Another great month for the ASHRAE Spacecoast Chapter is in the books! Our January ASHRAE-ASME Joint Technical Seminar was well-attended, with the topic of ASHRAE technical committees as perfect for the upcoming Winter Conference. And, the annual Microbrewery Tour was a hit, with networking across three professional and technical societies, a great technical tour, and fundraising for local ASHRAE Student Members in a Solar Decathlon team.

With these great events happening, now is your chance to network and get involved. How?

- [Click here to RSVP and pay](#) for the February Technical Seminar.
- [Register for the Space Congress® Golf Tournament](#) on Friday, May 27. Space industry companies and design and construction firms alike will be there.
- E-mail me at President@SpacecoastASHRAE.org to be nominated as a Chapter officer for the 2016-2017 Society year.

With all the opportunities and events that our Chapter has, make the most of your membership dues you are paying and get involved.

Now is a good time to start. And, involvement as an officer does not take up much time at all. Just [give 4 hours a month](#), and you get more networking at meetings and the regional conference, access to industry information, and more. The payback you get from being involved in ASHRAE is priceless, and that is why you need to fit ASHRAE into your schedule.

Start maximizing your membership today.
Programs

By Kevin Riley, P.E., C.E.M.
ASHRAE Spacecoast Chapter Programs Chair

Due to extenuating circumstances, our originally scheduled speaker for the January Technical Seminar had to be rescheduled for another month. But, our Chapter President, John Constantinide, was able to present a great seminar on the ASHRAE Technical Activities Committee (TAC) and the Technical Committees. We appreciate his willingness to present a very appropriate topic preceding the ASHRAE Winter Conference.

Along with a great speaker, a 50/50 drawing was held to raise funds for the Embry-Riddle Aeronautical University (ERAU) Solar Decathlon Team. Most of the team is composed of ASHRAE Student Members that will make up the soon-to-be ERAU Student Branch. Because of the great turnout from the meeting, the Chapter was able to donate $55 to the Solar Decathlon Team. Jenna Beckwith, who will be the Charter President of the Student Branch, was present to accept the donation.

Join us for our ASHRAE-ASME February Technical Seminar on Tuesday, January 12, 2016, at Tuscany Grill (Click here for the map). Our speaker will be ASHRAE Society Director-At-Large Mick Schwedler, P.E., FASHRAE, LEED AP BD+C, who will present on An Overview of ASHRAE Advanced Energy Design Guides (AEDGs). This presentation is worth 1 FBPE PDH.

Brian Blenis, P.E., C.E.M., CBCP, LEED AP, from Florida Power and Light will also present a technical topic related to lighting and energy efficiency technologies.

Networking starts at 11:30 am, with the Technical Topic at 11:50 am and seminar with lunch at 12:00 pm.

Be sure to RSVP by sending an e-mail to Chapter@SpacecoastASHRAE.org. The Chapter needs a head count to reserve the proper room and spacing for the event.

Mark your calendar for the following remaining seminars.

ASHRAE-ASME March Technical Seminar
35th ASHRAE Chapter Anniversary Lunch
Student Branch Lunch and Exhibition

Life Members Welcome
Tuesday, March 8, 2016
Tuscany Grill (Click here for the map.)
Presenter: Thom Billman
Topic: Energy Efficiency and Applications of Variable Frequency Drive Motors
Networking: 11:30 am; Lunch/Presentation: 12:00 pm
Worth 1 FBPE PDH

ASHRAE-ASME April Technical Seminar
Tuesday, April 12, 2016
Tuscany Grill (Click here for the map.)
Presenter: Rob Vieira
Topic: Residential Mechanical Ventilation Research Project Findings
Networking: 11:30 am; Lunch/Presentation: 12:00 pm
Worth 1 FBPE PDH

ASHRAE-ASME May Technical Seminar
Tuesday, May 10, 2016
Tuscany Grill (Click here for the map.)
Presenter: Allen Weiss, P.E., LC
Topic: Lighting Updates to the Florida Energy Code
Networking: 11:30 am; Lunch/Presentation: 12:00 pm
Worth 1 FBPE PDH, 1 AIA LU, & 1 ASLA CES

Would you be interested in presenting a cutting-edge technology or discussing technical methods to an avid audience of engineers? Topics are encouraged to be of a technical nature, since the Technical Seminars will be worth 1 FBPE PDH.

