



Capital Communiqué



ASHRAE - AMERICAN SOCIETY OF
HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS

<http://www.ashrae.ottawa.on.ca> **OTTAWA VALLEY CHAPTER** e-mail: contact@ashrae.ottawa.on.ca

2009 - 2010

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Communiqué

Georges Maamari

Publicity

Jason Alexander

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Frank Bann

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Roster

Kevin Toll

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Nominations

David Eastwood

CRC Action

Jason Alexander

EVENING PROGRAM

DATE:

Tuesday April 20, 2010. Social: 17:30 Dinner: 18:30 Program: 20:00
Travelodge Ottawa Hotel & Conference Centre, 1376 Carling Avenue, Ottawa, Ont., 613-722-7600

THEME

MEMBERSHIP

PROGRAM

DX AND DEHUMIDIFICATION; WHY SOME SYSTEMS FAIL AND SOME SYSTEMS WORK?

The objective of this session is to analyze various types of DX air conditioning systems through simulation modeling, in order to determine their capability in controlling humidity in humid climates. Systems to be analyzed will include: simple on-off control, mixed air bypass, return air bypass, modulating hot gas reheat, and systems including combinations of these basic types. The goal is to determine what system configurations can control room dry bulb temperature and relative humidity under all room load conditions and ambient conditions. The energy impact of each alternative will be simulated with the goal of developing the system which controls under all conditions with minimum energy usage. With a back to basics approach we will develop the ideal system to control humidity and solve the indoor air quality problem with minimum energy usage.

SPEAKER

DAVID KNEBEL

Menu

Assorted Rolls and Butter, Crisp Green Salad
Roast pork loin with a Dijon sauce Served with Roasted Potatoes and Seasonal Vegetables
Strawberry Short cake, Coffee & Tea

Chapter Members: \$35.00 Guests: \$50.00

EVENING PROGRAM (CONT.)

BIOGRAPHY:

Mr. Knebel received his Bachelor of Engineering Degree in Mechanical Engineering from Stevens Institute of Technology and his Master of Science Degree in Mechanical Engineering from Oklahoma State University. Mr. Knebel has over 40 years experience in the HVAC business, including HVAC Design, software development for energy modeling and simulation, teaching, applications engineering, sales and manufacturing.

Mr. Knebel is principal lecturer in ASHRAE's Professional Development Seminar in Energy Calculations. He has been Chairman of TC 4.7 Energy Calculations, Chairman of TC 6.9 Thermal Storage, and Chairman of the Research and Technical Committee, Member of the Technology Council, the Task Group for Combustion Turbine Inlet Air Cooling, Member of the Standard 90.1 Committee, and was a member and Chair of the ASHRAE Standards Committee. He was Deputy Chairman ARI Section on Thermal Storage. Mr. Knebel is an ASHRAE Fellow, member of the ASHRAE College of Fellows and recipient of the ASHRAE Distinguished Service Award. Mr. Knebel is currently a DAL and on the Board of Directors of ASHRAE.

Mr. Knebel is Vice President of Sales and Technology at AAON Inc where he is responsible for Sales, Warranty, Parts, Applications Engineering, and Software Development.

Mr. Knebel is the author of 30 technical papers and articles, the ASHRAE text on Simplified Energy Analysis, and several computer programs used in the HVAC industry.



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senior project manager

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President's Message

By Jason Alexander, P.Eng.
2009-2010 OVC President

Spring is in the air! Things are getting greener and it's time to get outside again and get involved in your local ASHRAE chapter. During the month of April and May we have two technical educational seminars. The first is on April 13 and is a half day seminar on using measurement and verification procedures for determining energy savings and cost savings. This seminar should prove very useful to energy consultants, LEED professionals, owners and facility managers. With rising costs of energy the designer and owner must become increasingly aware of the impacts of various decisions on the overall life cycle cost. Many facilities are designed around energy models and there is an increasing trend to use measurement and verification to ensure buildings are meeting their energy goals and to further improve their performance over time. This course is an ASHRAE learning institute seminar.

The second seminar on May 11 is a very technical and detailed seminar on variable frequency drives. Many of us as contractors and designers use VFD's in our designs for energy savings without truly understanding how they function and how to best implement them. The seminar will be given by an industry expert and will extend well into VFD application, placement and control within HVAC systems.

With spring comes a sense of renewed energy. Take advantage of these seminars to use that new energy to better yourself and your profession.

I hope to see you all at our April meeting.

Sincerely,
Jason Alexander, P.Eng.
2009-2010 OVC President

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Ray Rochefort
Area General Manager



What you missed

By Donald Weekes
2009-2010 OVC Secretary

The night's theme was Student Activities.

The Technical Session was entitled, 'Anthropogenic Global Warming – Differing Perspectives', by Professor Victor Goldschmidt, Ph.D., ASHRAE Distinguished Lecturer. Dr. Goldschmidt reviewed the current data and predictions from climate change models that provide evidence of the culpability of carbon dioxide in climate change. His analysis of the data and the models indicated that there are 'serious doubts' about CO₂ as a greenhouse gas threatening the future. Dr. Goldschmidt's closing message: "Always think as engineers".

