

December Newsletter

2016

ASHRAE Atlanta Chapter



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December 2016

December is here and we are in the final weeks of 2016! Although our joint Red & Green Scene holiday party has taken a hiatus this year, we have made extra efforts to provide a venue for some holiday festivities. We have partnered with AIA Atlanta to bring you a Holiday Gathering at Torched Hop Brewing Company this Tuesday December 6th at 6 pm. We hope you've received our email reminder last week, but if this is news to you, registration is still open! Join engineers and architects alike for a year-end celebration. The event is being organized by the Young Engineers of ASHRAE and Young Architects Forum Atlanta, the respective youth committees of each organization. All ASRHAE members are encouraged to join the festivities!

You can register by clicking the link below and clicking "***Register Here**":
<http://www.ashraeatlanta.org/event-2393769>

We had a great turn-out at our November meeting at Maggiano's for an update on Georgia Construction Codes. A big thank you to Ted Miltiades and Bill Towson with the Georgia Department of Community Affairs for giving us a timeline of the new state energy code adoption. We will be taking a holiday break this December, so our next monthly meeting will be Tuesday January 10, 2016 at ASHRAE Headquarters. More information on this program coming soon.

With that, I'd like to keep this address brief and wish everyone a Happy New Year! I hope to see you this Tuesday at our Holiday Gathering!



Nick Kassanis

Atlanta Chapter President 2016-2017

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www.ashraeatlanta.org

Revised Residential Energy Standard Open for Industry Input

ATLANTA – Recognizing the amount of energy used by the residential building sector, ASHRAE and IES are revising their residential energy standard with a goal of making it 50 percent more efficient than the 2006 International Energy Conservation Code, which serves as the industry benchmark.

The residential sector consumes a fifth of all the primary energy used by the United States (21 percent) and more than half (54 percent) of all energy used by buildings. Similar trends are also observed in other parts of the world. For example, in Europe, residential buildings accounted for 75 percent of the total building stock and were responsible for 26.2 percent of the total European Union final energy consumption in 2012.

ASHRAE/IES Standard 90.2-2007R, Energy Efficient Design of Low-Rise Residential Buildings, is open for public comment from Nov. 4 until Dec. 19, 2016. For more information or to submit comments, visit www.ashrae.org/publicreviews.

Theresa Weston, chair of the Standard 90.2 committee, said the revision of the standard, last published in 2007, represents a new approach in residential building energy performance.

“This new 90.2 seeks to deliver residential building energy performance that is at least 50 percent more efficient than the energy efficiency defined by the 2006 International Energy Conservation Code,” she said. “Key to accomplishing this objective is delivery of an accurate, flexible performance-based tool to enable user creativity in meeting the performance objectives. The new standard contains detailed rules governing the energy modeling and analyses needed to determine compliance with the performance objectives.”

The standard provides a mechanism by which any residential building design can be easily evaluated against these performance objectives. By establishing a clearly-defined rules set for energy performance modeling, users can easily assess various designs, material options, orientations and other variables to evaluate predicted energy performance, according to Weston. This analytical flexibility also provides users with a tool for helping to establish program targets and ensure program compliance.

The ruleset is based on ANSI/ICC/ RESNET 301 with specific exceptions and adjustments for building size. ANSI/ICC/RESNET 301 is available online at <http://www.resnet.us/blog/ansiresneticc-standard-301-2014-january-15-2016/>

Another key difference in the structure of this standard is that it allows users to develop multiple prescriptions – recipes of construction, systems and equipment – that will deliver the targeted performance. As such, users such as states, utility programs and product manufacturers may seek to build prescriptive “solutions” to assist builders with locally focused, performance-based compliant options.

Weston noted that an array of new building envelope, HVAC, lighting and equipment technologies exist to enable achieving even greater levels of residential energy efficiency. Since this standard is performance-based and focuses on whole building energy performance, all of these new technologies can be evaluated to meet the performance target.

Additional key features in this draft standard include:

- Title, Purpose and Scope – The standard now covers manufactured housing, which was not included in the 2007 version. It also addresses renewable and non-renewable forms of energy.
- Building envelope - The standard recognizes that long-lived building envelope decisions play a critical role in achieving the targeted building performance. Certified performance of insulation, fenestration and envelope air sealing are prioritized. Testing and verifying the envelope air leakage is mandatory. The standard attempts to address several problems in existing residential performance techniques. One major difference is adjustments in building modeling techniques to address the energy use implications of building size.
- Mechanical systems – The standard recognizes the importance of HVAC and water heating system performance as essential to achieving the overall building performance targets. Proper sizing and verification of duct system performance, as well as having all ductwork within conditioned space are fundamental to these objectives. Similarly, plumbing system design, insulation levels and controls are prioritized and are fundamentally new. Requirements for HVAC system design, installation, commissioning and verification are integral to 90.2.
- Lighting systems – The standard builds on the many recent cost-effective and long-lived advances in lighting technology – from lamps to control systems – to help deliver even greater levels of lighting energy savings than current minimum code. Key improvements include revised modeling rules for quantifying residential lighting energy, credits for the use of vacancy sensors, dimmers and other control devices and revised lighting allowances for interior, exterior, garage and other residential lighting.
- Onsite power systems – The standard recognizes the important role of renewable energy and onsite power systems to help achieve the building performance targets. It emphasizes load minimization and HVAC performance strategies first so that any onsite power systems used can have maximum impact toward the overall building performance goals.

