



August 14, 2012: Vol. 55, No. 01

Produced by: Tony Finch  
Chapter Newsletter Editor/ Chairman

*The Therm*, is a monthly Newsletter for chapter members and HVAC&R professionals alike, that provides information about the ASHRAE Fort Worth Chapter.

## President's Message

Hopefully, this message finds you in the midst of Olympic Fever [*editor note: Olympic withdrawal*].

This year is shaping up fast, and we are going to see lots of great things. However, before we begin, we have to extend a large thank you to all of our volunteers and sponsors who helped make last year so successful. Last year we, raised over \$36,000 for ASHRAE Research!

In doing so, we Exceeded not only our Chapter goal, our Challenge goal, and even Exceeded our High 5 goal, set by our region! Again, we as a chapter thank all of you who helped our chapter continue to not only be an example to other chapters for our region, but all the other chapters in all of Society.

On July 13<sup>th</sup> we held our annual planning meeting this where the officers and the chairs met to discuss the goals, plans, and expectations for the following year. We already have some great ideas planned for this year; however, before we begin, we have some introductions to do. This year's officers are:

Our chapter officers are:

- i) Immediate Past President – Richard Watters
- ii) President - Daniel Merkel
- iii) President Elect - Tony Finch
- iv) Secretary - Jay Sullivan
- v) Treasurer - Clif Upham

This year's BOG include:

- vi) David Muzzy
- vii) Richard Watters
- viii) Richard Long
- ix) John Maryak

Next Chapter Meeting

**Chilled Beams  
And Ceilings**

August 15, 2012

Morning Seminar  
8am – 11am  
Luncheon Meeting  
11:30am

777 Main Building  
40th Floor  
Fort Worth, TX

[Click here for  
map.](#)

## President's Message (cont.)

Our Committee Chairs are:

- x) CTTC - Nick Schroeder
- xi) Special Events – Sean Rath
- xii) Golf – David Muzzy
- xiii) Research Promotion – Richard Watters
- xiv) Honors and Awards – Larry Akers
- xv) YEA – Saul Martinez
- xvi) Student Activities – Ian Bost
- xvii) Webmaster – Cody Pace
- xviii) Refrigeration – Bill Lueg
- xix) Historian - Travis Brunkenhoefer
- xx) CRC - Patty Parrish
- xxi) Open positions
  - (a) Membership Promotion
- xxii) New committees
  - (a) TEGA/ Grassroots
  - (b) Public Relations
  - (c) Sustainability
  - (d) Outreach

If you would like to volunteer for any of those positions, please let us know

Please be sure to check out the updates to our website. We are proud to introduce a couple new sections:

- Request a speaker – where one can request a speaker for ASHRAE or other technical topics
- Open volunteer opportunities – where if you have some time, we are asking for help with specific tasks, committees, or chairs.

Our First meeting of the year is August 15<sup>th</sup>

We welcome Chris Lawrence, VP at **DADANCO**.

**Chris will present a Technical Seminar – From 8-11 covering:**

- (e) The basics of Chilled ceilings
- (f) Chilled Sails
- (g) Passive chilled beams
- (h) Active chilled beams
- (i) Space humidity concerns
- (j) Reducing energy (savings and LEED)
- (k) Solutions to reduce the cost of a chilled beam design.

And at our general luncheon Meeting from 11:30-1pm

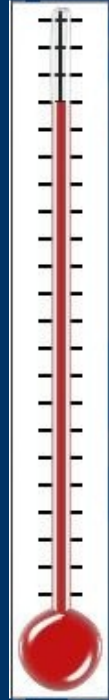
Chris will present on recent changes in ASHRAE 170 addendum H, the use of chilled beams in healthcare

Finally, we close this inaugural video version of the presidential address with an open invitation to all our members to help us promote ASHRAE. One of the themes you will see throughout this year is “Broadening ASHRAE’s Horizons. As ASHRAE members we are the leaders in sustainable design and practice in our community. The need to promote ASHRAE beyond our normal comfort zone is vitally important and it is all of our responsibility, to promote the profession we serve. We do this by engaging and educating our colleagues, peers, governments, and our future generations about the impact of new technological advancements and the great and wondrous additions our profession provides humanity by shaping tomorrow’s build environment, today.

