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## Upcoming Events:

- February 28<sup>th</sup> – Annual Golf Tournament
- March 6<sup>th</sup> – YEA Hockey Night
- March 18<sup>th</sup> – Monthly Dinner Meeting
- April 4<sup>th</sup> – Annual Shrimp Boil
- May 20<sup>th</sup> – Monthly Dinner Meeting

## For More Information:

<http://www.ashrae-fwc.org/>

-OR-

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8365 Gunn Highway

Tampa, Florida 33626

## From the Desk of the President Philippe Jean, P.E.

Greetings Florida West Coast members and guests, I hope you're off to a good new year.



We're coming off a great presentation by Scott Martin, P.E. from Walter P Moore. His presentation on wind loads was very interesting and informative. The Florida building code has become quite complex in this area. We will all need to be up to speed when it comes to wind loads and how it affects equipment, components and cladding in our buildings. Thank you very much Mr. Martin for this excellent presentation.

Our next chapter meeting will be on March 18<sup>th</sup>. The topic of this presentation will be building modeling which promises to be an educational and informative presentation. I look forward to seeing all of you at this meeting.

The Florida West Coast Chapter of ASHRAE's annual golf outing at the Eagles Golf Course in Odessa will be held this month on Friday, February 28<sup>th</sup>. Mr. Ike Crimm has done an outstanding job with this event in the past and we are looking forward to a great event this year. This has been a fun and successful event over the last several years thanks to the support of our members and guests. It's time to assemble your teams and see who will have the bragging rights for next year. Please join us this year for a great golfing outing.

On a final note, the Florida West Coast Chapter tries to structure the monthly meeting topics around subjects that are interesting and beneficial to the audience members. Please help us make our monthly meetings as informative as possible by letting us know any topic that you would like to see as a presentation; your input is very valuable. We have a great chapter with access to great presenters on several different topics.

## NEXT ASHRAE FWC MONTHLY MEETING:



**Annual Golf Tournament**  
**Friday, February 28th 2014**  
**@ 12:30pm**

### Sponsorship Levels:

- \$700.00 ..... Gold Team Sponsor...save \$50**  
 Includes: 4-some Golf Team + Tee Box Sign (1) + Hole Pin Flag (1)
- \$560.00 ..... Silver Team Sponsor...save \$40**  
 Includes: 4-some Golf Team + Tee Box Sign (1)
- \$520.00 ..... Bronze Team Sponsor save \$30**  
 Includes: 4-some Golf Team + Hole Pin Flag (1)
- \$2,000.00 ..... Event Shirt Sponsor (Due by Feb. 3<sup>rd</sup>)**  
 Company name/logo embroidered on sleeve of polo shirt given to each golfer & volunteer
- \$400.00 ..... Tote Gift Bag Sponsor**  
 Company name/logo recognition on Tote Gift Bag given to all Golfers
- \$1,000.00 ..... Golf Ball with Logo Sponsor (Due by Feb. 3<sup>rd</sup>)**  
 Company name/logo on Tournament Golf Balls given to all Golfers
- \$500.00 ..... Golf Cart Sponsor**  
 Company name/logo recognition on each Golf Cart
- \$600.00 ..... Lunch Sponsor**  
 Company name/logo recognition on signage at Lunch serving station
- \$1,000.00 ..... Golf Towel Sponsor (Due by Feb. 3<sup>rd</sup>)**  
 Company name/logo on Golf Towel given to each golfer
- \$300.00 ..... Putting Contest Sponsor**  
 Company name/logo recognition on signage at Putting Contest
- \$1,000.00 ..... Awards Dinner Sponsor**  
 Company name/logo recognition on signage in Clubhouse during Awards Dinner
- \$200.00 ..... Tee Box Sponsor**  
 Company name/logo featured on a sign prominently displayed at a Tee Box
- \$150.00 ..... Longest Drive Sponsor**  
 Company name/logo recognition on signage at Tee Box for hole
- \$150.00 ..... Closest to the Pin Sponsor**  
 Company name/logo recognition on signage at Tee Box for hole
- \$150.00 ..... Hole Pin Flag Sponsor**  
 Company logo featured on weatherproof Pin Flag placed at hole on course / returned to sponsor after event
- \$100.00 ..... Individual Golfer**  
 Includes: Bag Lunch, Practice @ 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 engineering 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, February 28th 2014 @ 12:30pm

Registration Information / online @ [www.ASHRAE-FWC.org](http://www.ASHRAE-FWC.org)