There were no table top displays. However, there were sixteen (16) booths during the Career Fair earlier in the day.

President Jason Alexander opened the meeting and welcomed members, guests and students. President Alexander introduced the Board of Governors and the Executive Board.

President Alexander introduced Matt Edmonds, Student Chair, who introduced the Algonquin College Design Team.

- Algonquin College - Peter Shaw-Wood, Kevin Lamarche, Joey Della Valle, and Pat Moore. Each of the team members discussed different aspects of their design project:
 - o HVAC system Design Section – Ginsburg Tower Addition – Hospital (675,000 SF)
 - o Ottawa, ON location – ASHRAE 90.1 Climate zone 6
 - o HVAC Systems
 - o Carrier Hourly Analysis Program (HAP)
 - o Duct Design – Protection for patients
 - o Radiant ceiling panels
 - o Conclusion – Thanks for ASHRAE OVC members – Chris Frauley, Barry Riddell, Stephen Lynch, Glenn MacLean, and Chapter as whole for their support.

The evening's program was entitled 'ASHRAE's Core Values and Their Implications' presented by Professor Victor Goldschmidt. Professor Goldschmidt discussed the five core values adopted by ASHRAE: advancement, leadership, integrity, service and excellence).

Core Values – Behavioral boundaries under ASHRAE works from the 'present' to the 'future'.

- Advancement – to move forward, to rise in value. Advancement of the arts and sciences of HVAC&R. Implies change which is always disruptive benefited by a clear focus.
- Leadership – providing a vision and leading the advance. Leadership in HVAC&R.
 - Five E's of Leadership
 - Envision
 - Equip
 - Empower
 - Edify
 - Evaluate
- Integrity – Committed to honesty in the practice of our profession as embodied in the ASHRAE Code of Ethics. Enhancing the public health, safety and welfare.
- Service – 'Serve humanity'. Performance which assists some cause or purpose. ASHRAE members determine needs of recipients through continuous product improvement in accordance with the Code of Ethics.
- Excellence – Of great value measured against a standard. Process is more important than product.

Jason Alexander thanked Professor Goldschmidt for his presentation and presented him with a gift. President Alexander asked that the member survey be completed.



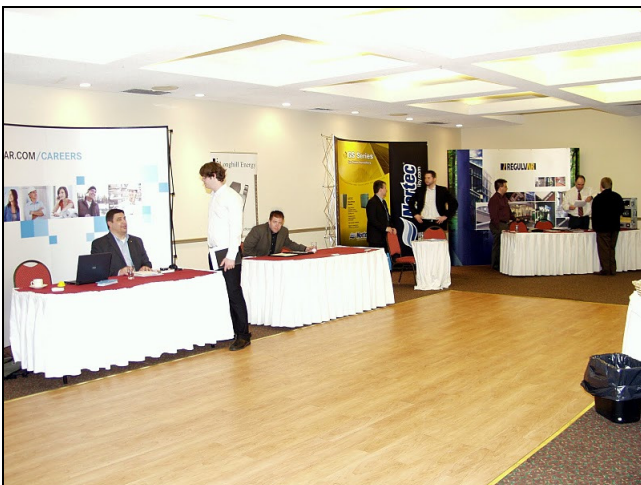
Career Fair Wrap Up

By Patrick Albert
2009-2010 OVC Governor

Once again the OVC had the honor of hosting a career fair for the local students. Without the support of the booth sponsors, none of this would have been possible. I would like to thank the following companies for their continual support and dedication to the ASHRAE Community:

- Nortec
- Direct Energy Business Services Limited
- TOTAL HVAC
- Engineered Air
- Master Group
- Goodkey Weedmark & Associates Limited
- Siemens Building Technologies Ltd.
- Longhill Energy
- Trane
- Stantec Consulting
- Genivar
- Regulvar
- Distech HVAC
- Seresco

I hope to see you all next year as we hope to be bringing the jobs to the students. Next year we are looking at possibly hosting the career fair at one of our great learning institutes. Last but not least, I would also like to thank the students that attended the career fair. Great to see you there and we hope to see you at future AHSRAE meetings.





Research Promotion

By Patrick St-Onge P.Eng.
2009-2010 Research Promotion Chair

Hi Everyone,

This year's Research Promotion campaign is well underway. The generosity of our membership is notorious and I hope that we will stand to our reputation this year again. We have tried to push for a faster start to the campaign, with some success as we are now over the 50% mark of our ambitious \$20,000 goal! The generosity of our members continues to impress.

As of the last week of March, the following people and companies have made an investment:

Silver Level Contributor

- Goodkey Weedmark and Associates
- Longhill Energy

Bronze Level Contributor

- Total HVAC
- Wood Banani Bouthillette Parizeau
- C&S Heating Ltd.