Sincerely,

Daniel C. Merkel

2012 RP DOLLARS



36,258

[CLICK HERE TO  
CONTRIBUTE!](#)

## August Program

### Fort Worth ASHRAE Morning Seminar & Luncheon 3 Hour Seminar

**Date:** August 15, 2012  
**Time:** 8:00 a.m. – 11:00 a.m.  
**Location:** Carter Burgess Plaza - 26<sup>th</sup> Floor, Rooms D/E  
Downtown Fort Worth, 777 Main St., Fort Worth, TX 76102  
**Topic:** Chilled Beams and Ceilings including the recent change in ASHRAE 170 addendum H, the use of Chilled Beams in Healthcare.  
**Cost:** \$10 per person and only \$5 per person if you attend the luncheon meeting as well. Student members are allowed to attend for free. Breakfast pastries, juice, and coffee will be provided.

### Luncheon Meeting

**Date:** August 15, 2012  
**Time:** 11:30 a.m. – 1:00 p.m.  
**Location:** Carter Burgess Plaza Petroleum Club – 40<sup>th</sup> Floor  
Downtown Fort Worth, 777 Main St., Fort Worth, TX 76102  
**Topic:** Chilled Beams and Ceilings including the recent change in ASHRAE 170 addendum H, the use of Chilled Beams in Healthcare (condensed from morning session.)  
**Cost:** \$25 which includes lunch and dessert.

#### Speaker Info.:

Chris Lawrence  
VP Sales & Marketing  
[DADANCO](#)  
A MESTEK Company  
[clawrence@dadanco.com](mailto:clawrence@dadanco.com)  
[www.dadanco.com](http://www.dadanco.com)

#### Speaker Bio:

Chris spent most of his career at Trox, a renowned European manufacturer of air distribution products, including Chilled Beams. He worked on more than 500 buildings in Europe, Middle East, Asia and North America before moving to the United States. He worked on the largest chilled beam installation (at that time) in Europe, NAP, Cheltenham, UK which had approximately 18 km (11.2 miles) of passive beams. Chris has over 35 years' experience in the selection and application of HVAC products and devices and over 20 years in the application of chilled ceilings, passive and active chilled beams, with the last 8 years based in North America as the company's President and CEO. Chris is considered one of the pioneers in the application of chilled beams in the USA and has been involved with many of the major chilled beam installations here, which includes the largest chilled beam installation in North America, Constitution Center, D.C. @ 1.4m/ft<sup>2</sup> with over 7000 beams, and 2 major jobs for Fidelity in OH & TX with a combined total of over 3500 beams. Chris has also applied chilled beams at many major Universities including MIT (3 buildings), Harvard, Penn State, Oregon Health & Science University, Stanford (5 buildings including E&E, SoEC & LKC), Greenspun Building, University of Las Vegas (NV), Brown University (RI), Princeton (2 buildings) and University of California, Davis (2 buildings). Chris has also worked on chilled beam installations in laboratories at: - Tahoe Center for Environmental Studies (NV), UC Santa Cruz Bio Renewable labs, (CA), Stanford Nano Center (CA), Princeton Chemistry Building (NJ), UW School of Medicine, Phase 2 (WA) – considered the largest chilled beam installation in laboratories in North America, and Porter Neuroscience Research Center, N.I.H, Bethesda (MD). Chris also was involved directly with National Institute of Health, Bethesda (MD) on a number of research projects and tests into the use of chilled beams in North America and on a major renovation with the NIH where a multistory hospital building was converted to laboratories cooled by chilled beams.

