

# ASHRAE Rochester



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## 2018 REGION 1 CRC – NEW JERSEY

Thursday, August 16th – Saturday, August 18th

WELCOME TO JERSEY CITY!



The Chapters Regional Conference (CRC) is intended to provide a forum for the dissemination of information pertaining to chapter, regional and society activities. Region I consists of Connecticut, Maine, New Hampshire, New Jersey, New York, Rhode Island & Vermont. Chapters from these areas come together to report their activities from the past year and establish goals for the coming year. Technical sessions are conducted as well as award presentations and social activities. This is an annual conference and is located in the city of one of its region's chapters and we are proud Jersey City is this year's chosen city for Region I.

*(see page 15 for more details)*

**Statements made in this publication are not expressions of the Society or of the chapter and may not be reproduced without special permission of the chapter.**



## Chapter Officers

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### Buyer's Guide

TBD

## Presidential Award Of Excellence

Chapter:

ROCHESTER



Download



Achievements



Report

Fiscal Year:

2017-2018

▶ Chapter Operations	Par: 1200	Min Points: 600	Total Points: 1950
▶ Chapter Technology Transfer	Par: 1050	Min Points: 450	Total Points: 1375
▶ Electronic Communications	Par: 500	Min Points: 250	Total Points: 368
▶ Grassroots Government Advocacy	Par: 650	Min Points: 500	Total Points: 1250
▶ Historical Criteria	Par: 300	Min Points: 100	Total Points: 730
▶ Membership Promotion	Par: 800	Min Points: 500	Total Points: 1445
▶ RP	Par: 1050	Min Points: 800	Total Points: 1110
▶ Student Activities	Par: 500	Min Points: 300	Total Points: 545

## Like us on Facebook!

Visit our new Facebook page by searching for “ASHRAE Rochester” on Facebook. Any ideas for additions or improvements email to Mark Kukla at mark@airsystemsbalancing.com. Keep up to date with current events and photos from recent meetings.

### Mission Statement

ASHRAE will advance the arts and sciences of heating, ventilation, air conditioning, refrigeration and related human factors to serve the evolving needs of the public and ASHRAE members.



Shaping Tomorrow's  
Built Environment Today

### Vision Statement

- will be the global leader in the arts and sciences of heating, ventilation, air conditioning and refrigeration.
- will be the foremost, authoritative, timely and responsive source of technical and educational information, standards and guidelines.
- will be the primary provider of opportunity for professional growth, recognizing and adapting to changing demographics, and embracing diversity.

# President's June Message

June Newsletter 2018  
President's Message

On May 21<sup>st</sup> we held our annual Golf/Picnic Outing at Ravenwood. We held it a few weeks later than we have in the past for a better chance at good weather and much fun was had by all. Special thanks to Jim Browe and Kacie Hoffman for putting together another successful event along with all of our sponsors.

As I write my final president's message, I reflect back on the successful year we have had. Last summer when the entire board sat down to plan the year we came up with several goals and objectives that we felt were important to the chapter and its members. Our board did an excellent job this year and the chapter is in a great position for continued growth and success.

Throughout the year the chapter hosted multiple events that included a Clambake, Technical Presentations, Valentines Dinner Dance, Golf/Picnic Outing, social events and more.

The success the Rochester Chapter saw this year is in direct correlation to the fantastic job our Chapter Officers, Board of Governors and Committee Chairs did. I personally want to extend my sincere gratitude for all the hard work you put in this year. As a volunteer organization each member should be proud to be a part of a Chapter that believes in giving back and providing learning experiences for all in the Rochester community.

Thank you!!! Enjoy your summer, spend time with your family and we'll see you back in September for our Clambake.

Please continue to check out our website at [www.rochester.ashraechapters.org](http://www.rochester.ashraechapters.org) for information on upcoming chapter meetings, current officer list and contact information, chapter newsletters, and more! Also take a minute and like us on Facebook at [www.facebook.com/#!/ashraerochester](https://www.facebook.com/#!/ashraerochester).

Bill Clark, P.E., CEM  
2017-2018 President  
Rochester Chapter



**Bill Clark, 2017-2018 President**

## Highlights from June ASHRAE Picnic / Golf Tournament



**Golf Champs: (L-R) Corey Ruthfoss, Peter Bukowski and Mike Ranalletta (missing is Jim DiPasquale)**



**Al Rodgers presents Jeff Close with the Realto Cherne Award**





# PLATINUM & GOLD SPONSORS

*Thank you for your support*

## PLATINUM

*Gray Metal Products, Inc.*

## GOLD





Rochester, NY

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## ***Job Opening***

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# **HVAC Mechanical Engineer**

Isaac HVAC is looking for an experienced Mechanical Engineer to join our growing Commercial Installation team and who wants to take their HVAC knowledge to the next level by developing an in depth understanding of the construction process with an emphasis on the Construction Phase. Designing for production requires a different view of HVAC system design and documentation from traditional consulting work. Documenting details traditionally left to the contractors means and methods requires a full knowledge of HVAC installation processes and attention to detail.

### **Job Requirements –**

- Bachelor's degree in Mechanical Engineering and 5-10 Years of experience in designing Commercial HVAC systems
- Ability to produce Construction Drawings in CAD and/or Revit
- Strong writing, organizational, problem solving, communications skills, and attention to detail
- Work under pressure and multi-task efficiently in the fast-paced construction industry
- Ability to work more than 40 hours per week, self-motivation and a constant drive to improve

If you are interested in applying, please send your resume to:

[JGRAHAM@IsaacHeating.com](mailto:JGRAHAM@IsaacHeating.com)

OR

Visit our Website at:

[www.IsaacHeating.com/careers](http://www.IsaacHeating.com/careers)

## The Benefits of an ASHRAE Certification

### SHINE IN A RISING FIELD

Certification validates critical job knowledge, skills and abilities in a given practice area.

### GAIN A COMPETITIVE EDGE

ASHRAE certifications are recognized by over 30 national, state and municipal entities.

### DISTINGUISH YOURSELF

Use the ASHRAE Certified logo and designation—e.g. Curtis Smith, BEAP, BEMP—in email signatures, professional networking and business cards to enhance your reputation.

### LET ASHRAE PROMOTE YOUR ACHIEVEMENT

Certificants and their employers are listed on the website and in ASHRAE *Insights*.



## 5 Easy Steps to Earn and Maintain an ASHRAE Certification

### 1. Read the *Candidate Guidebook*

Visit [www.ashrae.org/certification](http://www.ashrae.org/certification) and download the guidebook for the program in which you are interested.

### 2. Complete the Application

Complete the online application at [www.ashrae.org/certification](http://www.ashrae.org/certification). Membership in ASHRAE is not a requirement for certification.

### 3. Schedule an Examination

BEAP, BEMP, CPMP, HBBDP, HFDP and OPMP examinations are offered at over 300 conveniently located computer-based testing centers worldwide. Candidates may schedule an examination appointment online or by telephone.

### 4. Review Available Resources

The *Candidate Guidebook* for a program identifies available resources, including practice exams, that may help candidates gain an understanding of the body of knowledge that the examination tests. Purchase of books or course registrations is not a prerequisite to taking any ASHRAE certification examination.

### 5. Renew the Certification

Each certification is renewable every three years. To retain certification, each certification holder must earn 45 Professional Development Hours (PDHs) during the three year period following initial certification or the last renewal.

