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Contact: Wendy Angel
Public Relations
678-539-1216
wangel@ashrae.org

Applicant to work in government advisory role
ASHRAE Sponsors One-Year Washington Fellowship

ATLANTA – Forget Mr. Smith Goes to Washington. This year, Mr. or Ms. HVAC Engineer is going as well.

The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) is sponsoring a one-year fellowship in Washington, D.C., that will allow the participant to work in the federal government in a technical advisory role. Possible placement areas include the White House Office of Science and Technology Policy, Congress or a federal agency such as the Department of Energy or the General Services Administration

The fellowship is designed to educate participants on the inner workings of federal policy-making, to provide scientific guidance and analysis to decision-makers, and to increase the visibility and involvement of scientists and engineers in the public policy arena.

“Federal government fellowships provide engineers with a unique opportunity to participate directly in the policy making process,” says Doug Read, ASHRAE’s program director of government affairs. “This experience enables Fellows to bring back to their employers an insider’s perspective on government decision making that can contribute significantly to the mission and vision of the organization.”

The fellowship runs from September through August 2008, and an orientation is conducted through the American Association for the Advancement of Science.

Candidates should possess a doctoral or other terminal degree in engineering or a scientific discipline. Final placement of the selected fellow depends on the needs of the government offices and agencies at the time as well as on the skills and experience of the applicant.

ASHRAE members interested in applying for the Fellowship can contact Doug Read, at (202) 833-1830 or e-mail dread@ashrae.org. The deadline is June 1.

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Contact: Jodi Dunlop
Public Relations
678-539-1140
jdunlop@ashrae.org
1791 Tullie Circle NE
Atlanta, GA 30329

ASHRAE Names Nine New Distinguished Lecturers

ATLANTA – The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) has named nine new Distinguished Lecturers who provide ASHRAE chapters with noted authorities who speak on relevant topics that impact the HVAC&R industry.

This marks the 11th year of the Distinguished Lecturer Program. The new lecturers and their areas of expertise are:

- Robert Bean, registered engineering technologist, Calgary, Canada – The Human Factor in HVAC, Radiant Based HVAC Systems, and Snow and Ice Melting.

- Barry Benator, P.E., BENATECH Inc., Atlanta, Ga. – Characteristics and Competencies of Outstanding Leaders – An Overview, Fundamentals of Project Management, Effective Communication Skills and Win-Win Negotiating Skills.
- Ramin Faramarzi, P.E., Southern California Edison, Irwindale, Calif. – Cool Solutions: Refrigeration for Grocery Stores and Delis.
- Ralph Kittler, P.E., Seresco USA Inc., Atlanta – Natatorium Design and Dehumidification.
- Thomas Lawrence, Ph.D., P.E., the University of Georgia, Athens, Ga. – Green Buildings, LEED and Standard 189P, Standard for the Design of High-Performance, Green Buildings Except Low-Rise Residential Buildings, ASHRAE GreenGuide, Mechanical Design for Green Buildings, and Green Roofs and Cool Roof Technologies.
- Bing Liu, P.E., Pacific Northwest National Laboratory, Richland, Wash. – Compliance with ASHRAE/IESNA 90.1, Energy Standard for Buildings Except Low-Rise Residential Buildings, and LEED and Building Energy Efficiency Analysis and Sustainable Design.
- Dennis Loveday, Ph.D., Loughborough University, United Kingdom – Energy, Sustainability and the Indoor Environment: Staying Comfortable in a Changing Climate.
- Cyrus Nasser, U.S. Department of Energy, Washington, D.C. – Equipment and Appliance Standards, Federal Building Energy Efficiency Standards, Making Better Federal Buildings, and ASHRAE and the International Standards Organization.
- Karen Rollins, environmental scientist and environmental management consultant, Indoor Air Quality Management, Canmore, Alberta, Canada – Confessions of an Indoor Air Quality Consultant and Demonstrating Due Diligence with an Indoor Air Quality Management System.