#### Seminar Outline:

**Part 1**  
Chilled ceilings basics, Chilled Sails basics, Passive chilled beams basics

**Part 2**  
Active chilled beams basics, Space humidity concerns, Reducing energy (savings and LEED), Solutions to reduce the cost of a

chilled beam design.

Part 3

Recent change in ASHRAE 170 addendum H, the use of chilled beams in healthcare

## Treasurer's Report – Clif Upham

STARTING BALANCE DATE 7/1/2012  
NEW BALANCE DATE 7/31/2012

**Treasurer's Report** *Clif Upham*

Financial Data:

Starting Balance (7/1/12): \$ 5,952.17

Deposits:

7/2/2012 - Jacobs Payment for May Luncheon \$ 325.00

7/2/2012 - Carrier Payment for Win \$ 100.00

7/19/2012 - Lost Checks 5260-5266, 5329 \$ 1,000.00

7/25/2012 - Deposit check from national chapter for June local dues \$ 665.00

**Subtotal:** \$ 2,090.00

Payments:

**Subtotal:** \$ -

**New Balance as of 7/31/12:** \$ 8,042.17

## Research and Promotion Report – Ian Bost

Last year the Fort Worth Chapter was able to raise the 8th most dollars out of the 194 Chapters in Society. Our end of the year total was \$36,258. The dollars raise per area assigned members was \$125.03. We had the highest number of contributors, 153, of all the Chapters. We exceeded our goal assigned by the DRC by 25%, high five by 7.5% and challenge by 2.3%. The total PAOE pts contributed to the team was 3,788!

Thanks,  
Ian Bost

## ASHRAE, ICC Members Recognized During High Performance Week

High Performance Building Week (May 14-19, 2012) gives special recognition to the health, safety and welfare impacts of buildings, along with the opportunities to design, construct and operate high performance buildings that reflect concern for these impacts.

HPB Week will highlight the importance of high performance buildings to federal, state and local policymakers and the general public. The week's events are overseen by the High-Performance Building Congressional Caucus Coalition (HPBCCC), a 150-plus-organization consortium established by ASHRAE in 2008.

Activities slated for the week include two Congressional briefings providing basic information on high performing buildings as well as telecommunications in buildings; and a dialogue among built environment community members on the breadth of building design, labeling and metrics held at ASHRAE's D.C. office on May 16.

In addition, the High Performance Building Awards will be presented during the opening reception on Capitol Hill on May 15. Award recipients are Dennis Stanke, Fellow ASHRAE, application engineer at Trane, a brand of Ingersoll Rand, and Ravi Shah, Director of Urban Development for the city of Carrollton, Texas.

Stanke chairs the committee overseeing ANSI/ASHRAE/USGBC/IES Standard 189.1, Standard for the Design of High-Performance, Green Buildings Except Low-Rise Residential Buildings, while Ravi chairs the International Code Council's (ICC) Sustainable Building Technology Committee and is a member of the ICC Board of Directors.

## **ASHRAE, ICC Members Recognized During High Performance Week (cont.)**

Stanke oversaw publication of the 2011 version of Standard 189.1, which not only provides a green building foundation for those who strive to design, build and operate high performance buildings but also provides a mandatory language standard for easy adoption into green building codes.

"Standard 189.1 is the most diverse standard in ASHRAE's history, covering site sustainability, water-use efficiency, energy efficiency, indoor environmental quality and the building's impact on the atmosphere, materials and resources," ASHRAE President Ron Jarnagin said. "As chair, Dennis ensured the standard was as strong as could be in all of these areas, working to coordinate input received from a wide range of built environment community members. His work in guiding the 189.1 committee is to be commended, and we congratulate him on this recognition."

Shah chaired the Sustainability Building Technology Committee of 29 experts in the green and sustainability arena drafting the first International Green Construction Code (IgCC). He also helped chair the IgCC Public Comment Hearings in 2010. His efforts were instrumental in the completion of the first model building code that includes sustainability measures for the entire construction project and its site — from design through construction, certificate of occupancy and beyond. The IgCC will make buildings more efficient, reduce waste and have a positive impact on health, safety and community welfare, according to ICC.

