

# THE BADGERAIRE

AMERICAN SOCIETY OF HEATING, REFRIGERATING, AND AIR CONDITIONING ENGINEERS, INC.



## September 22, 2011 Program: Fan Wall Technology and VFD Best Practices

The Wisconsin Chapter of ASHRAE is featuring Mark Montesanto of HUNTAIR, Inc. and CES Group, LLC.

### **Fan Wall Technology and Variable Frequency Drive Best Practices**

This topic will describe multiple fan arrays used in air handlers to reduce energy consumption, air handler footprint, and sound transmission. Instead of providing a single large fan to move a large quantity of air, the fan array design uses a wall of small diameter direct drive fans to move the same quantity of air. Come see how you can use this technology in your next retrofit or new design. The fan array system uses a VFD to control the pressure and volume of air. Mr. Montesanto will also cover variable frequency drive implementation as it pertains to fanwalls and other multiple motor installations.

The meeting will begin at 5pm at Aliotos in Wauwatosa: 3041 N Mayfair Road.

Mark Montesanto is the National Sales Manager for HUNTAIR, Inc. and CES Group, LLC with a focus on FANWALL TECHNOLOGY® upgrades in existing fan systems.

HUNTAIR was founded in 1993 and is a recognized leader in custom air handling and cleanroom systems technology design and manufacturing. HUNTAIR's patented FANWALL TECHNOLOGY is arguably the first true innovation the HVAC industry has seen in decades. Since it was invented and brought to market by HUNTAIR in 2003, more than 45,000 FANWALL® cubes have been installed and are successfully moving over 250 million cfm worldwide. HUNTAIR is located in Tualatin, Oregon and was acquired by CES Group in April 2006.

CES Group was established in 1977 and is part of Nortek, Inc., a leading diversified manufacturer and distributor of innovative, high-quality building products for residential, light commercial, and custom commercial HVAC applications

Before joining HUNTAIR Mark was the National Accounts Manager and Central Regional Manager for TCI located in Milwaukee, Wisconsin. TCI is a leading supplier of variable frequency drive applied filters. Prior to TCI Mark spent 16 years as the Director of Sales and Marketing for ABB's HVAC variable frequency drive group.

Mark resides in Waukesha, Wisconsin with his wife Carol and their three children.

October's meeting will be about Acoustic design and best practices for the HVAC engineer.



## President's Column

Hello, my name is Justin Patrick, and I am honored to be the president of your ASHRAE chapter for the 2011-2012 year. I have been on the board for the last 5 years, working through the leadership ranks, and have been looking forward to this year. As a Mechanical Engineer from Notre Dame, I am excited for the start of this fall football season (as are all the Badger, Big 10, and Packer fans), but am even more energized by the commencement of our ASHRAE events, which should be full of new venues and topics to capture your attention.

I wanted to take this moment to welcome you all to this new season and to encourage our 400 plus strong membership to make this the year to re-engage in your commitment to ASHRAE. Ron Jarnigan, current president of the Society, also messaged this theme in his address to the summer session of ASHRAE, calling on excellence of the organization through its membership and the leadership of the members. Please read his address in the August 2011 edition of the ASHRAE Journal.

This is your organization and we, your leaders and board members, want to make sure that it is worth the time you invest, and to make sure that we are all leaving a legacy that will continue long after our time. This responsibility stems from my position as the Chapter President and that of my fellow officers and our Board of Governors; from our members with the longest tenure to the student who signs up this year.

We all need to make the effort to participate – attend as many monthly meeting as you can, come to the Holiday Party and the Scholarship Golf Outing. Please help me keep this organization fresh, new and sustainable. My commitment is to make this meaningful, rewarding and fun.

If you have any questions, comments or concerns, please do not ever hesitate to contact me or any of the Board Members.

Best Regards,

Justin Patrick  
President, ASHRAE - Wisconsin Chapter  
[justin.k.patrick@jci.com](mailto:justin.k.patrick@jci.com)  
414-524-7198

## A HISTORY OF ASHRAE RESEARCH

It is the research program that sets ASHRAE apart from other professional societies and association of its kind. ASHRAE's Handbook series, technical programs, standards, and special publications all utilize the results of Research.

