



THERMOGRAM



The New Jersey Chapter of ASHRAE Newsletter

www.njashrae.com

October 2009

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ASHRAE

*Sustaining Our Future
by Rebuilding Our Past*

NJ Chapter of ASHRAE Meeting

Tuesday, November 10th, 2009

at

Renaissance Woodbridge Hotel

(same location, new name)

515 US Highway 1 South

Iselin, New Jersey



Rich Nowak

Siemens Building Technologies

Presenting

*"Integrated Building Management Systems
for High Performance Buildings"*

Cost: Members \$50.00

Non-members \$55.00

YEA members \$25.00***

Students \$5.00

Cocktails: 5:30 pm

Dinner and Speaker: 6:30 pm

RSVP: REPLY@NJASHRAE.COM or

call 732-218-7463

By October 2nd, 2009

Dinner Menu—choice of 2 entrees, see page 4

***Learn more about YEA, see page 4



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Calendar of Upcoming Meetings



December 1, 2009: Klas Haglid, Haglid Engineering & Assoc, “Energy Recovery” *NYS CEUs available*

January 2010: Joint Meeting with MCA, exact date TBA

February 2, 2010: Max Sherman, PhD, Lawrence Berkeley Labs, Ventilation—the “V” in HVAC

March 2, 2010: Mark MacCracken, CALMAC, Thermal Energy Storage

April 13, 2010: Tom Pitcherello, NJ DCA

May 4, 2010: Ed Karpenski, National Air Filter, “Air Filtration as a Defense” *NYS CEUs available*

June 2010: Social Event TBA

www.njashrae.com
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ASHRAE Society
Toll Free Number
1-800-527-4723



President's Message

Dear Chapter Members,

Our first dinner meeting of the 2009-2010 year was held at the newly renovated Renaissance Woodbridge Hotel on October 6th. It was well attended and included a presentation by Mr. James Cavanagh of Lennox Industries on the Energy Policy Act and upcoming regulation changes governing refrigerant types that will take effect on January 1, 2010. Mr. Cavanagh explained the move to standardizing testing of equipment as well as the changes in allowable types of refrigerants and how these changes affect our industry. An enthusiastic round of audience questions followed. I would like to thank Mr. Cavanagh for his timely and informative presentation.

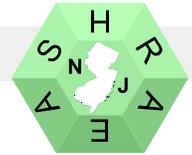
Our November speaker will be Mr. Richard Nowak of Siemens Building Technologies presenting "Integrated Building Management Systems for High Performance Buildings".

Please join us at our next meeting on Tuesday, November 10th.

Janet

2009-2010 Presidential Award of Excellence (PAOE) Summary

Chapter #	Chapter Name	Chapter Members/ students	Member Promotion	Student Activities	Research Promotion	CTTC	History	Chapter Operations	Chapter PAOE Totals
007	N.J.	787	-	-	-	-	-	-	-



October Dinner Menu

Tossed Garden Salad
**Your choice of* Chicken Française
or
Grilled Flatiron Steak
Blue Cheese Potato Gratin
Cheesecake
Iced Tea, Coffee, Hot Tea

**Vegetarian selection available*

YEA: Young Engineers in ASHRAE

Attention professional members age 35 and younger, YEA is for you!

YEA provides a way for you to make the most of your ASHRAE membership.

NJ ASHRAE invites you to attend our dinner meetings at a discounted price of \$25

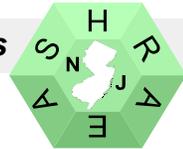


Subscribe to the YEA Connection which is specifically targeted at young ASHRAE members who wish to receive regular communication of interest to young people and who want to network and communicate with one another. It offers a regular newsletter, a free logo item, listserv, and information and updates on special events as they occur. It is a great opportunity to stay up-to-date with Society news and events and network with young professionals around the world.

Who qualifies to be in the YEA Connection? All members age 35 and younger with the following member grades: member, associate member, student transfer and affiliate member.

To subscribe to the YEA Connection, send an email to yourengineers@ashrae.org with the following information: Subject line: Subscribe to YEA Connection. Message Body: Your name, your member number, your physical mailing address and your active email address.

Visit the ASHRAE website and click on YEA for additional information.



Green ASHRAE News: Memorandum of Understanding with IGBC to Promote Sustainability around the World

The signing of a memorandum of understanding between ASHRAE and the Indian Green Building Council (IGBC) represents the country's potential as a market for constructing energy efficient buildings.

The MOU between ASHRAE and IGBC, a not-for-profit organization that promotes energy efficiency in buildings, allows the two societies to share products, jointly promote educational programs and, where appropriate, cross-market each other's products and services.