"Ravi Shah's leadership was critical to the successful development of the new International Green Construction Code," ICC Board President Bill Dupler said. "As Ravi has said, this new code is adoptable, adaptable and enforceable. We owe a debt of gratitude to him and to all ICC members and supporters who made the development and publication of the IgCC in March possible."

## **ASHRAE and UNEP Join Forces to Promote Sustainable Refrigeration in Facilities and Systems**

ASHRAE and UNEP Join Forces to Promote Sustainable Refrigeration in Facilities and Systems ATLANTA – ASHRAE and the United Nations Environment Programme announced today a collaborative effort to develop and publish a new Guide for Sustainable Refrigerated Facilities and Systems. This \$400,000 project is being jointly funded by ASHRAE and the Multilateral Fund for the Implementation of the Montreal Protocol on Substances that Deplete the Ozone Layer and is scheduled to be completed in early 2014.

The Guide will address the entire range of facility and equipment design and efficiency alternatives for refrigerated processing, storage and distribution (the cold chain) in both developed and developing countries. As global urbanization continues, refrigerated storage and transport from farm to store is critical. Food spoilage is a significant sustainability problem particularly in least developed countries. Medicine storage and transportation is likewise critical.

The Guide is also important as Parties to the Montreal Protocol face upcoming compliance deadlines. For developing countries, that means a freeze in HCFC consumption and production by Jan. 1, 2013, followed by a 10 percent reduction in 2015 and 97.5 percent reduction by 2030. Currently, HCFC-22 is the preferred refrigerant for many facilities and systems, particularly for small-medium sized enterprises, but this ozone depleting gas is being phased out under the Montreal Protocol. The Guide's goal is to support the selection of alternatives while maintaining or improving energy efficiency across the entire cold chain and reducing the environmental footprint. That, in turn, supports countries' compliance with this international treaty and improves global sustainability.

"This is the largest collaborative project ASHRAE has undertaken with UNEP and truly represents our global leadership approach to solving society's issues," Ron Jarnagin, ASHRAE president, said. "We, with our partner associations, look forward to working with UNEP on this extremely important refrigeration guide."

James Curlin, interim head of UNEP's OzonAction Branch notes: "The protection of the stratospheric ozone layer under the Montreal Protocol has a long track record of meeting specific and measurable sustainable development objectives, including contributing to Millennium Development Goal 7, 'Ensuring Environmental Sustainability.' This guide will help impart such sustainability considerations to the owners and operators of refrigerated systems and facilities in developing countries, and help them make informed decisions about refrigerants, equipment and energy efficiency considerations. We look forward to working with ASHRAE to deliver this strategic technical guide."

ASHRAE, founded in 1894, is a building technology society with more than 50,000 members worldwide. The Society and its members focus on building systems, energy efficiency, indoor air quality, refrigeration and sustainability within the industry.

Through research, standards writing, publishing and continuing education, ASHRAE shapes tomorrow's built environment today.

## ASHRAE and UNEP Join Forces to Promote Sustainable Refrigeration in Facilities and Systems (cont.)

UNEP is the United Nations system's designated entity for addressing environmental issues at the global and regional level. Its mandate is to coordinate the development of environmental policy consensus by keeping the global environment under review and bringing emerging issues to the attention of governments and the international community for action.

The Montreal Protocol on Substances That Deplete the Ozone Layer is an international treaty designed to protect the ozone layer by phasing out the production and consumption of a number of substances believed to be responsible for ozone depletion. The treaty was opened for signature on Sept. 16, 1987, and entered into force on Jan. 1, 1989. Since then, it has undergone five amendments, in 1990 (London), 1992 (Copenhagen), 1995 (Vienna), 1997 (Montreal) and 1999 (Beijing). Due to its widespread adoption and implementation it has been hailed as an example of exceptional international cooperation "Perhaps the single most successful international agreement to date..."