To schedule your speaking engagement at an upcoming ASHRAE-ASME Technical Seminar, please e-mail me at Programs@SpacecoastASHRAE.org.

Resource Promotion

By Scott Seigel, P.E., LEED AP, C.E.M., CxA, O.P.M.P.
ASHRAE Spacecoast Chapter Resource Promotion Chair

Register for the Space Congress® Golf Tournament on Friday, May 27 at Cocoa Beach Country Club (5000 Tom Warriner Blvd., Cocoa Beach, FL 32931). Click here for more information and to register for the tournament. Proceeds will benefit the Space Congress® Scholarship Endowment Fund through the ASHRAE Foundation.

Registration can be done using the form at the end of this newsletter.

Space Congress® is a registered trademark of the CCTS.
Refrigeration & Young Engineers in ASHRAE (YEA)

By Michael Constantinide, P.E.
ASHRAE Spacecoast Chapter Refrigeration Chair

The ASHRAE-SAME-ASME Microbrewery Tour at Playalinda Brewing Company was a success, with all three professional societies represented, networking, and drinking the Titusville’s select local brew. ASHRAE Student Members from the soon-to-be chartered Embry-Riddle Aeronautical University (ERAU) Student Branch joined us for a great event, the first of many for the branch.

Continuing the tradition of fundraising for our local community, the Chapter and the ERAU ASHRAE Students held a 50/50 drawing and raised $45 for the university’s Solar Decathlon Team. This Chapter donation, along with the donation from the January Technical Seminar’s 50/50 drawing, gives the team a good start to their fundraising and publicity efforts.

Here are some photos highlighting the microbrewery tour.

The microbrew and beer storage area is in an open-plan arrangement with the bar, creating a unique feel for the space.

In the two photos above, attendees were given a tour and technical talk by Brewmaster Ron Raike about the microbrewery’s brewing, reverse osmosis, heating, and chilling processes.

Some attendees took the opportunity to ask Ron questions about the microbrewery after the tour and talk, while others networked and enjoyed the beer.

Thank you to everyone who attended and made this fourth annual event a success!
History

In this issue of The Capsule, the ASHRAE Spacecoast Chapter is providing a history of a company that has impacted the HVAC/R industry on the Space Coast.

Company histories are not endorsements or advertisements for any company by the ASHRAE Spacecoast Chapter or the ASME Canaveral Section and are only provided for historical purposes.

The Building Technologies Division of Siemens Industry Inc. is a North American market provider for safe and secure, energy-efficient and environment-friendly buildings and infrastructures. As a technology partner, service provider, system integrator and product vendor, Building Technologies has offerings for fire protection, life safety and security as well as building automation, heating, ventilation and air conditioning (HVAC), and energy management.

As a long-standing partner to Central Florida, one of Siemens’ customers is Dr. Phillips Center for the Performing Arts in Downtown Orlando, Florida, pictured below.

With Siemens’ expertise and hands-on experience in providing solutions to facility needs, the major HVAC control system components for the Dr. Phillips Center for the Performing Arts consists of hot water and chilled water pumps, air-handling units, multi-zone reheat coils, VAV terminal units, and fan coils units.

Some of the more complex air-handling units are very sophisticated and include more than 70 control and monitoring points.

There are also various systems that are integrated with the APOGEE® control system including fire alarm, leak detection, main electrical panels, switch gear, and CO2 monitoring throughout the facility.

