



# The Comfort Chronicle

American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc.  
East Texas Chapter #091, Region VIII

Volume XXVI, Issue VI, February 2007

www.ashrae-etex.org

## Engineering Education



There are many challenges facing engineering education in the United States. One major challenge is the lack of students entering undergraduate engineering programs. The United States has seen little or no growth in the number of students enrolling in undergraduate engineering programs since 2000 [1].

Mexico, by comparison, has experienced a 20 percent increase in engineering undergraduate enrollment since 2000 [1]. The number of US engineering graduates can further be put in perspective by comparing the 2004 graduation numbers in the US (137,437), China (351,537) and India (112,000) [2].

One successful program designed to encourage students to become engineers is EWeek. EWeek provides K-12 students the opportunity to learn about engineering from practicing engineers, engineering educators, engineering students and professional engineering organizations including ASHRAE. During EWeek: Practicing engineers explain their current job functions which assists students toward pursuing engineering careers; Engineering educators assist students with school course selection and explain what is expected from high school students entering engineering; Engineering students help to dispel some of the myths regarding engineering courses; Engineering professional organizations do an excellent job of showing students the diverse areas of engineering that exists in modern society. The participation in EWeek by professional engineering societies is extremely important and often greatly influences a student's decision to pursue engineering as a career.

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Assistant Professor  
Mechanical Engineering Dept.  
The University of Texas at Tyler

### References:

1. Jeffrey Selingo, "Getting In Gear," ASEE Prism, September 2006.
2. Vivek Wadhwa, "The Real Numbers," ASEE Conference, Summer 2006.

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## February Meeting Engineering Week Banquet

Date: February 22, 2007  
Location: Roger Student Center  
Tyler Junior College Main Campus  
1400 E. Fifth Street, Tyler  
Cost: Adults \$15

Schedule: 630 PM Dinner then Speaker

Program: "NASA Research - Space Suits for Mars"  
By Ms. Heather Paul

Please RSVP to:

Terry Bates, phone 903-343-3111,  
email [tbates@slb.com](mailto:tbates@slb.com)

RSVP by Friday February 16 with name, number of guests and guests names

## Board of Governors Meeting

Meet at UT Tyler Ratliff Building South, Room 2006  
@ 7 AM on Thursday February 22.



Since its beginning in 1961, the East Texas Chapter of ASHRAE has actively promoted engineering and other careers in the HVAC industry to capable high school and college students. The East Texas chapter has provided thousands of dollars in scholarships, sponsored student chapters at Tyler Junior College and the University of Texas at Tyler, and provided speakers and mentors for student groups. Plant tours are arranged for student chapters, and all student members are invited to attend local ASHRAE meetings as guests.

In addition to these ongoing student activities, the East Texas Chapter of ASHRAE is an active partner, along with other area engineering societies, in the annual Engineers Week banquet. Society members volunteer their services to provide a quality program, so that high school and college students can socialize with professional engineers, be exposed to some aspects of their profession, and experience a small portion of how "Engineers Make a World of Difference", the 2007 Engineers Week theme. The 2007 banquet will be held February 22 at 6:00 p.m. on the campus of Tyler Junior College. The speaker will be Ms. Heather Paul, Project Engineer EVA and Space Suit Systems Branch, NASA. Along with her responsibilities in development and design for the Constellation Space Suit effort, Ms. Paul actively participates in education and public outreach efforts.

Gene Branum  
Instructor/Department Chair,  
Engineering/Physical Sciences  
Tyler Junior College

### **ASHRAE Winter Meeting** ASHRAE Members Get Energized in Dallas

ATLANTA – The adage that everything is bigger in Texas proved true for the 2007 ASHRAE Winter Meeting held last week in Dallas.

ASHRAE can boast of a large turnout for overall meeting attendance, record attendance at social events, and high attendance at the International Air Conditioning, Heating, Refrigerating (AHR) Exposition cosponsored by ASHRAE and the Air-Conditioning and Refrigeration Institute (ARI).