The Multilateral Fund for the Implementation of the Montreal Protocol is managed by an Executive Committee which is responsible for overseeing the operation of the Fund. The 2012 Committee membership includes Argentina, Belgium, Canada, China, Cuba, Finland, India, Japan, Jordan, Kenya, Mali, Romania, United Kingdom of Great Britain and Northern Ireland, and United States of America. Xiao Xuezhong (China) is the current chair, and the Committee is assisted by the Fund Secretariat which is based in Montreal, Canada. UNEP is one of four Implementing Agencies of the Fund, along with UNDP, UNIDO and the World Bank.

For more information, contact:

ASHRAE  
Jodi Scott  
Public Relations  
678-539-1216  
[jscott@ashrae.org](mailto:jscott@ashrae.org)

UNEP  
Anne Fenner  
Information Manager  
UNEP OzonAction Programme  
+33 1 4437 1454  
[anne.fenner@unep.org](mailto:anne.fenner@unep.org)

## New Publication Extends Comprehensive Treatment of Smoke Control

A new handbook providing comprehensive treatment of smoke control technology is now available.

Published by ASHRAE in cooperation with the Society of Fire Protection Engineers (SFPE), the International Code Council (ICC) and the National Fire Protection Association (NFPA), the "Handbook of Smoke Control Engineering" extends the tradition of the comprehensive treatment of smoke control technology, including fundamental concepts, smoke control systems, and methods of analysis. The handbook provides information needed for the analysis of design fires, including considerations of sprinklers, shielded fires and transient fuels. It is also extremely useful for practicing engineers, architects, code officials, researchers and students.

Following the success of "Principles of Smoke Management" in 2002, this new book incorporates the latest research and advances in smoke control practice into 24 chapters with more than 500 pages of in-depth guidance. New topics in the handbook are: controls, fire and smoke control in transport tunnels and full-scale fire testing. For those getting started with the computer models CONTAM and CFAST, there are simplified instructions with examples. This is the first smoke control book with climatic data so that users will have easy-to-use weather data specifically for smoke control design for locations in the U.S., Canada and throughout the world. The book builds on earlier publications from ASHRAE and SFPE.

"While serving as a useful tool to practicing engineers, it also is useful to other engineers, architects and code officials," co-author John H. Klotz, D.Sc., P.E., said. "Because the book addresses the principles of how smoke control systems function, it will be useful to engineers throughout the world."

"The 'Handbook of Smoke Control Engineering' is a must-have reference for anyone involved in the design of smoke



management systems," Morgan Hurley, P.E., SFPE technical director, said. "This was changed from its previous textbook format into a handbook format to make it more useful to practicing engineers. Also, authors of the earlier books have enlisted the help of new co-authors for this edition, which increases the breadth of the handbook."

## New Publication Extends Comprehensive Treatment of Smoke Control (cont.)

"Many of today's fire protection and life safety systems incorporate smoke management systems," Christian Dubay, P.E., vice president and chief engineer, NFPA, said. "As buildings become more complex the requirements of smoke management systems must adjust to ensure that the intended design objectives are met. The 'Handbook of Smoke Control Engineering' ensures that engineers and designers have the most up to date and technically relevant information at their fingertips."

"A critical safety feature of today's modern buildings, the design of smoke control systems, can be challenging and often requires collaboration between various project design teams. Where a smoke control system is required by the International Building Code® (or other codes and standards), the 'Handbook of Smoke Control Engineering' provides team members with the tools and information needed to effectively and accurately design and construct such systems," Hamid Naderi, ICC's senior vice president for product development, said.

