

# ASHRAE Ottawa Valley Chapter

## Chapter Meeting #5 – February 19<sup>th</sup>, 2013 (17:30)



---

Meeting Date:	February 19 <sup>th</sup> , 2013
Location:	Travelodge Ottawa Hotel and Conference Centre
Attendance:	Total: 49 - Members: 36    Guests: 5    Students: 8
Theme:	CTTC
Tour:	None
Tech Session:	None
Table Top:	Total HVAC - Carel
Program:	<b>What a Load</b>
Speaker:	Daniel Int-Hout III
Prepared by:	Georges Maamari

---

**Social:** (17:30 – 18:55)

### **Business Session** (18:55 – 19:25)

- President Donald Weekes introduced the Board of Governors and the Executive.
- Secretary Georges Maamari introduced the guests for the evening.
- Membership Chair Adam Moons introduced the new members for the month.
- Georges Maamari discussed the CTTC theme of the evening by opening the chapter technology competition.
- Student membership chair Richard Cameron discussed the upcoming student fair that will take place on March 19<sup>th</sup>, 2013
- Donald Weekes introduced the table top display of the evening which was Carel presented by Steve Moons of Total HVAC.

### **Dinner** (19:25 – 20:05)

### **Evening Program** (20:05 – 20:45)

- After dinner, the main program event took place, speaker Dan Int-Hout III presentation topic was VAV Box Selection Procedures – Selecting for Acceptable IAQ. Mr. Int-Hout started off the presentation with the statement that in order to understand how to solve thermal comfort issues and meet occupant requirements with VAV systems we first need to understand the problem, which is to understand building loads. Mr. Int-Hout also discussed that although it has been proven that building loads are decreasing overtime in general engineers are still using assumptions from 20 years when selection components for VAV systems.
- Mr. In-Hout identified the main complaints by occupants and building operators that designers should be cognizant of as: spaces are too cold, office acoustics are poor, energy bills for building are high and productivity decreases due to absenteeism.
- In selection of an optimal VAV system, Mr. Int-Hout addressed the following aspects for consideration:
  - Rules of thumb are highly overestimated.
  - The cost of comfort – in certain instances simply moving a thermostat can save 5% heating and cooling costs for a building.
  - Properly adjust and spaced air outlets have a significant impact on occupant thermal

comfort.

- Design for low load interior zones – in general the majority of cooling load for interior spaces is simply the ventilation load.
- Make overhead heating work – throw towards and away from the glass and pay attention to parameters for effective mixing.
- Control acoustics – clearly state noise criteria in specifications.
- In summary, Mr. Int-Hout discussed that to ensure occupant comfort and appropriate selection of VAV systems LEED, ADPI, reheat performance in terms of discharge temperatures and velocities, use of software to assist with selection of the best mixture of products for each application, attention to codes and rules as they are dynamic, and validation of energy calculations are necessary.
- President Donald Weekes thanked Daniel Int-Hout III
- Meeting adjourned 20:45