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| • Jason Alexander | • Marc Chiasson |
| • Christine Kemp | |
| • Stephen Lynch | • Wiles Legault & Associates Limited |
| • Donald Weekes | |

Investments can be made by cheque made out to ASHRAE Research Canada. Please send cheques care of Patrick St-Onge at 100-3740 Richmond Road, Ottawa, Ontario K2H 5B9 or give me a call at 613-596-6454 ext 318 and I will come by and pick-up the cheque. Invoices/receipts are available upon request.

Thank you,
Patrick St-Onge, P.Eng., LEED AP



Student Activities

By Matthew Edmonds
2009-2010 OVC Committee Chair

Last month the OVC held their Annual Career Fair at the Travelodge Hotel on Carling Avenue. The Career fair was definitely a success. We had a great turnout from all avenues of the industry; however we did have less of a student presence than we had hoped. A big thanks to all that participated and to Patrick Albert who spearheaded the effort to put this all together for everyone.

After the career fair ended, many of our student participants then attended the seminar (“Anthropogenic Global Warming Differing Perspectives”), the social hour, the dinner, and the formal presentation (“ASHRAE Core Values and their Implication”) presented by our DL, Victor Goldschmidt. The student response to the evening was very positive, and as always we should help retain some students for future seminars and meetings.

The day after the March OVC meeting, I traveled with our DL Victor to Algonquin College where we met with the Senior Mechanical Engineer Technology students and Victor gave a presentation on “Engineering Problem Solving and Creativity”. The presentation was very interactive and engaging, and an overall success. Following the presentation we received numerous comments from students about how the information really opened up a different way of viewing and approaching problems. Later that day we broke off with the Algonquin ASHRAE design team where they had the opportunity to pick Victor’s brain about all sorts of engineering and ASHRAE related business. A big thanks goes out to Algonquin College for hosting us for a special seminar, and out to Victor Goldschmidt for taking time out of his schedule to spend time with the new and upcoming generation of engineers and technologists.

More student related information from ASHRAE:

Check This Out:

ASHRAE Student Zone: Scholarships and Grants to Careers and Internships...

<http://www.ashrae.org/students/>

ASHRAE Scholarship Program

<http://www.ashrae.org/students/page/1271>

16-40-40 – Don’t know what it is? Every Student Should!

<http://www.ashrae.org/students/page/703>

Dates to remember:

April 10, 2010 – Ontario Regional Science Fair. ASHRAE supports the ORSF and provides prizes for the top projects which encompass the essence of ASHRAE. Interested in being a judge? Contact me ASAP – matte@longhill.ca

Best Regards

Matthew Edmonds
2009-2010 ASHRAE Student Activity Chair



Student Meal Sponsor

By Stephen Lynch
2009-2010 OVC Treasurer

Student Meal Donations - In an effort to have more students attend we need sponsorship to cover the cost of meals of students as long as they have a valid ASHRAE membership.

February Meeting:

Aaron Dobson
Imad Abou-Falah

March Meeting:

Robert Kilpatrick
Joel Primeau
Lan Chi Nguyen Thi
Patrick St. Onge
Pierre Richer
Matthew Edmonds
Mike Swayne

Thank you for your continued support currently we are breaking even for student meals. Should you have any questions, please do not hesitate to contact the Treasurer.

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Membership

By Philippe Lemieux
2009-2010 OVC Membership Promotion Chair

The ASHRAE Ottawa Valley Chapter would like to officially welcome its new members for the month of March. The new members are:

- Mr. Ryan Gregory;
- Mr. Vernon J McGuigan;
- Mr. Peter A Paciorek;
- Mr. William Truong;
- Mr. Mo Sottile

You are all encouraged to join us at our next Chapter meeting on April 20th 2010.



Green Building Ottawa

By Donald Weeks
2009-2010 OVC Secretary

Green Building Ottawa: Retrofit is being held **May 12-14 at Carleton University**. This will be the largest-ever green building event in Eastern Ontario. You will have the opportunity to

Learn about

- Innovative research and case studies on the retrofit of existing residences and buildings
- Sustainable policy initiatives in Ontario and Canada and their impacts on the built environment
- How practitioners are integrating sustainable buildings to their surroundings
- **Choose from** sessions on sustainable materials, adaptive reuse, hybrid energy concepts, innovative technologies, case studies, and more
- **Network** with leaders in the building industry

The Green Building Ottawa [conference program](#) features

- A Wednesday evening opening session with special guests and the winners of the [Eco-Logical](#) Student Design Competition
- 40+ juried presentations over two full days May 13-14
- Dinner at the Canadian War Museum May 13 with keynote speaker [Edward Burtynsky, OC](#)
- Opening and closing plenary sessions designed to stimulate dialogue and idea exchange

Green Building Ottawa is presented by the [Ottawa Region Chapter of the Canada Green Building Council](#) and the [Azrieli School of Architecture and Urbanism at Carleton University](#).

For more information, visit www.greenbuildingottawa.ca

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Table Top

By Frank Bann
2009-2010 OVC Governor

Munthers is pleased to feature EI Solutions Limited at their table top.