"IGBC and ASHRAE signed the MOU to share their best practices and information on their research and development; codes and standards for climate change initiatives; and net-zero and energy-plus built environment," Prem Jain, Fellow ASHRAE, Life Member, chair of the IGBC, said. "This will help the international community of designers, builders and researchers to partake in the best of the two eminent organizations dedicated in improving the health of the planet Earth and her inhabitants."

The memorandum is the latest in strengthening ASHRAE's ties with India, a country that's fast growing population demands an even faster growing construction industry; ASHRAE has some 700 members in India with four chapters—India, Western India, South India and Chennai .

"ASHRAE is looking forward to working closely with IGBC," Gordon Holness, ASHRAE president, said. "This memorandum of understanding opens doors to resources, educational material and member expertise that will benefit ASHRAE and IGBC members alike. Most important, a broader knowledge of energy efficient and sustainable building practices will be gained on both sides."

IGBC was formed in 2001 and is a consensus not-for-profit organization representing the building industry, consisting of architects, builders, consultants, manufacturers, institutions and others. The vision of the Council is to facilitate India to become one of the world leaders in green buildings by 2010.

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Summary of BOG Meeting Minutes

By James Sarno, PE, NJ ASHRAE Secretary

- The Chapter will use Speaker Evaluations at our Dinner Meetings. Keep an eye out for them and help us out by completing them and providing your input on the speakers.
- Next year's CRC will be held in Watkins Glen, NY during the third week of August.
- The advertisements in the Thermogram and website have been working out well. If you'd like to place an advertisement, contact Jori Fahrenfeld for more information.
- Speakers have now been confirmed for all of the Dinner Meetings for this year.
- The goal of the Chapter is to begin expanding our Student Activities by focusing our energies on NJIT and then expanding out from there. Discussions were held on various ways to increase student attendance at the Dinner Meetings.
- The Programs Committee is checking into a potential refrigeration tour and other LEED buildings in the area for potential tours.
- A new, reduced Dinner Meeting fee was approved for members of YEA (Young Engineers in ASHRAE)

Student Activities Committee

By Saheel Chandrani, Chair

The Student Activities Committee (SAC) is excited to begin the new year with a few key goals in mind. We want to develop a comprehensive program for the academic and educational community to promote and encourage HVAC&R careers, promote HVAC&R Education through student clubs, and promote growth in ASHRAE student membership.

We plan to accomplish this by taking advantage of our members and their years of expertise, our geographic resources and major industry connections. Within the next month, SAC would like to conduct a committee meeting to get all interested parties on board and develop a plan of action to accomplish goals. As always, if anyone has any ideas, questions, or comments, please send me an email:

Speaker Bio: Richard Nowak, LEED AP, Siemens Building Technologies

Richard Nowak has been involved in the building technologies industry for over 10 years in various capacities, including systems design, project installation, management and sales. He has been involved in the design and construction of several LEED projects, laboratory and research buildings and mission critical facilities. He is currently a Sales Manager with Siemens Building Technologies involved in major projects in New York and New Jersey.

Rich presentation is entitled, "Integrated Building Management Systems for High Performance Buildings."

Here Comes the Sun: ASHRAE to Act as Supporting Sponsor of 2009 Solar Decathlon

Recognizing the key role solar energy will play in the development of net-zero energy buildings (NZEBS), ASHRAE is proud to be a supporting sponsor of the 2009 Solar Decathlon.

The Decathlon—sponsored by the Department of Energy and held on the National Mall from Oct. 9-13 and 15-18—is a competition in which 20 teams of college and university students compete to design, build and operate the most attractive, effective and energy-efficient solar-powered house.

“Buildings constitute 40 percent of the nation’s primary energy use; that’s why it’s crucial that we encourage students, the future leaders of the HVAC&R industry, in their interest to explore energy efficiency and sustainability,” Gordon Holness, ASHRAE president, said. “ASHRAE cannot let this opportunity of influencing our energy future and the climate of the world pass by.”

As part of its role as a supporting sponsor ASHRAE will independently host two workshops, as well as co-sponsor a workshop with the American Institute of Architects, the U.S. Green Building Council and the American Institute of Architecture Students. These workshops will examine topics such as net-zero-energy buildings and sustainable home design.

To provide the Solar Decathlon student teams with the best possible engineering resources as they plan their solar homes, ASHRAE has made available a variety of resources to the student teams such as *HVAC Simplified*, *ASHRAE GreenGuide* and *ASHRAE Standard 90.2-2007*, to name just a few.