Siemens Building Technologies continues to be an active contributor to the Central Florida area. For more information about this project, please contact Thomas Buchanan at thomas.buchanan@siemens.com. For more examples, visit www.usa.siemens.com/buildingtechnologies.

This article was written by Lauren Krisch of Siemens and Scott Seigel, P.E., Product Development Engineer at Siemens Government Technologies, Inc., and ASHRAE Spacecoast Chapter Vice President and Resource Promotion Chair. You may contact Mr. Seigel at 321-474-7302 or by e-mail at scott.seigel@siemensgovt.com.

ASHRAE Certifications

Here is one way you can make the most of your ASHRAE membership: Sign up to become certified by ASHRAE!

Demonstrate competency in critical building commissioning knowledge, skills and abilities, elevate your reputation among peers, in the workplace and among clients, and comply with local, state and federal requirements.

ASHRAE certification programs:

- Are developed by industry practitioners who understand the knowledge and experience that are expected for superior building design and system operation;
- Assure employers and clients of subject mastery;
- Serve as a springboard for continued professional development; and
- Offer an easy-to-apply process.

For more information, click here.
Employment Opportunities

**MEP Designer Position in Central Florida**

The Mechanical Designer is to work in the Central Florida area, with the responsibility for the overall design, calculations, and layout of mechanical, HVAC, and plumbing systems for large commercial projects.

The company’s main customers are OCPS, MCO, and OCCC. The candidate will need to understand how to do load calculations, with preference for experience with Trane Trace or Carrier Hap. The candidate must also be familiar with NFPA codes and have experience designing isometric risers for sanitary and domestic water systems.

For more information or to apply, e-mail Cody Adams at coadams@ aerotek.com or call (321) 775-4165.

**Island Engineer Position in the British Virgin Islands**

The Island Engineer (IE) position is on the-owned island. All systems are expected to be in perfect operating condition at all times with routine maintenance and updates performed to schedule. This includes physical building structures, mechanical, electrical, watermaking, refrigeration systems and related equipment in accordance with energy conservation and preventative maintenance programs. Further the Engineer is responsible for ensuring the upkeep of all physical areas to maintain an attractive and functional vacation property.

The IE is expected to thrive in a family organization built on a generally flat style of management in which all team members are able to share information openly and collaboratively. The IE is expected to share the common goal of delivering a warm, welcoming, functional and expertly informed island. The IE will uphold these values through listening and communicating openly with the team in order to design and determine the best course of action in any given situation. Decision making is done by consensus and not direction.

This is a salaried, full-time, live-in position located in the British Virgin Islands. The IE reports directly to the General Manager and the Chief Engineer.

**Required Qualifications:**
- Bachelors of Science in Mechanical Engineering or other accredited 4-year technical degree;
- Minimum 2 years of experience in luxury yachting industry, luxury resort or estate environment;
- Experience in capital improvement projects including renovations and new construction;
- Thorough knowledge in the following areas:
  - Reverse Osmosis watermaking;
  - Photovoltaic, battery and generator electric system;
  - Building, safety, and electrical codes;
  - Marine systems and operating environments;
  - Renewable energy engineering, installation and support; and
  - Sustainable building and operating practices.
- Excellent problem solving skills;
- Strong communication and collaboration skills;
- A desire to live and work in a remote island location; and
- Ability to operate boats up to 45 ft in length in all conditions.

**Preferred Qualifications:**
- Experience in CAD drawing programs;
- Experience in off-grid environments; and
- Strong electrical background including electrical transmission and distribution systems.

**Job Responsibilities:**
- Maintenance of all core island systems: solar, electrical, plumbing, mechanical, waste, communication, vehicles, and marine vessels;
- 24/7 on call response to system faults, failures, or troubleshooting;
- Ensure stable electric grid at all times;
- Mechanical troubleshooting and repair, not limited to solar hot water, pool, spa, reverse osmosis and seawater intake systems;
- Prepare technical data, bidding, project work, alterations, and repairs;
- Analyze new technologies to be utilized on the island;
- Constant problem solving skills required;
- Ability to troubleshoot and fix essentially anything;
- Flexibility to work outside of strict job description parameters i.e., being a boat captain, a chaperone and safety guide for guests during water activities and any social events as well as able to assist with any hospitality needs with guests; and
- Ability to operate boats during day or night.