EI Solutions inc.
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Our table top will be on the control of dehumidification with desiccant technology. EI Solutions is MUNTERS distributor for commercial desiccant dehumidification products across Canada.

EI Solutions Inc. offers a wide-range of products focused on maintaining critical humidity levels in most Commercial applications including Ice Arenas, Swimming Pools, Supermarkets and Hospitals.



Calling all ASHRAE Golfers

By Adam Beales

FORE !!!

The 2010 ASHRAE Golf Tournament is scheduled for Thursday June 10, 2010 at the Loch March G&CC.

Registration forms with full details have been emailed to all of last year's Registered Participants. Spots for returning teams will be held until the April 20, 2010 Chapter meeting date only, after which time the field will be opened up to new teams. Registration forms will be available at the April Chapter Meeting. Registrations will only be confirmed upon return of the completed Registration form and payment.

The registration form also extends an invitation to the Membership to become involved as Hole Sponsors. Our Hole Sponsorship for ASHRAE Research Program has been wonderfully supported by our Chapter Membership in the past and we need and appreciate your continued support at this year's event. As we are all aware the beneficiary of this day is ASHRAE Research and accordingly the more successful we are in this effort the more we will gain as a community. As always we expect a quick sellout so don't delay in returning your responses, and getting your game in shape!

Should you have any questions about the Tournament or Hole Sponsorship Program please contact Adam Beales at adamb@totalhvac.com or 613-723-4611

Sincerely,
Your 2010 ASHRAE Golf Tournament Organizing Committee



Determining energy Savings from Energy Efficiency Projects: Applying IPMVP & Guideline 14 to Performance Contracting & LEED – 3 hours, 3 PDH.

By Christine Kemp

2009-2010 OVC President Elect & CRC Alternate

DATE: Tuesday April 13, 2010

TIME: 9 AM to 12 PM (Sign-In/Coffee 8:30 AM)

LOCATION: Travelodge Ottawa Hotel & Conference Center
1376 Carling Avenue
Ottawa, Ontario
(613) 722-7600

OBJECTIVE:

This course provides an overview of measurement and verification (M&V) procedures for determining energy and cost savings. The class is intended for energy consultants, LEED professionals, and facility managers. Participants will learn principles of baseline definition and baseline adjustment, M&V plan development, IPMVP and Guideline 14 adherence, application to energy-efficiency upgrades and performance contracting projects, and application to LEED-NC and LEED-EB for EA-5.

SEMINAR LEADER: Mark Stetz, P.E., CMVP, CRM

Mark Stetz is a Professional Engineer, a Certified Measurement & Verification Professional (CMVP) and a Certified Carbon Reduction Manager (CRM) with over 15 years experience in the energy-efficiency and renewable energy field. Stetz Consulting is a member of the USGBC Education Provider Program and is an Energy Star service provider.

Current activities include energy audits for buildings seeking LEED EB certification, estimating energy and cost reductions, developing M&V plans and protocols, economic analysis and energy-efficiency program support, and evaluating emerging technologies.

Training topics include measurement and verification for LEED and performance contracting, energy auditing, and economic analysis. Mr. Stetz has presented courses for ASHRAE, the Efficiency Valuation Organization, SARI/E, US DOE FEMP, and USAID

AGENDA

I. Introduction and Purpose of Course

II. Introduction to Performance Contracting

This section will provide information on:

- Definitions of performance contracting and ESCOs
- Performance contracting deal types and financing
- Contract issues in performance contracting

The learning objective is to provide background on what performance contracting is and what the technical and financial risks are.

III. Introduction to LEED

This section will provide information on:

- The USGBC LEED Program
- LEED Minimum Program Requirements
- LEED New Construction and Existing Building EE Credits

USGBC's LEED program is another major driver for building energy efficiency and measurement & verification that has its own specific rules and requirements. The learning objective is to provide background on recent changes to the LEED program.

IV. Definitions

The learning objective is to understand M&V terminology and fundamentals.

V. M&V Protocols

In this section, we review the IPMVP, FEMP, and ASHRAE G-14 M&V Guidelines and how they are applied to private sector performance contracting, federal Super ESPC projects, and the LEED program. The learning objective is to formally define M&V and indicate the different perspectives associated with M&V and to understand the protocols used.

VI. M&V Planning and Adherence with Guidelines

This section walks very briefly through the steps associated with planning M&V for a project. The learning objective is knowing the elements of planning a project and having the attendees able to start designing their own M&V efforts. Compliance information is provided for the IPMVP and ASHRAE G-14.

VII. Applications to Performance Contracting

M&V is like insurance – it defines and allocates project risk to the appropriate parties. This section discusses the types of risks associated with performance contracting projects and how good M&V identifies and allocates these risk elements.

VIII. Applications to LEED

LEED NC and EBOM encourage performance verification for certified buildings, although the approach taken depends on whether the building is existing or new. LEED calls for following IPMVP principles; this section discusses what is necessary to put those principles into practice.