Schedule an exam at one of over **300 testing centers** worldwide  
**TODAY!**

To learn more or apply, please go to  
[www.ashrae.org/certification](http://www.ashrae.org/certification)

\$545 (\$395 ASHRAE Members) per certification application

ASHRAE has Certified More Than  
2,300 Built Environment Professionals.

## Are You Ready to Join Them?



**Validation. Pride. Recognition.**

*"Because of the high level of expertise, professionalism and ethics demonstrated by ASHRAE, achieving certification under their established requirements implies one of the highest levels of competence and knowledge available in the industry."*

Jeffrey G Ross-Bain, BEMP, Ross-Bain Green Building, LLC





ASHRAE, the standard setter for sustainable building performance and system design and operation, validates through certification the critical knowledge, skills and abilities of professionals in six key, built-environment fields.

Recognized by over 30 national, state and local government bodies – and with over 2,300 certifications earned – ASHRAE certifications increasingly have become the must-have credential for built-environment professionals.

#### Building Energy Assessment Professional (BEAP)



The growing emphasis on energy consumption reduction and cost savings has highlighted the need for credible specialists who assess energy use in buildings. The BEAP certification validates competency to *audit, assess and analyze residential, commercial and industrial building energy use and develop and implement recommendations.*

The BEAP certification is integral to ASHRAE's Building Energy Quotient (bEQ) program, as is its BEMP certification. Together, the programs provide a valuable toolkit when it comes to the evaluation and reduction of building energy use. Two separate Workbooks, As Designed and In Operation, are part of the bEQ program. Submitting both of these Workbooks can earn an As Designed and In Operation building rating. Only those certified as BEAPs, or Professional Engineers licensed in the jurisdiction where a bEQ project is located, may submit the In Operation Workbook. Additionally, only BEAPs (and BEMPs whose certification relates to the As Designed Workbook) may display the bEQ Certified Provider logo with descriptions of their services. For more information about bEQ, visit [www.buildingenergyquotient.org](http://www.buildingenergyquotient.org).

#### Building Energy Modeling Professional (BEMP)



The BEMP certification validates competency to *evaluate, select, implement, calibrate and interpret the results of energy modeling software when applied to new and existing building and systems energy performance.*

The BEMP certification complements ASHRAE's Building Energy Quotient (bEQ) program by helping to ensure that only qualified practitioners can submit As Designed Workbooks to receive building ratings from ASHRAE. Only those certified as BEMPs, and Professional Engineers licensed in the jurisdiction where a bEQ project is located, may submit the As Designed Workbooks to ASHRAE. Like BEAPs who may submit In Operation bEQ Workbooks, BEMPs may display the bEQ Certified Provider logo with descriptions of their services. For more information about bEQ, visit [www.buildingenergyquotient.org](http://www.buildingenergyquotient.org).

#### Commissioning Process Management Professional (CPMP)



The CPMP certification validates competency to *develop and manage the whole building commissioning process.*

Many building owners look for ways to lower energy bills, reduce change orders during construction, avoid premature equipment replacement costs, and create safer and healthier buildings. Building commissioning measures and tunes up performance of existing buildings and ensures that new buildings begin their lifecycle at optimal productivity.

#### High-Performance Building Design Professional (HBDP)



The HBDP certification, an ANSI accredited certification program, validates competency to *design and integrate sustainable HVAC&R systems into high performing buildings.*

Today's building design market requires use of ground-breaking technologies in new and existing structures to meet the need of building owners.

#### Healthcare Facility Design Professional (HFDP)



The HFDP certification validates competency to *incorporate standards, guidelines and regulatory codes as well as unique healthcare facility requirements and design principles in HVAC system design.*

Growing numbers of aging medical facilities, advances in technology, shifting environmental requirements and an increasingly older population have created a critical need for expansion and renovation of healthcare facilities.

#### Operations & Performance Management Professional (OPMP)



The OPMP certification validates competency to *manage facility operations and maintenance to achieve building performance goals, including those related to indoor environmental quality, health and safety.*

Today's complex buildings can fade from green to gray when building operators don't realize the full potential of the systems they manage. Staying current with the latest facility operation strategies and technologies can reduce energy use in buildings by 10% to 40%.

#### Building Commissioning Professional (BCxP) Coming Soon!

The ASHRAE BCxP certification will validate competency to *lead, plan, coordinate and manage a commissioning team to implement commissioning processes in new and existing buildings*, against scheme requirements set forth in the Better Buildings Workforce Guidelines, with the goal of achieving Department of Energy (DOE) recognition of services provided by these certificants by the spring of 2017.

Application opens September 15, 2016 for the very first BCxP exam administration to be held February 1, 2017 at the ASHRAE Winter Conference in Las Vegas.

The NATIONAL INSTITUTE OF BUILDING SCIENCES is the developer, publisher of and holder of copyright in the Guidelines.



# ASHRAE Membership Application

Save Time. Join Online at [www.ashrae.org/join](http://www.ashrae.org/join)

Shaping Tomorrow's  
Built Environment Today

Prices shown are valid from July 1, 2017 through June 30, 2018

## MEMBERSHIP

### WHO ARE ASHRAE MEMBERS?

Members are represented by consulting engineers, mechanical contractors, building owners, employees of manufacturing companies, educational institutions, research organizations, government, architects, students or anyone concerned with HVAC&R for the built environment.

### WHICH MEMBER TYPE IS RIGHT FOR YOU?

ASHRAE has three grades of membership awarded to applicants based on their experience and participation in the industry. Before you apply and select a member grade, we encourage you to visit the ASHRAE website to see the member grades and their corresponding member benefits. Prices shown are in US currency.

#### Member (\$206)

Available to anyone with 12 years or more ASHRAE approved experience in the HVAC&R industry.

#### Associate Member (\$206)

Available to anyone with less than 12 years of ASHRAE approved experience in the HVAC&R industry.

#### Affiliate Member

(\$52 first year, \$78 second, \$103 third)

Affiliate grade is for individuals who are new to ASHRAE (no previous membership in ASHRAE) and are age 30 or younger. It provides a great beginning for young professionals who wish to become involved in ASHRAE. (Does not include the annual member benefit of the ASHRAE Handbook).

Privacy Policy: By supplying your email address you are agreeing to receive electronic communications from ASHRAE, with the knowledge that you may opt-out of certain electronic communication once you become a member. Please visit [ashrae.org/privacypolicy](http://ashrae.org/privacypolicy) for additional information.

## MEMBER BENEFITS AND RESOURCES

### PUBLICATIONS & RESOURCES

- ASHRAE Handbook (Available to Members and Associates) in print or PDF, as well as a 12 month complimentary subscription to the Handbook Online, which provides online access to the most recent 4 volumes of the Handbook series.
- Monthly ASHRAE Journal in print and online
- Quarterly High Performing Buildings magazine in print and online
- e-Industry and eSociety electronic newsletters
- Access to members-only resources through ASHRAE.org, including the ASHRAE Journal and ASHRAE Research archives
- Discounts on over 300 of the industry's leading technical publications

### PROFESSIONAL EDUCATION AND CAREER DEVELOPMENT

- Discounted registration for education courses through the ASHRAE Learning Institute, as well as ASHRAE certification programs
- Earn PDHs/CEUs/AIA LUs to maintain your professional designation/license with courses, seminars, and webcasts
- Gain industry knowledge, communication, and management skills by participating in ASHRAE technical programs or committees
- Post jobs or seek employment utilizing [www.ASHRAEjobs.com](http://www.ASHRAEjobs.com)

### NETWORKING

- Connect locally, regionally and internationally with over 57,000 members in over 180 chapters worldwide
- Learn, share, and grow at the Annual and Winter Conferences, on ASHRAE technical committees, and [ASHRAExChange.org](http://ASHRAExChange.org)
- Participate in your local chapter or regional meetings and events

Code of ethics: By submitting this application you are agreeing to abide by the ASHRAE Code of Ethics, found at [ashrae.org/codeofethics](http://ashrae.org/codeofethics).

