



ASHRAE ACTION

ROANOKE CHAPTER NEWSLETTER

(WWW.ASHRAEROANOKE.ORG)

SEPTEMBER 2010

SEPTEMBER MEETING

PLEASE JOIN US FOR A TOUR OF THE VT LOCKER ROOM FACILITY WITH ASME!

Wednesday, October 13th at 6:30 PM
Randolph Hall at
Virginia Tech Campus

SPEAKERS:

Jeff Perry
Patrick Murdock
Rick Hughes

TOPIC:

Tour of the VT Football Locker Room Facility

AGENDA:

Doors open at 6:30
Dinner: Free Pizza will be provided for the Students and ASHRAE Members
TOUR TO FOLLOW PRESENTATION

RESERVATIONS MUST BE MADE BEFORE NOON on October 11th

TO Kyle Longbrake:

E-mail: Kyle.Longbrake@aecom.com

Phone: 540-857-3328

PRESIDENT'S CORNER

FIRST OF ALL I WOULD LIKE TO THANK THOSE WHO CAME OUT TO OUR FIRST MEETING OF THE YEAR LAST MONTH. THANK YOU TO CHARLIE WADDELL FOR HIS PRESENTATION ON "HOW TO REDUCE OUTSIDE AIR USING THE ASHRAE 62.1 INDOOR AIR QUALITY PROCEDURE. I THINK WE ALL KNOW THE IMPORTANCE OF ENERGY CONSUMPTION AND WE CAN ONLY SURMISE THAT IT WILL CONTINUE TO BE CRUCIAL IN THE FUTURE. THIS MIGHT JUST BE ONE METHOD, BUT AS CHARLIE DEMONSTRATED THERE CAN BE HUGE SAVINGS AND IT CAN ONLY LEAD US CLOSER TO END GOAL OF NET ZERO BUILDINGS.

THIS MONTH WE WILL BE HEADING TO VIRGINIA TECH FOR A TOUR OF THE MECHANICAL SYSTEMS AT THE NEW VIRGINIA TECH FOOTBALL LOCKER ROOM. AS IN THE PAST WE HAVE COORDINATED WITH THE STUDENT ASME CHAPTER AND HOPE FOR A LARGE TURNOUT OF STUDENTS AND ASHRAE MEMBERS! PIZZA AND DRINKS WILL BE SERVED.

WHILE OUR PRESENTATIONS ARE STILL BEING WORKED OUT, PLEASE BE SURE TO VISIT THE ROANOKE ASHRAE CHAPTER WEBSITE ([HTTP://ASHRAEROANOKE.ORG/](http://ASHRAEROANOKE.ORG/)) FOR UPDATED INFORMATION ON MEETINGS, OFFICERS, ETC. THE ASHRAE DIRECTORY IS STILL IN PROGRESS, WITH A COUPLE MORE SPONSORS YET TO SUBMIT THERE ADVERTISEMENTS; PRINTING WILL BEGIN IN THE NEXT COUPLE OF WEEK AND ALL MEMBERS WILL RECEIVE A COPY IN THE MAIL. THANK YOU FOR YOUR SUPPORT OF YOUR LOCAL CHAPTER!

-PATRICK MURDOCK

MARK YOUR CALENDERS:



November Meeting -- November 9th for Lunch
Topic: Acoustical Performance

December Meeting -- December 14th for Lunch
Topic: DX Coil Design/Selection

January Meeting -- January 11th for Dinner
Topic: ASHRAE 189.1 presented by ASHRAE Distinguished Lecturer Dru Crawley

BOARD OF GOVERNORS MEETING @ TRANE OFFICE
OCTOBER 13, 4:00PM

ASHRAE Directory 2010-2011

½ page Ad - \$125.00

Full Page Ad - \$250.00

*******Directory size will be 5.5" wide x 8.5" high**

Deadline to submit ad, September 10th



ASHRAE TOUR ROANOKE CHAPTER

(www.ashraeroanoke.org)

October 2010

PRESENTATION AND TOUR - HVAC VIRGINIA TECH FOOTBALL LOCKER ROOM FACILITY



WEDNESDAY OCTOBER 13 at 6:30
Meet in Randolph TBD

**WANT TO KNOW MORE ABOUT HEATING, VENTILATION,
AND AIR CONDITIONING?**

There will be a presentation on the HVAC systems installed in The Football Locker Room Facility and about ASHRAE (American Society of Heating Refrigeration and Air Conditioning Engineers). This will be followed by a building tour of the Locker Room Facility.