**\*All Payments Required Prior to Day of Event\***

Corporation / Name: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_

Phone: \_\_\_\_\_

Email Address: \_\_\_\_\_

Golfer #1 Name: \_\_\_\_\_ Shirt Size: \_\_\_\_\_

Golfer #2 Name: \_\_\_\_\_ Shirt Size: \_\_\_\_\_

Golfer #3 Name: \_\_\_\_\_ Shirt Size: \_\_\_\_\_

Golfer #4 Name: \_\_\_\_\_ Shirt Size: \_\_\_\_\_

**Sponsorship**

Type/Level: \_\_\_\_\_ Qty: \_\_\_\_\_ Fee: \$ \_\_\_\_\_

Type/Level: \_\_\_\_\_ Qty: \_\_\_\_\_ Fee: \$ \_\_\_\_\_

Type/Level: \_\_\_\_\_ Qty: \_\_\_\_\_ Fee: \$ \_\_\_\_\_

**Total Sponsorship Fees: \$ \_\_\_\_\_**



Submit JPEG/Vector file LOGO by February 7<sup>th</sup>, 2014 to: [isaaccrimm@engineer.com](mailto:isaaccrimm@engineer.com)

**Payment Information:**

Use PayPal online at: <http://www.ashrae-fwc.org/event-registration/?ee=13>

OR...make checks payable to ASHRAE-FWC and mail to the following address:

ASHRAE-FWC Golf Tournament C/O Isaac Crimm

301 N. Cattlemen Rd., Suite #300

Sarasota, FL 34232

For more information please email questions to: [isaaccrimm@engineer.com](mailto:isaaccrimm@engineer.com)



## Student Activities

### by Matthew Reeves - ASHRAE FWC USF Student Branch President

With the assistance and support of the ASHRAE Florida West Coast Chapter on January 18-22, 2014, Matthew Reeves, Nicholas Ahearn, and Travis Strammer from the ASHRAE FWC University of South Florida Student Branch were able to attend the 2014 ASHRAE Winter Conference. When the students arrived Saturday afternoon they first attended the Student Welcome Ceremony at the Rockefeller Center. Later that evening students were able to attend the Student/YEA mixer. Here they were able to discuss successful techniques and strategies for chapter growth and the annual design competition with other students around from the nation. Sunday, students attended a student program where many informational topics were covered and the annual design competition entries were previewed. Later that day, students were also privileged to attend a tour of the Hearst Building. The Hearst Building was one of the first "green" high rise buildings built in New York City. On the final day through blistering cold and 8" of snow students were able to attend the AHR Expo. The expo allowed students to gain a hands on experience with the equipment and processes that they are learning about in class and monthly ASHRAE dinner meetings.

The 2014 ASHRAE Winter Conference and AHR Expo was a valuable experience for these students, one in which they are grateful to have had!

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## Yogi Goswami

### by Mike Costello

At the Society's 2014 Winter Conference last month in New York City, forty-six people were recognized for their contributions to ASHRAE and the building industry. One of them was ASHRAE FWC's very own D.Y. (Yogi) Goswami, Ph.D., P.E., Life Member, distinguished professor and director, Clean Energy Research Center, University of South Florida. Dr. Goswami was granted Fellow.

Fellow ASHRAE is a membership grade that recognizes members who have attained distinction and made substantial contributions in HVAC&R and the built environment such as education, research, engineering design and consulting, invention, engineer executive on significant projects, publications, presentations and mentoring.

Congratulations Yogi!



# Photos from January's Dinner Meeting



## ASHRAE GreenGuide Fourth Edition NOW AVAILABLE

by Jennifer Isenbeck

A new edition of ASHRAE's GreenGuide is now available. Note you can download it at a reduced price of \$39.99 to itunes, ipad, etc. ASHRAE released the following announcement last week:

### ASHRAE GreenGuide: Four Editions, 10 Years, 158 GreenTips: e-book Made Available

ATLANTA – When the first edition of the “ASHRAE GreenGuide” was first published 10 years ago, guidance on how practice green building design was not so readily available.

“Since 2004, the industry has witnessed the continued evolution of green building programs from strictly voluntary to being both more in the industry mainstream as well as being mandatory in jurisdictions that adopted these for their building codes,” Tom Lawrence, a member of ASHRAE’s technical committee (TC 2.8) on building environmental impacts and sustainability, said.

The newly published fourth edition of the “ASHRAE GreenGuide” contains updated guidance that reflects how green building practices as well as the industry have changed, according to Lawrence.

“ASHRAE GreenGuide: Design, Construction, and Operation of Sustainable Buildings, 4th Edition,” uses an integrated, building systems perspective to provide need-to-know information on what to do, where to turn, what to suggest, and how to interact with other members of the design team in a productive way.