IX. Final Questions and Comments

Time for questions and issues raised during the class. The learning objective is to answer outstanding questions and provide a forum for general discussion.

If you have any questions or concerns, feel free to contact:

Christine Kemp
ASHRAE OVC President Elect.
(T) 613.225.9774
(C) 613.293.8821
christine@walmart.net



Determining Energy Savings from Energy Efficiency Projects:
Applying IPMVP and G-14 to Performance Contracting and LEED Projects
REGISTRATION FORM

(SPACE IS LIMITED TO 30 PARTICIPANTS – FIRST COME FIRST SERVED)

FEES:

ASHRAE OTTAWA VALLEY CHAPTER MEMBERS ___ \$ 225.00
NON-MEMBERS ___ \$ 275.00

- **Deadline for sign-up and payment is April 6, 2010**

Fees include documentation and Continental Buffet Breakfast

Important Note: Register in advance as there will be NO on-site registration

PLEASE FAX or E-MAIL YOUR REGISTRATION FORM TO:

ATTENTION: CHRISTINE KEMP

FAX: (613) 225-2972 E-Mail: christine@walmart.net

Then forward your cheque to:

Walmart Ventilation Products, 24 Gurdwara Road,
Nepean, Ontario K2E 8B5

Attendee Information:

Name(s): _____

ASHRAE Membership # _____

Daytime Telephone: _____ E-mail: _____

Company Name and Mailing Address:

Please make cheque payable to- ASHRAE Ottawa Valley Chapter



Seminar on Variable Frequency Drives

By Patrick Albert
2009-2010 OVC Governor

DATE: Tuesday May 11, 2010

TIME: 9 AM to 4 PM (Sign-In/Coffee 8:30 AM)

LOCATION: Travelodge Ottawa Hotel & Conference Center
1376 Carling Avenue
Ottawa, Ontario
(613) 722-7600

Objective:

This seminar will provide you with an in-depth knowledge of the internal components and proper application of a Variable Frequency Drive (VFD) to achieve maximum energy savings. Participants will be able to identify ideal VFD application to minimize energy losses and improve overall comfort.

Seminar Leader:

Ken Fonstad graduated from the University of Wisconsin—Parkside with Bachelor of Science degrees in Physics and Mathematics and from the University of Wisconsin—Milwaukee with a Masters of Science degree in Environmental Engineering.

Ken taught Physics and Mathematics at Brookfield Central High School, Waukesha County Technical College, and Marquette University and has been a visiting lecturer at the Milwaukee School of Engineering. He has worked as the Marketing Manager for Shimpo Drives, a manufacturer of industrial adjustable speed drives, speed reducers, and related control equipment. Ken founded *Technical Assistance*, a company that provides technical support services, such as custom technical training programs, technical writing, electronic publishing, and custom computer programming. He is the Training Manager for Danfoss Drives in Milwaukee, Wisconsin, and has served as a member of the Danfoss Drives Global Training Team. In 2007 Ken served as the Chair of the Engineering Committee of the Variable Frequency Drives Product Section of the Air-Conditioning and Refrigeration Institute (ARI, now the AHRI).

Articles written by Ken have appeared in *Consulting/Specifying Engineer*, *Energy Engineering*, and *Power Transmission Design*. He also presented a paper dealing with power line harmonics at the *2004 World Energy Exposition Congress* and has made presentations on adjustable frequency drives and their application to HVAC systems to various local ASHRAE chapters and national meetings.

Agenda:

8:30am to 9:00am **Registration**

9:00am to 10:15am **Variable Frequency Drive Fundamentals**

- A. Basic AC Motor Operation
- B. Controlling a AC Motor's Speed
- C. Basic Variable Frequency Drive Design
- D. Controlling the Motor's Frequency and Voltage
- E. Extended Frequency Operation
- F. Basic Considerations when Installing a Variable Frequency Drive

10:15am to 10:30am **Break**

10:30am to 12pm **Using Variable Frequency Drives in Variable Torque HVAC Applications**

- A. Overview of Variable Torque HVAC Applications
- B. Why flow Control?
- C. Why Variable Frequency Drives?
- D. Controlling Secondary Pumps
- E. Controlling Fans
 - 1. Supply Fans
 - 2. Return Fans
 - 3. Exhaust Fans
 - 4. Cooling Tower Fans
 - 5. Condenser Fans
- F. Other Pumping Applications
 - 1. Condenser Water Pumps
 - 2. Primary Pumps
 - 3. Pressure Booster Pumps

12pm to 12:30pm **Lunch**

12:30pm to 2pm **What's the Difference Between AC Drives?**

- A. Power Circuit Considerations
- B. Power Control Considerations
- C. Application Interface Software

2pm to 2:15pm **Break**

2:15pm to 4pm **Applying Variable Frequency Drives in HVAC Systems: The Potential and the Pitfalls**

- A. Miss-Use of the Centrifugal Affinity "Laws"
- B. Removed Pressure Drop
- C. Lack of System Knowledge
- D. Poor Pressure Sensor Location

