

Upcoming Event Excitement!

We have a lot of exciting events around the corner!

March 23th:

2018 ASHRAE Spring
Golf Outing

March 30th:

ACE Mentor Charleston
Golf Tournament

April 14th:

Spring Sustainability
Activity



Next Meeting Tuesday, March 13th

Harbor Breeze at Patriots Point, Mt. Pleasant

BOG Meeting 11:30am-12:00pm

Chapter Meeting/Lunch 12:00pm-1:00pm

\$25/person

[REGISTER ONLINE](#)

Presidential Corner by Philip Runyon

We are looking forward to our March meeting where we have an ASHRAE distinguished lecturer and past society president Tom Phoenix scheduled to present to our chapter. Keep in mind this is a LUNCH meeting at Harbor Breeze!!

Also please remember we have our Spring Golf Tournament scheduled for March 23rd, at Charleston Municipal, shotgun start at 10 AM. We have a lot of interest so please sign up and plan to attend. This should be a great event and we look forward to seeing you all there. Please try to use this as a means to get new faces to our events. Membership promotion was a high priority for our chapter this year so please try to make a push for these last 4 meetings/events to bring guests and try to introduce others in our industry to our organization. If anyone has membership questions please direct them to myself or Brian Keiser (our MP chair). We are happy to help in any way possible.

Philip Runyon



ASHRAE Research Investors

Thank you for your sponsorship. If you would like to support the chapter, please contact the President.

Corporate Donors (\$1,000+)

Chapman Company
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Corporate Donors (\$300+)

MSS Solutions
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Honor Roll Donors (100+)

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March Meeting Event

Passion and Performance

Presentation Summary:

A soft skills program. Building on the concepts introduced in the 2014-15 ASHRAE Presidential Theme, this program will discuss how to establish meaningful goals and the steps need to achieve those goal. The program focuses on the importance of attitude and dedication to be successful in both your professional and personal life.

Speaker:

Tom Phoenix

Thomas Phoenix is a Principal with the Architectural/Engineering firm of Moser Mayer Phoenix Associates located in Greensboro, NC, USA. He serves as Vice President and Director of Engineering. He has a B.S. degree in engineering from NC State University. He is a Registered Professional Engineer in North Carolina and six other States and has over 30 years of experience in the design, operation and maintenance of building mechanical systems.

Mr. Phoenix has been an active member of ASHRAE (American Society of Heating, Refrigerating and Air Conditioning Engineers) since 1982, and was elevated to the grade of Fellow in 2011. He is an ASHRAE Presidential Member, having served as Society President in 2014-15. He previously served terms on ASHRAE's Board of Directors as Society Treasurer, Society Vice President, as a Director at Large, and as Director and Regional Chairman of Region IV. His past ASHRAE activities also include serving as the Chair of ASHRAE's Members Council, and as the Chair of numerous ASHRAE committees and task groups. Mr. Phoenix is an ASHRAE certified Building Energy Modeling Professional (BEMP) and Building Energy Assessment Professional (BEAP). Mr. Phoenix is active in his local community. He is a graduate of Leadership Greensboro, a member of the Leadership Greensboro Alumni Association and a past member of the Board of Trustees for the Greensboro Children's Museum.



CTTC Corner

For more information about this column, contact **Gene Brown** (gene3380@gmail.com).

In February we had a joint meeting with CEJC. Vincent Halma gave an interesting presentation on an array of forklifts which can handle loads as large as a shipping container to machines which are used in retail stores. Over 10,000 custom features are available for the devices.

Jonathan Jackson gave a very interesting presentation at our January meeting. Variable refrigerant flow is useful in cheap, simple HVAC systems and in more complex systems. A VRF system uses smaller pipe than a chilled water system to distribute cooling to various parts of a building. VRF can be used in ducted and in non-ducted systems. VRF controls can be installed at the factory and can be accessed via laptop. With VRF the return on investment is enhanced by lower maintenance.

Thermostats can have occupancy sensors including infrared and other systems.

Energy savings of 20 to 40% may be obtained by using VRF. Weight and required space on roof are reduced by using VRF. Maintain power supply at +/- 10% of rated voltage. The VRF systems are typically air-cooled. With no cooling tower, there is no danger of Legionnaires' disease. The system can have a bank of multiple outdoor units. It is not necessary to have 50 tons of equipment running when the load is 10 tons. The electronic expansion valve has many steps of opening so only the required flow is provided. A system with open protocol may be obtained so that BACNET and other systems may be connected.

