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Upcoming 2016/2017 Events:
December 12th – Mentoring Minds
December 13th – Holiday Happy Hour Party
January 12th – Tampa Bay Lightning Game
January 17th – Dinner Meeting
February 21st – Dinner Meeting
March 3rd – Annual Golf Tournament
March 21st – Dinner Meeting
April 18th – Dinner Meeting
May 19th – Annual Shrimp Boil, Past-President’s

For More Information:
Tom Morgenthalu, PE – 603.852.2252
t.morgenthalau@emeraldmep.com
http://www.ashrae-fwc.org/

From the Desk of the President
Michael A. Costello, PE

Happy Holidays Florida West Coast!

I hope everyone will enjoy some time off this month. Before we get there, we’re having our ASHRAE FWC Holiday Party next week. The flyer is on the next page of this newsletter. Don’t forget your toy for the tots.

We had an exciting Clay Shoot last month. Thanks to all those that attended and for their donations to ASHRAE research.

Our next dinner meeting in January will host Tim Wentz, ASHRAE Society President. Mr. Wentz is an excellent speaker and should not be missed. Please mark your calendars for January 17th.

Thanks for reading and see you at the Holiday Party next week!

Research Promotion currently at 22% of goal...see Page 15
HOLIDAY PARTY!!!

You’re cordially invited to our annual holiday party. So stop by, donate a toy, and enjoy light appetizers on us. Cash bar available.

No cost to attend!

Tuesday, December 13, 2016
5-7 PM

Holiday Inn Westshore
700 North Westshore Blvd., Tampa, FL 33609

For questions, contact:
Michael Costello
m.costello@emerald
mep.com
813-758-9808

TOYS FOR TOTS
Minds Meeting Notice

Monday December 12, 2016

Fundamentals of Refrigeration

The Florida West Coast Chapter is proud to announce the program series designed to help give back to the engineering community by teaching core fundamentals of our trade. One of ASHRAE’s core commitments is as follows:

“We are committed to the advancement of the arts and sciences of HVAC&R for the benefit of society through research, technology development and transfer, and education and training.”

This is first in a series of programs designed to help provide a basic understanding of HVAC engineering! Our first topic is going to cover the fundamentals of air conditioning loads! The evening will cover the following:

- Fundamental Refrigeration Basic’s:
  - What the refrigerant is doing!
  - What is a Refrigeration Cycle?
  - What is the Compressor’s Function?
- What are the Different Refrigerant Cycles?
- What is a Heat Pump Cycle?
- What are the Different Types of Refrigerant Compressors?
- Refrigeration and the Air Conditioning System

Mentor for the Evening
Al LaPera
CxA, EMP BD+C. O&M, GGP
TLC Engineering for Architecture

TLC Engineering for Architecture Office
500 North Westshore Blvd
Suite 435
Tampa, FL 33609

Class Starts: 5:30PM
Cost $10
Meal choices are as follows:
Pizza, Pizza, Pizza and a drink!

Need RSVP to
Malia.Powers@carrier.utc.com
We are pleased to announce we are now taking reservations for the January 12, 2017 Lightning hockey game at Amalie Arena!

The price for this event is $70 per person and includes:
- Tour of the arena
- Food and beverages (served until the end of 2nd intermission)
- Hockey game: Lightning vs. Buffalo 7:30 pm

**Agenda for the event**
Thursday January 12, 2017
- 5:15 pm registration by the McDonalds ticket entrance
- 5:30 pm tour of Amalie
- 6:30 pm Thunderzone for food and beverages
- 7:30 pm Hockey game Lightning vs. Buffalo

Our group will have exclusive access to the Thunderzone area for food and beverages which is located on the 300 level and just outside our seating section.

**Tour of facility will include:**
- Mechanical room
- Control room
- Mechanical garden, cooling towers overview
- Arena overview, Coors light bar area
- Ice plant, Chiller plant, Chilled water tank
- Zamboni tunnel ICE surface

Reserve your space by visiting the FWC ASHRAE web site at:

www.ashrae-fwc.org
(Located within the events tab)

Space is limited to 50 people so don’t delay and sign up now!
Annual Golf Tournament
Friday, March 3rd, 2017
@ 12:30pm

Sponsorship Levels:

$1,500.00 ...... Awards Dinner Sponsor
Company name/logo recognition on signage in Clubhouse during Awards Dinner + Company name/logo recognition on signage at reception + Company name/logo on ASHRAE FWC website for (1) month