"Obviously our members took the meeting theme of 'get energized in Dallas' to heart," Terry Townsend, P.E., ASHRAE president, said. "Our meetings are an integral part of our Society, providing attendees with a first-hand look at the latest technology and allowing them to advance their education, network with fellow members from all over the world and influence technology."

The ASHRAE meeting had a total attendance of 2,634, an increase of nearly 200 over the 2006 Winter Meeting in Chicago. Registration for social events, also up over previous years, was more than 800 for the Welcome Party; more than 600 for the president's luncheon; and 557 for the Members' Night Out.

Two big events were motivational speaker Diana Nyad, who received a standing ovation for her inspiring story about setting the world record for completing the longest swim in history – 102.5 miles from the coast of Bimini to the Florida shore, and Dennis Dimick, executive editor at National Geographic Magazine, who discussed three 2004 National Geographic magazine articles, "Signs from Earth" that

document emergent effects of climate change observed worldwide.

Top-selling publications at the meeting were the new ASHRAE GreenGuide: The Design, Construction and Operation of Sustainable Buildings; HVAC Simplified, the Advanced Energy Design Guide for Small Retail Buildings and the ASHRAE Handbook CD+.

The ASHRAE Learning Institute courses also were well-attended by nearly 1,000 people. The top-drawing courses dealt with green buildings, Standard 90.1, health care facilities design and commissioning.

The AHR Expo, sponsored by ASHRAE and ARI also proved to be "Texas-sized" with 1,789 total exhibiting companies and 354,057 square feet of net exhibit space. Total Expo attendance topped 47,000, including 28,130 visitors and 19,065 registered exhibitor personnel.

Comparatively, the first co-sponsored show in the Southwest held in Dallas in 1976 drew 284 exhibiting companies and 90,197 square feet of net exhibit space.

ASHRAE will hold its 2007 Annual Meeting in Long Beach, June 23-27, followed by its 2008 Winter Meeting, Jan. 19-23 in New York, accompanied by the AHR Expo, Jan. 22-24.

ASHRAE, founded in 1894, is an international organization of some 50,000 persons. ASHRAE fulfills its mission of advancing heating, ventilation, air conditioning and refrigeration to serve humanity and promote a sustainable world through research, standards writing, publishing and continuing education.

#### American Standard to Split Into Three Companies

PISCATAWAY, N.J.—American Standard Companies has announced it will split the company into three businesses this year and focus its efforts on the air-conditioning segment. It will rename the company Trane, while retaining the right to use the American Standard brand name for heating, ventilation and air-conditioning products. The company will sell its global vehicle control systems business and its bath and kitchen business. The entire plan is expected to be completed by early fall.

More than 7 Million Unitary Units Shipped in 2006  
ARLINGTON, Va.—There were more than 7 million combined U.S. factory shipments of unitary air conditioners and heat pumps in 2006, according to the Air-Conditioning and Refrigeration Institute (ARI). However, that number was 18% less than the combined shipment total of 2005, the year that produced the highest shipment totals on record. From January–December 2005, more than 8.6 million units were shipped. The 2006 shipment total was the third highest of any year's total, also behind 2004. The 2.1 million heat pump units shipped in 2006 were only 1% less than the highest shipment total recorded for heat pumps in 2005.

### Technology Awards Highlight Outstanding Building Projects

DALLAS—A range of innovative technologies, including natural ventilation, use of grey water and incorporation of phase change materials, are highlighted in the winning ASHRAE Technology Award projects. The awards recognize members' achievements that incorporate elements of innovative building design in the areas of occupant comfort, IAQ and energy conservation. The awards were presented at the 2007 ASHRAE Winter Meeting held on Jan. 27–31.

