TC 1.5 Program Subcommittee Agenda

Atlanta, GA, January 13, 2019, 7:00 to 8:00 pm
Chair: Mike Galler

1. Call to Order
2. Review of Agenda
3. Current Programs:
    - 2/5 submitted program proposals accepted
    - 3/3 cosponsored program proposals accepted

Sunday, January 13, 9:45 AM - 10:45 AM
Seminar 10 (Basic)
What's New in Cybersecurity
Track: Systems and Equipment
Room: Building A, A301
Sponsor: 1.5 Computer Applications
Chair: Michael Galler, Member, National Institute of Standards and Technology, Gaithersburg, MD
As with mechanical building systems, the requirements to stay current in Cybersecurity are constantly evolving. These seminars provide updated information relating to Cybersecurity and some of the speakers' experiences in the field.
1. Building Automation Systems + Cybersecurity
Levi Tully, Member, Reliable Controls, Columbus, OH
2. SmartBuilding Technology: In The Hacker's Crosshairs
Fred Gordy, Member, Intelligent Buildings, Atlanta, GA

Monday, January 14, 9:45 AM - 10:45 AM
Seminar 27 (Intermediate)
Cannabis Grow Facilities: Challenges for HVAC Design, Equipment Selection and Operation
Track: Systems and Equipment
Room: Building A, A405
Sponsor: 1.5 Computer Applications
Chair: Stephen Roth, P.E., Member, Carmel Software Corp., San Rafael, CA
The legalization of cannabis in many US states and Canada is providing a unique growth opportunity for the HVAC industry. Grow facilities that focus on cannabis require exacting and specific air conditions that differ from conventional HVAC systems. The first presentation discusses how HVAC cooling and heating load calcs and equipment selection differ for grow facilities versus conventional HVAC applications. The seminar discusses all of the additional parameters required to properly calculate cooling, heating, and humidification loads and the resulting equipment selection. The second presentation in the seminar discusses real world applications.
1. Specialized HVAC Load Calcs and Equipment Selection for Grow Facilities
Stephen Roth, P.E., Member, Carmel Software Corp., San Rafael, CA
2. Cannabis Grow Facilities: Challenges for HVAC Design and Operation
Bruce Straughan, P.E., Member, Straughan Forensic, LLC, Arvada, CO

4. Review of Submitted Programs: (**BOLD** indicates accepted)

ID	Sponsoring Committee	Program Type	Session Title	Track	Co-Sponsoring Committee	Other Sponsors	Session Chair
43	**1.5 - Computer Applications**	**Seminar**	**Cannabis Grow Facilities - Challenges for HVAC Design, Equipment Selection and Operation**	**Systems and Equipment**	**4.1 - Load Calculation Data and Procedures**		**Stephen Roth**
45	1.5 - Computer Applications	Seminar	Data Sharing and Interoperability Between BIM and Building Energy Modeling Software Tools	The Engineer's Role in Architecture	MTG.BIM - Building Information Modeling		Stephen Roth
55	1.5 - Computer Applications	Seminar	How Blockchain will change the buildings and HVAC&R world .... and beyond!	Construction, Operation, and Maintenance of High Performance Systems	MTG.BIM - Building Information Modeling		Tim Dwyer
157	**1.5 - Computer Applications**	**Seminar**	**What's new in Cybersecurity**	**Systems and Equipment**			**Michael Galler**
180	1.5 - Computer Applications	Seminar	Tools for collecting data from BACnet systems	Systems and Equipment			Michael Galler
140	**4.7 - Energy Calculations**	**Seminar**	**Multiscale Building Energy Modeling, Part 10**	**HVAC&R Fundamentals and Applications**	**1.5 - Computer Applications**		**Ron Judkoff**
142	**4.7 - Energy Calculations**	**Seminar**	**Multiscale Building Energy Modeling, Part 9**	**HVAC&R Fundamentals and Applications**	**1.5 - Computer Applications**		**Joshua New**
165	**7.5 - Smart Building Systems**	**Seminar**	**Securing BACnet Networks: Present and Future**	**HVAC&R Fundamentals and Applications**	**1.4 - Control Theory and Application**	**TC 1.5, TC 7.2, SSPC 135, TG2**	**Carol Lomonaco**