Would you like to take a more active role in voicing your opinions on upcoming legislation which affects you and your fellow engineers? ASHRAE makes it easy for you to do this. GO to: <https://www.ashrae.org/government-affairs/grassroots-advocacy> And scroll down to the "Take Action on Bills" section.

Take Action on Bills



Sign-in using your ASHRAE ID to "vote" for or against upcoming legislation that affects you and fellow engineers.

Take Action on tracked federal and state bills by finding your local representatives and writing, calling, sharing or commenting on the proposed legislature.

[Take Action](#)

Click on the Take Action button and after registering with your information you will be able to view State or Federal Legislation that could affect you. You will also be able to see who your federal and state representatives are. This site makes it easier to contact those representatives and voice your opinions. Let your voice be heard.

John Pruitt

Grassroots and Government Activities Chair, Atlanta Chapter
johndpruitt@hotmail.com

ASHRAE/AIA Holiday Gathering

- Where: Torched Hop
- When: Tuesday, Dec. 6th (this coming Tuesday)
- How much: \$10 early / \$20 at the door
- Register through AIA's website:
<https://www.aiaatl.org/events/aia-atlanta-yaf-ashrae-yea-holiday-gathering/>

ASHRAE Technical Committees

- ASHRAE Technical Committees are not just for design managers! If you are interested in getting involved in a TC committee to learn more about this industry and help shape the future ASHRAE guidelines, they are looking for YEA members
- Please contact Parker Brunelle (pbrunelle@joepowell.com) for more information on how to get involved.

YAF Atlanta & ASHRAE YEA
Invite You To A

HOLIDAY GATHERING

Tuesday, December 6th
6:00 – 9:00 PM

TORCHED HOP
BREWING COMPANY

249 Ponce De Leon Ave NE, Atlanta, GA 30308

TICKET PRICES
\$10 In Advance
\$20 at the door
Entry includes 2 beers & light appetizers

REGISTER AT
<https://www.aiaatl.org/events/aia-atlanta-yaf-ashrae-yea-holiday-gathering/>

Free parking in the Camden Apartments parking garage off Penn Ave.

Parker Brunelle

YEA Chair, Atlanta Chapter
pbrunelle@joepowell.com

December 2016 Edition



KADABA, Dr. Prasanna V. Dr. Prasanna V. Kadaba passed away during the morning hours of December 3, 2016 at the age of 85. A Funeral Service will be held Sunday at 2:30 p.m. in the Chapel of Mayes Ward-Dobbins Funeral Home in Marietta. Dr. Kadaba was born in Gundulpet, Karnataka and immigrated to the United States in 1954.

He earned Master's Degrees in both Mechanical and Electrical Engineering from the University of Kentucky. He completed his Ph.D in Mechanical Engineering at Illinois Institute of Technology in 1964. After working as a lead scientist at Borg Warner Corporation and Westinghouse, he moved to Atlanta in 1969 to take a teaching position at the Georgia Institute of Technology.

Dr. Kadaba was a professor at Georgia Tech in the Department of Mechanical Engineering for over 40 years. His research was focused on the development of thermal systems with an emphasis on energy and cost efficiency, as well as environmental harmony. Over the years, he felt his most significant contribution was the education of thousands of students on the fundamental aspects of heat transfer and thermal design. His tutelage included the graduation of numerous U.S. and international Masters and Ph.D students from Georgia Tech.

His fondness for his students led him to follow their careers and celebrate their many successful professional and personal achievements throughout their lives. Dr. Kadaba was a Fellow of several leading engineering societies including the American Society of Mechanical Engineers (ASME) and American Society of Heating, Refrigerating, and Air-conditioning Engineers (ASHRAE). He was a dedicated member of the local Indian community since his arrival in Atlanta, including being a founding member of the India-American Cultural Association.

His passion was contribution to the community, in whichever community he was participating in at the time. He also felt strongly about supporting young students, particularly immigrant students, as they pursued higher education. He loved his family and considered his many friends, colleagues and students to be within that group. He is survived by his wife, Usha, his son and daughter-in-law, Wab and Ami, and his two grandsons, Rajan and Shailen.