### New Small Packaged Line From Carrier

FARMINGTON, Conn.—Carrier introduces the Infinity™ Series of small packaged products. The line includes single-phase packaged air conditioners, heat pumps and gas furnace/air-conditioner systems. Also included are 15 SEER Hybrid Heat™ packaged systems. These systems automatically select the most effective heat pump and gas heat operating modes after controls are set based on local conditions and energy costs.

### Digital Scroll Is AHR Expo Product of Year

DALLAS—The Copeland Corp./Emerson Climate Technologies Copeland Digital Scroll™ is the first AHR Expo Innovation Awards Product of the Year. The winning product was announced Tuesday during special ceremonies at AHR Expo. It was selected by a panel of ASHRAE members from the eight products that had won first place in their respective categories. The Digital Scroll qualified for consideration by winning first place in the cooling category.

### AHR Expo Exhibitors and Attendees Confident About Prospects for 2007

DALLAS—Pre-show surveys of exhibitors and attendees conducted by ASHRAE Journal show that both groups are confident about prospects for 2007, especially in the commercial sector. The surveys were released during AHR Expo here. Click the links below to learn how exhibitors and attendees rate prospects in specific sectors, and what they believe are the most important issues.

**Do you need continuing education credits or professional development hours?\***

The East Texas Chapter of ASHRAE is dedicated to meeting your educational needs

The schedule below will be updated each month as more information becomes available.

Date	Time	CE Course	Location
18 Apr 2007	12 noon – 3:00 PM	Satellite Broadcast: Indoor Air Quality Call Sheri to sign up	Trane Snow White

\* Texas Board of Professional Engineers requires all active PE's to have fifteen (15) CE hours per year with at least one (1) of those hours being ethics. The Texas Bureau of Licensing and Regulation requires eight (8) hours of CE per year for Contractors.

### Air and Liquid Filtration Technology From DuPont

WILMINGTON, Del.—DuPont introduces Hybrid Membrane Technology. The membrane-like sheet product is composed of continuous submicron fibers with resultant submicron to low micron pores and high surface area. Because it is not an electrostatically treated material, its filtration performance remains consistent over the life of the filter.

### Screw Compressor Chiller From McQuay

MINNEAPOLIS—McQuay® offers the AGS air-cooled screw compressor chiller. It features aerodynamic fan blades and an ultra-quiet single rotor screw compressor. The single-screw design is quieter than dual-rotor designs. An optional unit-mounted pump package frees up the indoor space usually set aside for pumps and simplifies installation and maintenance.

### U.S. President Calls for Mandatory Increases in Alternative Fuel Production

WASHINGTON, D.C.—U.S. President George W. Bush called on Tuesday for a government-mandated increase in renewable fuels, primarily ethanol. He called for a mandatory requirement that makers of fuel produce 35 billion gallons of alternative fuels a year by 2017. Bush also called for increasing fuel-efficiency standards of cars and trucks by 4% a year—about one mile per gallon—starting in 2010 for cars and 2012 for trucks.

### Zone Sensor/Damper Control From Lennox International

DALLAS—Lennox International introduces the Comfort Sensor product for light commercial applications. It combines multiple sensing and zone damper control options in a single device. Its primary function is as a zone temperature sensor for use with the L Connection® Network building automation system. It can also be used for stand-alone applications that do not require a complete building automation system. Versions are available that combine relative humidity and/or carbon dioxide sensing options with temperature sensing.

## **ASHRAE – Region VIII, Chapter # 091**

### **Meeting of Board of Governors (BOG)**

**Meeting date: Tuesday January 23, 2006 (11:15 to 12:00 PM CST)**

**Meeting location: UT Tyler, Ratliff Building South, Rm 2006**

Attendees: Ernie Herterich(called in), Emily Hoffman, Kristin Schaefer, Jeff Shenefeld, Rhamy Morrison, Gene Branum, Mohammad Farooq, Jan Sundell

Last meeting minutes were accepted.

