AMERICAN SOCIETY OF HEATING, REFRIGERATION AND AIR CONDITIONING ENGINEERS INC.

LONDON CANADA CHAPTER #116

http://LondonCanada.AshraeChapters.org Mon June 4/2012

ANNUAL CHAPTER GOLF DAY

FIREROCK GOLF CLUB
10345 Oxbow Dr., Komoka

www.firerockgolf.com

Monday June 4/2012

Check-in: 10:00am
and Mulligan Sales for ASHRAE Research

BBQ Lunch: 11:00am

Start: 12:00pm

Dinner and Tag Draw to follow

Please bring items for donations as prizes for the tag draw. London is hosting the 2012 ASHRAE Region II CRC and proceeds will help support that event and also go towards ASHRAE Research.

When you arrive, just drive up to the bag drop and the attendants will load your assigned cart. After you check-in, please feel free to use the driving range and practice green. Please note that the locker room will be available for use.

Membership

Greetings from your Membership Promotion Committee,

We would like to welcome several new members to the ASHRAE London membership

NEW MEMBERS
Mary Quintana Lopez
Strat Padazis

The local chapter membership roster has been emailed out in pdf format to all members who have paid their local chapter dues. If you have paid your local chapter dues, and have not received the membership roster, please contact me and I will be happy to send it to you. All of my contact details can be found on the local chapter website.

We as the local Chapter continue to encourage our members to seek out anyone in the industry who may benefit from being connected with ASHRAE. Please refer them to me if they have any questions or need any further questions regarding membership.

We also continue to encourage membership advancement for any associate members that are eligible. Please contact me for more Information or see the October Newsletter.

Best Regards,
Jordan Foster
Chapter Membership Chair 2011/2012
ASHRAE London Canada Chapter

MEMBER BIO's

Mary Quintana-Lopez
New ASHRAE Member
Graduate from Electronics and Communications Engineering from the Tecnologico de Monterrey (ITESM) in Mexico City, she has worked in the design of power systems for a wastewater treatment plant, as well as in the development of biomedical equipment for early detection and treatment of cancer. Later, she worked as the Coordinator of Administration and Technology for one of the Tecnologico de Monterreyâ€™s graduate engineering divisions. She has also worked as a freelance consultant for technology and innovation management in small and medium enterprises.

Mary Quintana-Lopez has a Masters degree in Technology Management - Telecommunications from the Tecnologico de Monterrey and a Masters degree of Environment and Sustainability from the University of Western Ontario. She currently works for Facilities Management, a division at the University of Western Ontario, where she is working on projects related to greenhouse gases, energy and water conservation.

April Meeting Summary

Mr Brian Monk, ASHRAE Destinguished Lecturer presented Airborne Conta,inant Conrol in Health Care Environements. Several different styles and requirements was shown along with some typical eequipment and locations.

ASHRAE Research Promotion Campaign – 2011/2012

Please remeber to included your contribution with a Member's annual dues payment, or by sending contributions to the Chapter's Research Promotion Chair or ASHRAE Headquarters.

We would be happy to accept your donations at our annual golf tournant,or can arrange to pick them up at your location at a time convenient to you.

Research investments sent directly to Headquarters should be addressed to:
Research Promotion, 1791 Tullie Circle, Atlanta, GA 30329.

Cheques should be made payable to ASHRAE Research Canada. Individuals and companies are also able to submit their contributions online at:
www.ashrae.org/contribute

100% of every invested dollar goes directly into the research program.

Regards, and thank you for your support in advance…

Eric W. Shaw
ASHRAE RP Chair - London ASHRAE Chapter

ASHRAE Launches New Terminology Site ASHRAEwiki

Common definitions for terms found in ASHRAE standards and other publications can now be found at a new website from the Society.

The free ASHRAEwiki is located at www.ashraewiki.org and contains over 6,000 terms related to buildings with a particular focus on mechanical, envelope, electrical, lighting, load calculations, design, water design/conservation and energy use and measurement metrics.

