

## Program: 16<sup>th</sup> Annual BHP/WREA ElectroTech Expo

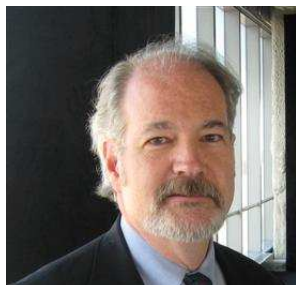
“Standard 189.1: Structure, Requirements and Energy Savings”  
and  
“Impacts of Climate Change and urbanization on Future Building Performance”  
*Presented by: Drury B. Crawley, PH.D.*

Thursday, January 21st  
Ramkota best Western Hotel

\$30.00 registration fee includes lunch, vendor showcase and presentations  
Please register at the following website:

<http://www.blackhillspower.com/electro-tech#.VoQQqGeF0mw>

Dr. Crawley is Director, Building Performance and Bentley Fellow focusing on building performance, energy efficiency, renewable energy and sustainability. Prior to joining Bentley in 2010, Dr. Crawley lead the U S Department of Energy’s Commercial Buildings Initiative [working to create cost-effective low-energy buildings nationwide including the Commercial Building Energy Alliances (now Better Buildings Alliance)] and was responsible for initiating the development of EnergyPlus and other DOE energy software. With more than 35 years of experience in buildings energy efficiency, renewable energy, and sustainability, he has worked in engineering software development, government research and standards development organizations, as well as building design and consulting companies. He received his PhD in Mechanical Engineering from University of Strathclyde in Glasgow, Scotland on the topic of building simulation as a policy tool, looking at the potential impacts of climate change on the built environment. He received a Bachelor of Architecture from University of Tennessee and is a registered architect. He is active in ASHRAE (Chair of Standard 169 Weather Data for Building Design Standards, Chair of TC 4.2 Climatic Data, member of the Advocacy Committee, member of SSPC 189.1 Standard for the Design of High-Performance, Green Buildings Except Low-Rise Residential Buildings, member of SSPC 140 Standard Method of Test for the Evaluation of Building Energy Analysis Computer Programs, former member of the Technical Activities and Research Administration Committees, and past chair of TCs 2.8, 4.2, 4.7, and 7.1). He was made an ASHRAE Fellow in 2009, achieved the ASHRAE BEMP (Building Energy Modeling Professional) certification in October 2012, received the ASHRAE Exceptional Service Award in 2013, the ASHRAE Research Administration Committee’s Service to ASHRAE Research Award in January 2012, the ASHRAE Distinguished Service award in 2003 and a 1999 Symposium Best Paper Award for “Which Weather Data Should You Use for Energy Simulations of Commercial Buildings?” He is also active in IBPSA (board member since 1998, Fellow in 2012, Regional Affiliate Liaison since 2006), IBPSA-USA (board member and treasurer since 2013), AIA, USGBC (former member of the Research Committee and the Energy & Atmosphere TAG), and serves on the editorial boards of three international Journals. He has written more than 125 papers and articles, testified before the U.S. Congress, lectured at more than 20 universities, and made more than 400 presentations on building energy efficiency, sustainability, and renewable energy throughout the world.



*President*

David Dowling

*Vice President and Secretary*

Ethan Grover

*Treasurer*

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*Membership*

Mike Malone

*Research Promotion*

Matt Koupal

*Technology Transfer*

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Michael Heinrich

*Newsletter Editor*

Sean O’Connor

**CHAPTER MAY NOT ACT FOR THE SOCIETY**

*American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.*

## President's Message

I would like to wish everyone a Happy New Year... and with the new year one is left to reflect back on 2015 and anticipate what is to come in 2016. As for the Black Hills Area Chapter of ASHRAE, we have a number of things to look forward to including but not limited to: two distinguished lecturer presentations at the 2016 Electro-Technology Expo this month, one distinguished lecturer presentation at our May meeting, and a visit from Sean Miller, the Electronic Communications Chair for our Region, at our March meeting. I hope to see everyone there!

On a final note, you might notice an extra page in our newsletter which consists of raffle tickets for a 39" smart TV that will be raffled off at our last meeting of the year. From now until May 26, 2016, we will be selling chances to win a 39" Vizio E-Series TV with all proceeds going to research promotion; please see the attached sheet for details.

David Dowling, President, Black Hills Chapter of ASHRAE

## Chapter Programs Schedule

Below is a listing of this year's programs. Please call or e-mail suggestions for programs as indicated below:

September 17, 2015	Light Weight Construction and the Modern Fire Environment	Tim Behlings
October 22, 2015	Pertinent Building Codes for the Mechanical/Electrical Engineer	Jeff Larus
November 19, 2015	Commercial High Quality Water systems	Brian Soderholm
December 17, 2015	BH Business Development Center Tour/Happy Hour	TBD
January 21, 2016	Electro Technology Expo	Drury B. Crawley, Ph.D.
February 18, 2016	Numerical simulation of two-phase turbulent flows	Bamdad Lessani, Ph.D.
March 17, 2016	Intelligent Equipment	Dan Sullivan
April 21, 2016	ASHRAE Webcast: Making Net Zero Net Positive	Multiple
May 26, 2016	What's Your EUI?	Douglas F. Zents

