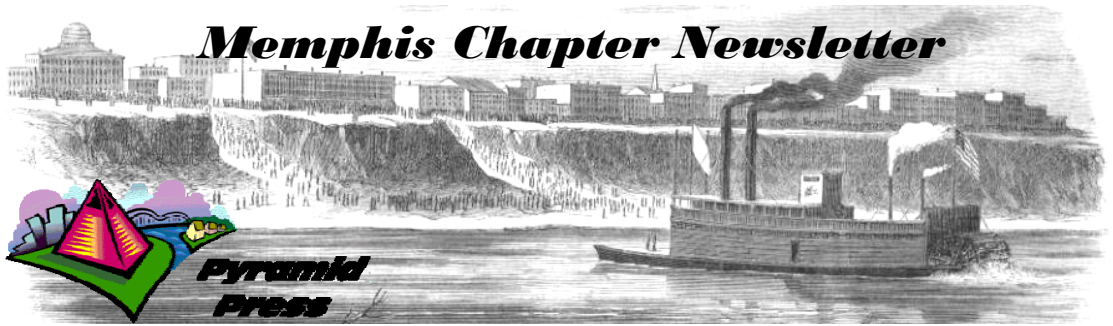




February 2010

**2009 - 2010  
ASHRAE Memphis  
Board of Governors**



## **Memphis Chapter Newsletter**

### **Lunch Meeting**

Tuesday February 09, 2010  
Shelby ballroom

This Months Program:

#### **In-Row Cooling from Low to High Density Computer Room Applications**

This Months Speaker:

**Allen Cousins**  
**Territory Sales Manager**  
*APC by Schneider Electric*

Mr. Cousins is a 16 year veteran of the datacenter industry. He began his career as an industrial electrician aboard submarines in the U.S. Naval Nuclear Power program, and then continued to develop and expand his expertise in commercial mission critical environments during his years in the datacenter facility management industry. Mr. Cousins currently serves as a Territory Sales Manager in Georgia, Tennessee, Alabama and Mississippi for APC by Schneider Electric, a global leader in critical power and cooling services.

Mr. Cousins holds a BSAS in Nuclear Engineering, and is an active participant in industry specific organizations such as, but not limited to, AFCOM, 24x7 and Green Grid.

**President**

Russ Fletcher

**President Elect**

Joey Matlock

**Technology Transfer / Programs**

Ryan Hertter

**Secretary**

Jimmy Fleck

**Treasurer**

David Branham

**Research & Promotion**

David George

**Membership Promotion**

Jack Griffith

**Student Activities**

Jonathan Lancaster

**Refrigeration**

**Honors & Awards**

Jeff McAlexander

**Historian**

Jerry Gatlin

**Memorials**

Ken Jack

**Newsletter Editor**

Brian Schaffler

**Chapter Website**

Kevin Crosby

**At Large Member**

Keith Mayes

Jackie Carter-Horne



## *The Presidents Corner*

ASHRAE members

Not much to report this month. Just a few quick items.

- This is a final reminder for those who attended the Christmas party. PLEASE get your reimbursement monies to David Branham ASAP. We are still well in the hole on that.

- Contact Joey Matlock if you are interested in being an officer or committee chairman next year. Several spots available, and we need to have the Board 100% filled by March.

- Please let me know if you (and how many other ASHRAE members from your organization) attended the ASHRAE Expo in Orlando. The chapter gets PAOE (ASHRAE awards) points for member attendance.

- Memphis Chapter will be sponsoring and staffing a booth at the April 25 "Down to Earth Festival" at Shelby Farms. Jack Griffith is the chairperson, so contact him if you can help out. Event requires a minimum 10' x 10' canopy style tent for each booth, similar to what you'd use at a tailgate party. Does anyone have one they can loan to the chapter for this event? We have to pay for one otherwise.

Be sure to see the posted schedule of February events for [2010 National Engineer's week](#).

Thanks for the continued participation, and I hope to see everyone on Tuesday!