Completed applications or questions can be sent to ASHRAE via  
email: [membership@ashrae.org](mailto:membership@ashrae.org) | fax: 678-539-2129 | phone: 1-800-527-4723 or 404-636-8400  
mail: 1791 Tullie Circle, NE, Atlanta, GA 30329

1. Contact Information.  Mr.  Miss  Ms.  Mrs.  Dr. \*Birthday (required) \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
 (Month) (Day) (Year)

Name \_\_\_\_\_  
 (First) (Middle) (Last) (Designation)

Primary Address This is a  Home  Business Alternate Address This is a  Home  Business

Company Name \_\_\_\_\_ Company Name \_\_\_\_\_

Address \_\_\_\_\_ Address \_\_\_\_\_

City \_\_\_\_\_ State/Province \_\_\_\_\_ City \_\_\_\_\_ State/Province \_\_\_\_\_

Zip/Postal \_\_\_\_\_ Country \_\_\_\_\_ Zip/Postal \_\_\_\_\_ Country \_\_\_\_\_

E-mail \_\_\_\_\_ Alternate E-Mail \_\_\_\_\_

Telephone \_\_\_\_\_ Cell \_\_\_\_\_ Preferred Chapter  Home  Business  Other \_\_\_\_\_

Name/Chapter of referring member (if applicable): \_\_\_\_\_

2. Member Grade.  
 For additional information on member grades and benefits see reverse or visit ashrae.org.

Member — \$206 (must complete section 2a)  
 Associate Member — \$206  
 Affiliate Member — \$52 first year/\$78 second/\$103 third (new members, under 30)  
 Reinstate my previous membership. Previous member number: \_\_\_\_\_

2a. Biographical Information. ONLY Member Grade applicants must complete this section. Use additional sheets or attach resume if necessary. Associate and Affiliate grade applicants do not complete this section.

School	Location	Dates of Attendance	Degree/Course of Study
Educational Record			
Employer	Location	Dates of Employment	Position/Title
Qualifying Work Experience			

Professional Engineering Registration Information License Number \_\_\_\_\_ Date Issued \_\_\_\_\_ Field of Registration \_\_\_\_\_ Location of Registration \_\_\_\_\_

3. Demographics. Please answer the questions by entering the codes in the space provided.

Which best describes your title? \_\_\_\_\_

B- President	S- Purchasing Agent
C- Partner	T- Draftsperson
D- Associate	U- Estimator
E- Owner	W- Technician
F- Vice President	X- Instructor Professor
G- VP Eng. Chief Engineer	Y- Student
K- Design Eng./Designer	Z- Librarian
L- Proj./Application Eng.	ZZ- Other
O- Facility Eng./Mngr.	
P- R&D Eng.	
R- Sales Engineer	

Which best describes your firm? \_\_\_\_\_

11- Consulting Eng.	51- Manufacturer
12- Architectural & Eng	61- Manufacturer's Rep.
15- Design/Build	62- Sales Engineering
21- Contractor	71- Wholesaler/Dist.
26- Property Mgmt & Dev.	83- Library
31- Industrial Facility	84- Tech/Prof Assoc.
41- Commercial Facility	85- Trade Assoc.
42- Gov't, Health, Education	86- Student
43- Utility	91- Other/Misc.

Which best describes your function? \_\_\_\_\_

1- Design/Application	5- Sales
2- Manufacturing	6- Research
3- Maintenance Operations	7- Teaching
4- Management	8- Other

4. Areas of HVAC&R Interest. Enter the code for your area of interest from the list below:  
 Code: \_\_\_\_\_

Heating	Refrigeration
A- Hydronic	S- Unitary Refrigeration
B- Forced Air	T- Commercial Refg.
C- Steam	U- Industrial Refg.
D- Process	V- Process Refg.
E- Service Water	W- Low Temp (<60F)
F- Solar	X- Refg. Components
G- Radiant	
	General Areas
Ventilating & AC	1- Controls/Instrumentation
H- Air Cleaning	2- Heat Transfer Fluid Flow
J- Industrial	3- Pipes, valves, fittings
K- Clean/Computer Room	4- Refg. & Lubrications
L- AC Equip. <20 tons	5- Sound & Vibration
M- AC Equip. 20-200 tons	6- Insulation
N- AC Equip. > 200 tons	7- Energy Recovery
P- Air Handling Systems	8- Food Application
Q- Evaporative Coolers	9- Health, Safety
R- IEQ	10- Commissioning

5. Handbook Preference. New Members and Associate Members receive a 12 month complimentary subscription to the Handbook Online, which includes access to the most recent 4 volumes of the Handbook. If you would like a print copy of the ASHRAE Handbook in addition to this subscription, please chose either IP or SI version below. Handbooks are printed and mailed to members annually in June.

I-P (inch/pound units), print with PDF  
 SI (metric units), print with PDF  
 PDF only (I-P & SI)

6. Privacy Notice If you DO NOT wish to receive 3rd party physical mailings, please check here.

7. Include chapter membership dues:  Dues Amount: \_\_\_\_\_ Paying chapter dues is encouraged but not mandatory, and can be paid separately to the Chapter at anytime. Contact chapter officers for amount. Add this amount to your Society dues in the 'Total Amount' of the payment section below.

8. Payment.  Visa  Mastercard  Amex  Diner's Club  Check/money order\*\*

Card # \_\_\_\_\_ Expiration Date \_\_\_\_\_ / \_\_\_\_\_  
 (Month) (Year)

Total Amount: \_\_\_\_\_ Signature \_\_\_\_\_

CHECKS WILL BE ACCEPTED IN US AND CANADIAN FUNDS. CREDIT CARD PAYMENTS ACCEPTED IN US FUNDS ONLY

# Application for Student Membership



Join online at [www.ashrae.org/students](http://www.ashrae.org/students)

At the student branch level, you'll enjoy meeting other students with similar interests – if your school hasn't yet started a student branch, take charge and contact a faculty member and ask for help on getting started!

## Why ASHRAE?

- Discounts on publications, conferences, and continuing education opportunities
- Society and chapter-level scholarships for both undergraduate and graduate engineering students
- Discounts for student members on select publications
- Digital access to the monthly ASHRAE Journal and the quarterly High Performing Building Magazine
- Participate in events with your local ASHRAE Chapter
- Find internships and jobs at [jobs.ashrae.org](http://jobs.ashrae.org)
- Senior Undergraduate Project Grant Program
- Discounted ASHRAE Annual and Winter Conference registration (AHR Expo, Student Program, Technical Sessions)
- Gain essential skills not taught in class
- Make great new friends!