ASHRAE 15 limits the amount of refrigerant to 26 pounds for a 10'X10'X10' space. Now it is possible to have a refrigerant detector in the room and satisfy the code. A charge of refrigerant must be added, 15 to 35# to fill piping plus enough to charge the condenser. Hotel rooms are not allowed to have door grilles so any refrigerant leak could be trapped in the room. One outdoor unit typically serves 10-15 rooms. In one hotel room four users of hairspray triggered the refrigerant alarm. The equipment cost is equal for one 24-ton system and for two 12-ton systems but the installation cost is cheaper with the single system. Piping should be pressure tested at 550 PSI and vacuum tested at 550 microns (0.0106 PSIA).

Because refrigerant is heavier than air, refrigerant sensors must be installed under the beds. There is no refrigerant manufacturer in the US. The DOD can buy from friendly nations.

Touch screens and thermostats can be obtained with the capability to lock out control so that building occupants cannot cause problems. Third party kits can be obtained so that one company's AHU's may be connected to a VRF system. In one project, a water coil was removed and a DX coil was installed in the AHU.

An energy recovery system for a lab used heat pipe technology to avoid cross contamination.

Members are encouraged to take advantage of the ASHRAE certification program. Certifications include: Energy Assessment Professional (BEAP) ; Building Energy Modeling Professional (BEMP); Commissioning Process Management Professional (CPMP); Healthcare Facility Design Professional (HFDP); High-Performance Building Design Professional (HBDP) and Operations & Performance Management Professional (OPMP)



RP Corner:

Hello Everyone,

We are getting closer to our Goal of \$17,000, now is the time to give and get this over for this year.

Our Golf Outing is set at the 'Muni' for Friday March 23rd, thanks out to Philip, Greg and David for setting up a great event. Notice TEE TIME is 10AM, don't be late.

Always looking for more Golf/Research Sponsors for our Spring Outing.

Thanks everyone and see you soon,

Steve Marek
RP Chairman Charleston Chapter

GGAC Corner:

The South Carolina Day on the Hill has been scheduled for Wednesday March 21st. We will meet at the Statehouse and break up into small groups to get the most impact with our lawmakers. Special thanks to Hunter Wilson of the South Carolina chapter for heading up this event. If you are interested in participating, let me know as soon as possible.

Pete Conroy
GGAC Chair

Why Belong To An ASHRAE Chapter

ASHRAE's chapters are the grassroots of the organization. In ASHRAE, nourishment comes from local chapters, each Supported by volunteer effort.

Each of the Society's more than 180 chapters usually meets for a monthly dinner and technical session featuring a noted speaker. This activity brings the latest in technical information to the local level. Chapters also sponsor seminars and lecture series to provide members with more detailed technical information. Some chapters even conduct courses that are not available at local universities for their members and other interested professionals.

Public information programs are another important chapter activity. For example, it is not uncommon for ASHRAE members to hold seminars on energy conservation in the home, or to provide engineering career guidance to young people. In addition, many chapters sponsor scholarships to students attending college and help organize and support ASHRAE student branches.

Chapters are divided into geographic regions to effectively organize chapter efforts; provide volunteer training; and open a communications channel to the Society's Board of Directors. Each region holds an annual conference that includes a technical program and business session. Nominations for service on many Society-level committees are made at these meetings.

2018 Events

March 13th, 2018 **Lunch Meeting** 12:00pm-1:00pm@ Harbor Breeze— *Passion and Performance— The Importance of Attitude and Dedication to be Successful in Both Your Professional and Personal Life*

March 23th, 2018 **2018 ASHRAE Spring Golf Tournament** 10:00am @ Charleston Municipal Golf Course

March 30th, 2018 **ACE Mentor Charleston Golf Tournament** 1:30pm-6:30pm@ Shadow Moss Plantation

April 10th, 2018 **Meeting** @ Harbor Breeze— *TBD*

April 14th, 2017 **ASHRAE Charleston — Sustainability Project: DNR's South Carolina Oyster Restoration and Enhancement (SCORE) Program** @ 217 Fort Johnson Rd, Charleston SC 29412 from 11:00 AM — 2:00 PM

May 8th, 2018 **Meeting** @ Harbor Breeze— *TBD*

June 12th, 2018 **Summer Low Country Boil Social** @ Harbor Breeze @ TBD



Chapter Officers

PRESIDENT—Philip Runyon

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prunyon@chapman-jhj.com

VICE PRESIDENT—Jacob Yount

Phone: 743-0234
jyount@brph.com

SECRETARY—Tim Niles

Phone: 654-1508
timothy.niles@rmf.com

TREASURER—Victor Fallon

Phone: 971-9639
vfallon19@gmail.com

BOG— Steve Marek, Megan Rooney, Randy Jones





ASHRAE GOLF

CHARLESTON CHAPTER'S

"SPRING RESEARCH

PROMOTION"