An interest in research can be traced to the very roots of this Society. At the first annual meeting of the American Society of Refrigerating Engineers (ASRE), one of ASHRAE's predecessor societies, an initial order of business dealt with research. They passed a resolution recommending that the U.S. Department of Agriculture equip and maintain a cold storage plant for the purpose of research. They also appointed a committee of five members to work on the establishment of a standard unit or "ton" of refrigeration.

In a similar vein, ASHRAE's other forbearers, the American Society of Heating and Ventilation Engineers (ASHVE) recognized that "the practice of heating, ventilating and air-conditioning was more of an art than a science." In 1971, ASHVE took steps to correct this by initiating a Research Bureau. This facility was located in three rooms in the US Bureau of Mines Experiment Station in Pittsburgh, PA. Research was conducted here from 1919 until 1944.

From these humble beginnings to a current \$2 million annual budget and 70-80 research projects being conducted at once, ASHRAE Research has definitely come a long way in advancing the arts and sciences of HVAC&R.

# RESOURCE PROMOTION CAMPAIGN SETS ALL TIME RECORD! \$2,164,756

Thanks to our Chapter Leaders,  
James Burke, Justin Patrick, Jason Leffingwell, Timothy Pann & Randy Sikkema for setting the  
Pace by being a Full Circle Chapter by Contributing on an Honor Roll Level.

We want to Thank all the ASHRAE RP Investors from the Wisconsin Chapter for 2010-2011  
that helped make this new goal possible.

<b>\$1,000 to \$2,499</b>	
Desert Aire Corp.	
<b>\$500 to \$999</b>	
Carrier Corporation – UTC	Sheet Metal & Air Conditioning Contractors Association of Milwaukee
Plumbing & Mechanical Contractors Assoc. of Milwaukee and Southeastern Wisconsin	Mr. Edward L Tonn, Jr.
<b>\$250 to \$499</b>	
Mr. Gregg C Achtenhagen	McCotter Energy Systems, Inc
Mr. James M Boland	Mr. Bernard Radoszewski
Fluid Handling Incorporated	Mr. Randy D Sikkema
JMB & Associates LLC	
<b>\$150 - \$249</b>	
Martin Petersen Company	Mr. Bernard Radoszewski
Mr. Justin K Patrick	
<b>\$100 to \$149</b>	
Mr. James M Burke	Mr. Jason M Leffingwell
Mr. Robert M Fritchen	Mr. Joseph A Lucchesi
Johnson Controls	Mr. Timothy C Pann
<b>Other Investors</b>	
Mr. David Banks	Mr. Parmjit S Jaspal
Mr. Timothy W Barham	Mr. Michael J Jushka
Mr. Dave A Carlson	Mr. Michael Kopp
Mr. Joseph Brian Carmichael	Mr. Steve Kohn
Ms Heather D Erdman	Martin Petersen Company
Engineering Concepts	Mr. Mark Muench
Mr. Michael J Gaggioli	Mr. Hans K Plichta
Mr. Benjamin Gover	Mr. Thomas J Shipshock
Mr. Lawrence W Gramza	Mr. Andrew J Steele
Mr. Michael D Hyde	Mr. Alan Wedal

**TO ALL DONORS AND VOLUNTEERS...THANK YOU!**

## Upcoming Chapter Meetings-Mark Your Calendars!

MEETING DATE / TIME	LOCATION/TIME	TOPIC	SPEAKER
October 20 Afternoon Meeting	Joey Buenas Lunch	Acoustic HVAC design best practices	Kris Kollevoll
November 17, 2011	MSOE Morning through Lunch	½ Day Seminar on Fan Laws, Pumping apps, Fan System Effect	Various

### Other Chapters

For details regarding *surrounding chapter* meetings see:

- Northeast Chapter <http://www.newwisconsinashrae.org/>
- Madison <http://www.ashraemadison.org/>
- Illinois [www.illinoisashrae.org](http://www.illinoisashrae.org).

### **Wisconsin Chapter Officers and Committee Chairs**

President	Justin Patrick
Vice President	Tim Pann
Secretary	Jason Leffingwell
Treasurer	Jason Nenonen
Refrigeration Chair	Phil Golden
Membership	Joe Carmichael
Research and Promotion Chair	Randy Sikkema
Student Chapter Coordinator	Ryan McNally
Historian	Maggie Roll
Newsletter Chair and Editor	Brian Lynch
Website, Badgeraire Distribution	Steve Hagman
Governor at Large	James Burke
Governor at Large	Bill Armstrong