## Developing Economies Program for Students

Students who reside in countries categorized as "Low Income" and "Lower Middle Income" developing economies by the World Bank List of Economies statistics are eligible to participate in this program. Students in this program receive all the benefits of regular student membership, including online access to the ASHRAE Journal (digital access only - participants will not receive a monthly printed copy of the ASHRAE Journal).

Visit [www.worldbank.org](http://www.worldbank.org) for a listing of qualified countries: Low Income and Low Middle Income only. If you currently reside in one of the countries listed in those categories, simply check the box marked 'Developing Economies Program' in the 'Purchases' section of this application.

**1. Contact Information.**  Mr.  Miss  Ms.  Mrs. \*Birthday (required) \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
 (Month) (Day) (Year)

Name \_\_\_\_\_  
 (First) (Last)

Primary Address (where all correspondence will be mailed) Alternate Address  
 Address \_\_\_\_\_ Address \_\_\_\_\_  
 \_\_\_\_\_

City \_\_\_\_\_ State/Province \_\_\_\_\_ City \_\_\_\_\_ State/Province \_\_\_\_\_

Zip/Postal \_\_\_\_\_ Country \_\_\_\_\_ Zip/Postal \_\_\_\_\_ Country \_\_\_\_\_

E-mail \_\_\_\_\_ E-mail \_\_\_\_\_

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

I would like to receive occasional student updates via email. | I would like to participate in the \_\_\_\_\_ ASHRAE Chapter.

**2. Student Branch Information.** School Name: \_\_\_\_\_

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

City: \_\_\_\_\_ State/Province: \_\_\_\_\_ Postal Code \_\_\_\_\_

**3. Education.** Classification: Freshman  Sophomore  Junior  Senior  Masters/PhD.

Full time  Part time  Degree: \_\_\_\_\_ Expected Graduation Date: \_\_\_\_\_  
 (MM/DD/YYYY)

**4. Sponsor Information.**

All student applicants must have the name and member number of an ASHRAE member serving as their student sponsor. If your Student Branch Advisor is an active Associate or Member of ASHRAE, he/she can serve as your sponsor. If you need assistance locating a sponsor, please email [students@ashrae.org](mailto:students@ashrae.org) or call 678-539-1212. Also, you must list the name, phone and email address of your faculty advisor or course instructor.

Sponsor Name: \_\_\_\_\_ ASHRAE Member #: \_\_\_\_\_

Advisor/Instructor: \_\_\_\_\_ Email \_\_\_\_\_

**5. Purchases.**

Student Membership- Regular: \$21  Student Membership- Developing Economies Program (see reverse for qualifications) \$11

Printed Edition of the current ASHRAE Handbook:  I-P  SI Student Member Price: \$49.00

PDF Version of the ASHRAE Handbook (Includes both I-P and SI Units) Student Member Price: \$39.00

ASHRAE Handbook Online - One Year Subscription to all four volumes of the Handbook series: \$33.00

\*Additional publications are available at student member discounts at [ashrae.org/studentbookstore](http://ashrae.org/studentbookstore)

**6. Payment.**  Visa  Mastercard  Amex  Diner's Club  Check/money order\*\*

Card # \_\_\_\_\_ Expiration Date \_\_\_\_\_ / \_\_\_\_\_  
 (Month) (Year)

Total Amount: \_\_\_\_\_ Signature \_\_\_\_\_

CHECKS WILL BE ACCEPTED IN US AND CANADIAN FUNDS. CREDIT CARD PAYMENTS ACCEPTED IN US FUNDS ONLY



# WELCOME TO HOUSTON

## A letter of invitation from Stephen Redding, General Chairman of the 2018 ASHRAE Annual Conference

The Houston Chapter and Region VIII cordially invite you to our dynamic city for education, networking and fun! The June 23-27, 2018 Annual Conference will be in the heart of downtown Houston – surrounded by parks, hotels, entertainment and dining venues, our convention center and professional sports venues.

Our technical tours will highlight HVAC systems in one of the world's most air-conditioned cities. In south Texas, we are particularly proud of how our industry has conquered “hot and humid” – in our buildings, transportation, industry, entertainment and daily life.

Our general tours will introduce you to Houston – the nation's 4th most populous city and home to:

- Space Center Houston: the official visitor center of the National Aeronautics and Space Administration's center for human spaceflight activities
- World's largest medical center (52,000 employees, 21 million square feet, 4.8 million patients each year)
- World Series champion Astros (They will be playing in town that week!)
- World's first indoor sports stadium – the 50-year-old Astrodome, currently being re-purposed as an event space
- The Houston Theater District, a 17-block area downtown and home to nine professional performing arts organizations, Bayou Place entertainment complex, restaurants, movies, plazas, and parks
- The Houston Museum District: 19 museums, galleries, cultural centers and community organizations, dedicated to promoting art, science, history and culture.

Houston encompasses an area larger than New Jersey and has been cited as the most ethnically diverse city in the nation. You will find that reflected in our dining, culture and friendliness. You can hear more than 90 spoken languages and can check-in with any of 84 consular offices. In the mood for Fajitas? Pad Thai? Tikki Masala? Fish Sauce or Pho? Barbecue and Craft Beer? – we have you covered (and at reasonable prices)!

It will be a “Hot Time in the Old Town Tonight”– literally and figuratively. Heat is energy and you will feel that energy – in the ASHRAE sessions, in interactions with your colleagues and in the discovery of a vibrant, beautiful city.

We look forward to meeting you in Houston!  
Steve Redding, General Chair / Houston Host Committee