If you have any questions or concerns, feel free to contact:

Patrick Albert
ASHRAE OVC Governor
(T) 613-728-0060
(F) 613-725-2637
patrick@breck-mar.com



Variable Frequency Drives and Energy Savings
REGISTRATION FORM

(SPACE IS LIMITED TO 40 PARTICIPANTS – FIRST COME FIRST SERVED)

FEES:

ASHRAE OTTAWA VALLEY CHAPTER MEMBERS ___ \$ 325.00
NON-MEMBERS ___ \$ 375.00

- **Deadline for sign-up and payment is May 1st, 2010**

Fees include documentation, coffee, beverages and Lunch

Important Note: Register in advance as there will be NO on-site registration

PLEASE FAX or E-MAIL YOUR REGISTRATION FORM TO:

ATTENTION: PATRICK ALBERT

FAX: (613) 725-2637 E-Mail: patrick@breck-mar.com

Then forward your cheque to:

Breck-Mar Sales & Service
877 boyd Avenue
Ottawa, Ontario K2A 2E2

Attendee Information:

Name(s): _____

ASHRAE Membership # _____

Daytime Telephone: _____ E-mail: _____

Company Name and Mailing Address:

Please make cheque payable to- ASHRAE Ottawa Valley Chapter



COGENCanada CHP Association

4th Annual Conference, Mississauga, ON

4th Annual COGENCanada Conference 1,2,3 June 2010, Mississauga, Ontario

There is no better time than now, with Canada and the US at a crossroads in energy generation, to invest in the future of the industry. And there is no better investment than COGENCanada's 4th Annual Conference June 1-3, 2010 in Mississauga, Ontario. It is the Canadian power industry's Conference with the best return on investment in human capital in 2010.

This is the most important Conference in the industry this year. It covers the technologies, business considerations and public policy issues which affect efficient power generation and usage. Cogeneration is evolving from a specialized application to becoming a significant component in the energy industry – the foundation of the next generation of economic prosperity, urban development and the renaissance of the manufacturing sector.

Delegates will gain:

- Enhanced networks of peers in the private and public sectors
- Insights from industry leaders and key government officials
- A competitive edge from service and product suppliers offerings
- Increased knowledge of cogeneration and the industry from expert speakers
- Strong relationships by visiting the sponsor-exhibitor Hospitality Suites

The Conference is the ideal venue for equipment and service vendors to exhibit their offerings and for leaders in the energy sector to demonstrate their foresight through sponsorships. Come join us, network with colleagues and build new business relations at the COGENCanada CHP Association 4th Annual Conference in Mississauga, Ontario Canada.

We offer key presentations from top authorities. The program includes:

- Gas turbines, combined cycles, IGCC
- Waste heat recovery cogen
- OTSG Power Plants
- Biomass Cogeneration
- Cogenerated Energy from Waste: European Experiences
- Eco-industrial business zones
- Hydrogen enriched natural gas and hydrogen enriched fuel from coal
- Carbon dioxide capture and storage
- Energy Storage
- Panel Discussion on Cogeneration RFPs
- Tour of Pearson Eco-business Zone Cogeneration Facilities

Sponsors and Exhibitors:

Product and service information is available from sponsors and exhibitors to the Conference. After the presentations Delegates can network and relax in Hospitality Suites.

In these times of transition, the best investment is one which provides a clearer view of the present and the future. Get that clearer view from Canada's premier heat and power event, COGENCanada's 4th Annual Conference. [Learn more and register today.](#)

A. P. Day, Conference Team Leader
COGENCanada CHP Association
cogenconference2010@cogencanada.org



News Update

By Georges Maamari,
2009-2010 OVC Governor

Technical News:

Sen. Feinstein Highlights ASHRAE in Congressional Record Remarks

ATLANTA—The U.S. Senate passed legislation that could make air travel a little less stressful and much more healthy by calling for the Federal Aviation Administration (FAA) to conduct a study of air quality in the cabins of U.S. airliners. The measure to protect the flying public from harmful toxins in cabin air planes was put forth by Senator Dianne Feinstein's (D-Calif.) and approved by the Senate on March 22.

In her address to the Senate, Feinstein supported her argument for further study of the quality and safety of cabin air with a 2009 letter from ASHRAE Presidential Member William Harrison, in which he called on the FAA to "investigate and determine the requirements for bleed air contaminant monitoring and solutions to prevent bleed air contamination."

"I agree with the ASHRAE recommendation that we need to study this problem and take steps to protect public health and safety," Feinstein said, in presenting the measure as an amendment to the FAA Air Transportation Modernization and Safety Improve Act. "I offer this amendment in order to implement ASHRAE's very sound recommendations, and I encourage my colleagues to support it."

In the letter, Harrison urged the FAA to consider adopting ASHRAE Standard 161-2007, *Air Quality Within Commercial Aircraft*, which covers issues such as temperature, cabin pressure, air contaminants and ventilation rates. The standard also addresses chemical, physical and biological contaminants that could affect air quality as well. Methods of testing are provided for ensuring compliance with the standard's requirements. Harrison's letter was submitted to be included in the Congressional record.