The new lecturers will serve a two-year term beginning in July. There are 49 Distinguished Lecturers for 2007-08.

To arrange for a lecturer visit, contact Rosy Douglas, manager of chapter programs, at rdouglas@ashrae.org or 404-636-8400.

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Contact: Jodi Dunlop
Public Relations
678-539-1140
jdunlop@ashrae.org
1791 Tullie Circle NE
Atlanta, GA 30329

ASHRAE Grants: Student Studies Impact of Noise Levels on Design

ATLANTA – Research to determine if new standards should be implemented for background noise levels in design of spaces for hearing-impaired people is being funded by ASHRAE.

Nineteen students will receive a total of \$173,000 through ASHRAE's grants-in-aid program, which is designed to encourage students to continue their education in preparation for service in the HVAC&R industry. The grants are awarded to full-time graduate students of ASHRAE-related technologies.

Grant recipient Lauren Ronsse, University of Nebraska, Lincoln, currently is studying whether people with hearing impairments respond similarly as people with no impairments to seven mechanical system background noise conditions. The proposed research is a continuation of that study including more people and different types of noise signals.

Ronsse will investigate productivity and subjective perceptions of people exposed to mechanical system background noise. Results of the research may lead to development of different standards for noise criteria levels for spaces designed for the hearing-impaired.

Other recipients of ASHRAE grants-in-aid are:

- Jasmin Raymond, Universite Laval, Sainte-Foy, Quebec, Canada, The Pennsylvania State University, University Park, Pa., Geothermal Energy Extraction From Mine Waste Dumps
- Soolyeon Cho, Texas A&M University, College Station, Texas, Development of an Easy to Use Simulation Tool for Designing High Performance Office Buildings in Hot and Humid Climates
- Scott Hackel, University of Wisconsin-Madison, Wis., Optimization of Hybrid Geothermal Heat Pump System

- Federico Noris, University of Texas at Austin, Investigation of Biological and Non-Biological Contaminants on the HVAC Filter Dust
- Jeremy Dreiling, Kansas State University, Indoor Air Quality in Health Care Facilities Focusing on Air Cleaning Methods and Technology
- Yang Bin, National University of Singapore, Ceiling Mounted Personalized Ventilation Air Terminal Devices
- Mohamed Alshehhi, University of Maryland, Electrostatic Gas-Liquid Separation – Application to Advanced On-line/On-Demand Separation Techniques
- Benjamin Welle, University of California, Berkeley, Mixed-Mode Ventilation: A Blueprint for Design
- Paulo Cesar Tabares Velasco, The Pennsylvania State University, University Park, A New Energy Model to Meet the Sustainable Challenge by Enabling ASHRAE Engineers to Calculate Potential Energy Savings Due to Green Roofs
- Donghyun Rim, University of Texas at Austin, Evaluation of Air-Change Effectiveness as an Indicator of Exposure to Indoor Particulate Matters
- Bereket Asgedom Nigusse, Oklahoma State University, Fenestration Heat Gain Calculation for the Radiant Time Series Method
- Prakash Rapolu, University of Cincinnati, Microchannel Flow Boiling of Carbon Dioxide Near Critical and Subcritical Pressures
- Josephine Lau, The Pennsylvania State University, Performance Modeling and Evaluation of In-Duct Ultraviolet Germicidal Irradiation Systems with Variable Operating Conditions
- Ian Bell, Purdue University, Liquid Flooded Ericsson Cooler with Optimized Compressor and Expander. Bell also receives the 2006-07 Grant-In-Aid Life Member Club grant given to the highest top rated applicant and supported by a financial contribution from the club.
- Ebrahim Al-Hajri, University of Maryland, College Park, Performance Characterization of Selected Refrigerants in Flat Plate Micro-Scale Condenser: Applications to Expanded Use of Micro-Channel Condensers
- Zhao Zhang, Purdue University, Modeling of Airflow and Contaminant Transport in Commercial Aircraft Cabin
- Donghyun Seo, University of Colorado at Boulder, Application of Solar Radiation/Illuminance Models to Advanced Daylighting and Solar Heat Gain Control Strategies
- Robert Slowinski, University of Colorado at Boulder, Fundamentals of Breathing Walls and Their Potential to Reduce Building Energy Consumption and Improve Indoor Air Quality