#### **On Chapter Audit**

The chapter budget needs to be audited soon. The last chapter audit was done by Steve Kowalski, Steve Christopher & Kit. The Steves are willing to do the audit again. Farooq will ask Kit if he will do the audit.

#### **On Upcoming Meetings**

Ernie (not present) called in to say that the meeting at Estes McClure will be held on March 22<sup>nd</sup> to accommodate the spring breaks of UT Tyler and TJC.

A refrigeration webinar was scheduled on the society level to be held in February, however, there are some technical difficulties. Dick is postponing his refrigeration seminar until the webinar is hosted.

The next society level learning opportunity is a satellite broadcast titled, Indoor Environmental Design Focus of ASHRAE, held on April 18<sup>th</sup>. Jeff Shenefeld is presenting more IAQ topics at the April 19<sup>th</sup> meeting.

#### **On Student Lunches**

Carrier will donate money for the lunches for the April meeting. Trane will donate for the May meeting. This will help offset some of the debt our chapter has incurred by provided free lunches for students.

Jeff suggests that for these meetings we bring in something like sandwich platters from Jason's Deli. He noted that the Chamber of Commerce does this and charges \$6/head and profits about \$2/head.

#### **On Student Chapter**

Rhamy contacted John Bailey, the president of the student chapter, about helping out during the golf outing.

#### **On Membership**

In order to get PAOE points, Don will have nametags for the April meeting. Rhamy suggests getting title badges for the chapter officers and nice nametags for people to wear to meetings, as part of a membership package.

#### **On Upcoming Events**

##### **E-Week**

This year the E-Week dinner will be held at TJC in the Roger Student Center on February 22<sup>nd</sup>. The Society of Manufacturing Engineers is hosting EWeek and is behind on getting organized. Gene is the organizer from our chapter. He needs help on making contacts with local school teachers and counselors to encourage students to attend. Last year, Amanda Filbeck was in charge of organizing EWeek and making contacts. Kristin offered to help. David Beams is the contact person for organizing the event so Kristin will contact him to see if our chapter can help with anything.

Trane and Carrier usually donate prizes for the engineering quiz, this year appears to be no different.

We have decided to set up a table at EWeek. Rhamy will search for a table cloth and banner with the ASHRAE symbol. Rhamy also has brochures on weatherproofing your home and the IAQ seminar in April, which could be displayed on the table. Sheri had previously compiled a brief history on ASHRAE, which could be printed on a large poster board.

The EWeek speaker is Heather Paul, an engineer from NASA. She will be arriving on Thursday afternoon and leaving Friday morning. Kristin will send out a notice to see if anyone is particularly interested in transporting her from the airport to the hotel. Gene thought it would be nice for Heather to be accompanied by another female.

Gene will find out when ASHRAE is hosting the next EWeek. He would like to see more engineers involved as well as students.

#### **Golf Tournament**

Rhamy reported that at the 2<sup>nd</sup> planning meeting, the committee narrowed the choices down to 2 courses that have similar prices. The event will probably be held on a Friday since it is \$30 cheaper per person. Food is also included in this fee. During the next meeting, they will be choosing the golf course, setting the date, and coming up with a list of sponsorships and awards.

#### **On Research Promotion**

Since our chapter made Full Circle, Rhamy received a poster in the mail which he is encouraged to display at each meeting. This year to date, 12 people have contributed \$1778 towards research promotion, a large portion of this was Ernie's travel donation. Last year, 4 people donated \$203. Our goal this year is \$6500 compared with last years \$3000.

#### **On Newsletters**

Jeff and Gene are writing the February article on student activities (Jeff) and EWeek (Gene). The article needs to be submitted by February 6<sup>th</sup> along with pictures of the authors.

Farooq plans on making trip down to Jacksonville for his April article.

#### **On MBOs**

Kristin was late sending out the BOG agenda due to the MLK holiday.

The Test Master's PE prep course was cancelled since not enough people signed up.