"The Senate legislation is a move in the right direction for aircraft passenger safety and comfort," Doug Read, program director of government affairs for ASHRAE, said. "The Society works hard to ensure federal legislation captures the important work and expertise of ASHRAE in all aspects, and utilizes this expertise to advance and protect the needs of the general public. Standard 161 is an example of ASHRAE's expertise in other areas and provides yet another avenue towards this goal."

As an amendment to the FAA Air Transportation Modernization and Safety Improvement Act, the measure will "ensure that the FAA has the information it needs to protect the public from harmful toxins in ventilation systems on commercial aircraft."

"ASHRAE is pleased to hear of this amendment, we have long urged for this issue to be addressed by the FAA" ASHRAE President Gordon Holness said. "Raising awareness to the necessity of high standards for indoor air quality, whether in a building or an airplane, helps to further the Society's mission of serving humanity through advancing HVAC&R technology."

"ASHRAE will continue to reach out to FAA and offer Standard 161 as guidance as it begins its investigations in cabin air quality, with the hope that this results in stronger regulations to control indoor air quality in aircraft cabins" he said. The measure now must be considered by both chambers for inclusion in the final bill to reauthorize the FAA. Created in 1958 under the Federal Aviation Act, the FAA is responsible for the safety of civil aviation and is a part of the Department of Transportation. Its major roles include regulating civil aviation; encouraging and developing civil aeronautics; developing and operating a system of air traffic control; and regulating U.S. commercial space transportation, to name just a few.

(cont...)

Sustainability News:

Shutting Down Computers at Night Saves Ford More Than One Million Dollars

DEARBORN, Mich., March 22

At Ford Motor Company (NYSE: F), the commitment to energy efficiency and saving money now starts at the office computer.

Under a new program called PC Power Management, the power settings on Windows laptops and desktop computers are centrally controlled to reduce energy waste and optimize software updates. A managed shutdown of computer systems not in use, especially overnight and on weekends, further reduces energy use.

At the same time, the system ensures all computers connected to the Ford Intranet are awake and able to receive software deliveries during off hours, decreasing downtime during working hours due to software loads.

The savings to the company on power cost alone is expected to top \$1.2 million annually when the system is fully implemented. By reducing PC power consumption, Ford also stands to reduce its carbon footprint by an estimated 16,000 to 25,000 metric tons annually.

"In the past, as many as 60 percent of Ford's PC users haven't shut their PCs off at the end of the business day, resulting in wasted energy," said Keith Forte, Ford IT project supervisor. "Going forward, we'll be able to manage PC power consumption more efficiently while minimizing interruptions during the working day as a result of software updates." PC Power Management is being rolled out to Ford computer users across the U.S. this month. It will be migrated to Ford operations around the world later in the year.

The cost savings and reduced carbon footprint are obtained by developing "Power Profiles" for each PC in the company. With its power profile enabled, each PC monitors its usage patterns and determines when it can be turned off. If the user is working late, he or she will be alerted of the approaching power down and given the opportunity to delay it. In addition, the PC is able to detect when a Microsoft Office product is active and is able to save open documents before shutting down in case the user is not present.

Ford developed its PC Power Management system with NightWatchman™ software from 1E Inc. 1E research found that almost half of all employees who use computers at work typically do not power them down at the end of the working day.

In the U.S. alone, over \$2.8 billion of PC power is being wasted every year, according to 1E.

Ford's actions to reduce the amount of energy used in all of its facilities, from manufacturing to office buildings have earned it the U.S. Environmental Protection Agency's coveted 2010 ENERGY STAR Award for the fifth consecutive year. In 2008, Ford improved energy efficiency in the U.S. by 5 percent resulting in savings of approximately \$16 million. Since 2000, Ford's U.S. facilities have improved energy efficiency by nearly 35 percent. That's equivalent to the annual energy consumed by more than 150,000 homes.

As part of the company's commitment to ENERGY STAR, Ford urges its employees and customers to join the effort by reducing their personal energy use and cutting their CO2 footprints. Home energy use accounts for about 25 percent of the average American's carbon footprint. Individuals can help reduce that by pledging their support of the U.S. Environmental Protection Agency's "Change the World, Start with ENERGY STAR" campaign. <http://www.energystar.gov/>

The ENERGY STAR Pledge includes small, individual energy-saving actions that collectively can make a difference.

Among those recommendations from the EPA:

- Change incandescent light bulbs to ENERGY STAR rated compact fluorescent lamps (CFL) or LEDs
 - CFLs are 50-80 percent more efficient than incandescent bulbs.
 - ENERGY STAR qualified residential LED lighting uses at least 75 percent less energy, lasts 25 times longer than incandescent lighting and provides optimal light color.
- Use a programmable thermostat to save energy while asleep or away from home.
 - The average household spends \$2,200 a year on energy.
 - Properly set programmable thermostats can save \$180 a year.