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Contact: Jodi Dunlop
Public Relations
678-539-1140
jdunlop@ashrae.org
1791 Tullie Circle NE
Atlanta, GA 30329

HVAC System Inspection, Maintenance Standard Open for Public Comment

ATLANTA – A proposed standard setting requirements for inspection and maintenance of HVAC systems is open for public comment.

ASHRAE/ACCA Standard 180P, Standard Practice for Inspection and Maintenance of Commercial Building HVAC Systems, would establish minimum HVAC inspection and maintenance requirements that aid a system's ability to achieve acceptable thermal comfort, energy efficiency and indoor air quality in commercial buildings.

The standard is being developed by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) and the Air Conditioning Contractors of America (ACCA). It is open for public review until April 30.

“The comments we received during the first review were almost universally supportive and constructive,” Robert Baker, chair of the Standard 180 committee said. “There were several excellent comments that helped us to clarify and re-word some areas to avoid confusion. Most of these revisions were minor and could have been

considered 'editorial' in nature. The committee, however, preferred to be conservative so voted to submit the entire document for public review again."

A more significant set of comments was directed to Section 5 which described mandatory inspection and maintenance items, he said. Although the suggestions for text revision were minor in nature, the layout of the section was seen as difficult and potentially confusing to use.

As a result, the committee created 25 separate tables, each of which deals with a specific type of system component. In addition several comments observed that the proposed 563 optional inspection points were better reserved for inclusion in a future guidance document as they detracted from the clarity and impact of the standard. The committee concurred and removed these, according to Baker.

Proposed ASHRAE standards are available during public review periods. To read the addenda or to comment, visit www.ashrae.org/publicreviews.

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ACCA is the nationwide association of heating, ventilation, air conditioning, and refrigeration contractors, representing members in every state. For over 40 years ACCA has served the educational, policy, and technical interests of the small businesses who design, install, and maintain indoor environmental systems.

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Contact: Wendy Angel
Public Relations
678-539-1216
wangel@ashrae.org

ASHRAE, ACCA Publish Load Calculation Standard

ATLANTA – A new standard that establishes minimum requirements for performing load calculations has been published by the American Society of Heating, Refrigerating and Air-Conditioning Engineers. The standard was developed in conjunction with the Air Conditioning Contractors of America (ACCA).

ANSI/ASHRAE/ACCA Standard 183-2007, Peak Cooling and Heating Load Calculations in Buildings Except Low-Rise Residential Buildings, is available for purchase at www.ashrae.org/bookstore.

Proper load calculations are the first step in any design process, says Chris Wilkins, chair of the committee that wrote the standard. "Efficiency and comfort are only possible if the equipment is selected to match the load."

The standard establishes minimum requirements for building loads that are inclusive of as many procedural methods as possible while identifying core elements that impact heat loss and gains. Requirements are non-prescriptive and are aimed at ensuring that developers of load calculation methodologies observe recognized good practices. The specifics in undertaking a load are left to the discretion of the industry professional by their selection and application of load methodologies that meet the standard.

The need for the standard was driven largely by the desire of the code enforcement community. Code references to the ASHRAE Handbook existed, making it the de facto standard.

"The industry recognized that we were the appropriate source for load calculation guidance, but the problem was that the ASHRAE Handbook was never intended to be a standard," says Wilkins. "Standard 183 now provides an appropriate compliance reference that reconciles each organization's needs."