# 2018 ASHRAE Annual Conference Tech Program Schedule

Program Tracks	SUNDAY JUNE 24th	MONDAY JUNE 25th	TUESDAY JUNE 26th	WEDNESDAY JUNE 27th
<b>District Energy and Cogeneration Plants</b>	<p><b>Conference Paper Session 1</b> Identifying Energy and Cost Saving Measures. 37DF. 8:00am-9:00am. I [G]</p> <p><b>Seminar 23</b> The Future of CHP: Packaged Systems, Resilience and Microgrids. 37DE. 1:30pm-3:00pm. B [G]</p>	<p><b>Conference Paper Session 10</b> Trials and Tribulations of District HVAC Design, Comfort, and IQD (Part 2). 37DF. 8:00am-12:00pm. I [G]</p> <p><b>Seminar 24</b> How to Hit the Bulb-Off: Setting Targets, Using Trials and Outcome-Based Compliance. 37DABDE. 8:00am-9:30am. I [G]</p> <p><b>Seminar 25</b> Reanalysis Date: How Good is It, How Do We Get It and How Useful is It?. 37DAD. 8:00am-9:30am. B [G]</p> <p><b>Conference Paper Session 11</b> Life Safety System Design. 37CF. 11:00am-12:00pm. I [G]</p> <p><b>Seminar 34</b> Industrial HVAC IQD. 37DF. 8:00am-12:00pm. A [G]</p>	<p><b>Seminar 41</b> The Future of Thermal Cooling Systems: Resilient CHP Systems. 37DF. 8:00am-9:30am. I [G]</p> <p><b>Conference Paper Session 13</b> Energy Flexibility and Demand Control Systems are Important for Building Energy Consumption. 37CF. 9:45am-10:45am. I [G]</p> <p><b>Seminar 42</b> Comparing the Energy, Emissions and Economic Impacts of Buildings. 37AB. 9:45am-10:45am. I [G]</p> <p><b>Seminar 43</b> Uncertainty Analysis for Methods of Measurement and Test. 37DE. 9:45am-10:45am. A [G]</p> <p><b>Seminar 44</b> Case Studies to Evaluate Performance Measurement Protocols. 37CF. 9:45am-10:45am. I [G]</p> <p><b>Seminar 45</b> P-jecting the Adoption of Building Efficiency Technologies. 37DE. 11:00am-12:30pm. I [G]</p>	<p><b>Seminar 59</b> Beneficial Carbon Reduction Strategies. 37BE. 8:00am-9:30am. I [G]</p> <p><b>Seminar 60</b> ASHRAE's First Standard for Commercial Energy Audit. 37DE. 8:00am-9:30am. I [G]</p> <p><b>Seminar 61</b> Design and Implementation of Solar-Assisted Geothermal Systems: From A to Z. 37DABDE. 8:00am-9:30am. I [G]</p> <p><b>Conference Paper Session 17</b> Variable Speed Variable Options. 37DAD. 9:45am-10:45am. I [G]</p> <p><b>Seminar 66</b> Foodservice Design for Hot and Humid Climates. 37BE. 9:45am-10:45am. I [G]</p>
<b>Fundamentals and Applications</b>	<p><b>Seminar 5</b> Trials and Tribulations of District HVAC Design, Comfort and IQD (Part 1). 37DE. 8:00am-9:00am. I [G]</p> <p><b>Conference Paper Session 2</b> HVAC Applications in Transportation. 37CF. 9:45am-10:45pm. I [G]</p> <p><b>Seminar 10</b> Trials and Tribulations of District HVAC Design, Comfort and IQD (Part 2). 37AD. 9:45am-10:45am. I [G]</p> <p><b>Seminar 13</b> High CO2 and Other Contaminant Levels in Schools. 37DABDE. 11:00am-12:30pm. I [G]</p> <p><b>Seminar 16</b> Urban-Scale Energy Modeling, Part 8. 37DAD. 11:00am-12:30pm. I [G]</p> <p><b>Seminar 19</b> Secondary Disinfection of Building Water Systems. 37CF. 1:30pm-3:00pm. I [G]</p> <p><b>Technical Paper Session 2</b> New Developments in HVAC Fundamentals. 37DF. 1:30pm-3:00pm. I [G]</p> <p><b>Workshop 5</b> Load Calculations Missing Link: Taking Load Calculations Through to Equipment Sizing. 37DAD. 1:30pm-3:00pm. B [G]</p>	<p><b>Seminar 24</b> How to Hit the Bulb-Off: Setting Targets, Using Trials and Outcome-Based Compliance. 37DABDE. 8:00am-9:30am. I [G]</p> <p><b>Seminar 25</b> Reanalysis Date: How Good is It, How Do We Get It and How Useful is It?. 37DAD. 8:00am-9:30am. B [G]</p> <p><b>Conference Paper Session 6</b> Effective Ways to Address Thermal Comfort and Cooling Load. 37DE. 9:45am-10:45am. I [G]</p> <p><b>Conference Paper Session 7</b> HVAC Ventilation Control for Maximum Efficiency and Comfort. 37CF. 9:45am-10:45am. I [G]</p> <p><b>Conference Paper Session 8</b> Thermal Comfort at the Forefront of HVAC Design. 37DAD. 9:45am-10:45am. I [G]</p> <p><b>Seminar 28</b> Control Freaks and Internet of Things: The Future of Building Automation. 37DAB. 9:45am-10:45am. I [G]</p> <p><b>Conference Paper Session 4</b> Filtration for Improved Air Quality. 37DF. 8:00am-9:30am. I [G]</p> <p><b>Seminar 37</b> Selection and Application Considerations of Fans Used in Variable Air Volume Systems. 37DE. 11:00am-12:00pm. I [G]</p>	<p><b>Seminar 46</b> Comparing the Energy, Emissions and Economic Impacts of Buildings. 37AB. 9:45am-10:45am. I [G]</p> <p><b>Seminar 43</b> Uncertainty Analysis for Methods of Measurement and Test. 37DE. 9:45am-10:45am. A [G]</p> <p><b>Seminar 44</b> Case Studies to Evaluate Performance Measurement Protocols. 37CF. 9:45am-10:45am. I [G]</p> <p><b>Seminar 45</b> P-jecting the Adoption of Building Efficiency Technologies. 37DE. 11:00am-12:30pm. I [G]</p> <p><b>Technical Paper Session 12</b> Optimization and Control of Heat Pumps. 37CF. 8:00am-9:30am. I [G]</p> <p><b>Technical Paper Session 13</b> Optimization and Simulation of HVAC Systems. 37DF. 8:00am-9:30am. I [G]</p> <p><b>Seminar 43</b> How to Field-Measure and Score the Performance of an Installed HVAC System. 37DABDE. 8:00am-9:30am. I [G]</p> <p><b>Conference Paper Session 14</b> Diverse Applications of Ventilation Design. 37CF. 11:00am-12:00pm. I [G]</p> <p><b>Seminar 51</b> Demonstration of Conventional and Advanced Hot Water Systems in Commercial Kitchens. 37BE. 11:00am-12:30pm. I [G]</p>	<p><b>Conference Paper Session 15</b> Not Just Showing in the Wind. 37DF. 8:00am-9:30am. I [G]</p> <p><b>Seminar 58</b> ASHRAE's First Standard for Commercial Energy Audit. 37DE. 8:00am-9:30am. I [G]</p> <p><b>Seminar 62</b> Design and Implementation of Solar-Assisted Geothermal Systems: From A to Z. 37DABDE. 8:00am-9:30am. I [G]</p> <p><b>Conference Paper Session 17</b> Variable Speed Variable Options. 37DAD. 9:45am-10:45am. I [G]</p> <p><b>Seminar 66</b> Foodservice Design for Hot and Humid Climates. 37BE. 9:45am-10:45am. I [G]</p> <p><b>Seminar 67</b> Fundamentals of Thermal Bridging and Retained Models. 37DABDE. 9:45am-10:45am. B [G]</p> <p><b>Conference Paper Session 18</b> Energy and Water: Ways to Improve Efficiency. 37DAD. 11:00am-12:30pm. I [G]</p> <p><b>Forum 4</b> Gauging Current Interest in Forming a Multi Task Group to Continue AI Available Air Cleaning Technologies. 37DF. 11:00am-12:30pm. I [G]</p> <p><b>Seminar 72</b> What will ASHRAE Standard 62.1-2019 Look Like with the Proposed Changes to the IAQ, WVP and WRP? 37DABDE. 11:00am-12:30pm. I [G]</p>
<b>HVAC&amp;R Analytics</b>	<p><b>Seminar 2</b> Applying Analytics to Existing HVAC Systems. 37DAD. 8:00am-9:00am. I [G]</p> <p><b>Seminar 11</b> Applying Analytics to Existing HVAC Systems: Benefits, Challenges and Lessons Learned. 37DAD. 11:00am-12:30pm. I [G]</p>	<p><b>Conference Paper Session 5</b> Thermal Comfort in Buildings Around the World. 37DF. 8:00am-9:30am. I [G]</p> <p><b>Conference Paper Session 7</b> HVAC Ventilation Control for Maximum Efficiency and Comfort. 37CF. 9:45am-10:45am. I [G]</p>	<p><b>Conference Paper Session 12</b> Optimization and Control of Heat Pumps. 37CF. 8:00am-9:30am. I [G]</p> <p><b>Technical Paper Session 13</b> Optimization and Simulation of HVAC Systems. 37DF. 8:00am-9:30am. I [G]</p> <p><b>Seminar 43</b> How to Field-Measure and Score the Performance of an Installed HVAC System. 37DABDE. 8:00am-9:30am. I [G]</p> <p><b>Seminar 51</b> Demonstration of Conventional and Advanced Hot Water Systems in Commercial Kitchens. 37BE. 11:00am-12:30pm. I [G]</p>	<p><b>Seminar 45</b> P-jecting the Adoption of Building Efficiency Technologies. 37DE. 11:00am-12:30pm. I [G]</p> <p><b>Technical Paper Sessions 4</b> Advancements in HVAC Control. 37DF. 8:00am-12:30pm. I [G]</p> <p><b>Seminar 65</b> Air Flow Control from Test Bench to Test Standard. 37BE. 9:45am-10:45am. I [G]</p>