$1,000.00 ...... Golf Towel Sponsor (Due by Jan. 15th)
Company name/logo on Golf Towel given to each golfer

$850.00 .......... Lunch Sponsor
Company name/logo recognition on signage at Lunch serving station + Company name/logo recognition on signage at reception + Company name/logo recognition on boxed lunches

$850.00 .......... Gold Team Sponsor
Includes: 4-some Golf Team + Tee Box Sign (1) + Greenside Hole Sign (1) + Company name/logo recognition on signage at reception

$660.00 .......... Silver Team Sponsor
Includes: 4-some Golf Team + Tee Box Sign (1) + Company name/logo recognition on signage at reception

$500.00 .......... Bronze Team Sponsor
Includes: 4-some Golf Team + Company name/logo recognition on signage at reception

$500.00 .......... Tote Gift Bag Sponsor
Company name/logo recognition on Tote Gift Bag given to all Golfer

$500.00 .......... Golf Cart Sponsor
Company name/logo recognition on each Golf Cart

$500.00 .......... Drink Cart Sponsor
Company name/logo recognition on each Drink Cart

$300.00 .......... Putting Contest Sponsor
Company name/logo recognition on signage at Putting Contest

$200.00 .......... Tee Box Sponsor
Company name/logo featured on a sign prominently displayed at a Tee Box

$200.00 .......... Greenside Hole Sponsor
Company logo featured at sign prominently displayed at Green

$170.00 .......... Longest Drive Sponsor
Company name/logo recognition on signage at Tee Box for hole

$170.00 .......... Closest to the Pin Sponsor
Company name/logo recognition on signage at Tee Box; One sponsor-Front Nine/One Sponsor-Back Nine

$120.00 .......... Individual Golfer ($130 for Non-FWC Chapter Member)
Includes: Bag Lunch, Practice at Range, Gift Bag, Golf & Cart Fee, and Awards Dinner

Donations of your company’s logo items are also welcome for inclusion in the participant Gift Bag or as Raffle Prizes

Location:
The Eagles Golf Club of Tampa Bay
Forest Course
16101 Nine Eagles Dr.
Odessa, FL 33556
Ph: 813.920.6681

Special Contests: Longest Drive Hole, Closest to the Pin Hole, and Putting Contest

Schedule:
10:30am .......... Registration Begins, Practice at the Range, Receive bag lunch
12:30pm .......... Shotgun Start of Golf Tournament (4-person Scramble format)
5:30pm .......... Reception and Awards Dinner (approximate time)

American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE)

Mission: Founded in 1894, ASHRAE is an international nonprofit technical society. ASHRAE fulfills its mission of advancing heating, ventilation, air conditioning and refrigeration (HVAC&R) to serve humanity and promote a sustainable world through research, standards writing, publishing and continuing education.

Research: ASHRAE’s research program, established in 1912, supports 140 research projects with a combined value of more than $15 million. Research focus includes energy and resource efficiency, indoor environmental quality, design and operation and management tools, alternative technologies and materials and equipment. Through scholarships, grants and awards, the Society supports engineering education for undergraduate students and research projects for graduate engineering students and new post-doctoral scholars.

Proceeds from the ASHRAE-FWC Golf Tournament benefit ASHRAE RESEARCH and Local Chapter.
Annual Golf Tournament
Friday, March 3rd, 2017 @ 12:30pm

Registration Information / online @ www.ASHRAE-FWC.org
*All Payments Required Prior to Day of Event*

Corporation / Name: ________________________________
Contact Name: ____________________________________
ASHRAE Number: _________________________________
Mailing Address: __________________________________
City/State/Zip: ___________________________________
Phone: __________________________________________
Email Address: ____________________________________

Golfer #1 Name: _________________________________
Golfer #2 Name: _________________________________
Golfer #3 Name: _________________________________
Golfer #4 Name: _________________________________

Sponsorship
Type/Level: ________________________ Qty: ___ Fee: $__________
Type/Level: ________________________ Qty: ___ Fee: $__________
Type/Level: ________________________ Qty: ___ Fee: $__________

Total Sponsorship Fees: $____________________

Submit JPEG/Vector file LOGO by January 27th, 2017 to: evieira@cea-engineers.com

Payment Information:
Use PayPal online at: http://www.ashrae-fwc.org/events/fwc-annual-golf-tournament/
OR...make checks payable to ASHRAE-FWC and mail to the following address:
ASHRAE-FWC Golf Tournament C/O Eric Vieira
8365 Gunn Highway
Tampa, FL 33626