The cost of "Handbook of Smoke Control Engineering" is \$129 (\$109, ASHRAE members). To order, contact ASHRAE Customer Contact Center at 1-800-527-4723 (United States and Canada) or 404-636-8400 (worldwide), fax 404-321-5478, or visit [www.ashrae.org/bookstore](http://www.ashrae.org/bookstore).

## ASHRAE Installs New Officers, Directors

ASHRAE has installed new officers and directors for 2012-13 at its Annual Meeting being held here June 23-27.

The new president is Thomas E. Watson, P.E., Fellow Life Member, chief engineer, McQuay International, Staunton, Va. His presidential theme is Broadening ASHRAE's Horizons, which emphasizes the role of ASHRAE members as leaders in the application of sustainable design and practices in our communities worldwide.

"Let us build on a strong heritage as a technical society and broaden the application of our technology to serve humanity and promote a sustainable world," he said. "We must look at broadening our technology, our applications and our people."

Other officers installed for a one-year term are:

- . President-Elect: William "Bill" P. Bahnfleth, Ph.D., P.E., Fellow ASHRAE, professor, The Pennsylvania State University, University Park, Pa.
- . Treasurer: Thomas "Tom" H. Phoenix, P.E., Fellow ASHRAE, ASHRAE-Certified Building Energy Assessment and Building Energy Modeling Professional, principal and vice president, Moser Mayer Phoenix Associates, Greensboro, N.C.
- . Vice President: Constantinos A. Balaras, Ph.D., P.E., Fellow ASHRAE, research director at the Institute for Environmental Research and Sustainable Development, National Observatory of Athens, Greece
- . Vice President: Daniel C. Pettway, sales representative, Hobbs and Associates, Norfolk, Va.
- . Vice President: Timothy G. Wentz, P.E., Fellow ASHRAE, ASHRAE-Certified High Performance Building Design Professional, associate professor, University of Nebraska - Lincoln.
- . Vice President: Thomas E. Werkema, senior consultant, Arkema Inc., Knoxville, Tenn.

ASHRAE installed the following directors to serve a three-year term from 2012-2015:

- . Region I Director and Regional Chair: Joseph L. Furman, senior sales engineer, Automated Logic, Wallingford, Conn.
- . Region II Director and Regional Chair: Isabelle Lavoie, P.E., branch account manager systems and HVAC, Province of Quebec, Johnson Controls, Saint-Laurent, Quebec, Canada
- . Region III Director and Regional Chair: Paul E. Petrilli, P.E., principal, H.F. Lenz Co., Johnstown, Pa.
- . Region XI Director and Regional Chair: Kevin L. Marple, president, Benz Air Engineering Co., Inc., Portland, Ore.
- . Director-at-Large: Charles H. Culp III, Ph.D., P.E., Fellow ASHRAE, ASHRAE-Certified High Performance Building Design Professional, professor, Texas A&M University, College Station, Texas.
- . Director-at-Large: Kirk T. Mescher, P.E., principal, CM Engineering Inc., Columbia, Mo.
- . Director-at-Large: Dennis J. Wessel, P.E., Fellow ASHRAE, senior vice president, Karpinski Engineering, Cleveland, Ohio.

## ASHRAE Assists College Students with Tuition through Scholarships

To help support future generations of engineers, ASHRAE is awarding over \$86,000 in scholarship money for the 2012-2013 school year.

“Engineers build our future, so we want to help build up future engineers,” William Murphy, Ph.D., P.E., chair of the Scholarship Trustees, said. “Many of the ASHRAE scholarship recipients are already working in the industry part time and some are exploring careers in various areas of HVAC&R. We hope that this added exposure to the industry will lead to employment opportunities for them in the field during and after college.”