FREE PIZZA will be provided at the presentation.

For more information contact:

Patrick Murdock – PMurdock@Trane.com

Kyle Longbrake – Kyle.Longbrake@aecom.com

ASHRAE NEWS!

ASHRAE Design Competition Gives Students Hands-On Experience in Practical Design

ATLANTA—ENGINEERING PRACTICES SUCH AS BIM, GEOTHERMAL AND COMBINED COOLING, HEATING AND POWER ARE HIGHLIGHTED IN THE WINNING ENTRIES IN THE 2010 ASHRAE STUDENT DESIGN COMPETITION.

THIS YEAR'S STUDENT DESIGN COMPETITION FEATURED A MOCK DESIGN OF THE GINSBURG TOWER AT FLORIDA HOSPITAL IN ORLANDO, FLA. THIS STRUCTURE, THE TALLEST HOSPITAL BUILDING IN THE STATE, IS A 15-STORY PATIENT TOWER THAT CONTAINS THE FLORIDA HOSPITAL CARDIOVASCULAR INSTITUTE, 440 PATIENT BEDS AND ONE OF THE LARGEST EMERGENCY DEPARTMENTS IN THE COUNTRY. AMONG THE 31 ENTRIES FROM AROUND THE WORLD, THREE IN PARTICULAR STOOD OUT AS FIRST PLACE WINNERS IN THE THREE CATEGORIES THAT THE COMPETITION OFFERS.

FIRST PLACE IN HVAC SYSTEM DESIGN IS AWARDED TO NATHANIEL BOYD, MICHAEL ANGELL, JUSTIN WIESE, EDWARD GILLETT AND TRONG DUC NGUYEN, OF UNIVERSITY OF CENTRAL FLORIDA, ORLANDO, FLA. THEIR FACULTY ADVISOR IS MARCEL ILIE, PH.D.

AFTER CONSTRUCTING A COMPLETE BUILDING INFORMATION MODEL (BIM), THE STUDENTS CHOSE A CONSTANT VOLUME AIR-HANDLING UNIT AS THE PRIMARY AIR SOURCE AND LATENT LOAD CONTROL, AND ONSITE COMBINED COOLING, HEATING AND POWER (CCHP) PLANT BASED ON A BANK OF MICRO-TURBINES FUELED BY NATURAL GAS.

THESE HVAC SYSTEMS ELIMINATE NOCOCOMICAL INFECTIONS VIA PROPER VENTILATION DIRECTIONAL CONTROL AND WOULD PROVIDE UNINTERRUPTED HVAC SERVICE TO HOSPITAL OCCUPANTS, EVEN DURING NATURAL DISASTERS, AS WELL AS REDUCTION OF ENVIRONMENTAL AND ECONOMIC IMPACT OF THE HVAC DESIGN.

FIRST PLACE IN HVAC SYSTEM SELECTION IS AWARDED TO MATT KOLINS, JOEL WHEELER, NICOLE VOGT, JARED PALAN, TODD KUNO AND ZAC BUCKMILLER, OF KANSAS STATE UNIVERSITY, MANHATTAN, KAN. THEIR FACULTY ADVISORS ARE FRED HASLER, P.E. AND JULIA KEEN, P.E.

THE STUDENTS SELECTED A COMBINATION OF AIR HANDLING UNITS WITH PATIENT ROOM HEAT PUMPS, CHILLERS AND COOLING TOWERS AND SHELL-AND-TUBE HEAT EXCHANGERS. ADDITIONALLY A GEOTHERMAL LOOP IN LAKE ESTELLE, ADJACENT TO THE HOSPITAL, ACTS AS A HEAT SINK. NOT ONLY IS THE SYSTEM ENVIRONMENTALLY CONSCIOUS, BUT ALSO HAS THE BEST RETURN ON INVESTMENT.