Russ  
Russ Fletcher  
761-0885 x12  
[russ@computerenvironment.com](mailto:russ@computerenvironment.com)



**YOUR AD HERE \$75.00**



## Member Notices

### From the Membership Promotion Chair

Fellow members:

I want to thank those who visited Jonathan Lancaster and I at the Membership Promotion and Student Activities booth last November. We especially appreciate Dr. William Janna's (UOM Faculty) participation and the prospective student members he brought to the meeting. I am happy to announce that we have picked up (5) new members and (1) transfer member since the beginning of July 2009. We've also welcomed (1) new student to our Chapter and have an additional student member whose paperwork is currently being processed. Please join me in welcoming these new members:

<b>John Benjamin</b>	<b>John Richert</b>
<b>Carol Copeland</b>	<b>Tim Wheat</b>
<b>Brian Ellis</b>	<b>Benton Lott</b>
<b>Ryan Stephens</b>	<b>Michael Swindle</b>

We are still encouraging everyone to bring prospective members with you to the luncheon. If your guest has questions about ASHRAE or membership, please have them contact me as listed below:

Jack Griffith, Membership Promotion Chair  
(901) 260-9850  
[jgriffith@ssr-inc.com](mailto:jgriffith@ssr-inc.com)

### Help promote membership growth!

ASHRAE membership is open to anyone associated with heating, ventilation, air conditioning or refrigeration. Encourage your colleagues and fellow students to join.

The easiest and quickest way to join ASHRAE and pay dues (renew) is online! Prospective members can go to [www.ashrae.org](http://www.ashrae.org) and complete an electronic application as well as access information regarding membership grades.

While online, encourage applicants to join their local Memphis chapter. For individuals without internet access, applications (Society and local) will be available at each of the upcoming ASHRAE luncheons.

Local applications are also available online by navigating to the Memphis ASHRAE chapter website at [www.ashraememphis.org/page2](http://www.ashraememphis.org/page2).

### Upcoming Events

National Engineers Week is February 14 – 20, 2010  
[www.eweek.org](http://www.eweek.org)

### ASHRAE Conferences

2010 ASHRAE Annual Conference  
June 26-30, 2009 - Albuquerque, NM

### Update your Membership Information

Please take a moment and ensure your information is up-to-date. Log in to ASHRAE at [www.ashrae.org](http://www.ashrae.org). Update your email, phone numbers and contact information, as applicable. From the ASHRAE website, you may:

- Manage Your Membership
- Manage Personal Information
- Provide Address Changes

We appreciate your help! The Memphis Chapter newsletter mailing list and roster are based on the most up-to-date information.

### ASHRAE sponsorships available

"Some of our local Memphis ASHRAE members have agreed to a 1 time sponsorship of annual dues for any member who may be struggling or out of work during the current economic slump. These sponsorships can also be used for student member dues. Any member who is interested in either receiving (or donating), please contact Russ Fletcher ([russ@computerenvironment.com](mailto:russ@computerenvironment.com)) or Jack Griffith ([jgriffith@ssr-inc.com](mailto:jgriffith@ssr-inc.com)).

Requests for sponsorships will be kept completely anonymous, so please don't hesitate to ask. Thanks in advance to those members who have made this generous offer."

### Need a New Nametag ?

Anyone needing a new and/or replacement name tag? I have one request from today's meeting and it would be best to order any needed nametags all at once.

Nametag requests can be emailed to me at [jfleck@galaengineering.com](mailto:jfleck@galaengineering.com)



## **INDUSTRIAL ARTS BUILDING**

### **The University of Memphis**

By Jackie Carter-Horne

The University of Memphis officially opened September 10, 1912 with Dr. Seymour A. Mynders serving as president. The name of the college was West Tennessee State Normal School and the campus consisted of only a few buildings. All of the buildings were heated but not cooled (air conditioned). Cooling and ventilation was provided by opening and closing windows.

In 1941 the name of the college was changed to Memphis State College. At this time there were several buildings added to the campus. One of these buildings was the Industrial Arts Building located at 3700 Desoto Ave. This Industrial Arts Building was needed when Art Classes were introduced to the college's curriculum.

In 1946 the Industrial Art Building underwent alterations and repairs to better accommodate the increasing number of students attending the college after World War Two ended. The design for alterations and repairs also improved the aesthetic appearance of the campus. One of the aesthetic design changes was a grand entryway consisting of an engraved stone header, large eight and one-half foot paneled doors surrounded by a grand display of beveled stone. Offices were added to the southwest wing of the building. A "state of the art" 4,400 c.f.m., Roto Clone, dust collection system was installed for the wood working shop. The alterations and repairs project was designed by Furbringer and Ehrman, Architects, a local architectural firm.

In 1957 the name of the college was changed to Memphis State University.

In 1959 an addition to the Industrial Art Building was designed by a local Architect, Daniel T. McGown, AIA. Mr. McGown's design added an entire wing to the northeast end of the building. Gas fired unit heaters were added throughout the entire building. Also implemented into the design were several other HVAC upgrades, including large fume and smoke hoods for the Foundry Room. Welding hoods with exhaust fans were also added. Several other HVAC, Plumbing, and Electrical upgrades have been made to the building by various firms throughout the years.