Perhaps the greatest resource ASHRAE has to offer is its members’ expertise. Sixteen ASHRAE members have been selected by the DOE and the National Renewable Energy Lab to serve as Solar Decathlon Observers. ASHRAE Observers are assigned to observe two to four houses each to manage the 10 contests that make up the entire competition. ASHRAE Observers are dedicating eight days to serve in this capacity.

“I’ve always been drawn to new and innovative ideas for saving energy,” Nick Long, ASHRAE Observer, said. “The Decathlon’s mission is critical in teaching the emerging generation the importance of energy efficiency and integrating the concepts into whole-building design and operation.”

Additionally, ASHRAE has encouraged its members in the D.C. area to volunteer their time at the Solar Decathlon by helping to answer questions asked by the visiting public or assisting organizers with operating the competition. Whether available to volunteer for a few hours or multiple days, ASHRAE members’ volunteer contribution will help make the 2009 Solar Decathlon a success.

ASHRAE also offered students, who participate in eight intense days of construction, a way to relax by co-sponsoring a student reception with USGBC and AIA on Oct. 10. The reception allowed participants to meet and greet decathletes, organizers and sponsors, as well as enjoy great food and the chance to win raffle prizes. ASHRAE also hosted a continental breakfast for student team members.





ASHRAE Headquarters Receives Highest LEED Certification

ASHRAE has always prided itself on providing the gold standard in research, standards writing, publishing and continuing education. However, when it comes to energy efficiency and sustainability, gold just isn't good enough: That's why the ASHRAE Headquarters has gone a step further and has been awarded a LEED Platinum Certification in the New Construction 2.2 rating system.

The Society's office building in Atlanta, Ga., which underwent a major renovation in 2008, is one of only six buildings in the state of Georgia to receive a LEED Platinum rating, the highest certification the program offers. LEED, which stands for Leadership in Energy and Environmental Design, is a program of the United States Green Building Council (USGBC), a non-profit which seeks to promote green building practices.

"While our first objective was to provide a healthy, comfortable and productive environment for our staff, we also wanted to set an example of what can be done to renovate existing buildings," ASHRAE President Gordon Holness said. "Given that 75 to 80 percent of all existing buildings will still be around in 2030, our greatest opportunity for a sustainable future is through the upgrade and retrofit of these buildings. It is extremely gratifying to achieve the USGBC's highest

"The strength of USGBC has always been the collective strength of our leaders in the building industry," said Rick Fedrizzi, President, CEO & Founding Chair, U.S. Green Building Council. "Given the extraordinary importance of climate protection and the central role of the building industry in that effort, ASHRAE demonstrates their leadership through their LEED Platinum certification of their renovated Headquarters."

LEED takes into account five key measurements when evaluating new construction: sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality. Bonus points may be obtained through innovation in design and regional priority.

In order to qualify for the highly sought-after Platinum certification, ASHRAE took into consideration a number of concerns such as energy use, heat island reduction, water efficient landscaping, material reuse and water use reduction, to name just a few.

ASHRAE addressed these issues, among others, by installing a cool, white reflective roof membrane to minimize heat island effects; updating the landscaping and eliminating the need for landscaping irrigation; retaining more than 75 percent of the existing building structure as part of this renovation; and reducing its estimated overall annual water consumption per year by almost 50 percent by utilizing low-flow fixtures throughout building. Additionally, the ASHRAE headquarters received bonus points for innovation and design.

As a leader in energy efficient technology, ASHRAE viewed its headquarters renovation as the perfect way to "walk the talk." The 34,500 ft² office building, built originally in 1965, now acts as a showcase of energy efficiency and sustainability through its living lab—which provides recourse on building, system and equipment performance—and learning center.

The LEED Platinum Certification acts as third-party verification of ASHRAE's efforts to create an environmentally friendly, energy-efficient, sustainable workplace.



ASHRAE Makes Information on Datacenters More Accessible in CD Form

It is estimated that \$2 billion is wasted nationally due to data center inefficiencies. That's why the valuable information found in ASHRAE's Datacom Series—which provides guidance on ways to plan, build and monitor datacenters in ways that are both energy efficient and cost effective—has been compiled into one easily searchable CD.

The "Data Center Design and Operation-ASHRAE Datacom Series" CD will allow a user to search across all previous published books in the Datacom Series simultaneously, as well as have the option to either print information directly from the CD or copy or paste into another document.

The need for guidance on data center energy is enormous—in 2006 alone, for every dollar spent worldwide on new servers, another 50 cents was spent on energy to power and cool them. Datacenters in the United States consume 1.5 percent of all electricity used in the country and with historical trends this consumption is predicted to rise to 2.9 percent by 2011.