"We are pleased that the standard meets the needs of our members," says Phil Forner, ACCA 2007 – 2008 chairman. "ACCA wants contractors to have access to the most accurate, efficient and effective design standards, and this will help contractors with commercial building load calculations."

The cost of Standard 183-2007 is \$24(ASHRAE members, \$19) and is available in print and download versions. To order, contact ASHRAE Customer Service at 1-800-527-4723 (United States and Canada) or 404-636-8400 (worldwide); fax 404-321-5478; by mail at 1791 Tullie Circle NE, Atlanta, GA 30329; or visit the B

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Contact: Wendy Angel
Public Relations
678-539-1216
wangel@ashrae.org

ASHRAE's Advocacy Program Continues to Build Momentum

ATLANTA – ASHRAE's advocacy program, designed to provide technical input to government in developing programs related to the built environment, is continuing to gain ground.

Since its launch in July 2005, ASHRAE's government affairs team has greatly expanded its presence in Washington, D.C., through such activities as World Standards Day, organizing a roundtable for related organizations, sponsoring a Washington Fellow, and taking part in Congressional Visits.

"The ASHRAE Government Affairs Office and the Advocacy Committee have been working hard to position ASHRAE as a leading source of expertise in the built environment and a resource for policymakers in developing legislation and regulations affecting the public, the HVAC&R community, and the engineering profession," Kent Peterson, chair of the Advocacy Committee, said.

As part of those efforts, ASHRAE is helping to administer World Standards Day on October 18 in Washington, D.C. Standards are essential to modern society because they provide a common basis for communication among diverse groups and conserve resources by providing solutions to frequent problems.

The goal of World Standards Day is to raise awareness of the importance of global standardization to the world economy and to promote its role in helping meet the needs of business, industry, government, and consumers worldwide. The event, which consists of a reception and dinner, was first held in 1970 and is co-chaired in the United States by the American National Standards Institute (ANSI) and the National Institute of Standards and Technology (NIST).

At this year's event, Jim Hill, past ASHRAE president and the acting deputy administrator for NIST, will serve as this year's honorary chairman and recipient of the Ronald Brown Award.

ASHRAE also is participating in Congressional Visits Day May 1 and 2. Sponsored by the Science, Engineering and Technology Working Group, of which ASHRAE is a member, the event brings together engineers of all disciplines to meet with Congressional members and staff and officials from the President's Office of Science and Technology Policy to help improve scientific policies within the federal government. ASHRAE is hosting the event's Capitol Hill breakfast at which Rep. Bart Gordon, chairman of the House Science Committee, will preside.

Other ASHRAE Washington activities include:

- Participation in the Washington Internship for Students of Engineering (WISE) program, which allows engineering students to spend nine weeks in Washington to learn about government policy-making and the workings of Congress and prepare a research paper. Eight engineering societies participate, and ASHRAE's participant for 2007 is Anatoly Zeltser, Kansas State University. For more information, visit www.wise-intern.org.
- Sponsorship of a one-year fellowship in Washington, D.C., that will allow the participant to work in the federal government in a technical advisory role.
- Creation of the High Performance Building and Energy Efficiency Roundtable, which provides opportunity for professional and technical societies, trade groups, government agencies, and other interested organizations involved in "the built environment" to explore opportunities for collaboration and cooperation.
- Support of the Science, Technology, Engineering and Mathematics (STEM) Education Coalition, which supports STEM programs for teachers and students at the U. S. Department of Education, the National Science Foundation, and other agencies that offer STEM-related programs.
- Hosting of Congressional briefings, such as one held in December 2006 focusing on Commercial Building Tax Incentives and one held last month regarding opportunities to limit greenhouse gas emissions. Representatives Bart Gordon (D-TN) and Judy Biggert (R-IL), of the House Science and Technology Committee, were featured speakers.

For more information on ASHRAE's government affairs activities or to receive the government affairs updates, visit www.ashrae.org/governmentaffairs.

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