In lieu of flowers, the family asks that you make donations to the India-American Scholarship Fund. Donations can be mailed to the following address: India-American Scholarship Fund, C/O Anuj Manocha, 3844 West Lane Dr., Smyrna, GA 30080. www.mayeswarddobbins.com 770-428-1511

Brendan Gardes

MP Chair, Atlanta Chapter

membership@ashraeatlanta.org

ASHRAE Learning Institute

ASHRAE HVAC Design Training

2 Courses, 5 Days of Intense Instruction

Atlanta • Halifax • Hong Kong • Houston

Kuala Lumpur • Miami • Minneapolis • Vancouver

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

ASHRAE's HVAC Design: Level I — Essentials provides intensive, practical training for HVAC designers and others involved in the delivery of HVAC services. In three days, gain practical skills and knowledge in designing, installing and maintaining HVAC systems that can be put to immediate use.

Fundamentals
Heating/Cooling Load Calculation
System Selections
HVAC System and Components

Cooling System
Basic Design of Hydronic Systems
Basic Design of Air Systems
Control/BAS

HVAC Design: Level II – Applications –

Registration is \$854 (\$699 ASHRAE Member)

ASHRAE's HVAC Design: Level II — Applications provides advanced instruction on HVAC system designs for experienced HVAC designers and those who complete the HVAC Design: Level I — Essentials training. In two days, gain an in-depth look into Standards 55, 62.1, 90.1, 189.1 and the Advanced Energy Design Guides. Training will focus on a range of topics including: HVAC equipment and systems, energy modeling, designing a chiller plant, and BAS controls.

- Sustainability / Green/LEED / HPB / NZEB
- Standard 55
- Standard 62.1
- Building Systems: Education Facility
- System Applications: Chiller/Boiler, Air Handlers, VAV Terminals

Visit www.ashrae.org/hvactraining to register.

Sponsors

Thank you to the 2016-2017 ASHRAE Sponsors! Interested in being a sponsor? Sign up now!



GEORGIA AIR ASSOCIATES



Let's thank these companies for their donations. If you would like to be a sponsor for the 2016-2017 calendar year, please click on the link for more information or contact Brian Justice (below is the email) <http://www.ashraeatlanta.org/event-850135>.

Thanks to our newsletter sponsor:



Rainwater is a Resource

Brian Justice
Chapter Board of Governors, Atlanta Chapter
justicebrian@charter.net

This Atlanta Chapter Newsletter goes by email only to all Atlanta Chapter ASHRAE members along with all other ASHRAE members in our area and anyone else who asks. If you need a change in our email list, please notify our Chapter Secretary at secretary@ashraeatlanta.org

Scholarships Available - Apply Today!

Through its scholarships, ASHRAE seeks to motivate students and prospective students worldwide to pursue an engineering or technology career in the HVAC&R field. The Society's Scholarship Program also serves the public interest by aiding in the education of men and women to become qualified to practice as engineers in HVAC&R. ASHRAE has 28 scholarships available for the 2015-16 school year, for high school seniors entering college through senior undergraduate engineering students and engineering technology students. ASHRAE is seeking your assistance in making student members aware of this financial assistance.

- * 8 regional/chapter and university-specific scholarships — \$3,000 to \$5,000 each. Now accepting applications!
- * 12 undergraduate engineering scholarships — \$3,000 to \$10,000 each. Now accepting applications!
- * 4 high school senior scholarships — \$3,000 each
- * 4 engineering technology scholarships — \$5,000 each

Qualified students are encouraged to apply online:

www.ashrae.org/scholarships

Annual Application Deadlines:

May 1st for Engineering Technology and High School Senior Scholarships

Scholarships are awarded for the academic year following the application deadline beginning with the fall semester. For a list of available scholarships, complete eligibility requirements, and an application, visit www.ashrae.org/scholarships

Are you missing out?

Don't miss out on the latest ASHRAE publications! For more information, visit the Resources and

ASHRAE JOURNAL



Most college science buildings consume a lot of energy. But, the Davis Building at the University of Findlay has a site EUI of only 64 kBtu/ft², which is significantly lower than most similar buildings that include labs with many fume hoods. This issue also features articles about when adding more fan power can be a good thing, the future of residential construction and a side-by-side comparison of VAV vs. radiant.

[Learn More >](#)

HPB MAGAZINE



Learn how the Federal Center South Building 1202 fosters a culture of collaboration, while the Haywood Community College Creative Arts Building welcomes artists with open, daylit spaces that maximize passive strategies to reduce energy use. The SIERR Building at McKinstry Station demonstrates that even a nearly condemned building can be transformed into a high performing, energy-efficient office.