CAPTAIN'S CHOICE GOLF TOURNAMENT

FRIDAY, MARCH 23, 2018

**10AM SHOTGUN START
CHARLESTON MUNICIPAL GOLF COURSE
2110 MAYBANK HWY
CHARLESTON, SC 29412**

**\$100.00 includes GOLF, CART, LUNCH TO BE
SERVED AFTER GOLF, BEVERAGES, and
PRIZES (CLOSEST TO PEN, LONG DRIVE,
ETC)!!!!!!**

Bring your own team or we can assign you to one.

Player:

Player:

Player:

Player:

Contact: Philip Runyon (843)729-1883; Greg Ashcroft (843)300-2851; or

David Kauffman (843)693-1908

Email this form to: prunyon@chapmancompany.com

SPONSORSHIP LEVEL DESCRIPTION

GOLD LEVEL

- Company name will be prominently displayed at ALL Chapter activities, i.e. Chapter Meetings, Golf Outing (as a hole sponsor), Technical Seminars.
- (2) Spots at all Research Promotion activities including the spring golf tournament
- Special recognition in publications including the *ASHRAE Insights and Monthly acknowledgement in The Charleston "Gee Chee" Chapter Newsletter.*
- Hole Sponsor in the Chapter Research Promotion Golf Tournaments
- Honor Roll Research Donor recognition in Chapter Newsletter (\$ 800 Contribution)
- Sponsor of Engineering Week Activities

SILVER LEVEL

- Hole Sponsor for the Chapter Research Promotion Golf Tournament
- Honor Roll Research Donor recognition in Chapter Newsletter (\$ 500 Contribution)
- Special recognition in publications including the *ASHRAE Insights and Monthly acknowledgement in The Charleston "Gee Chee" Chapter Newsletter.*
- Sponsor of Engineering Week Activities

BRONZE LEVEL

- Hole Sponsor in the Chapter Research Promotion Golf Tournament
- Honor Roll Research Donor recognition in Chapter Newsletter (\$ 300 Contribution)
- Special recognition in publications including the *ASHRAE Insights and Monthly acknowledgement in The Charleston "Gee Chee" Chapter Newsletter.*

HONOR ROLL LEVEL

- Honor Roll Research Donor recognition in Chapter Newsletter (\$ 250 Contribution)
- Special recognition in publications including the *ASHRAE Insights and Monthly acknowledgement in The Charleston "Gee Chee" Chapter Newsletter.*

- Chapter Meeting sponsors are also available recognition on front page of Chapter Newsletter and recognition at the meeting (ADD \$200)

ASHRAE CHAPTER SPONSORSHIP
REGION IV

CHARLESTON CHAPTER
2017-2018 FISCAL YEAR

NAME _____

COMPANY/ORGANIZATION _____

MAILING ADDRESS _____

TELEPHONE: _____ FAX: _____

EMAIL: _____

SPONSORSHIP LEVELS: GOLD \$1,000 _____

(PLEASE CHECK ONE)

SILVER \$ 500 _____

BRONZE \$ 300 _____

HONOR \$ 250 _____

CHAPTER MEETING SPONSOR ADD \$200

PLEASE EMAIL COMPLETED FORM TO:
PHILIP RUNYON:
PRUNYON@CHAPMANCOMPANY.COM

**\$25,000
HOLE-IN-ONE**

SAVE THE DATE

FRIDAY, MARCH 30

Fourth Annual
ACE IN THE HOLE

ACE Mentor Charleston
Golf Tournament

Where: Shadow Moss Plantation

20 Dunvegan Dr Charleston, SC 29414

Schedule: 11:30 AM - Registration

1:30 PM - Shotgun Start

5:30 PM - Food & Awards



ACE MENTOR PROGRAM
ARCHITECTURE • CONSTRUCTION • ENGINEERING



Sponsorship Available

For more information contact: Rob Turner rob@charlestonengineering.com

Bobby Teachey bteachey@bstonegroup.com

LaShaun Key lashaun.key@novusarchitects.com

**FUNDS RAISED GO TOWARDS ACE STUDENT
SCHOLARSHIPS FUND**

Fourth Annual
ACE IN THE HOLE
GOLF TOURNAMENT



ACE MENTOR PROGRAM
ARCHITECTURE • CONSTRUCTION • ENGINEERING

Benefiting the ACE Mentoring Program of Greater Charleston

SPONSORSHIP DEADLINE – March 15th, 2018

Please help support the ACE Mentor Program of Greater Charleston – thank you!