FIRST PLACE IN INTEGRATED SUSTAINABLE BUILDING DESIGN IS AWARDED TO RYLAND PHELPS, CAROLYN LAMB AND AMY ROSE KEYZER, OF LAWRENCE TECHNOLOGICAL UNIVERSITY, SOUTHFIELD, MICH. THEIR ADVISORS ARE DANIEL FAORO AND JANICE MEANS.

THE STUDENTS SET OUT TO DESIGN A SUSTAINABLE AND ENERGY EFFICIENT BUILDING WITHOUT SACRIFICING VISUAL APPEAL, WHILE RESPONDING TO CLIMATE CONDITIONS AND SURROUNDING BUILDINGS AND FORMS.

THEY WERE ABLE TO ACHIEVE THIS BY USING WATER REDUCING FIXTURES IN ALL BATHROOMS, SUPPLYING ALTERNATIVE ENERGY THROUGH PHOTOVOLTAIC PANELS AND ARCHITECTURAL FABRIC, USING GEOTHERMAL WELLS AND EVACUATED TUBES TO REDUCE LOADS ON MECHANICAL EQUIPMENT AND IMPLEMENTING A DAYLIGHTING SYSTEM TO REDUCE LIGHTING LOADS AND BRING DAYLIGHT INTO THE BUILDING.

THE FIRST PLACE TEAMS ARE GIVEN 10-15 MINUTES TO PRESENT THEIR PROJECTS AT THE 2011 WINTER CONFERENCE IN LAS VEGAS, NEV., JAN 29-FEB. 2.

ELECTRONIC NEWSLETTER

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

Kyle Longbrake
10 South Jefferson Street Suite 1600
Roanoke, VA 24011

E-mail: Kyle.Longbrake@aecom.com
Phone: 540.857.3100
Fax: 540.857.3180

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.

ROANOKE CHAPTER ASHRAE

2008– 2009 OFFICERS AND GOVERNORS

		<u>Phone:</u>	<u>Email:</u>
President	Patrick Murdock	540-563-2828	pmurdock@trane.com
Pres.-Elect	Kyle Longbrake	540-857-3100	Kyle.Longbrake@aecom.com
Vice Pres.	Rick Hughes	540-772-2065	rhughes@lpa-inc.com
Treasurer	Rick Hughes	540-772-2065	rhughes@lpa-inc.com
Secretary	Felix Antwi	540-857-3100	Felix.Antwi@aecom.com
Governor	Dan Lieber	540-857-3100	Daniel.Lieber@aecom.com
Governor	Roger Jones	540-890-7114	rjones5632@aol.com
Governor	Patrick Castelvechi	540-857-3100	Patrick.Castelvechi@aecom.com
Governor	Tom Brannen	540-362-0021	TEBrannen@cox.net

2008 – 2009 COMMITTEE CHAIRS

		<u>Phone:</u>	<u>Email:</u>
Shenandoah Section	Jeff Clinton	540-248-9207	jeffery.clinton@mcquay.com
Membership	Alec Groh	540-857-3100	Alec.Groh@aecom.com
Student Activities	Sean Mallahan	540-265-4444	smallahan@hurdandobenchain.com
Technology Transfer	Kyle Longbrake	540-857-3100	Kyle.Longbrake@aecom.com
Historian	Shannon Sweeney	540-772-2065	SSweeney@lpa-inc.com
Research Promotion	Jeff Consroe	540-797-7899	jeff@shellywilliamsco.com
Newsletter	Kyle Longbrake	540-857-3100	Kyle.Longbrake@aecom.com
Home page	James Sledd	540-857-3100	James.Sledd@aecom.com

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 **RIK HUGHES** KNOW IF YOU QUALIFY FOR THE MEETING DISCOUNT WHEN YOU PAY FOR THE MEETING.