(cont...)

- Enable power management settings on computers and monitors so they go into "sleep mode" when away or not in use.
 - To maximize power savings, EPA recommends setting computers to enter system standby or hibernate after 30 to 60 minutes of inactivity.
 - To save even more, set monitors to enter sleep mode after 5 to 20 minutes of inactivity. The lower the setting, the more energy you save.
- Make purchases of ENERGY STAR-qualified products, such as home electronics, office products and/or appliances.
 - A refrigerator from the 1970s uses four times more energy than an ENERGY STAR rated model.
 - In the average home, 75 percent of all electricity used to power consumer electronics is consumed after the products are turned off. ENERGY STAR labeled consumer electronics save energy and money without sacrificing performance, features, or reliability.
- Make sure homes are well sealed and insulated.
 - Sealing and insulating the "envelope" or "shell" of a home — its outer walls, ceiling, windows, doors, and floors — is often the most cost effective way to improve energy efficiency and comfort
 - Proper home sealing and insulating can save up to 20 percent on heating and cooling costs.

By working together, Ford believes both individuals and corporations can make a difference in reducing energy use.

About Ford Motor Company

Ford Motor Company, a global automotive industry leader based in Dearborn, Mich., manufactures or distributes automobiles across six continents. With about 198,000 employees and about 90 plants worldwide, the company's automotive brands include Ford, Lincoln, Mercury and Volvo. The company provides financial services through Ford Motor Credit Company. For more information regarding Ford's products, please visit www.ford.com.

ASHRAE, founded in 1894, is an international organization of some 50,000 persons. ASHRAE fulfills its mission of advancing heating, ventilation, air conditioning and refrigeration to serve humanity and promote a sustainable world through research, standards writing, publishing and continuing education.



Let's Just Attach This...

by Rod Potter
Chapter Historian, Gopher and Webmaster

If your life is anything like mine then you are probably emailing all kinds of people all kinds of things on a regular basis. And many of those emails are *supposed* to include whopping great attachments. Continuing along the lines of being like me, on the odd occasion you send out the email and forget to include those attachments (usually followed by \$#@!! I am such a gonad!).

Following is a rather clever macro that you can add to your Outlook sessions that is designed to catch you out in your efforts to look like a gonad. It transpires that when we include attachments in emails it is common for us to also type something like "please find attached..." in the body of the message, and this macro searches for the string "attach" in your email body before allowing the message to be sent. If it finds the string it pops up with a reminder dialog, which is a good thing.

Adding a macro to Outlook is easy. Just copy everything below starting with "Private Sub" through "End Sub." In Outlook, select the "Tools | Macro | Visual Basic Editor" menu option. You may need to expand the project by clicking the plus signs under **Project1** until you see **ThisOutlookSession**, and double-click it. Click into the big white empty page and hit Paste.

Click Save and you'll be all set. If you've previously disabled macros you'll need to enable them.

***Note: Outlook Express doesn't support macros.**

Notes: Outlook counts files used in Signatures as attachments. If your signature uses one or more files, find the line `intStandardAttachCount = 0` and make it equal the number of files in your signature.

Also note that if your email starts a thread that goes back and forth with people replying, and the word "attach" first appeared at the beginning of the thread, then this macro will still find it and pop-up.

Clever dickies will also note that you can mess around with this macro by changing what it searches for!

This macro was poached from: <http://sites.google.com/site/markbird/home>

Macro on next page...



Business Card Ads

by Rod Lancefield

You can support your chapter and promote your business by placing your business card in the Capital Communiqué. It will also appear on the Chapter website.

Cost is \$225.00 for the year; contact Rod Lancefield, rod@htseng.com, (613) 728-7400.

Copy and Paste this:

```
Private Sub Application_ItemSend(ByVal Item As Object, Cancel As Boolean)
Dim m As Variant
Dim strBody As String
Dim intIn As Long
Dim intAttachCount As Integer, intStandardAttachCount As Integer

On Error GoTo handleError

'Edit the following line if you have a signature on your email that includes images or other files.
Make intStandardAttachCount equal the number of files in your signature.
intStandardAttachCount = 0

strBody = LCase(Item.Body)

intIn = InStr(1, strBody, "original message")

If intIn = 0 Then intIn = Len(strBody)

intIn = InStr(1, Left(strBody, intIn), "attach")

intAttachCount = Item.Attachments.Count

If intIn > 0 And intAttachCount <= intStandardAttachCount Then

    m = MsgBox("It appears that you mean to send an attachment," & vbCrLf & "but there is no attachment
to this message." & vbCrLf & vbCrLf & "Do you still want to send?", vbQuestion + vbYesNo +
vbMsgBoxSetForeground)

    If m = vbNo Then Cancel = True

End If

handleError:

If Err.Number <> 0 Then
    MsgBox "Outlook Attachment Reminder Error: " & Err.Description, vbExclamation, "Outlook Attachment
Reminder Error"
End If

End Sub
```



Your card here!