**Key Qualities:**
- Excels at both working independently and in a team-oriented, collaborative environment;
- Ability to teach others;

(Continued on next page.)
• Can conform to shifting priorities, demands and timelines through analytical and problem-solving capabilities;
• Must be able to learn, understand, and apply new technologies;
• The ability to troubleshoot and solve mechanical issues completely independently is essential;
• Ability to read communication styles of team members and contractors who come from a broad spectrum of disciplines;
• Flexible during times of change;
• Honest, mature, dependable and with strong interpersonal skills;
• Ability to work independently as well as with a team and be “hands on” as necessary;
• Strong communication skills both, oral and written;
• Low key, meticulous, personable and self-directed; and
• Good sense of humor, strong interpersonal skills with the ability to build rapport and credibility quickly with the Principals, Chief of Staff, General Manager, team and vendors.

For more information or to apply, e-mail Jack Greenhouse at jack@pavillionagency.com.

Grassroots Government Advocacy

Courtesy of ASME Capitol Update

NSF Seeks Proposals for Innovations at the Nexus of Food, Energy, and Water Systems

The National Science Foundation (NSF) is seeking proposals for its Innovations at the Nexus of Food, Energy and Water Systems Program. The overarching goal of INFEWS is to catalyze the interdisciplinary research efforts to transform scientific understanding of the food, energy and water (FEW) nexus in order to improve system function and management, address system stress, increase resilience, and ensure sustainability. The NSF INFEWS initiative is designed specifically to attain the following goals:

• Significantly advance the understanding of the food-energy-water system through quantitative and computational modeling, including support for relevant cyber infrastructure;
• Develop real-time, cyber-enabled interfaces that improve understanding of the behavior of FEW systems and increase decision support capability;
• Enable research that will lead to innovative system and technological solutions to critical FEW problems; and
• Grow the scientific workforce capable of studying and managing the FEW system, through education and other professional development opportunities.

NSF is interested in promoting international cooperation that links scientists and engineers from a range of disciplines and organizations to solve the significant global challenges at the nexus of food, energy and water systems. Proposals including international collaboration are encouraged when those efforts enhance the merit of the proposed work by incorporating unique resources, expertise, facilities or sites of international partners. The U.S. team’s international counterparts generally should have support or obtain funding through other non-NSF sources.

Energy Department Announces $18 Million to Develop Solar Energy Storage Solutions, Boost Grid Resiliency

The U.S. Department of Energy (DOE) recently announced $18 million in funding for six new projects across the United States. These projects are related to the development and demonstration of integrated, scalable, and cost-effective solar technologies that incorporate energy storage to ensure energy reliability.

Solutions for modernizing the grid and enhancing storage will be developed as part of the Department’s Grid Modernization Initiative under the SunShot Initiative. These efforts seek to increase solar-generated electricity that can be dispatched at any time - day or night - to meet consumer electricity needs while ensuring the reliability of the nation’s electricity grid. The projects aim to create an affordable pathway toward the efficient and sustainable integration of solar energy on the nation’s electrical grid in much larger amounts than currently possible. The Department’s six new integrated PV and energy storage projects will utilize internet capable inverters and will work in conjunction with smart buildings, smart appliances, and utility communication and control systems. These projects are either led by a utility company or include a utility company as a key partner, and the teams will conduct at least a one-year field demonstration of their technologies. Ultimately, the solutions developed under this effort will enable the sustainable and holistic integration of hundreds of gigawatts of additional solar energy onto the electric grid throughout the United States.
44th Annual Space Congress Scholarship Golf Tournament