Send program suggestions to: Mike Austin  
(P) 605-348-2033  
(F) 605-348-1543  
[programs@blackhillsashrae.org](mailto:programs@blackhillsashrae.org)

## Membership

If anyone knows of someone who might be interested in becoming a member of ASHRAE, contact Mike Malone at: [membershippromotion@blackhillsashrae.org](mailto:membershippromotion@blackhillsashrae.org)

# ASHRAE Learning Institute

## Seminars & Courses at ASHRAE's Winter Conference in Orlando, FL

### 2 WAYS TO REGISTER

Internet: [www.ashrae.org/orlandocourses](http://www.ashrae.org/orlandocourses)

Phone: Call 1-800-527-4723 (US and Canada) or 404-636-8400 (worldwide)

### Full-Day Professional Development Seminars

\$485/\$395 ASHRAE Member -- Earn 6 PDHs/AIA LUs or .6 CEUs

#### Commercial Building Energy Audits

Saturday, January 23, 2016 – 8:00 a.m. to 3:00 p.m.

#### Energy Modeling Best Practices and Applications

Tuesday, January 26, 2016 – 9:00 a.m. to 4:00 p.m.

#### Commissioning Process in New & Existing Buildings

Saturday, January 23, 2016 – 8:00 a.m. to 3:00 p.m.

#### Operations & Maintenance of High-Performance Buildings

Tuesday, January 26, 2016 – 9:00 a.m. to 4:00 p.m.

#### Designing HVAC Systems to Control Noise & Vibrations

Saturday, January 23, 2016 – 8:00 a.m. to 3:00 p.m.

### Half-Day Short Courses

\$159/\$119 ASHRAE Member -- Earn 3 PDHs/AIA LUs or .3 CEUs

#### Laboratory Design: The Basics and Beyond

Sunday, January 24, 2016 – 3:30 p.m. to 6:30 p.m.

#### Advoiding IAQ Problems

Monday, January 25, 2016 – 2:45 p.m. to 5:45 p.m.

#### Troubleshooting Humidity Control Problems

Sunday, January 24, 2016 – 3:30 p.m. to 6:30 p.m.

#### Commissioning Process & ASHRAE Standard 202

Monday, January 25, 2016 – 2:45 p.m. to 5:45 p.m.

#### Understanding & Designing Dedicated Outdoor Air Systems

Sunday, January 24, 2016 – 3:30 p.m. to 6:30 p.m.

#### Complying with Standard 90.1-2013: HVAC/Mechanical

Monday, January 25, 2016 – 2:45 p.m. to 5:45 p.m.

#### Variable Refrigerant Flow System Design & Applications **NEW!**

Sunday, January 24, 2016 – 3:30 p.m. to 6:30 p.m.

#### Evaluation and Control of Legionella in Building Water Systems **NEW!**

Monday, January 25, 2016 – 2:45 p.m. to 5:45 p.m.

#### Air-to-Air Energy Recovery Applications: Best Practices

Monday, January 25, 2016 – 8:30 a.m. to 11:30 a.m.

#### Exceeding Standard 90.1-2013 to Meet LEED Requirements

Monday, January 26, 2016 – 9:00 a.m. to 12:00 p.m.

#### Applications of Standard 62.1-2013

Monday, January 25, 2016 – 8:30 a.m. to 11:30 a.m.

#### IT Equipment Design Evolution & Data Center Operation Optimization

Monday, January 26, 2016 – 9:00 a.m. to 12:00 p.m.

#### Building Demand Response & the Coming Smart Grid

Monday, January 25, 2016 – 8:30 a.m. to 11:30 a.m.

#### Designing High-Performance Healthcare HVAC

Monday, January 26, 2016 – 1:00 p.m. to 4:00 p.m.

#### Energy Management Best Practices

Monday, January 25, 2016 – 8:30 a.m. to 11:30 a.m.

## ASHRAE HVAC Design Training

### 2 Courses, 5 Days of Intense Instruction

Atlanta • Halifax • Hong Kong • Houston • Kuala Lumpur

Miami • Minneapolis • San Francisco • Vancouver

### **HVAC Design: Level I – Essentials** - Registration is \$1,264 (\$1,009 ASHRAE Member)

Gain practical skills and knowledge in designing and maintaining HVAC systems that can be put to immediate use. The training provides real-world examples of HVAC systems, including calculations of heating and cooling loads, ventilation and diffuser selection using the newly renovated ASHRAE Headquarters building as a living lab.

### **HVAC Design: Level II – Applications** - Registration is \$854 (\$699 ASHRAE Member)

*HVAC Design: Level II — Applications* provides instruction on HVAC system design for experienced HVAC designers and those who complete the HVAC Design: Level I – Essentials training. The training provides information that allows practicing engineers and designers an opportunity to expand their exposure to HVAC systems design procedures for a better understanding of system options to save energy.

Visit [www.ashrae.org/hvactraining](http://www.ashrae.org/hvactraining) to register.

Black Hills ASHRAE: Raffle Ticket Entry

Name \_\_\_\_\_

Address \_\_\_\_\_

Phone \_\_\_\_\_

Black Hills Area Chapter of ASHRAE

Vizio 39" E-Series smart TV Raffle

Drawing Date: 5/26/2016

Proceeds: to benefit ASHRAE Research

Donation: 1 for \$5.00 or 5 for \$20.00

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