"Common terminology in communications and particularly in standards helps users in their understanding, thus encouraging adoption and use," Art Hallstrom, a member of ASHRAE Technical Committee 1.6, Terminology, said. "The ASHRAEwiki goal is to improve communication by encouraging the use of consistent terminology definitions within ASHRAE and the industry, worldwide."

The new ASHRAEwiki can create custom reports of terms and primary definitions that will aid in the development of standards, guidelines, Handbooks and other ASHRAE publications. With time, it may have broader use across the industry, according to Hallstrom.

Each term in the wiki has one or more primary (recommended) definitions, in which ASHRAE standard(s) the term is used, the definition source and known legal information such as trademark registration. The wiki also lists any secondary definitions used in an ASHRAE standard or guideline, which will help with the development of consistent standards.

"There is no requirement to use an ASHRAEwiki primary definition, but standards developers should be able to see the value in consistency across all standards," Hallstrom said.

ASHRAEwiki terms are grouped by words, symbols, abbreviations and acronyms. Definitions that include units may use Inch-Pound (I-P) or International System (SI) as primary units. ASHRAEwiki is in English but might be expanded to other languages in the future.

"ASHRAEwiki content is controlled by the ASHRAEwiki editors and TC 1.6 but suggestions from individuals or organizations are welcome," Bruce Billedeaux, TC 1.6 vice chair, said. "Suggestions can be entered in the wiki discussion section or sent to the ASHRAEwiki editor."

ASHRAEwiki replaces a proposed ASHRAE Standard, Standard 166P, Heating, Ventilating, Air-Conditioning and Refrigerating Terminology, which had been proposed to offer uniform terminology for use in the HVAC&R industry.

ASHRAE Funds 22 Undergraduate Projects; Creation of "Shack" to Study Energy Efficiency

Design and construction of a "shack" to demonstrate renewable and HVAC technologies, including solar thermal heating, photovoltaic power generation, high efficiency and green insulation options and wood pellet stoves, is being developed by undergraduate students in an ASHRAE Undergraduate Senior Project Grant.

This year, 22 schools from around the world were awarded grants. The grants, totaling some $100,000, are awarded by ASHRAE to colleges and universities worldwide to promote the study and teaching of HVAC&R, encouraging senior undergraduate students to pursue related careers.

The grants are used to design and construct projects, such as Minnesota State University Mankato's proposal to design and construct a renewable and HVAC technologies test-bed "shack."

"In the spirit of the Solar Decathlon and the movement toward 'tiny homes,' this project aims to design and build a structure of some 24 square feet that can be used to demonstrate renewable and HVAC technologies," Patrick Tebbe, faculty advisor at Minnesota State University
Mankato, said. "The 'shack' will be designed to accommodate a range of technologies for demonstration and testing in the classroom and research projects."

Given the university is located in the heart of ice fishing territory, the shack design will be loosely based on typical ice fishing huts or shacks. The inclusion of ice fishing creates an immediate engagement for both students and the public, according to Tebbe. He said the students hope this will generate interest in energy efficiency and sustainable design topics beyond upper level engineering courses. The shack also will be portable (most likely constructed on a sled) so it could be moved to test sites, high schools, open houses, etc., allowing for greater demonstration. It also could be adapted for summer applications.

The project will incorporate a flat plate solar collector to supplement interior heating, testing of various wood and pellet fueled stoves and weather stations from previous solar research. The construction materials likely will be supplemented with recycled and reused materials found locally.

Other ASHRAE grant recipients are:

- Purdue University Calumet (Hammond, Ind.) was deemed the top grant award winner for its project, Refrigeration and Heat Pump Teaching System. Two students from the university are invited to present their project as part of the Student Program at the 2013 ASHRAE Winter Conference in Dallas
- American University of Beirut (Lebanon) Test and Optimize a Zonal Air Distribution System to Inactivate Airborne Microorganisms using Upper-Room Ultraviolet Germicidal Irradiation
- Carleton University (Ottawa, Ontario, Canada) Measurement of Indoor Air/Environmental Quality in Arctic Housing and University Campus Buildings
- North Carolina A& T State University (Greensboro, N.C.) Impacts of Air Filters on Energy Consumption in Typical HVAC Systems
- Sinclair Community College (Dayton, Ohio) Primary Secondary Hot Water and Chilled Water System Design and Installation
- Transylvania University of Brasov Testing Laboratory Using Renewable Sources for Radiant vs. Convective Heating and Cooling
- Universidad Pontificia Bolivariana (Colombia, South America) Clima Emulator Using Chilled Water HVAC System as Energy Sourced
- Universiti Teknologi Malaysia (Johor) Effect of Ejector Geometric Parameter on the Unitary Air Conditioner as an Expansion Device
- University of Alaska Anchorage Air Duct Simulator
- University of Alberta (Edmonton, Canada) Undergraduate Boiler Performance Laboratory
- University of Urbana-Champaign (Illinois) Design and Construction of an Energy Recovery Ventilation Demonstration Unit Using Heat Pump for Laboratory Use
- University of Indonesia (Kampus UI Depok) Development of Smoke Venting Demonstration Apparatus
- University of Lagos (Nigeria) Design and Fabrication of a Biogas-Powered Water Refrigeration Heating System
- University of Maryland (College Park) Energy Consumption Analysis and Optimum Cooling Solutions for a Medium Size Data Center
- University of Minnesota (Minneapolis) Desiccant Dehumidification Test Facility
- University of Windsor (Ontario, Canada) Underwater Compressed Air Energy Storage System Model
- Western Kentucky University (Bowling Green) Air Flow Visualization System Using Infrared Thermography
- Wright State University (Dayton, Ohio) Heat Powered Demonstration Chiller
- California State Polytechnic University (Pomona) Moisture Control for Carbon Dioxide Sensor Applied in a Residential Furnace
- Jimei University (Xiamen, China) Design and Construction of an Experimental Facility for Fresh Air Ventilator with Exhaust Air Heat Recovery Systems
- University of Algarve (Faro, Portugal) Development of Sensors for HVAC Systems Control Based in the Human Thermal-Physiology

For more information on the grant program, visit www.ashrae.org/grants. ASHRAE will begin accepting applications for the 2013-14 program in August 2012, with a December 2012 final deadline.

Things Heat Up for ASHRAE: Annual Conference to be Held in San Antonio, Texas

In a city with deep historical roots, ASHRAE will convene in San Antonio, Texas, to not only "remember the Alamo," but look toward a greener future. The 2012 ASHRAE Annual Conference focuses on everything from the basics of HVAC maintenance to integrated building design.

As members work together to shape tomorrow's built environment, the influences of San Antonio's past—Old Mexico, the Wild West and the Deep South—serve as a reminder of the Society's significant role in the city's hot and dusty past, as well as the Society's position as part of a future of sustainability.

Join ASHRAE in this historic city; registration is now open for ASHRAE's 2012 Annual Conference, June 23-27.

The Technical Program features focused tracks on Integrated Energy Systems, Building Modeling Applications, Refrigeration Applications and Indoor Environmental Applications and general tracks addressing HVAC&R Systems and Equipment and Fundamentals and Applications.

"Interoperability of Smart Building Systems and Smart Grid" is the topic of the Technical Plenary, presented by Lawrence Jones, Ph.D., Alstom Grid Inc., Washington, D.C., on Sunday, June 24.

Also, an Integrated Building Controls "mini-conference" addresses the extension of building controls from just mechanical systems to lighting, water consumption, security and other building systems, working toward the goal of "intelligent buildings." Sessions related to this topic are scheduled on Sunday and Monday.

The technical program begins Sunday, June 24, and ends Wednesday, June 27, with all sessions at the Henry B. Gonzalez Convention Center. Complete program details are available at www.ashrae.org/sanantonio. The entire technical program is approved for PDHs, and the majority of sessions are also approved for NY PDHs, AIA LUs and LEED AP credits.