[Learn More >](#)

PUBLICATIONS CATALOG



[Interactive Catalog](#)

[Downloadable Catalog \(PDF\)](#)

ASHRAE TERMINOLOGY



Explore this new free resource, a comprehensive online glossary of more than 3700 terms related to the built environment, with a focus on HVAC&R terms. Learn more at www.ashrae.org/ASHRAETerms

Publications page: www.ashrae.org/resources--publications



How Do I Join ASHRAE?

1. Visit <http://www.ashraeatlanta.org/> to start the process
2. Click "Membership" on the horizontal menu bar
3. On the pull down menu, click "Join"
4. Enter your email address in the box "Verify your E-mail status"
5. A prospective member will then be directed to enter his or her email information. As a new member, your address will not be recognized, and you will be invited to "Register Now".
6. After you complete registration, you will be directed to the Individual Information page where you can finally select "Join ASHRAE"!

Convenient and Useful ASHRAE Links

Again this year, our use of the Internet to further embrace our goal of Modeling a Sustainable World will be continued. Please use the web sites listed below:

1. RSVP and prepay for each event through the Atlanta ASHRAE <http://www.ashraeatlanta.org/>. For events where meals are served, you must at least RSVP to ensure that there will be a meal for you. We encourage you to prepay, as this will speed your way through the check-in process.
2. Pay your Chapter dues of \$40 per year directly to the chapter: <http://www.ashraeatlanta.org/Membership>. These dues are in addition to your Society dues and help fund the Chapter's programs and outreach.
3. Donate to ASHRAE Research Promotion. We have a fundraising goal of \$44,000 this year, so please do what you can to help fund ASHRAE research. Donate here: <https://xp20.ashrae.org/secure/researchpromotion/rp.html>
4. Join the "ASHRAE Atlanta Chapter" group on LinkedIn at <http://www.linkedin.com/>.
5. Like the "ASHRAE Atlanta Chapter" page on FaceBook at: <https://www.facebook.com/ASHRAEAtlanta/>
6. Access the Product Directory online at the Atlanta ASHRAE website. Please note that this feature is in the process of being updated.

2015-2016 Chapter Officers



Megan Tosh – Vice President
vicepresident@ashraeatlanta.org

Megan is currently a Software Support Engineer at Integrated Environmental Solutions (IES). She provides software training and technical support to users throughout North America. Megan completed her Bachelors and Masters of Mechanical Engineering at the University of Central Florida, where she joined ASHRAE as a Student Member. She has been volunteering with ASHRAE since, previously serving in several chapter chair positions, as President of the Central Florida Chapter, as YRC in Region XII, and as Chair of Young Engineers in ASHRAE. In addition to being your Treasurer, Megan is currently the RVC for Student Activities in Region IV.



Sarah Young – Treasurer
treasurer@ashraeatlanta.org

Sarah is currently a Mechanical Engineer Consultant at DLB Associates where she is part of the design, commissioning and MSI teams. Sarah is a graduate of Grove City College with a Bachelor of Science in Mechanical Engineering. She has been volunteering with ASHRAE for several years, and was the YEA Chair (2 years) and CTTC (Programs) Chair (1 year).



Irvin Sierra – Secretary
secretary@ashraeatlanta.org

Irvin is currently a Commercial Engineer Manager with Lennox Industries for the greater Atlanta area. He received his Bachelor of Science degree in Mechanical Engineering Technology from Wentworth Institute of Technology in Boston, MA. Irvin started his career in HVAC as a consulting engineer and moved into HVAC sales in 2003. He relocated to Atlanta with his family in 2005 and has been a volunteer with ASHRAE for several years and organized the ASHRAE Atlanta Trade Show (2 years). He has held positions of Communications Chair, Student Activities Chair and is currently the Chapter Secretary.

Browse Job Postings on Our Site

Did you know employers can post job opportunities on the Atlanta Chapter website for **FREE**?

As the professional society that serves as the major connection through all parts of the HVAC industry, it is important to the Atlanta ASHRAE Chapter to keep all members employed. Likewise, we are happy to assist employers in posting their job



Go to the following page on our site to browse the posted employment opportunities:
<http://ashraeatlanta.org/JobOpportunities>

The most recent job posting:

- US EPA Region 4 office in downtown Atlanta expects to make a new hire in the next six months for a person willing to learn Indoor Air Quality as well as Energy Star. Engineering degree preferred, especially 2015 or 2016 graduate. For more information, please contact Henry Slack, slack.henry@epa.gov

Amber Scales, our Communications Chair invites you to connect with the ASHRAE Atlanta Chapter on networking social media

(Let's Connect)



www.linkedin.com/groups/ASHRAE-Atlanta-Chapter-2186496

www.facebook.com/ASHRAEAtlanta