The release of the Guide was announced today during ASHRAE’s 2014 Winter Conference taking place in New York. For more information, visit [www.ashrae.org/greenguide](http://www.ashrae.org/greenguide).

Lawrence said the guide contains several changes that will impact green building design.

First is a complete revision of the indoor environmental quality (IEQ) chapter with much of the content based on the *Indoor Air Quality Guide: Best Practices for Design, Construction and Commissioning*.

“While it is challenging as well as important to provide good indoor environmental quality in an energy efficient manner, in some cases the most effective means to improve IEQ can also save energy,” he said. “IEQ should not be sacrificed strictly to obtain energy use reductions. After all, the purpose of such buildings is to support the activities for which the building exists and to do so in a manner that does the least harm to the environment while enhancing the health and well-being of the human occupants.”

Another change is a new chapter on sustainable sites. While site issues may be outside the normal purview of most typical ASHRAE members, Lawrence notes that site sustainability is an important part of the design process of the future sustainable built environment. The chapter provides a summary of the key issues in the following topical areas:

- Where to locate the building project
- Landscaping
- Urban heat island effect
- Exterior lighting/light as a pollution source
- Storm water management

As in previous editions, the book contains GreenTips, or which are sidebars containing information on techniques, processes, measures or systems. There are 44 GreenTips in this edition, including new ones on topics such as condensing boilers, rain gardens, green roofs and data centers.

The book now also contains figures printed in color, making them easier to read.

The cost of the print book and the e-book is \$103 (\$87, ASHRAE members). To order, contact ASHRAE Customer Contact Center at 1-800-527-4723 (United States and Canada) or 404-636-8400 (worldwide), fax 678-539-2129, or visit [www.ashrae.org/bookstore](http://www.ashrae.org/bookstore).



## NEXT YEA EVENT:



Please Join us For

## “YEA/REFRIGERATION NIGHT”

Tampa Bay Times Forum Plant Tour and Hockey Game!

**Thurs March 6, 2014**

Refrigeration Plant Tour begins Promptly at 5:30 PM

Meet us at Gate D

Lightning vs Buffalo @ 7:30 PM



**\$40/person includes Game Ticket, Plant Tour, and food/bev on the party deck**

**YEA= Young Engineer of ASHRAE, 35 yrs of age or less, However ALL are welcome. Feel free to bring a guest to learn about ASHRAE!**

Please contact Leon Boe: [Leon@glspies.com](mailto:Leon@glspies.com) to RSVP and Pay with Pay Pal

## Grassroots Government submitted by Malia Powers

### Congress Passes, President Signs Omnibus Spending Bill; Good & Bad News for Building Community

Overcoming considerable political and philosophical differences, the U.S. House, Senate, and President have enacted a bipartisan omnibus spending bill that provides \$1 trillion in discretionary funding for federal programs. Below are snapshots of program funding:

#### **Department of Energy (DOE):**

\$117 million for the [Energy Information Administration](#) (an increase of \$12.2 million). EIA administers programs such as the [Commercial Buildings Energy Consumption Survey](#) (CBECS).

\$177.9 million for the [Building Technologies Office](#) (a decrease of \$40.7 million). This program funds DOE's involvement in building energy standards/codes, and related activities.

\$50 million for the [State Energy Program](#) (a decrease of \$7 million).

\$174 million for the [Weatherization Assistance Program](#) (a decrease of \$10 million).

\$28.2 million for the [Federal Energy Management Program](#) (a decrease of \$1.7 million).

The funding law establishes a new independent "Commission to Review the Effectiveness of the National Energy Laboratories", which will be charged with examining and providing recommendations to DOE and the Congressional Appropriations Committees on the alignment of the Department's national labs with DOE's strategic priorities. The Commission will also determine whether there are opportunities for more effectively and efficiently using the capabilities of the national labs, including consolidation and realignment. The report is due by February 1, 2015.

#### **General Services Administration (GSA):**

\$58 million for government-wide policy activities (a decrease of \$4.5 million). GSA's [Office of Federal High-Performance Green Buildings](#) is funded under this area. The law includes language encouraging GSA to implement or use green building certification systems for new construction, major renovations, and existing buildings when the system is a voluntary consensus standard as defined by the National Technology Transfer and Advancement Act of 1996 (P.L. 104-113) and OMB Circular A-119 and in accordance with its own recommendations on green building certification systems under section 436(h) of the Energy Independence and Security Act of 2007.

#### **Department of Commerce:**

\$850 million for the [National Institute of Standards and Technology](#) (NIST) (an increase of \$42.9 million).