Benefiting the Space Congress® Scholarship Endowment Fund

WHEN: Friday, May 27, 2016
WHERE: Cocoa Beach Country Club
        5000 Tom Warriner Blvd.
        Cocoa Beach, FL 32931

ENTRY FEE: $125.00 per Golfer
INCLUDES: Green Fees with Cart, Lunch, and Open Driving Range, Three (3) Drink Tickets, Awards & Prizes, Longest Drive and Closet to the Pin Holes

SPONSOR PACKAGES:
- “Space Station” Tournament Level Sponsor: $3,500
  Includes Logo and name of Display, tournament flyers, course signage, (2) Golf Cart Sponsorships and two (2) foursomes
- “Launch Pad” Tournament Level Sponsor: $2,500
  Includes Logo and name of Display, tournament flyers, course signage, one (1) golf cart sponsorship and one (1) foursome
- “Spaceport” (1) Lunch Sponsor: $2,000
  Includes Display, Acknowledgement at Lunch, and One Foursome
- “Satellite” Drink Cart Sponsors: $750
  Includes Display on Drink Cart
- “Rocket” Golf Cart Sponsor: $250
  Includes Display on Select Golf Cart
- “Astronaut” Hole Sponsor: $150
  Includes Sign at Hole

Time: 7:00AM Registration with free driving range use
     8:00 AM Shotgun Start

Dress Code: Shirts must have collars, NO JEANS
RSVP by April 23, 2016

TEAM SPONSOR: _____________________________________________________________

GOLFERS: 1. ______________________ 2. _____________________________
          3. ______________________ 4. _____________________________

SPONSOR PACKAGES
- Space Station: $ 3,500  □  Launch Pad: $ 2,500  □  Spaceport: $ 2,000  □
  GOLFERS __ @ $125.00 Each $ _______

Bringing Door Prizes? Yes ___ No ___ If Yes, Description: _____________________________________________________________

Make Checks Payable To: “ASHRAE Space Coast Chapter” with “Space Congress Golf Tournament” on the Memo line.
Mail Checks To: 1032 Jans Place, Melbourne FL 32940
For More Information Contact: Scott Seigel, 321-474-7302
E-Mail Entries to RP@SpacecoastASHRAE.org
Online reservations and payment may be made at http://spacecoast.ashraechapters.org/SCGolf/
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Support our sponsors!
They support ASHRAE.

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Treasurer@SpacecoastASHRAE.org

Advertise your company here and on our website for 1 year.
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The cost? Just $75.

For just $75, have your company advertise for one year in The Capsule and recognized on the Chapter website.
Plus, your company will get a certificate and recognition at a Chapter seminar.

Purchase your Chapter sponsorship online at www.SpacecoastASHRAE.org.
ASHRAE Learning Institute
2016 Spring Online Course Series

HVAC Design: Level I – Essentials - Registration is $1,264 ($1,009 ASHRAE Member)
Gain practical skills and knowledge in designing and maintaining HVAC systems that can be put to immediate use. The training provides real-world examples of HVAC systems, including calculations of heating and cooling loads, ventilation and diffuser selection using the newly renovated ASHRAE Headquarters building as a living lab.

HVAC Design: Level II – Applications - Registration is $854 ($699 ASHRAE Member)
HVAC Design: Level II — Applications provides instruction on HVAC system design for experienced HVAC designers and those who complete the HVAC Design: Level I – Essentials training. The training provides information that allows practicing engineers and designers an opportunity to expand their exposure to HVAC systems design procedures for a better understanding of system options to save energy.

Visit www.ashrae.org/hvactraining to register.
Making Net Zero Net Positive: Solving the Efficiency & Cost Paradox | April 21, 2016 | 1–4pm

This webcast will feature industry experts who will define the importance of, and why we should strive for, net zero in the built environment. Viewers will be able to identify behaviors that create more effective ownership, design and construction teams, and will recognize the value of a collaborative process in building design and the impact on costs. With a strong emphasis on real-world applications, the program will also discuss the primary technical and financial challenges in achieving net zero buildings, and where this design approach can best be applied.