5. Speaker Ratings:

Session Type	Oral Presentation	Technical Quality	Graphical Presentation	Free of Commercialism	Composite Score
Seminar	**4.500**	**4.500**	**3.857**	**67%**	**4.339**
(016) - Urban-Scale Energy Modeling, Part 8	**4.500**	**4.500**	**3.857**	**67%**	**4.339**
Speaker #1	4.500	4.500	3.000	67%	4.125
Speaker #2	4.500	4.500	4.500	67%	4.500
Speaker #3	4.500	4.500	4.000	67%	4.375
Total	**4.500**	**4.500**	**3.857**	**67%**	**4.339**

Session Type	Oral Presentation	Technical Quality	Graphical Presentation	Free of Commercialism	Composite Score
Seminar	**4.333**	**4.400**	**4.400**	**100%**	**4.367**
(043) - What is BACnet Tagging About?	**4.333**	**4.400**	**4.400**	**100%**	**4.367**
Speaker #1	4.000	4.400	4.400	100%	4.200
Speaker #2	4.400	4.400	4.400	100%	4.400
Speaker #3	4.600	4.400	4.400	100%	4.500
Total	**4.333**	**4.400**	**4.400**	**100%**	**4.367**

6. Kansas City MO 2019 Annual Conference, June 22-26, 2019
   - Deadlines
     - *Wednesday, January 2, 2019 - Website Opens for Seminar, workshop, Forum, Debate and Panel Proposals*
     - Friday, February 8, 2019 - Program (Seminar, Forum, Workshop, Debate and Panel) Proposals Due
     - Friday, February 8, 2019 - Revised Conference Papers/Final Technical Papers Due
     - Friday, February 8, 2019 -- Extended abstracts due
     - Tuesday, February 19, 2019 - Conference and Technical Paper Final Accept/Reject Notifications
     - March 7, 2019 -- Extended abstracts final accept/reject notifications
     - March 8, 2019 -- Extended abstracts scheduled for presentation
7. Future Program Ideas (and random notes):
   1. Blockchain (Tim Dwyer)
   2. Demo: Fly a drone during seminar: Title: Stick up your duct
   3. Computer Security Basics (Mike Galler)
   4. “Emerging computer technologies for HVAC: New and innovative user interface for HVAC” – BuildingIQ / NEST API / ecobee
   5. Arduino for HVAC
   6. "Optimize HVAC Energy consumption through data mining approach" (Ziang/Ron):
   7. “Capturing Design Intent in BIM”
   8. “Interoperability Software and Schema Technologies for Purposes of Building Energy Modeling”
   9. “Using gbXML To Run Loads and Build Your HVAC System BIM Schematics “
   10. “Emerging Computer Technologies for HVAC”
   11. More mobile app seminars????
   12. Reality capture (geometry capture) ->
   13. Jeff Haberl -> Take GIS images
   14. “Put building geometry capture in your pipe and smoke it” MagicPlan/ Phil Haves/ John K. (3D Printing) -> Todd will work on it
   15. Jeff Haberl: Follow up to 1468 -> Dave Branson
   16. Commissioning tools: HVAC-Cx / UT (Mike Galler)
   17. Art Halstrom->DBOSS
   18. Big Data for HVAC – Krishnan
   19. Free software tools for HVAC
   20. And You Thought You Owned Your Buildings Data In The Cloud!: Bruce B.
   21. NetZero Analysis Strategies – Krishnan.
   22. Free software tools: HVACR and looking at low cost software tools like apps and open source software / usage of Excel
   23. Imagine 3 killer apps for ASHRAE -> just make them up.
   24. Fake apps.
   25. AI, MI, predictive analytics