For more information please email questions to: evieira@cea-engineers.com
ASHRAE FWC - 2016/17 Committee Chairs

President – Michael A. Costello
President-Elect/CTTC – Isaac Crimm
1st Vice President/Research Promotion – Leon Boe
2nd Vice President/Membership Promotion – Malia Powers
Treasurer/Finance/Auditing – Ethan Grabill
Secretary/GGAC – Scott Manfre
Student Activities Chair/K-12 STEM – Christopher Martinez
Nominations/Honors and Awards – Joe Cox
Golf Tournament/Special Events – Eric Vieira
ECC/Newsletter/Webmaster/Homepage – Tom Morgenthau
Young Engineer’s in ASHRAE (YEA) – Ashley Saint
Co- Young Engineer’s in ASHRAE (YEA) – Samantha Choo Chew
Sustainability Chair – Bruce B. Lindsay
Student Activities Co-Chair – Slade Fernandes
Student Activities Co-Chair – Glenda Ama
Historian – Dan Herrera
Publicity – Peter Montana
Reception/Attendance – Michael Collins
Building Energy Quotient (bEQ) – Don Herrmann
Refrigeration – David A. John
Mentoring Minds – Al Lapera
Women in ASHRAE (WiA) – Jennifer Isenbeck
Sarasota-Bradenton Section President – Alex Gicale

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camarti9@mail.usf.edu
JCox@sladerossinc.com
evieira@cea-engineers.com
t.morgenthau@emeraldmep.com
asaint@onicon.com
schoo@onicon.com
brucel@cssiflorida.com
slade1@mail.usf.edu
gama@processair.com
dherrera@kemengineers.com
pmontana@hvacinsider.com
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djohn@stanweaver.com
al.lapera@tlc-eng.com
jisenbeck@mail.ashrae.org
alex.gicale@captiveaire.com

A Note from the Sarasota-Bradenton Section President
By Alex Gicale

Greetings from Sarasota/Bradenton!

A quick reminder and update:
- **Our next meeting is our Winter Social 12/15/16 in Lakewood Ranch. Free to attend. Please come and see the attached flyer.**

- **In October, Jeff Hansen of Trane spoke about cybersecurity in HVAC control systems.**

- **In November, Linda Benedict from the Florida Small Business Development Center spoke to our group about the assistance and opportunities available to small businesses in our region. The FSBDC works with small businesses to help them grow and prosper.**
ASHRAE 2016 WINTER SOCIAL!!!
Sarasota Bradenton Section

WHAT?
Food, drink, pleasant company, and holiday cheer.

HOW MUCH DOES IT COST?
$0. Zero. Nada.

WHERE?
The Ranch Grill – Lakewood Ranch

WHEN?
Thursday, December 15 – 5:30-7:30P

WHO?
You and bring guests!

ANYTHING ELSE?
Yes, we are having an OPTIONAL “White Elephant” gift exchange. For those interested, bring a wrapped gift. Price Range: $20-$30.

THIS SEEMS LIKE A LOT OF FUN AND TOO GOOD TO BE TRUE. IS IT FOR REAL?
Of course it’s real. Happy Holidays and see you soon.
November 2016 Clay Shoot
By Tom Morgenthau, PE

We had a great turnout this year for our annual clay shoot. I would like to thank all of the attendees and the following sponsors:

Carrier
Flow Control Technology Company
CSSI
Onicon
Mitsubishi/SladeRoss
LG/VCS
Luvata
Therma-Tech
Tom Barrow

We had first, second and third place individual winners and first and second place team winners.

The winners:
Individual First Place: Brad Grabill
Individual Second Place: Mike Roberts
Individual Third Place: Keith Hartsfield
Team First Place: Brad Grabill, Mike Roberts, Keith Hartsfield, Steve Hurst
Team Second Place: Joe Cox, Mike Costello, Tom Morgenthau, Garrett Lingerfelt
Mentoring Minds November Event
Submitted By Malia Powers

We had a great program for the Mentoring Minds training session this November. The topic was the Fundamentals of ASHRAE 189.1 and how it impacts a mechanical engineer. During the program we had a webinar with a board member on the ASHRAE 189.1 committee to explain what it means to a mechanical engineer. We followed the webinar with a white board session to break down the event.