# ASHRAE FWC Research and Promotion Donations

by Joe Cox

Let me start by personally thanking each and every investor both individual and corporate, it is because of you that the Florida West Coast Chapter continues to set the standard and lead the way, not only in Region XII but on a national level. As of January 24, 2014 the Florida West Coast Chapter has collected \$ 9,607.00, please be sure to recognize those investors below.

Please make your contributions early this year either by check 'Payable to ASHRAE RP' and turn them in to me or if you prefer you can make online donations at <https://xp20.ashrae.org/secure/researchpromotion/rp.html>

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

ASHRAE Research Investors 2013-2014		
Individual Investors		Company Investors
HR = Honor Roll participants \$100 min		HR = Honor Roll participants \$150 min
Joe Souza	<b>\$326</b>	Original Solutions
Isaac Crimm	<b>\$113</b>	Air Mechanical & Service Corporation
Joe Cox	<b>\$101</b>	Advanced Automation Systems
Jaime Szikszay	<b>\$101</b>	Slade Ross, Inc
Philippe Jean	<b>\$101</b>	
Leon Boe	<b>\$100</b>	
Jason Proctor	<b>\$101</b>	
Mike Costello	<b>\$101</b>	
Dan Rogers	<b>\$1,750</b>	
Jennifer Isenbeck	<b>\$105</b>	
Ted Hansen	<b>\$110</b>	
Ross Montgomery	<b>\$100</b>	
Shawn Jeffrey	<b>\$135</b>	
Jack Eunson	<b>\$100</b>	
Gregory Hatfield	<b>\$150</b>	
Mike Gutowski	<b>\$100</b>	
		Florida West Coast Chapter
		<b>\$4,113</b>

  

Current Campaign Total - \$9,607.00  
 Campaign Goal - \$22,000

43.7% of Goal  
 Money Required for Goal - \$12,393.00

## Refrigeration Review

submitted by Malia Powers

### New and Cool: Variable Refrigerant Flow Systems

Superior control and efficiency are bringing VRF systems to America

#### Cooling the old-school way

If you've been shopping for HVAC systems lately, you might have encountered a new contender among the usual choices. Introduced in the U.S. about five years ago, VRF systems were invented in Japan more than 20 years ago. They're widely used not only in Asia, but also in Europe and South America.

VRF systems manufacturers highlight qualities such as energy efficiency, design flexibility for architects and engineers, quiet operation, and the ability the system grants individual users to control temperature in their own areas. Another appealing feature offered by most manufacturers is a centralized monitoring application that gives users control over the entire system from a single location or via the Web. The technology that makes it all possible is sophisticated, but VRF systems (also known as VRV, or variable refrigerant volume systems) are not very complicated.

A quick review of air-conditioning principles might be useful in describing VRF technology—the most basic principle, of course, being that air conditioning removes heat from the space to be cooled by pushing refrigerant through a cycle. The cycle comprises four elements common to all HVAC systems, which is based on the fluid dynamics that when a refrigerant expands, it becomes cooler; when it is compressed, it becomes warmer; and changing phases from fluid to gas or back again adds to the cooling/warming effect. So the system is composed of a compressor, a condensing unit, a metering device (or expansion valve), and an evaporator or heat sink.

In a direct expansion (DX) system, the simplest among air conditioning systems, the "hot" part of the cycle starts at the compressor, which compresses refrigerant vapor and turns it into a high-temperature gas. The refrigerant then goes through a condensing unit, a series of coils in which the gas loses heat and becomes liquid. The "cold" part of the cycle begins as the liquid refrigerant passes through the metering device, which causes a drop in pressure. The refrigerant then goes through the evaporator (another series of coils), and in the process of evaporating it absorbs heat from the surrounding area, producing a cooling effect that is dissipated through fans. After completing the cycle, the refrigerant goes back to the compressor in its initial low-pressure, gaseous state.

Slight variations in the refrigerant cycle have led to different applications designed for different uses. Window units, for example, pack all the elements of the cycle into one small device—the hot side being on the outside, the cool part facing the space to be cooled. Split-system units split the hot side of the cycle (placed outside the building) from the cold side (inside). In these types of systems, cool air is often transferred from the evaporator to many different rooms by an air-handling unit, which distributes the conditioned air through a series of ducts.

Industry standards set limits on the length of piping running between the condenser and the evaporator in DX systems. When the needs of a particular project exceed such limits, chilled water systems are often used as an alternative. In chilled water systems water is cooled by a regular refrigeration system and then circulated through ducts to air handlers throughout the building. Because there is no limit to the permitted length of water pipes, these systems are often used to cool large buildings or entire campuses. Chilling is often cycled at night to take advantage of off-peak energy rates.

# THE SHRIMP ARE COMING!!!!!!

## FRIDAY, APRIL 4th



**Chef "Captain" Leon**