"ASHRAE Technical Committee 9.9 has taken the lead in the IT and HVAC communities by producing a series of publications that provide the necessary guidance," Stephen Comstock, ASHRAE publisher, said. "The intent of the CD is to bring these resources together in a format which allows for easy search and quick access. Annual updates will be available so users have the most current information available."

The ASHRAE Datacom series provides a comprehensive treatment of datacenter cooling, energy efficiency and related subjects, such as structural and vibration guidelines and equipment power trends.

Currently, the titles that make up the new CD include the following, though the CD will be updated as more books are released in the series:

- Thermal Guidelines for Data Processing Environments, Second Edition
- Best Practices for Datacom Facility Energy Efficiency, Second Edition
- High Density Data Centers
- Datacom Equipment Power Trends and Cooling Applications
- Design Considerations for Datacom Equipment Centers, Second Edition
- Liquid Cooling Guidelines for Datacom Equipment Centers
- Structural and Vibration Guidelines for Datacom Equipment Centers
- Particulate and Gaseous Contamination in Datacom Environments



The Datacom CD costs \$235, \$199 for ASHRAE members, and can be purchased through ASHRAE's online bookstore at www.ashrae.com/bookstore. More information about the entire Datacom Series can be found at www.ashrae.com/datacom.



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Building Energy Use Highlighted in Newest ASHRAE Certification Program

As building owners and developers become increasingly concerned about rising energy costs and potential obligations under climate change programs, building energy modeling helps provide a preview into a building's likely energy use and allows decisions affecting energy use to be made before a shovel even hits the ground.

To ensure that professionals modeling a building's energy use have the skills necessary to produce an accurate model, ASHRAE is launching a Building Energy Modeling Professional certification.

The first exam for the new certification program will be administered on Jan. 27, 2010, at the Winter Conference in Orlando, Fla. To register for the exam, visit www.ashrae.org/BEMP.

"Energy modeling is one of the most effective ways to achieve energy efficiency when designing sustainable buildings," Gordon Holness, ASHRAE president, said. "Since buildings consume 40 percent of all U.S. primary energy supplies, and energy modeling is only as good as the consultant who uses it, ASHRAE's newest certification program strives to ensure that engineers and architects achieve the highest possible standards when it comes to sustainable design."

Criteria to improve the accuracy of building energy models will help address some of the growing concerns within the building community that building designs do not necessarily translate to actual energy use once a building is constructed.

Additionally, energy modeling will play a vital role in ASHRAE's soon-to-be launched Building Energy Quotient (bEQ) program, which will feature both an "As Designed" and "In Operation" component. While the "In Operation" rating is based on actual energy use, the "As Designed" rating is based on the results of a building energy model.

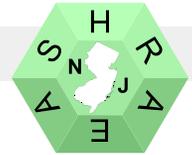
Careful and consistent energy modeling will allow modeling results to be compared with the results of models from other buildings. According to Holness, the certification will be an essential element for guaranteeing the quality of the bEQ program by assuring that there is a competent pool of building energy modelers.

Professionals who pass the certification exam will have demonstrated their ability to evaluate, choose, use, calibrate and interpret the results of energy modeling software, as well as confirm their competence to model new and existing buildings and systems with their full range of physics.

The certification will also highlight a consultant's ability to act as a leader for projects that focus on energy efficiency, especially projects that deal with green buildings and building labeling programs, such as bEQ.

The Building Energy Modeling Professional program will help the individuals who earn it to distinguish themselves by providing confirmation of their skills and specialties by an internationally recognized engineering society. Professionals with such certifications have better chances of being hired, promoted and/or tapped for working on certain types of design projects.

ASHRAE's newest certification will become available at testing centers located around the world in March 2010 and was developed in collaboration with the U.S. affiliate of the International Building Performance Simulation Association and the Illuminating Engineering Society of North America.



Advertise with NJ ASHRAE

Reach over 750 professionals in the New Jersey Area

www.njashrae.com

Newsletter Ad includes:

- Business card ad in 10 Newsletters (next Newsletter is September 2009)

COST: \$100.00

Website includes:

- Business card ad for 1 year (starts month payment and business card is received)
- Link to your website

COST: \$300.00

Newsletter and Website includes:

- Business card ad in 10 Newsletters
- Business card ad for 1 year
- Link to your website

COST: \$350.00

Please mail business card, website address and check to:

NJ ASHRAE
c/o G&C Sales
345 South Ave., 3rd Floor
Garwood, NJ 07027

Make checks payable to NJ ASHRAE.



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HELP WANTED



If you would like to submit project or technical articles for the *THERMOGRAM* or if your would like to place an advertisement, please contact Jori Fahrenfeld @ 609-520-1600 or via email Jori.Fahrenfeld@Emerson.com for further details