



ASHRAE ACTION

ROANOKE CHAPTER NEWSLETTER

(WWW.ASHRAEROANOKE.ORG)

FEBRUARY 2012

FEBRUARY MEETING

**PLEASE JOIN US FOR A GREAT MEETING AT
BLUE 5 IN DOWNTOWN ROANOKE!**

Tuesday, February 21st

Blue 5 Restaurant
312 2nd Street
Roanoke, VA 24011

TOPIC:

**“Indirect Air-Side Economizer Cycle:
Data Heat Rejection”**

SPEAKER:

Keith Dunnivant

AGENDA:

BOG: 11:00 AM
Lunch Ordering: 11:30 AM
Presentation: 11:45 AM

**RESERVATIONS MUST BE MADE BEFORE NOON
on February 20th
TO Rick Hughes:**

E-mail: RoanokeASHRAEMeetings@gmail.com
Phone: 540-342-1816

PRESIDENT'S CORNER

LAST MONTH WE HAD AN EXCELLENT PRESENTATION WITH THE SHENANDOAH SECTION OF OUR CHAPTER. MARK DOTY HAD AN INFORMATIVE PRESENTATION ABOUT MAGNETIC BEARING TECHNOLOGY AND HOW IT IS BEING APPLIED IN THE HVAC INDUSTRY. ALSO THE EDELWEISS RESTAURANT HAD SOME OF THE BEST FOOD THAT WE HAVE EVER HAD AT AN ASHRAE MEETING.

THIS MONTH WE WILL BE BACK AT BLUE 5 IN DOWNTOWN ROANOKE FOR A LUNCH MEETING. KEITH DUNNAVANT WILL BE SPEAKING ON DATA CENTER HEAT REJECTION. KEITH HAD AN ARTICLE ON THIS TOPIC PUBLISHED IN THE MARCH 2011 ASHRAE JOURNAL. DEALING WITH THE ELECTRICITY CONSUMED BY OUR DIGITAL DEPENDENCY IS A GROWING CONCERN FOR THE HVAC INDUSTRY AND I HOPE THAT EVERYONE CAN MAKE IT OUT TO HEAR HIS PRESENTATION.

PLEASE NOTE THAT WE WILL NOT BE MEETING ON THE SECOND TUESDAY OF THE MONTH SINCE IT FALLS ON VALENTINE'S DAY AND WE WILL BE MEETING ON TUESDAY FEBRUARY 21ST. ALSO DUE TO A SCHEDULING CONFLICT THE GOLF TOURNAMENT HAS BEEN MOVED TO APRIL 20TH.

-Kyle Longbrake
President
Roanoke Chapter

MARK YOUR CALENDERS:



**March Meeting -- March 13th Holiday Inn
Distinguished Lecturer Mitchell Swann**

**Golf Tournament -- April 20th
Ashley Plantation**

BOARD OF GOVERNORS MEETING @ BLUE-5
FEBRUARY 21ST, 11:00

2011/2012 Meeting Schedule

September 13 th	Lunch	Blue-5
October 18 th	Dinner	VT Tour
November 8 th	Lunch	Blue-5
December 13 th	Lunch	Blue-5
January 10 th	Dinner	Staunton
February 21 st	Lunch	Blue-5
March 13 th	Dinner	Holiday Inn
April 10 th	Dinner	Holiday Inn
"Student Night"		
April 20 th	Golf Tournament	Ashley Plantation
May 8 th	Lunch	Blue-5

Intel to computer industry: 100 degrees isn't hot

Ian King, Bloomberg News
Tuesday, December 13, 2011

Intel Corp. has a message for people who run data centers: Turn up the heat.

Most server and storage computers sit in rooms cooled to a brisk 64 to 69 degrees Fahrenheit, an effort to avoid hot spots that might cause equipment to malfunction. All that air conditioning contributes to electricity costs of \$26 billion a year. The facilities use 1.5 percent of the planet's power, and that's set to double by 2014, Intel says.

By using new software and hardware to get a more detailed picture of what's hot and what's not, data centers can spread work around to different computers to keep them cool, says Jay Kyathsandra, an Intel marketing manager. That approach, together with a range of other technologies sold by Intel, could let technicians eventually turn the heat up past 100 degrees. The challenge is convincing customers, which count on servers to keep their businesses running, that the approach is safe.

"For a long time people just kept the data center running at what's comfortable for humans, because that's our frame of reference, but servers can handle a lot more than that," says Katie Broderick, an analyst at research firm IDC.