<b>HVAC&amp;R Control Freaks</b>	<p><b>Seminar 1</b> Division 25 Challenges! When Integrated Automation Isn't. 37DF. 8:00am-9:00am. I [G]</p> <p><b>Seminar 7</b> Field vs. Factory-Programmed Controls. 37DE. 9:45am-10:45pm. I [G]</p>	<p><b>Seminar 9</b> Optimization for Intelligent Building Controls. 37BE. 9:45am-10:45pm. I [G]</p> <p><b>Conference Paper Session 8</b> Thermal Comfort at the Forefront of HVAC Design. 37DAD. 9:45am-10:45am. I [G]</p> <p><b>Seminar 28</b> Control Freaks and Internet of Things: The Future of Building Automation. 37DAB. 9:45am-10:45am. I [G]</p> <p><b>Conference Paper Session 4</b> Filtration for Improved Air Quality. 37DF. 8:00am-9:30am. I [G]</p> <p><b>Seminar 37</b> Selection and Application Considerations of Fans Used in Variable Air Volume Systems. 37DE. 11:00am-12:00pm. I [G]</p>	<p><b>Seminar 43</b> How to Field-Measure and Score the Performance of an Installed HVAC System. 37DABDE. 8:00am-9:30am. I [G]</p> <p><b>Seminar 51</b> Demonstration of Conventional and Advanced Hot Water Systems in Commercial Kitchens. 37BE. 11:00am-12:30pm. I [G]</p>	<p><b>Technical Paper Sessions 4</b> Advancements in HVAC Control. 37DF. 8:00am-12:30pm. I [G]</p> <p><b>Seminar 65</b> Air Flow Control from Test Bench to Test Standard. 37BE. 9:45am-10:45am. I [G]</p>
<b>HVAC&amp;R Systems and Equipment</b>	<p><b>Seminar 3</b> New Advances in Simulating Fanestations Systems. 37BE. 8:00am-9:00am. I [G]</p> <p><b>Seminar 4</b> Positive Displacement Compressors: Back to Basics. 37CF. 8:00am-9:00am. I [G]</p> <p><b>Forum 1</b> Expanding Our Perceptions of Building Performance: Updating Standard BS. 37DF. 9:45am-10:45pm. I [G]</p> <p><b>Seminar 15</b> Unleash the Road to Your Career. 37BE. 11:00am-12:30pm. B [G]</p> <p><b>Seminar 21</b> Building a Framework for Ethical Decision Making with Case Studies. 37DAB. 1:30pm-3:00pm. I [G]</p> <p><b>Seminar 22</b> New ASHRAE Standard 209 as Simulation Aided Design for Buildings. 37BE. 3:00pm-4:45pm. I [G]</p> <p><b>Workshop 4</b> Achieving Acceptability and Maximizing Adverse Health Effects through Ventilation. 37DAB. 11:00am-12:30pm. I [G]</p>	<p><b>Conference Paper Session 3</b> Balancing Indoor Climate Control with Aesthetics and Energy Efficient Construction of Residential Buildings. 37CF. 1:30pm-3:00pm. I [G]</p> <p><b>Seminar 25</b> Modeling Durable Residential Buildings in Hot and Humid Climates and Their Impact to HVAC Systems. 37DAB. 8:00am-9:30am. I [G]</p> <p><b>Seminar 28</b> Using District Energy to Survive a Storm: Case Studies in Disaster Preparedness. 37CF. 8:00am-9:30am. I [G]</p> <p><b>Seminar 33</b> Blade vs. Venti: Laboratory Controls: Proper Application and Testing to Safeguard Your Lab. 37DABDE. 11:00am-12:00pm. I [G]</p> <p><b>Workshop 6</b> Speaking the Same Language: Best Practices in Standards Authoring. 37DAD. 11:00am-12:00pm. I [G]</p>	<p><b>Seminar 38</b> Energy Efficient Building Technologies. 37DAD. 8:00am-9:30am. I [G]</p> <p><b>Seminar 47</b> Controls and Fault Detection. 37DAD. 9:45am-10:45pm. I [G]</p> <p><b>Seminar 42</b> Thermal Energy Storage at the Small Scale. 37DE. 8:00am-9:30am. I [G]</p> <p><b>Forum 2</b> Lead Follow or Get Out of the Way: ASHRAE Standards in the Residential Market Space. 37DF. 9:45am-10:45pm. I [G]</p> <p><b>Seminar 40</b> Noise and Vibration Impacts of Safeguarding Buildings and HVAC Systems. 37DAB. 8:00am-9:30am. I [G]</p> <p><b>Seminar 50</b> Assessing the Impacts of Extreme and Future Weather Scenarios on the Building. City and Grid Scale. 37DAB. 11:00am-12:30pm. B [G]</p>	<p><b>Seminar 59</b> Convective vs. Radiant Load Calculations: Are They Different? 37CF. 8:00am-9:30am. I [G]</p> <p><b>Conference Paper Session 16</b> Comparison of New Refrigerants. 37CF. 9:45am-10:45pm. I [G]</p> <p><b>Seminar 63</b> Moisture-Induced Residential Building Failures. 37CF. 8:00am-9:30am. I [G]</p> <p><b>Seminar 68</b> Racing to Zero through Innovative Residential Design. 37DAB. 9:45am-10:45pm. B [G]</p>
<b>Professional Skills</b>	<p><b>Workshop 1</b> Generation Z: Ready or Not, Our Industry's Future Depends on Them and It's Sooner Than You Might Think. 37DAB. 8:00am-9:00am. B [G]</p> <p><b>Seminar 9</b> The ASHRAE Conference Crash Course. 37DE. 9:45am-10:45pm. I [G]</p>	<p><b>Conference Paper Session 8</b> How to Improve Design Team Cooperation/Performance Effectiveness. 37DF. 9:45am-10:45pm. I [G]</p>	<p><b>Attn: ASHRAE Certified Professionals.</b> Attendance at Tech Program sessions in a content area related to your certification, earns Professional Development Hours (PDHs) to meet recertification requirements.</p>	<p><b>Forum 3</b> Operation and Maintenance Management Training. 37CF. 9:45am-10:45pm. I [G]</p>
<b>Research Summit</b>	<p><b>Workshop 2</b> Writing Scientific Journal Research Papers. 37DF. 8:00am-9:00am. I [G]</p> <p><b>Workshop 4</b> Achieving Acceptability and Maximizing Adverse Health Effects through Ventilation. 37DAB. 11:00am-12:30pm. I [G]</p>	<p><b>Seminar 23</b> The Latest Research in Air-Flow and Thermal Modeling of Indoor Environments. 37DE. 8:00am-9:30am. I [G]</p> <p><b>Seminar 27</b> Supermarket Refrigeration System Diagnostics. 37BE. 8:00am-9:30am. I [G]</p> <p><b>Seminar 35</b> Inverse Design and Modeling for Indoor Environment. 37BE. 11:00am-12:00pm. I [G]</p>	<p><b>Seminar 38</b> Energy Efficient Building Technologies. 37DAD. 8:00am-9:30am. I [G]</p> <p><b>Seminar 47</b> Controls and Fault Detection. 37DAD. 9:45am-10:45pm. I [G]</p>	<p><b>Seminar 53</b> HVAC Novel Measurement Techniques: The Next Generation. 37DAD. 11:00am-12:30pm. I [G]</p> <p><b>Seminar 61</b> Design and Implementation of Energy Efficient HVAC Systems. 37DAB. 11:00am-12:30pm. I [G]</p> <p><b>Seminar 71</b> Optimization for HVAC Systems. 37CF. 11:00am-12:30pm. I [G]</p>
<b>Residential Modern Buildings in Hot &amp; Humid Climates</b>	<p><b>Workshop 3</b> New ASHRAE Hot Climate Design Guide. 37DAD. 9:45am-10:45pm. I [G]</p> <p><b>Seminar 14</b> How Can Net Zero Energy Goals, Low Sensible Loads and Ventilation Work on a Hot Humid Climate? 37CF. 11:00am-12:30pm. I [G]</p>	<p><b>Seminar 25</b> Modeling Durable Residential Buildings in Hot and Humid Climates and Their Impact to HVAC Systems. 37DAB. 8:00am-9:30am. I [G]</p>	<p><b>Seminar 48</b> New ASHRAE Hot Climate Design Guide. 37BE. 9:45am-10:45pm. A [G]</p> <p><b>Seminar 52</b> HVAC for Tall and Super Tall Buildings in Hot Humid Climates. 37CF. 11:00am-12:30pm. A [G]</p>	<p><b>Seminar 63</b> Moisture-Induced Residential Building Failures. 37CF. 8:00am-9:30am. I [G]</p> <p><b>Seminar 68</b> Racing to Zero through Innovative Residential Design. 37DAB. 9:45am-10:45pm. B [G]</p>
<b>Safeguarding Your HVAC&amp;R System</b>	<p><b>Seminar 12</b> Flooding: Safeguarding HVAC Systems: Hurricane Harvey Strategies Implemented and Lessons Learned. 37DE. 11:00am-12:30pm. I [G]</p>	<p><b>Seminar 28</b> Using District Energy to Survive a Storm: Case Studies in Disaster Preparedness. 37CF. 8:00am-9:30am. I [G]</p> <p><b>Seminar 33</b> Blade vs. Venti: Laboratory Controls: Proper Application and Testing to Safeguard Your Lab. 37DABDE. 11:00am-12:00pm. I [G]</p> <p><b>Workshop 6</b> Speaking the Same Language: Best Practices in Standards Authoring. 37DAD. 11:00am-12:00pm. I [G]</p>	<p><b>Seminar 40</b> Noise and Vibration Impacts of Safeguarding Buildings and HVAC Systems. 37DAB. 8:00am-9:30am. I [G]</p> <p><b>Seminar 50</b> Assessing the Impacts of Extreme and Future Weather Scenarios on the Building. City and Grid Scale. 37DAB. 11:00am-12:30pm. B [G]</p>	<p><b>Seminar 60</b> Building Simulation Tools and Models Needed for Assessing the Impacts of Extreme and Future Weather Scenarios on the Building. City and Grid Scale. 37DAD. 8:00am-9:30am. I [G]</p>

