of Engineering Education, he is Professor of Refrigeration Installations at Universidad Nacional de Luján since 2002 to present day. He has been Visitor Professor at other Universities of Argentina (Universidad Nacional de Misiones, UCES, UNLu) and he has dictated numerous courses in Private Institutes and Companies. He has published 2 books and numerous articles and papers in Argentina on topics related to refrigeration.



Ir Dr Joseph Lai

Possessing a first class honours degree in building services engineering, a master degree in environmental management and a PhD in facilities management, Dr. Lai is a Registered Professional Engineer who had practised for over a decade on design, operation, maintenance and management of numerous buildings before joining the Hong Kong Polytechnic University. Now he is an Associate Professor in the Department of Building Services Engineering and also the Programme Leader of MSc in Facility Management. Given his dedication to education, Dr. Lai has been awarded the Departmental Teaching Excellence Award 2010/11 and the Faculty Teaching Excellence Award 2011/12.

With his research focusing on facilities engineering and management, Dr. Lai has published widely in international journals and has been appointed as Co-editor of the journal “*Facilities*” and a Regional Editor of the journal “*Smart and Sustainable Built Environment*”. Besides sharing his research outcomes in technical talks and seminars, Dr. Lai has provided many training courses and consultancy services on areas such as facilities maintenance and contract management, performance benchmarking and assessment, and legal governance and regulatory reform.

Dr. Lai has served on the committees of various government departments and professional institutions, including being the Leader of the Technical Working Group (Operation and Maintenance) of ASHRAE and a Vice President of BSOMES. Appointed as a Subject Specialist of the Hong Kong Council for Accreditation of Academic and Vocational Qualifications, Dr. Lai has chaired a number of programme validation exercises. He has also served as an External Examiner for various academic programmes in property and facilities management.



Dr Om Taneja

Dr. Taneja has more than 30 years of diversified experience in the area of design, construction, operations and maintenance of large facilities. He has managed facilities for the General Electric, St. Barnabas hospital complex, Dun & Bradstreet, Rockefeller Center, Corporate Centers and the United Nations prior to being employed by the US General Services Administration. At the United Nations Headquarters, Mr. Taneja has been the Chief of Planning, Design & Overseas Properties where he had responsibility for coordination and management of facilities for the UN Headquarters and Overseas Properties worldwide, with supervisory responsibilities for the Architecture & Engineering Unit, Office Space Planning Unit, sustainability, energy efficiency, environmental and budgetary issues, and overseas properties facilities database management. Mr. Taneja also worked as the Senior Engineering Manager for long range capital improvements plan for the United Nations Headquarters in New York City, and Refurbishment of the Rockefeller Center for General Electric & National Broadcasting Company.

Mr. Taneja holds Bachelor's and Master's degree in Mechanical Engineering and a Ph.D. degree in Systems Sciences and Operations Research. He is a licensed professional engineer and active in discussing facilities, sustainability and energy-related issues at various professional organizations. He has been an Associate Professor at Kean University of New Jersey, Dean of HVAC/Facilities Management Divisions at Technical Career Institute. Currently, Dr. Taneja is employed at the US General Services Administration as Associate Director of Service Centers Division managing facilities for more than 25 million square of federal and leased buildings. He has published numerous articles and papers in on topics related to various aspects of property management, energy, environment and sustainable living

Instruction Media: English

Tentative Schedule:

Sessions	Speaker	Topic
12 Mar 2013	Prof Roberto R. Aguilo	Refrigerant Flow Control Methods in Industrial Refrigeration and The use of CO ₂ as Refrigerant
19 Mar 2013	Dr Om Taneja	Improved Operations & Maintenance Measures for Better Energy Performance and Environmental Impact of Chiller Plants
26 Mar 2013	Ir Dr Joseph Lai	Operation and Maintenance Costs of Air-conditioning Systems for Buildings in Hong Kong

Registration & Enquiry:

ASHRAE Members / PolyU Staff / Full-time Students: HK\$ 1,000 (HK\$ 350 per session)
Supporting organizations: HK\$ 1,200 (HK\$ 400 per session)
Other non-members: HK\$ 1,600 (HK\$ 550 per session)

Open to all interested persons but priority will be given to ASHRAE members. Seats are limited. Quota will be allocated on first-come-first-served basis. Successful applicants will be informed individually by e-mail.

Please complete and return the below application form by e-mail (cecil@hensen.com.hk) and crossed-cheque by mail (P.O. Box 35612, King's Road Post Office, North Point, Hong Kong) on or before **5th March 2013**. Cheque shall be payable to "ASHRAE Hong Kong Chapter". Applicants who do not receive a reply before **7th March 2013** may assume their application not successful.

Application Form – Operation and Maintenance of Heating, Ventilating, Air-conditioning and Refrigeration (HVACR) systems To Foster Sustainable Buildings (*Cross if not appropriate)

Name (Dr/Mr/Ms) : _____
Membership Class : _____ No.: _____ (*ASHRAE/ACRA/BSOMES/CIBSE
HKIE/HKIFM/IFMA/SOE/Others)
Fees : *HK\$ 1,000 / HK\$ 1,200 / HK\$ 1,600 (receipt is available upon request)
Session 1 : *HK\$ 350 / HK\$ 400 / HK\$ 550 (receipt is available upon request)
Session 2 : *HK\$ 350 / HK\$ 400 / HK\$ 550 (receipt is available upon request)
Session 3 : *HK\$ 350 / HK\$ 400 / HK\$ 550 (receipt is available upon request)
Cheque payment : Bank # _____ Cheque # _____
Company Name : _____
Contact No. : **(Must be provided)** _____
E-mail Address : **(Must be provided)** _____

For any inquiries, please contact: Mr. Cecil Man at 9503 3649.

Please e-mail this completed form to: cecil@hensen.com.hk
Please mail cheque pament to P.O. Box 35612, King's Road Post Office, North Point, Hong Kong
Cheque payable to ASHRAE Hong Kong Chapter

* Please circle where appropriate.