The upcoming educational seminars are an Ethics hour hosted by ASME & ASHRAE, the refrigeration webinar which is having technical difficulties, and the Indoor Environment satellite broadcast.

Prepared by Emily Hoffman on 1/25/07



**American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc.  
East Texas Chapter #091, Region VIII**

**2005 – 2006 CHAPTER OFFICERS**

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Emily Hoffman	Secretary	903-581-3528	<a href="mailto:emily.hoffman@trane.com">emily.hoffman@trane.com</a>
Bill Stiles	Treasurer	903-597-3442	<a href="mailto:bsti@tjc.edu">bsti@tjc.edu</a>

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Jeff Stewart	BOG	903-581-9157	<a href="mailto:jeff.stewart@trane.com">jeff.stewart@trane.com</a>
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Art Giesler	Region VIII DRC		<a href="mailto:palatusa@aol.com">palatusa@aol.com</a>

**Future ASHRAE Meetings**

Region VIII CRC  
April 13 - 15  
Oklahoma City, OK

2007 ASHRAE Summer Meeting  
June 23-27  
Long Beach, CA

2008 Winter Meeting  
January 19-23  
New York, NY

**Future East Texas Chapter Meetings**

<b>Lunch Meetings</b>		<b>Location</b>
March 22	Case studies in Energy Mgmt	Estes McClure
April 18	Satellite Broadcast – IEQ	Trane
April 26	Health Affects on IEQ	UT Tyler
May 4	Dist. Lecturer – Chris Allen	
	Marketing “Green Buildings”	Trane
<b>Evening Meetings</b>		<b>Location</b>
February 22	E-Week Student Engineer Banquet	TJC: Rogers Student Center

<b>Member Registration</b>	_____	<b>Member #</b>	_____
<b>Full Registration</b>	_____	<b>#</b>	x <b>\$250.00</b>
Registration, Welcome Party, Business Sessions, Presidents Luncheon, Technical Sessions, Workshops, Friday Dinner, Hospitality & Awards Lunch			
<b>YEA Member Registration (Under 30)</b>	_____	<b>#</b>	x <b>\$225.00</b>
Registration, Welcome Party, Business Sessions, Presidents Luncheon, Technical Sessions, Workshops, Friday Dinner, Hospitality & Awards Lunch			
<b>Companion Registration</b>	_____	<b>(name) #</b>	x <b>\$125.00</b>
Registration, Welcome Party, Companion Activities, Friday Dinner, Hospitality & Awards Lunch			
<b>One Day General Registration – Member</b>	_____	<b>#</b>	x <b>\$100.00</b>
Registration, Welcome Party, Business Sessions, Technical Sessions, Workshops			
<b>One Day General Registration – Companion</b>	_____	<b>#</b>	x <b>\$60.00</b>
Registration, Welcome Party, Companion Activities			
<b>Welcome Party</b>	<input type="checkbox"/>		<b>\$ 45.00</b>
<b>Friday Dinner</b>	<input type="checkbox"/>		<b>\$ 45.00</b>
<b>Technical Sessions</b>	<input type="checkbox"/>		<b>\$ 75.00</b>
<b>SPECIAL EVENTS</b>			
<b>Skeet</b>	<input type="checkbox"/>		<b>\$ 50.00</b>
<b>Golf Outing</b>	<input type="checkbox"/>		<b>\$100.00</b>
<b>TOTAL</b>			<b>\$ _____</b>

Checks should be made payable to:  
**Central OK Chapter**  
**ASHRAE**  
 Alan Loeffler  
 CRC Treasurer  
 Federal Corporation  
 P.O. Box 2600  
 Oklahoma City,  
 OK 73101-2600