Membership Promotion
Submitted by Malia Powers

AFFILIATE MEMBERSHIP PROGRAM

If you are, or know someone that is a prospective new member, then the Affiliate grade of membership may be for you! This program is for individuals at or under the age of 30 that are new to ASHRAE (not previously a Student or Associate member). These members will receive the following discounted rate:

- $52 for the first year
- $72 for the second year
- $92 for the third year

Participants in this program still receive most of the benefits of Associate Membership (except the ASHRAE Handbook) but at a considerably discounted rate (Current Associate Member dues are $192 per year). Information can be found at: https://www.ashrae.org/membership--conferences/join-now.
If you have any questions, please contact me at: malia.powers@carrier.utc.com

Malia Powers
ASHRAE Florida West Coast Chapter Membership Promotion Chair (2016-2017)
October Dinner Meeting
Submitted By Tom Morgenthau, PE

Big thanks to Florida West Coasts own David A. John, PE for an excellent presentation on Mechanical Louvers for our October Dinner Meeting. Photos of the event below!
WiA (Women In ASHRAE) Meet and Greet
Submitted By Jennifer Isenbeck, PE

The first Annual WiA (Women in ASHRAE) Meet and Greet was a success! Thank you to our Sponsors, Walbridge (Drinks and Food) and JP Griffin, Inc. (Raffle) so we could have a festive evening of speed dating and networking.

Look for the next event to come in February to celebrate Engineer’s Week.

Florida West Coast is on Social Media!
Submitted By Tom Morgenthau, PE

Please check out our social media pages for event dates, pictures, live feeds, general information and networking!! Links below.

WWW.FACEBOOK.COM/ASHRAEFLORIDAWESTCOAST
WWW.LINKEDIN.COM/GROUPS/8572961
WWW.TWITTER.COM/ASHRAEFWC
I would like to give a **HUGE THUMBS UP** to Florida West Coast's own David A. John, PE of Stan Weaver & Company and Drew Elsberry of Heat Pipe Technology for authoring the Technical Feature Article, "Wrap-Around Heat Pipes In Humid Climates" in the November issue of ASHRAE Journal. If you haven’t already, check it out in the November issue! Great job David and Drew!
The world’s largest gathering of HVAC&R professionals will take place this January in Las Vegas, Nevada. ASHRAE’s Winter Conference line-up includes 8 Conference Tracks, exciting tours, and Keynote Speaker Adam Steltzner, Chief Engineer EDL NASA Mars Rover Curiosity & Author. You don’t want to miss this!

Detailed Tech Program available at www.ashrae.org/lasvegas.

Tracks include:
Track 1 – Fundamentals and Applications
Track 2 – HVAC&R Systems and Equipment
Track 3 – Water-Energy Nexus
Track 4 – Commercial and Industrial IAQ
Track 5 – Advances in Mission Critical Design and Operation
Track 6 – Climate Change and Its Effects on HVAC&R Design and Technologies
Track 7 – Energy Efficient Industrial Buildings and Life Safety
Track 8 – Building Operation and Performance: Meeting the Modeling Expectations

Learn more and register at
www.ashrae.org/LasVegas
Research Promotion
Submitted by Leon Boe

Many of you might not know, but ASHRAE raises millions of dollars every year that is used for research projects. The result of these projects creates the standards and guidelines that we all use every day. Each and every dollar raised goes 100% toward research. I am tasked this year with raising $23,000 here locally for research. **I NEED YOUR HELP!**

Over the last few years we have been working closely with the ASHRAE USF Student Branch. We have built a large interest with the students and they are eager to pursue our industry. We have made it our mission this year to try and bring ASHRAE research money to USF. Let's give them some experience now that sustains their enthusiasm for HVAC after graduation. These students are our future employees!

Please make your contributions either by check ‘Payable to ASHRAE RP’ and turn them in to me or if you prefer you can make online donations at: [www.ashrae.org/contribute](http://www.ashrae.org/contribute)

If you make a donation online, please forward me a copy of the emailed invoice so I can ensure that proper credit is given. I can be contacted at: [leon@glspies.com](mailto:leon@glspies.com)

So far we are at 22% of goal. Deadline is June 30, 2017. I’d like to personally thank each and every investor so far.
SPONSORS WANTED!!!
Want your business card here and reach out to over 1000 people monthly? See the next two pages for pricing.

