

ASHRAE Ottawa Valley Chapter

Chapter Meeting #6 March 21st, 2006 (5:30 p.m.)



Meeting Date: Tuesday, March 21st, 2006
Location: La Contessa Banquet Hall, 156 Cleopatra Dr., Nepean, ON
Presiding Officer: President: Jay Doshi
Attendance: Total: 61 Guests: 29 Students: 1
Theme Night: Research Promotion
Technical Program: Lab Design Seminar
Table Top: Camfil Farr - Total HVAC; TSI Controls – HTS Engineering; Vortex 2 Fume Hood
- Longhill Energy; Rosemex – Walmar; Siemens Technologies
Program: Building Automation for High Performance Laboratories
Speaker(s): Jim Coogan, PE, Siemens Building Technologies

Prepared by: Robert Lefebvre, P.Eng. – April 12, 2006

Technical: (12:00 – 5:30)

A technical seminar was held prior to the meeting, titled, **Laboratory Design Considerations, Applications and Commissioning Strategies**. The seminar reviewed the latest control technologies and the challenges of its implementation. Real projects were used as examples of strategies that have both worked and failed. The program included the following topics:

- Identification of Laboratory Users' Needs – Herb Dean, P.Eng. (University of Ottawa)
- Finding a Design Solution – Chris Frauley, P.Eng. (McKee Engineering)
- Implementing Laboratory Control Solution – Jim Coogan, P.E. (Siemens Building Technologies)
- Commissioning the Laboratory Systems – Frank Vaculik, P.Eng. (F Vaculik Engineering Ltd.)
- Maintaining Systems & Monitoring their Performance - Herb Dean, P.Eng. (University of Ottawa)

Social (5:30 – 6:30)

Business Session (6:30 – 6:45)

- Jay Doshi opened the meeting and welcomed members, guests and students
- Jay introduced the Board of Govenors
- Francois Belair introduced the guests and students
- Cathy Godin recognized the MCA for their research contributions & handed out research coins.
- Jay reminded the attendees of the upcoming ASHRAE satellite broadcast on Sustainability and the Built Environment & the ASHRAE summer meeting in Quebec City.

Dinner (6:45 – 7:40)

Business Session-Continued (7:40 – 7:50)

- Jay Dsohi thanked Cathy Godin, Karen Peck & Jason Alexander for organizing the lab seminar & went on to thank presenters & tabletop vendors.
 - Rod Potter summarized the lab seminar for those of us who could not attend.
 - Bob Kilpatrick put out a request for more TEGA submissions for presentations in April.
 - The table top presenters were invited to summarize their displays and members were encouraged to visit the various displays during the break.
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Evening Program (8:00 - 8:45)

Program: BAS for High Performance Laboratories
Speaker: Jim Coogan, P.E.

Jay Doshi introduced the evening speaker.

To properly design a high performance laboratory, the designer needs to understand how the laboratory is to work & perform. The use of the lab determines the design requirements. Design emphasis should be made on maintaining good control.

There are several means of reducing energy; some of these include the use of less air, heat recovery & move the air more efficiently. There are many options for heat recovery in HVAC. Reduction of fan power may be achieved by active pressure reset, over-sizing of ducts, coils & filters, and staging exhaust fans. Means of reducing airflow include pay attention to the actual occupancy; reduce airflow if people are not there; setback fume hoods during unoccupied periods; low flow fume hoods; and VAV fume hoods

The Building Automation System should be used as an information service to manage energy, environment & safety. New gas sensors are making safety & information gathering easier. The new gas sensors will allow the BAS to control based on gas levels instead rule of thumb air change rates.

- Jay Doshi thanked our guest speaker for his presentation and presented him with a gift.
- Jay thanked all for attending and announced the next meeting theme is TEGA.
- With no other business at hand, Jay adjourned the meeting at 8:50pm.

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