- Title Sponsor** - \$3,000 (2 available). Two (2) complimentary foursomes; top billing & company logo on all promotional media; company banner displayed at tournament; company logo on event signage; special recognition at lunch and dinner / awards presentation; one complimentary hole sponsor.
- Dinner Sponsor** - \$1,500 (1 available). One (1) complimentary foursome; company logo on all promotional media; company logo on event signage; special recognition at dinner / awards presentation; one complimentary hole sponsor.
- Lunch Sponsor** - \$1,500 (1 available). One (1) complimentary foursome; company logo on all promotional media; company logo on event signage; special recognition at lunch / awards presentation; one complimentary hole sponsor.
- Beverage Cart Sponsor** - \$1,000 (1 available). One (1) complimentary twosome; company logo on all promotional media; company logo on event signage; one complimentary hole sponsor.
- Foursome** - \$500 Includes lunch, and dinner for all golfers and hole sponsor
- Twosome** - \$225 Includes lunch, and dinner for all golfers.
- Individual** - \$125 Includes lunch, and dinner for all golfers.
- Hole Sponsor** - \$200 (*Multiple*) Company signage on one hole.
- Name Scholarship Sponsor** - \$1,000 (*Multiple*) All money will go to a student's ACE Scholarship in your company's name; May 17th, 2017 Scholarship Banquet Inclusions: Company recognition, picture with students is encouraged, company logo on promotional material. For Sponsors that don't want to play golf, but want to support ACE Mentoring Students.
- Co-Named Scholarship Sponsor** - \$500 (*Multiple*) All money will go to a student's ACE Scholarship in your company's name; May 17th, 2017 Scholarship Banquet Inclusions: Company recognition, picture with students is encouraged, company logo on promotional material. For Sponsors that don't want to play golf, but want to support ACE Mentoring Students.

SPONSORSHIP DEADLINE – March 15th, 2018

The registration form and payment details can be found on the following page

Fourth Annual ACE IN THE HOLE GOLF TOURNAMENT



ACE MENTOR PROGRAM
ARCHITECTURE • CONSTRUCTION • ENGINEERING

Benefiting the ACE Mentoring Program of Greater Charleston

SPONSORSHIP DEADLINE – March 15th, 2018

Please indicate your desired sponsorship level:

Title Sponsor - \$3,000 (2 Available)

Dinner Sponsor - \$1,500 (1 available)

Lunch Sponsor - \$1,500 (1 available)

Beverage Cart Sponsor - \$1,000 (1 available)

Foursome - \$500

Twosome - \$225

Individual Golf & Dinner - \$125

Hole Sponsor - \$200 Multiple)

Named Scholarship - \$1000 (Multiple)

Co-Named Scholarship - \$500 (Multiple)

Primary Contact _____

Company Name _____

Address _____

City, State, Zip _____

Phone _____

Email _____

Player 1 Name _____

Player 2 Name _____

Player 3 Name _____

Player 4 Name _____

All fees are due in full at time of registration. There are three ways to register and pay;

- **Option 1:** Mail this registration form and a check
 - Made payable to: **The ACE Mentor Program of Greater Charleston,**
Attn: Rob Turner 125 Wappoo Creek Dr # B, Charleston, SC 29412 by March 15, 2018; OR
- **Option 2:** Online registration at www.eventbrite.com [ACE in the Hole Golf Tournament](#)
 - Search for this tournament name in the Charleston, SC area; OR
- **Option 3:** To pay by credit card,
 - Email a copy of this registration form to Rob Turner rob@charlestonengineering.com;
 - Then please log on to the [ACE Greater Charleston affiliate website](#) and click the Sponsors Tab and then the "donate now" button.

For any questions regarding the sponsorships / tournament, please contact:

Rob Turner at (843)813-4441 rob@charlestonengineering.com
LaShaun Key @ (912)596-0619 lashaun.key@novusarchitects.com
Bobby Teachey @ (704)239-9420 bteachey@bstonegroup.com

Thank you for your generous support of the ACE Mentor Program of Greater Charleston and for investing in the architects, contractors, engineers and the skilled workforce of tomorrow!



Spring Sustainability Activity

Join us volunteering with DNR's South Carolina Oyster Restoration (SCORE) Program prep bags of oyster shells for building reefs next year.

Where:
217 Fort Johnson
Road
Charleston, SC 29412

Time:
11:00a to 2:00p

Date:
Saturday,
April 14th



RSVP: Online!

www.charlestonashraechapter.wildapricot.org

Note: Wear close toed shoes and clothes that can get dirty.