**2007 Centennial Celebration**  
**CENTRAL OKLAHOMA CHAPTER**  
**Region VIII**  
**Chapter's Regional Conference**



**April 12<sup>th</sup>, 13<sup>th</sup> & 14<sup>th</sup>  
 2007**

John L. Harrod, General Chair  
 Phone: (405) 478-5353  
[John.harrod@mail.ashrae.org](mailto:John.harrod@mail.ashrae.org)

For Conference details go to  
[www.ashraecok.org](http://www.ashraecok.org)

[www.TravelOK.com](http://www.TravelOK.com)

[www.visitOKC.com](http://www.visitOKC.com)



**Oklahoma City National Memorial**



**National Cowboy Hall of Fame**



**The Bricktown Canal**

## CRC Schedule

**Thursday, April 12th, 2007**

**Registration**

**Golf**

**Lunch at the Course**

**Skeet/Trap**

**Del./Alt. Orientation Mtg.** Business Casual

**CRC Reception @ Hotel** Business Casual

**Welcome Party** Walking Casual

**Friday, April 13th, 2007**

**Registration**

**Caucus Breakfast** Business Casual

**General Session** Business Casual

**Presidents Luncheon** Business Casual

**Technical Sessions** Business Casual

**Friday Dinner**

**Night on the Town**

**Saturday, April 14th, 2007**

**Registration**

**Breakout Sessions** Business Casual

**Technical Session** Business Casual

**Awards Luncheon** Business Casual

**General Session** Business Casual

**Executive Session** Casual

## CRC Spouse Schedule

**Friday, April 13th, 2007**

**Spouse Lounge**

Trolley to Art Museum Walking

**OKC Museum Tour** Tour

Trolley to Nona's for Lunch Casual

**Lunch @ Nona's**

Sight Seeing on Bricktown Trolley

**Saturday, April 14th, 2007**

**Spouses Lounge**

**The Changing Face of Make-up** Casual



### GOLF TOURNAMENT

Coffee Creek Golf & Country Club

### SKEET/TRAP

Silver Leaf Shotgun Club

### WELCOME PARTY

Oklahoma City Zoo at [www.okczoo.com](http://www.okczoo.com)

Oklahoma Trails, set to open March 10, 2007, will showcase more than 100 different species of animals native to Oklahoma. Featuring naturalistic habitats utilizing landscape immersion and state-of-the-art technology, this exhibit will provide a unique encounter.

Featured species include grizzly and black bear, cougar, paddlefish, turkey vulture, river otter, western diamondback rattlesnake, American alligator, roadrunner, bison, collared lizard (mountain boomer) and alligator snapping turtle.

The state of Oklahoma has 11 distinct life zones (second to no others) in the awe-inspiring diversity of our natural environment. Contributing to the representation of these ecological regions in Oklahoma Trails will be big and little blue stem grass, redbud (Oklahoma's state tree), post oak, bald cypress, dwarf palmetto, Indian blanket (Oklahoma's state wildflower), yucca, rocky mountain juniper, pinyon pine and assorted ferns and woodland plants. The lush terrain accentuates the natural beauty of Oklahoma Trails, with over 700 trees adorning the landscape and 500+ plants garnishing the free-flight aviary.

## TECHNICAL SESSIONS

**Friday, April 13<sup>th</sup>, 2007**

**Designing For Dehumidification And**

**Mold Avoidance** - Nicholas Des Champs, PhD with Des Champs Technologies

**Lessons Learned For Hurricane**

**Recovery** - Holly Bailey PE with Building Environment Consultants

**Saturday, April 14<sup>th</sup>, 2007**

*ASHRAE Advanced Energy Design Guides*

**Best Practices** - Ron Jarnagin with Pacific Northwest National Labs

**Underfloor Air Distribution Do's & Don'ts** by Jerry Sipes PhD with Price Industries



To register online through the [www.ASHRAE.org](http://www.ASHRAE.org), go to the 2007 CRC link under Members/Regions/Region VIII

or use the Central Oklahoma Chapter site [www.ashraecok.org](http://www.ashraecok.org) and go to 2007 CRC