The ASHRAE Learning Institute offers eight instructor-led training opportunities. Participants may choose from two full-day and six half-day courses to stay current on HVAC trends, including a new offering on understanding ASHRAE Standard 189.1-2011, Standard for the Design of High-Performance, Green Buildings.

The Conference keynote speaker is Ryan Dorsey, the Gen Y Guy®. Dorsey will focus on "Crossing the Generational Divide," explaining how four generations are currently working side-by-side in the workplace and the strengths, weaknesses and different perspectives of each. The Plenary session takes place Saturday, June 23 at Grand Hyatt San Antonio.

ASHRAE technical tours offer an inside view of how technology developed by members is practically applied in building environments. Tours at the Annual Conference include the SAWS Chiller Plant and the Blue Wing Solar Farm.

The ASHRAE Annual Conference takes place June 23-27. Register before April 20 for early bird rates. The Grand Hyatt San Antonio will serve as the headquarters hotel. Visit www.ashrae.org/sanantonio for more information.

Advanced Energy Design Guidance Offered for Large Hospitals

A dose of guidance to help save energy in hospitals is prescribed by the newest Advanced Energy Design Guide (AEDG), written by a group of leading building industry organizations. The AEDG for Large Hospitals is the fourth in the series, designed to provide recommendations for achieving 50% energy savings when compared with the minimum code requirements of ANSI/ASHRAE/IESNA Standard 90.1-2004, Energy Standard for Buildings Except Low-Rise Residential Buildings. The book was developed by a committee representing a diverse group of energy professionals drawn from ASHRAE, the American Institute of Architects (AIA), the Illuminating Engineering Society (IES), the Department of Energy (DOE) and the United States Green Building Council (USGBC).

"Most important in the Advanced Energy Design Guide for Large Hospitals is the recognition that patient outcomes, safety and experience trump all cost- and energy-saving strategies," Shanti Pless, chair of committee that wrote the guide, said. "However, a well designed, constructed, operated and maintained facility is a major contributor to the environment of care and can improve patient outcomes, safety and comfort."

The Guide focuses on standard mid-to-large-size hospitals that would typically be at least 100,000 square feet in size but the strategies apply to all sizes and classifications of large hospitals. Space types covered include conference, lobby, lounge and office areas; reception/waiting areas and examination and treatment rooms; clean and soiled workrooms; nurse stations, nurseries, patient rooms; operating rooms, procedure rooms, recovery rooms and sterilizer equipment areas; pharmacies and laboratories; triage, trauma and emergency rooms; physical therapy and radiology/imaging rooms; and storage, receiving and mechanical/electrical/telecom rooms.

Included in the Guide are recommendations for the design of the building opaque envelope; fenestration; lighting systems; HVAC systems; building automation and controls; outdoor air requirements; service water heating; measurement and verification; and plug and process loads, including kitchen equipment.

Along with whole building and technology case studies, the Guide highlights that existing reliable technologies and design philosophies can be used to reduce energy, according to Pless. Some of the technologies and philosophies highlighted in the book include:

- Use of shape and form to give access to daylighting in spaces that usually have no windows
- Daylighting of staff areas and publics spaces while at the same time specifying proper glazing to control solar gain
- Elimination of reheat, which is the largest energy saver from the HVAC system. Other HVAC savings comes from the de-coupling of ventilation air treatment and space conditioning and the elimination of steam boilers
- Recommendations to reduce and control plug and process loads including commercial kitchen equipment
- Reductions in interior and exterior lighting
- Recommendations involving LED surgery lights, which have the added benefit of allowing surgeons to set the thermostat higher in the operating rooms
- Measurement and verification recommendations to demonstrate savings are being realized with the added benefit of helping solve operational issues

The 50% Advanced Energy Design Guide series follows an earlier series that provided guidance to achieve 30% savings. The ultimate goal is to provide guidance to achieve net zero energy buildings; that is, buildings that, on an annual basis, produce more energy than they consume.

Other books in the 50% savings series deal small to medium office buildings, K-12 schools and medium to big box retail buildings. Since the Guides first began to be offered as free downloads at the beginning of 2008, more than 400,000 have been downloaded.