For Intel, the new technologies may generate a fresh source of revenue and help keep computer manufacturers loyal. The Santa Clara company, whose chips run more than 90 percent of the world's servers, cut its fourth-quarter sales forecast by about \$1 billion Monday. Intel blamed a shortage of disk drives.

Allowing the average temperature in data centers to rise by 9 degrees would cut \$2.16 billion in annual power budgets, saving the amount of power Spain or South Africa uses in a month, according to Intel's research.

Companies such as Facebook have already started operating some of their computer centers at higher temperatures, helping them save money. Intel wants them to go further. To prove the benefits of technologies it's trying to sell, the company is running one of its own data centers in New Mexico at 92 degrees. The move has produced an estimated 67 percent in power savings, Intel says.

The approach would mean data centers don't need air conditioning - outside air alone would do the trick - in more than 95 percent of the world, according to Intel.

Still, server owners are reluctant to dispense with cooling, fearing it might void the warranty on their machines, Intel's Kyathsandra says. To allay those concerns, Intel is working with computer makers, including Dell Inc. and NEC Corp., to change their policies. Those companies now sell machines certified to operate at higher temperatures, he says.

Intel's software and hardware will let customers monitor the amount of power individual racks of computers are using and how much work they're doing, and then balance those loads out to keep that machinery working at its most efficient level.

While current software allows monitoring of work levels and power use, it doesn't help managers make changes on the fly, he says.

"What's happening is you don't have a good sense of what's going on at any one point, so you might as well just cool things across the data center," Kyathsandra said. "It's a huge inefficiency."

ELECTRONIC NEWSLETTER

Any member with material to submit for inclusion in the monthly newsletter may send the information to:

Rick Hughes
30 W Church Ave
Roanoke, VA 24011

E-mail: RoanokeASHRAEMeetings@gmail.com
Phone: 540.342-1816
Fax: 540.344-3410

This is your newsletter. We welcome your contributions and commentary.

Material can include letters to the editor, member news, upcoming events, comments on chapter programs or issues, etc.

ATTENTION MEMBERS!

INTERESTED IN SAVING MONEY?

STAR CARDS ARE AVAILABLE FOR PURCHASE. PAY NOW AND **SAVE** LATER!

\$50.00 STAR CARD – ADMISSION TO ANY THREE MEETINGS

\$100.00 STAR CARD – ADMISSION TO ANY SIX MEETINGS

WANT TO SAVE EVEN MORE MONEY?

IN SUPPORT OF THE SOCIETY GAME (GREENING ASHRAE MEETINGS AND EXPOSITIONS) PLAN, THE ROANOKE CHAPTER WILL OFFER DISCOUNTS ON MEMBERS WHO CARPOOL OR USE ALTERNATIVE TRANSPORTATION TO ATTEND MEETINGS.

\$2.00 DISCOUNT FOR DRIVING A CARPOOL.

\$1.00 DISCOUNT FOR ANY OF THE FOLLOWING:

- RIDING IN A CARPOOL
- WALKING
- BIKING
- RIDE PUBLIC TRANSPORTATION
- DRIVE HYBRID VEHICLES
- DRIVE ALTERNATIVE FUELED VEHICLES

BE SURE TO LET **rick hughes** KNOW IF YOU QUALIFY FOR THE MEETING DISCOUNT WHEN YOU PAY FOR THE MEETING.

ROANOKE CHAPTER ASHRAE

2011– 2012 OFFICERS AND GOVERNORS

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THIS MONTH'S SPEAKER:

KEITH DUNNAVANT, P.E., MEMBER ASHRAE, IS A DATA-CENTER PRODUCTS SPECIALIST FOR MUNTERS. MUNTERS IS A GLOBAL LEADER IN DESICCANT DEHUMIDIFICATION, EVAPORATIVE COOLING, AND AIR-TO-AIR ENERGY RECOVERY AND SERVES EXTENSIVE INDUSTRIAL AND COMMERCIAL MARKET SEGMENTS.

A MECHANICAL ENGINEERING GRADUATE FROM NORTH CAROLINA STATE UNIVERSITY, KEITH HAS BEEN ENGAGED IN THE DESIGN OF ENGINEERED AIR HANDLING SOLUTIONS INVOLVING ENERGY RECOVERY, INDIRECT & DIRECT EVAPORATIVE COOLING, DEHUMIDIFICATION, AND PRECISION AIR CONDITIONING FOR THE LAST NINETEEN YEARS.