In 1994 the university added the masters program to their curriculum which induced another name change. The facility is now known as the University of Memphis.

The University of Memphis has stayed true to its policy of hiring local architectural and engineering talent for the renovation of existing buildings and new building design. SSR-Ellers is designing the first air-conditioning units to be added to the Industrial Art Building's 5,500 sf. Wood Working Shop, the Welding Shop and the 3,700 sf. Ceramic Studio and Kiln Room. SSR-Ellers is also designing a mini-split, ductless HVAC system for the office areas on the southwest side of the building. The design phase of this Industrial Art Building renovation project is scheduled to be complete by the end of 2009 and construction will begin in 2010.



## *Chapter Technology Award presentations*

Tuesday February 9th, 2010



Joey Matlock, EI

Thompson Engineers, Inc.

AERC, PLLC Architectural Studio, Hernando, MS

Commercial Buildings - Existing

Jeff Crabtree, PE

Crabtree Engineering

Cosell Residence, Pearisville, VA

Residential - New





## Announcements

### Region VII CTTC Chapter Chairs and a few others:

**1st - The Chapter Technology Awards** deadline is fast approaching. I need two Chapter Technology Awards from each of you. If you will please award at the Chapter level by 15 January, I can get the Regional Awards judged and results posted by 15 April. So far, only two Chapters have requested the Certificates. I have them here when you are ready. Send me a copy of the short forms and the certificates for your Chapter winners. A Refrigeration Award may be substituted for a Technology Award.

**2nd - PAOE...**Mississippi and Louisville are way out in front. I know the others of you are doing the right things, please just document them. That's the only we have of knowing if the work of ASHRAE is getting done. If I can help you with anything, let me know.

Robert, mi shaved-head amigo, my Winter Meeting and Regional Dinner friend from Ohio-Florida-and-Louisiana all at once, my fellow RVC in the trenches, isn't there some way that Baton Rouge is earning PAOE in CTTC?! I sent my credit card number for RP Full Circle, surely you and Garrett can get me some PAOE points for CTTC....pleeeeeease.

**3rd - DL Program...**Region VII is the highest percentage users of the DL Program in ASHRAE and you are the apparent experts at getting "free to ASHRAE" DL's. ***Thank you very much!!***

Bryant/North Alabama, please see if you can get (beg, plead) DL Tom Werkema to come at no charge to ASHRAE in some way. He has an excellent, up-to-date, ever-changing talk on Government Activities that should really appeal to your "base constituency." Not to mention he is a super guy and a dynamic presenter. If you can get him, I will try to arrange with Pat for me to make another RVC visit at that meeting. Better yet, copy me on your initial approach to him, and I will forward along a little endorsement of your need.

Those who have hosted a DL, turn in the DL Evaluation right now to Kim Brown, [kbrown@ashrae.org](mailto:kbrown@ashrae.org), and copy me.

**4th - Government Activities...**Mississippi, you should be hearing from someone at the Society CTTC Awards Subcommittee real soon. That's all I'm saying. Let me know when you hear from them.

***Please put this in your next newsletter (just keep in there all the time)***...Every member needs to write his/her congressman and ask them to join the High Performance Building Congressional Caucus. You may take PAOE points under "contact with govt officials" for everyone who succeeds in getting his/her congressman to join.

***Please put this in your next newsletter (just keep in there all the time)***...Every member need to write his/her state PE Board opposing the BS+30 requirements that NCEES is pushing for PE Registration. Do this for every state where he/she is registered. I already did it - 29 states. You make take PAOE points under "contact with govt officials" for everyone who gets a response back from the Boards.

***Please put this in your next newsletter (just keep in there all the time)***...Poll your student members - there are Summer Internships at the Washington ASHRAE office for 3rd year (i.e. juniors) student members to apply for. Follow the links at [www.ashrae.org/cttc](http://www.ashrae.org/cttc)

***Please put this in your next newsletter (just keep in there all the time)***.. There is also a Fellowship at the Washington Office for "grown-up" engineers to apply for. Follow the links...

**5th - Annual Webcast...**Subject is Commissioning for High Performance Buildings. There is a media kit on the CTTC website - use it, distribute it to local Chapters of USGBC, AIA, IFMA, BOMA, etc. This is ASHRAE's "best bang for the buck" event of the year. It is CTTC's baby and is always in danger of being cut. We want to increase viewership from the usual 15,000 or so to closer to 25,000 this year. Only you can do that for the Society. Try to host it in a central location and publish same in the local paper. Encourage everyone who intends to watch it, even from their own cubicle or even at home, to register so we can get an accurate viewer number. ***Please put this in your newsletters from now until the webcast on 21 April.***



## ***Announcements***

reduction in building energy consumption, pollution, and resource consumption in Code format ready to be adopted by local jurisdictions. If the others building services folks aren't a part of ASHRAE and making things happen, they will be left behind. All the AIA, as far as I can see, is doing is writing contracts to protect architects from sustainability!