Derek Embody & Company
13902 North Dale Mabry Hwy, Suite 131
Tampa, FL 33618
Office (813) 960-2270
Tampa Fax (813) 960-2298
Direct Fax (407) 264-6694
Cell (813) 390-4277
E-Mail: dsembody@aol.com

Carrier
turn to the experts
ASHRAE (formerly known as American Society of Heating, Refrigerating and Air Conditioning Engineers) is a building technology society with more than 50,000 members worldwide. The Society and its members focus on building systems, energy efficiency, indoor air quality, refrigeration and sustainability within the industry. Through research, standards writing, publishing and continuing education, ASHRAE shapes tomorrow’s built environment today.

ASHRAE was founded in 1894 at a meeting of engineers in New York City and has held an annual meeting since 1895. Until 1954 it was known as the American Society of Heating and Ventilating Engineers (ASHVE); in that year it changed its name to the American Society of Heating and Air-Conditioning Engineers (ASHAE). Its current name and organization came from the 1959 merger of ASHAE and the American Society of Refrigerating Engineers (ASRE). The result, ASHRAE, despite having 'American' in its name, is an influential international organization. Amongst other international activities, it helps organize international events.

The society promotes the design and installation of HVAC systems at the highest levels, through publication of Data Books and Handbooks covering all relevant topics, legislative involvement, establishment and support of a research foundation, and standardization of design qualifications.

The Florida West Coast Chapter of ASHRAE was chartered in February 1956 to promote industry standards and best practices at the local level. The local chapter enjoys a strong meeting participation, and generates operating revenue through chapter activities like the annual golf tournament, sporting clay shoot, and specialized learning opportunities with visiting lecturers. A large portion of the proceeds from these activities goes to establish and maintain various local college scholarships, to promote further interest in the HVAC engineering profession following graduation.

Along with the aforementioned activities, our most valuable resource for generating operating capital remains sponsorships. Via its monthly newsletter and newly updated website, http://www.ashrae-fwc.org/, the Florida West Coast Chapter of ASHRAE is a resource for its members, and can be an effective tool for promotion of your company, product, or service.

The newsletter is published 10 times per ASHRAE year (September through June of the following year), and is distributed via email ahead of the monthly chapter meetings. In each newsletter, the chapter officers contribute articles that focus on industry happenings, legislative changes, educational opportunities, and more. The current email recipient list is over 1,000 individuals. The chapter website is updated monthly, and includes information on upcoming events, event photographs, posts resumes and career opportunities, and contains useful links to industry resources. The website currently has over 40,000 individual IP computer hits since its launch in September 2013.
2016-2017 NEWSLETTER AND WEBSITE SPONSORSHIP PRICING PACKAGES

Please consider sponsoring the Florida West Coast Chapter of ASHRAE’s newsletter and/or website. Your business card will be published 10 times per ASHRAE year in the emailed newsletter, and can be updated at any time with a new copy if desired. Sponsorship on the website includes a business card on the sponsorship page and a link to your company website.

For the 2016-2017 year, the Chapter Board of Directors has decided upon the following rate as detailed below. In appreciation of the support from our sponsors during this difficult economic time, we want advertising in the chapter newsletter and website to remain affordable and accessible.

<table>
<thead>
<tr>
<th>Ad Type and Size</th>
<th>ASHRAE FWC Members Fee</th>
<th>Non-Members Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 Monthly Newsletter Spots (Business Card Size)</td>
<td>$100.00</td>
<td>$150.00</td>
</tr>
<tr>
<td><em>Reaches over 1,000 people per month!</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 Month Website Spots (Business Card and Link Included)</td>
<td>$250.00</td>
<td>$300.00</td>
</tr>
<tr>
<td><em>Website has over 20,000 hits!</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10 Monthly Newsletter and 10 Month Website Spots</td>
<td>$300.00</td>
<td>$400.00</td>
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<tr>
<td><em>A savings of $50.00!</em></td>
<td></td>
<td><em>A savings of $50.00!</em></td>
</tr>
</tbody>
</table>

Please indicate your interest in sponsoring us by responding to the email address below and remit your business card in either PDF or JPEG formats to Leon Boe. Please send payment to the address below made out to "ASHRAE Florida West Coast". Sponsorship fees shall be prorated based on the number of newsletter editions and website months remaining upon the purchasing of your sponsorship plan.

Thank you for considering ASHRAE Florida West Coast Chapter’s newsletter and website in your marketing strategy!

leon@glspies.com

ASHRAE Florida West Coast Chapter
5311 West Crenshaw Street
Tampa, Florida 33634