**Networking Coffee Break**  
 Sunday 9am - 9:30am  
 Prefunction Area in Main Hallway of  
 Tech Session rooms, GRBCC  
 Sponsored by RGF Environmental Group, Inc.

**Program Session Ratings**

**A**=Advanced Submitted for approval for NY PDHs, AIA LUS

**B**=Basic Submitted for approval for GBCI LEED AP credits

**ASHRAE Learning Institute**

All courses have been submitted for approval for NY PDHs, AIA LUS and CEUs

Register for courses individually; they are not included with the conference registration.

**Saturday, June 23rd**

**8:00am - 3:00pm**

- Professional Development Seminar: The Commissioning Process in New and Existing Buildings (code 6D). **382A**
- Professional Development Seminar: Energy Modeling Best Practices and Applications (code 6I). **382B**

**12:00pm - 3:00pm**

- Short Course: Energy Management Best Practices (code 6J). **382C**

**Sunday, June 24th**

**3:30pm - 6:30pm**

- Short Course: Advanced Designs for Net Zero Buildings (code 6E). **382A**
- Short Course: Latest in High-Performance Dedicated Outdoor Air Systems (DOAS) (code 6A). **382B**

**Monday, June 25th**

**2:30pm - 5:30pm**

- Short Course: Complying with Standard 90.1-2013 (code 6S). **382A**
- Short Course: Designing and Operating High-Performing Healthcare HVAC Systems (code 6B). **382B**

**Tuesday, June 26th**

**8:00am - 11:00am**

- Short Course: Coal Thermal Energy Storage Systems for Air Conditioning (code 6F). **382A**
- Short Course: Variable Refrigerant Flow System: Design and Application (code 6B). **382B**

**12:00pm - 3:00pm**

- Short Course: Humidity Control II: Real-World Problems and Solutions (code 6G). **382C**

# CRC 2018 Announcement

## 2018 Region I CRC Jersey City, NJ August 16-18, 2018

Hosted by: New Jersey Chapter

Click this link to register and reserve your hotel room:

<http://ashraeregion1.org/index.php/crc/>

Cut off date is Thursday July 29th, 2018. There is a 24 hour cancellation policy

### CONFERENCE REGISTRATION FEES

Registration Type	By July 1, 2018	After July 1, 2018
Full Conference	\$375	\$450
Companion Full Conference	\$230	\$275
Kids Full Conference	FREE	FREE
Family Tour (Liberty Science Center)	\$35	\$35
Companion Tour (Statue of Liberty and Ellis Island)	\$35	\$35
YEA Event (Rooftop At Exchange Place)	FREE	FREE
Friday/Saturday Conference	\$225	\$275
Friday/Saturday Companion	\$135	\$165
Saturday Only	\$125	\$150
Thursday Dinner Only (Cruise)	\$110	\$125