Attend this FREE webcast program and you may be awarded three Professional Development Hours (PDHs).

T. David Underwood, P.Eng., Fellow ASHRAE, Life Member, CPMP
Marc Brune, P.E.
Philip Macey, AIA
Paul Torcellini, Ph.D., P.E.
Chapter Past Presidents

- Lyle Houser (1981-1982)
- Raymond E. Patenaude (1982-1983)
- Alan Sanford (1984-1985)
- Marvin Yarosh (1985-1986)
- Omar Hancock (1986-1987)
- Bernard Moltz (1989-1990)
- Henry Healy (1990-1991)
- Brian Curlin (1992-1993)
- Don Shirley III (1993-1994)
- Bill Ruppert (1996-1997)
- Dave Johnson (1997-1999)
- Bill Ruppert (1999-2000)
- Kannan Rengarajan (2000-2001)
- Jade Rymkos (2001-2002)
- Curtis Smart (2004-2005)
- David DaSilva (2005-2006)
- Philip Thomas (2006-2007)
- Laing Conley (2007-2008)
- David Poetker (2008-2010)
- Kevin Messer (2010-2012)
- Jeanne Duce (2012-2013)
- Scott Seigel (2013-2014)

ASHRAE Spacecoast Chapter is on the web!

- Website
- LinkedIn
- Facebook
- Twitter
- Google+

2015-2016 ASHRAE Spacecoast Chapter Leadership

Chapter Officers & Board of Governors

President
John Constantinide, E.I., C.E.M., M.S.
President@SpacecoastASHRAE.org

President-Elect
Opportunity available. E-mail John Constantinide to apply.

Vice President & Past President
Scott Seigel, P.E., LEED AP, C.E.M., CxA, O.P.M.P.
VicePresident@SpacecoastASHRAE.org

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Jim Van Etten
Secretary@SpacecoastASHRAE.org

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Treasurer@SpacecoastASHRAE.org

Governor
Brian Blenis, P.E., C.E.M., CBCP, LEED AP
Governor1@SpacecoastASHRAE.org

Governor
Kevin Riley, P.E., C.E.M.
Governor2@SpacecoastASHRAE.org

Governor
Jeanne Duce, P.E.
Governor3@SpacecoastASHRAE.org

E-mail John Constantinide to nominate yourself for one of the Board of Governor positions for the 2016-2017 Society year.

Chapter Committee Chairs

Programs (Chapter Technology Transfer) & Badge Dude (Reception)
Kevin Riley, P.E., C.E.M.
Programs@SpacecoastASHRAE.org

Membership Promotion & Electronic Communications
John Constantinide, E.I., C.E.M., M.S.
MP@SpacecoastASHRAE.org

Resource Promotion & Grassroots Government Advocacy
Scott Seigel, P.E., LEED AP, C.E.M., CxA, O.P.M.P.
RP@SpacecoastASHRAE.org

Young Engineers in ASHRAE (YEA) & STEM K-12
Jeanne Duce, P.E.
YEA@SpacecoastASHRAE.org

Student Activities
Dr. Hamidreza Najafi, Ph.D.
SA@SpacecoastASHRAE.org

Refrigeration & Auditing
Michael Constantinide, P.E.
Refrigeration@SpacecoastASHRAE.org

E-mail John Constantinide to apply for one of the following opportunities:

- Historian
- Honors & Awards
- Newsletter
- Website
- Sustainability
- CCTS Representative & Alternate

2015-2016 ASME Canaveral Section Leadership

Section Leadership

President
JD Van Gilder

Committee Members
Scott Seigel, P.E., LEED AP, C.E.M., CxA, O.P.M.P.
Dr. Dwight Easterly, Ph.D.