**Wrapping it up for Now...**That's it for today for the whole group. Some of you will be hearing from me individually as the week goes on. Thanks to all. CTTC is a huge job, and I completely empathize with your efforts. I did it at your level the first year CTTC was consolidated and created. We - Region and Society CTTC - know you cannot do it all and do it well unless you have a real functioning committee. Prioritize your efforts and do all that you can. 8 good meetings, with interesting speakers, on timely topics, in a comfortable safe well-lit and conditioned room with good meals and pdh certificates go a long way. If we can't get people to the meetings, we can't recruit them to join or to do anything ASHRAE wants done. You - the Chapter CTTC Chairs - are the key to all of ASHRAE!



## ***Employment Opportunities***

### **Local Members Network**

We are extending the newsletter and the website to those who want to advertise "open" positions within your company so the local members will get the opportunity to see those positions.

We will also advertise individuals who have lost their job and want to solicit themselves to the local chapter.

This service will be free of charge for member companies or individuals.  
These postings will run for 30 days unless otherwise requested.

[Email the Webmaster with your postings](#)

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### **ASHRAE Career Center**

On June 15th, ASHRAE launched its full services [Career Center](#) for ASHRAE members and HVAC hiring authorities. The reception has been magnificent as the number of job seekers, resumes, and employer job postings have risen each week. We are very pleased.

The Career Center is user friendly. The products and services match that of traditional big box boards such as Monster.com, yet the information and postings are specific to the ASHRAE Community. Job seekers have a shorter and more pleasurable search experience, and employers have immediate access to a pre-filtered pool of talent.

One unique feature is that Center highlights ASHRAE members. The online job application form requires an applicant to identify themselves by membership status. So does the resume posting form. And, employers can sort applications and resumes by their status. Why did we agree to keep this open to non ASHRAE members? Because career research is the fastest growing use of the web and we also see this service driving ASHRAE membership.

<http://www.ashraejobs.com/>

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## Technical Committee

### Programs for Albuquerque and Beyond

So, do you have an innovative project or an absolute disaster that you have worked on?

Do you want to have your ASHRAE conference fees waived? If you give a presentation at the conference, you go for free! Here is how it works...

#### Technical Program

Preliminary program submissions include energy efficient design and operation of data centers, central chilled water plant innovations, and latest research on refrigeration system and components and design applications for sustainable buildings.

#### Submission Types

Technical Papers: Require double-blind review, approved by three reviewers, maximum length: 30 pages.

Conference Papers: Abstract undergoes review for acceptance or rejection. Papers due 3 months after notification of abstract acceptance. Require single-blind review, approved by two reviewers, maximum length: 8 pages.

Seminar: Submit abstract for presentation w/ chair and 2-4 speakers, each speak approximately 20 minutes.

Forum: One moderator, no presentation, 60-minute open discussion.

#### Tracks

**Track 1: What Is Sustainable Anyway?** This track will discuss Sustainability and its overall affect on our environment as it pertains to all facets of energy consumption in the near term and the long term on new and existing building stock. How do present energy efficient standards compare to the proposed 189 and what is the additional cost? How will this affect us physically and financially? What are the short term and long term goals and benefits of sustainability? Are there simple and low cost intermediate steps as we progress? What can we do as ASHRAE members and how will other professions be affected? What will decisions by other professions (i.e., architects) have on our progress and ability to reach our goals? Case studies? How will IAQ be affected? What can be done to conserve water, sewer and electric uses in buildings?

**Track 2: Energy Facts and Simulation** Track As building design criteria changes to include sustainability and energy use, it is important that consideration be given to building energy use simulation methods. This track is intended to include topics that address this particular issue including but not limited to: current and future tools for modeling energy use, the importance of building energy simulation, the influence and incorporation of energy models on the design process, the accuracy of energy use models, etc. This track will also explore the use of an energy model as a tool to provide energy savings opportunities.

**Track 3: Ventilation Systems** Ventilation system design and maintenance is a wide-ranging topic. In this track, the objective is to address topics which are in significant interest at the present time, related to ventilation systems; starting with what's new in ASHRAE Standard 62.1-2010, discussion of what indoor contaminants should be controlled in occupied spaces, operation and maintenance of ventilation systems and specialized ventilation system requirements for applications such as dry climates, hot, humid climates and variable air volume systems.