The recipients of ASHRAE’s scholarship assistance include the following:

- Reuben Trane Scholarship: \$10,000 to be awarded over two years, Drew Miller, University of Nevada-Las Vegas, mechanical engineering and business management; Kody Jones, Oklahoma State University, mechanical engineering; and Paul Nelson, North Dakota State University, mechanical engineering. The scholarship was established by the Trane Co. in memory of its founder, an innovative engineer, inventor and business executive.
- Willis H. Carrier Scholarships: \$10,000 for one year Elizabeth McLean, Kettering University, mechanical engineering; and Patrick McGrail, Kansas State University, architectural engineering. The scholarship was established by the Carrier Corp. in memory of its founder, who installed the world’s first scientifically designed air-conditioning system.
- Frank M. Coda: \$5,000 for one year, Jayson Bursill, University of British Columbia, mechanical engineering. The scholarship was created in memory of ASHRAE’s former executive vice president, who served from 1981-2004.
- David C.J. Peters Scholarship: \$5,000 for one year, Julia Pollard, California Polytechnic State University-San Luis Obispo. The scholarship, new for the 2012-2013 school year, is awarded to a third-year student in a four-year undergraduate mechanical engineering program or a fourth-year student in a five-year undergraduate mechanical engineering program at Pennsylvania State University, Virginia Polytechnic Institute and State University or California State University at San Luis Obispo. The scholarship was created by Southland Industries to honor Peters, an advocate of recruiting quality.

The following awards include one-year \$3,000 scholarships:

- Boggarm S. Setty Scholarship: Jared Levy, University of Maryland, mechanical engineering. This scholarship, new for the 2012-2013 school year, is awarded to an undergraduate engineering student attending an institution within ASHRAE Region III, which covers Delaware, Maryland, Pennsylvania, Virginia and Washington, D.C. An ASHRAE Fellow and a member of the Society since 1972, Setty has served on more than 50 technical committees for the society.
- Duane Hanson Scholarship: Cody Knuth, Kansas State University, architectural engineering. The scholarship was established by Gayner Engineers and is named for the company’s former president.
- Alwin B. Newton Scholarship: John Heineken, Missouri University of Science and Technogloy, mechanical engineering. The scholarship is named for an industry pioneer and ASHRAE Fellow who was granted 219 patents.
- Henry Adams Scholarship: Alexander Pray, University of Colorado-Boulder, architectural engineering. The scholarship was established by Henry Adams Inc. in memory of its founder, a Charter Member and sixth president of ASHRAE’S predecessor society, ASHVE, established in 1899.
- ASHRAE Region IV/Benny Bootle Scholarship: Lauren Bridgers, East Carolina University, mechanical engineering. The scholarship was established collaboratively by Region IV and Benny Bootle, a former Region IV director and regional chair on the ASHRAE Board of Directors.
- Donald E. Nichols Scholarship: Arturo de Jesus Santa Ruiz, Tennessee Technological University, mechanical engineering. The scholarship is awarded to a full-time undergraduate engineering student attending Tennessee Technological University. It is named for a former ASHRAE vice president and graduate of Tennessee Technological University.
- ASHRAE Memorial Scholarship: Joshua Kavanaugh, University of Alabama, mechanical engineering.
- ASHRAE General Scholarships: Yu Ho Kwok, University of Hong Kong, building services engineering; and Jingyu Lee, Illinois Institute of Technology, architectural engineering.
- Bachelor of Engineering Technology Scholarship: Yoginder Rana, Ferris State University, HVAC&R technology.
- High School Senior Scholarships: Jonathan Hankenhof, University of Cincinnati, mechanical/architectural engineering; and Katlyn McDermott, University of Missouri, mechanical engineering. The scholarships were established in 2010 for high school seniors entering their freshman year of college in an engineering or engineering technology program.



## ASHRAE Assists College Students with Tuition through Scholarships (cont.)

Over the course of 22 years ASHRAE has awarded over \$1 million to approximately 250 deserving undergraduate and graduate students. For more information on ASHRAE scholarships, visit [www.ashrae.org/scholarships](http://www.ashrae.org/scholarships). Applications are now being accepted for the 2013-14 undergraduate, regional and university-specific scholarships. The deadline is Dec. 1, 2012.