**Track 4: Refrigeration for the Future** Track submissions are requested which address the need for cost effective and affordable advanced materials, components, refrigeration cycles, and system designs to improve energy efficiency of future refrigeration systems. In particular, submissions that address the energy consumption of entire systems throughout the entire operating regime to reduce annual energy consumption of the complete refrigeration system are requested. Furthermore, submissions that address the reduction of performance losses in the field due to installation deficiencies, operational effects and long-term degradation are sought.

**Track 5: Central Plant Systems** This track will highlight presentations and case studies of energy efficient central heating and cooling plants. For this track, the definition of central plant includes plants serving single buildings and plants serving campus style groups of buildings. Plant sizes could range from very small to very large. Submissions should include discussions of both successes and challenges. Case studies of innovative central plant design are encouraged.



## Technical Committee

### Track 6: BIM/CAD/Paper and Pencils

**Track 7: Energy Conservation vs. New Generation** In the United States, buildings consume over 40% of energy produced and contribute to over a third of our CO<sub>2</sub> emissions. Current projections anticipate U.S. energy demands to increase by more than one-third by 2030, with electricity demand rising by more than 40 percent. As we continue to see a trend toward “net-zero” energy buildings, the debate continues as to what is the most effective method to curtail CO<sub>2</sub> emissions and global climate change. While some experts have stated that improving energy efficiency in our buildings is one of the most constructive, cost-effective ways to address the challenges of high energy prices, energy security and independence, and global climate change, others experts predict that implementing new generations technologies such as solar and wind, in conjunction with smart grid technology, will reduce our dependence on fossil fuels, thus reducing CO<sub>2</sub> emissions, and improving energy security. The series of sessions in this track illustrate the benefits of improved efficiency technologies verses new generation technologies and how the technologies promote net-zero energy buildings and contribute to lower CO<sub>2</sub> emissions.

**Track 8: Living with HVAC&R Systems** System designs can be advanced and efficient, but they are only as good as the actual operation after installation and start up. Uptime and simplicity often outweigh energy saving operation, even in green buildings. The series of sessions in this track will focus on the maintainability and optimization of installed systems. Potential topics include energy saving retro-fits, continuous commissioning, operations and maintenance and design with operability in mind.

**Track 9: High Efficiency HVAC Systems** As buildings are required to exceed ASHRAE Standard 90.1 by 30 percent or more and to meet LEED certification requirements; engineers are designing highly efficient HVAC systems. In addition to meeting ASHRAE's sustainability and net-zero energy goals, HVAC systems will have to be more energy efficient than previously designed. The series of sessions in this track illustrate ideas and designs for HVAC systems and their applications to various building types. New high performance building technology will be presented, integration approaches presented, and commissioning and operating strategies recommended.

### Track 10: Professional Skills

**Track 11: Data Center and High Density Cooling** Data centers are very high energy facilities containing significant amounts of equipment gain in the space. What are the “state of the art” conditioning techniques and what is being done to minimize the HVAC energy use in these facilities. This track will explore energy savings opportunities associated with space conditions, cooling scenarios, cooling medium production and delivery.

### Track 12: Unassigned

#### Deadlines

Technical Papers: Due for review on April 9, 2010. Present at Las Vegas (January 2011). See LV tracks below.

Conference Papers: Submit abstract online by April 9, 2010. Present at Las Vegas (January 2011). See LV tracks below.

Seminar: Submit abstract with title for individual presentation by January 30, 2010, to Sarah Maston

(smaston@rdkengineers.com). Also submit short biography. I will put submissions together with a chair and multiple speakers. Also email me if you are interested in chairing a presentation.

Forum: Submit forum online.

For Technical or Conference Papers, tracks for the Las Vegas Winter Meeting are below:

- Track 1 Impact of Code Requirements on the work of an ASHRAE Member
- Track 2 Integrated Design Process
- Track 3 Low Energy Hospitality Design
- Track 4 Is that Ammonia in your Refrigeration (or What Else Is New in Low-GWP/ODP)?
- Track 5 “Greening” of the Industrial Base
- Track 6 Real Cost of Zero Energy Buildings
- Track 7 Impact of ASHRAE Standards on the Contractor Industry
- Track 8 Professional Skills

#### Links

Albuquerque Technical Program Information: <http://www.ashrae.org/events/page/2539>

Papers and Programs Information: <http://www.ashrae.org/events/page/1756>