## Chapter Officers and Committee Chairs

### OFFICERS

President	Daniel C. Merkel	414-807-0204	<a href="mailto:daniel.merkel@mail.ashrae.org">daniel.merkel@mail.ashrae.org</a>
President-Elect	Tony Finch	817-656-6076	<a href="mailto:tonyfinch@mail.ashrae.org">tonyfinch@mail.ashrae.org</a>
Secretary	Jay Sullivan	817-805-0020	<a href="mailto:jay.sullivan@mail.ashrae.org">jay.sullivan@mail.ashrae.org</a>
Treasurer	Clif Upham	214-483-5000	<a href="mailto:clif.upham@engineeredair.com">clif.upham@engineeredair.com</a>
Governor	David Muzzy	817-257-4928	<a href="mailto:d.muzzy@tcu.edu">d.muzzy@tcu.edu</a>
Governor	Richard Watters	817-338-1277	<a href="mailto:richard.watters@mail.ashrae.org">richard.watters@mail.ashrae.org</a>
Governor	Richard Long	817-354-2898	<a href="mailto:RLL@summitmep.com">RLL@summitmep.com</a>
Governor	John Maryak	817-838-7400	<a href="mailto:john.maryak@texasairsystems.com">john.maryak@texasairsystems.com</a>

### COMMITTEE CHAIRS

Audit	Phil Farco	817-267-8651	<a href="mailto:phil_farco@mason-dallas.com">phil_farco@mason-dallas.com</a>
Chapter Technology Transfer	Nick Schroeder	817-272-9075	<a href="mailto:nschroeder@uta.edu">nschroeder@uta.edu</a>
Historian	Travis Brunkenhoefer	817-793-2325	<a href="mailto:travis.brunkenhoefer@texasairsystems.com">travis.brunkenhoefer@texasairsystems.com</a>
Honors and Awards	Larry Akers	817-336-0543	<a href="mailto:lakers@fribergassociates.com">lakers@fribergassociates.com</a>
Newsletter	Tony Finch	817-656-6076	<a href="mailto:tonyfinch@mail.ashrae.org">tonyfinch@mail.ashrae.org</a>
Membership	OPEN		
Refrigeration	Bill Lueg	817-296-8883	<a href="mailto:wblueg@me.com">wblueg@me.com</a>
Research Promotion	Richard Watters	817-338-1277	<a href="mailto:richard.watters@mail.ashrae.org">richard.watters@mail.ashrae.org</a>
CRC	Patty Parrish	817-791-3227	<a href="mailto:patty.parrish@us.belimo.com">patty.parrish@us.belimo.com</a>
Student Activities	Ian Bost	817-272-9075	<a href="mailto:ian.bost@mail.ashrae.org">ian.bost@mail.ashrae.org</a>
Golf	David Muzzy	817-257-4928	<a href="mailto:d.muzzy@tcu.edu">d.muzzy@tcu.edu</a>
Special Events	Sean Rath	817-338-1277	<a href="mailto:srath@bhvinc.com">srath@bhvinc.com</a>
Webmaster	Cody Pace	817-338-1277	<a href="mailto:cody.pace@mail.ashrae.org">cody.pace@mail.ashrae.org</a>
YEA	Saul Martinez	682-521-6981	<a href="mailto:smartinez@bhvinc.com">smartinez@bhvinc.com</a>
TEGA/Grassroots	OPEN		
Public Relations	OPEN		
Sustainability	OPEN		
Outreach	OPEN		

## THERM Subscription Management

Need assistance? Please use the links below or contact us by [e-mail](#).

To change your e-mail address for all THERMS, [click here](#). This will only change the e-mail address to which your THERM is sent.

Should you encounter problems reading a THERM, you may access any issue archived on the ASHRAE Web site at [this link](#).

All contents copyright © 2012  
Fort Worth Chapter of ASHRAE  
PO Box 893  
Fort Worth, TX 76101