# CRC 2018 Announcement

## HOTEL INFO



Hyatt Regency Room Rate: \$259 + taxes & fees

2 Exchange Place Jersey City, NJ

Meetings will be held in their modern meeting facilities

**Note: Hotel reservation is separate from conference registration.**



ASHRAE Region I  
Chapter Regional Conference - New Jersey  
August 16 -18, 2018

## EVENT SCHEDULE

Day	Start Time	End Time	Event	Location	Attendees
THURSDAY, August 16, 2018	12:00pm	7:00pm	Registration	Lincoln Room	All Attendees
	12:00pm	7:00pm	Chapter History Displays	Hudson I, II, III	All Attendees
	12:00pm	2:00pm	Region I Audit	Holland	Invited Region I Officers
	1:00pm	3:00pm	Hospitality Suite	TBD	Registered Attendees
	2:00pm	4:00pm	Business Meeting 1	Hudson I, II, III	Delegates, Alternates & Regional Officers and Chairs
	4:00pm	5:00pm	Technical Session	Harborside	Registered Attendees
FRIDAY, August 17, 2018	6:15pm	10:00am	Dinner Cruise	Pier next to hotel	Registered Attendees
	10:00pm	10:00pm	YEA Event	Rooftop Exchange	YEA / Registered Attendees
	10:00pm	1:00am	Hospitality Suite	TBD	Registered Attendees
	7:00am	7:00pm	Registration	Lincoln Room	All Attendees
	7:00am	7:00pm	Chapter History Displays	Hudson I, II, III	All Attendees
	9:00am	11:00am	Hospitality Suite	TBD	Registered Attendees
SATURDAY, August 18, 2018	7:00am	9:00am	Breakfast	Harborside I	Registered Attendees
	8:00am	9:00am	Local ASHRAE Recognition Breakfast	Harborside II	Invited Society and Local Guests
	8:00am	10:00am	Caucus / Executive Session	Hudson I, II, III	Delegates & Alternates ONLY
	10:00am	11:45am	Chapter Operations Workshop	Hudson I, II, III	Chapter Officers
	10:00am	4:00pm	Companion Tour	Statue of Liberty & Ellis Island	Registered Attendees w/ RSVP
	10:00am	4:00pm	Family Event	Liberty Science Center	Registers Attendees w/ RSVP
	12:00pm	1:00pm	Lunch	Harborside	Registered Attendees
	2:00pm	5:15pm	Business Meeting 2	Hudson I, II, III	Delegates, Alternates & Regional Officers and Chairs
	6:00pm	10:00pm	Presidential Dinner	Manhattan Ballroom	Registered Attendees
	10:00pm	12:00am	Hospitality Suite	TBD	Registered Attendees
	7:00am	10:00am	Registration	Lincoln Room	All Attendees
	7:00am	2:00pm	Chapter History Displays	Hudson I, II, III	All Attendees
9:00am	11:00am	Hospitality Suite	TBD	Registered Attendees	
7:00am	9:00am	Breakfast	Harborside	Registered Attendees	
8:00am	9:45am	Business Meeting 3	Hudson I, II, III	Delegates, Alternates & Regional Officers and Chairs	
8:00am	9:45am	Government Activities Workshop	Holland II	GA Chairs	
8:00am	11:00am	Student Activities Workshop	Liberty I, II	Student Activities Chair	
8:00am	9:45am	Research Promotion Workshop	Holland I	Research Promotion Chairs	
8:00am	11:00am	CTTC Workshop	Harborside	CTTC Chairs	
9:45am	11:45am	Historian Workshop	Holland I	Historians	
9:45am	11:45am	Membership Promotion	Palasaides I, II	Membership Chairs	
9:45am	11:45am	RECC Workshop	Liberty III	RECC Chairs	
9:45am	11:45am	YEA Workshop	Holland II	YEA Members	
10:00am	12:00pm	Hospitality Suite	TBD	Registered Attendees	
12:00pm	2:00pm	Awards Luncheon	Manhattan Ballroom	Registered Attendees	
2:30pm	3:30pm	CRC Debrief	Board Room	CRC Host Committee & Guests	



**Senior Mechanical Engineer**  
**AC Corporation, Greensboro, NC**  
**TOPIC: “Design-Build-Operate – What Can Go Wrong?”**

Charles E. Gulledge III, PE, HBDP, LEED AP is a current nominee for ASHRAE Treasurer and is a past ASHRAE Vice President, serving on the Executive Committee and the Board of Directors. He is a former ASHRAE Director-at-Large. Gulledge has served as past Chair of the ASHRAE 2011 Energy Modeling Conference, Chapter Technology Transfer Committee, and Technical Committee 7.1: Integrated Building Design. He has served as member of the Handbook Committee, CTTC-RVC for Region IV, President of

the North Piedmont Chapter, and as the ASHRAE Liaison to the Construction Specifications Institute (CSI). Gulledge has received the Distinguished Service Award, Regional Award of Merit, Chapter Service Award, and the Dan Mills Technical Award.

Mr. Gulledge is a Senior Mechanical Engineer with the design/build firm of AC Corporation in Greensboro, NC. He has over 31 years of experience in the HVAC industry. A licensed professional engineer in the states of North Carolina, Georgia, Kentucky, South Carolina, Virginia, and Alabama; he received his B.S. in Mechanical Engineering from North Carolina State University.



**Thursday, August 16th – Dinner Cruise**

Private Dinner Cruise aboard the *Cornucopia Destiny* cruising the waterways around Jersey City and New York City. The yacht will depart from the dock at the Hyatt Hotel. Dinner and drinks will be served  
Boarding Time: 6:30pm – Return Time: 10:00pm.

Website for the boat: <http://www.nauticalholidays.com/boat/cornucopia-destiny/>



**Thursday, August 16th – YEA Event**

The party continues at the RoofTop at Exchange Place for drinks and conversations. RoofTop features stunning views of the Manhattan skyline, Hudson River, Statue of Liberty, Staten Island and beyond. The RoofTop provides year round comfortable vibes with its retractable glass roof and walls. Walking (“crawling”) distance from the hotel.

Start Time: 10:00pm



**Friday, August 17th – Companion Tour**

A self-guided tour to the Statue of Liberty and Ellis Island. Transportation to and from the hotel will be provided. Lunch is available for purchase along the way. Ferry rides to both islands are included.

Comfortable walking shoes are recommended!

Depart: 10:00am – Returning: 4:00pm



**Friday, August 17th – Family Tour**

Liberty Science Center is a 300,000-square-foot learning center located in Liberty State Park on the Jersey City bank of the Hudson near the Statue of Liberty. The Science Center houses 12 museum exhibition halls, a live animal collection with 110 species, giant aquariums, a 3D theater, live simulcast surgeries, hurricane- and tornado-force wind simulators, and the Western Hemisphere’s largest and most technologically advanced planetarium—the Jennifer Chalsty Planetarium and LSC Giant Dome Theater. Their mission is to inspire the next generation of scientists and engineers and excite learners of all ages about the power, promise, and pure fun of science and technology. Transportation to and from the hotel will be provided. Lunch is available for purchase at the Museum. Depart: 10:00am – Returning: 4:00pm



**Friday, August 17th – Presidential Dinner**

Join us in the Manhattan Ballroom of the Hyatt for dinner and entertainment.

Charles Gullledge will be delivering the Presidential Message.

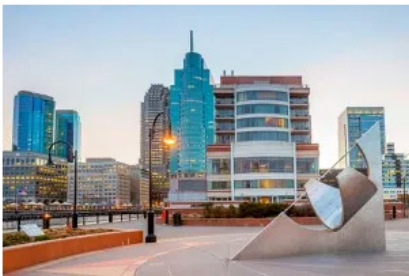
After dinner, Comedian-Magician And Stage Hypnotist Denny More will be performing.

Please see his website for more information about his show: <http://www.dennymore.com/>

Start time: 6:00pm



**ABOUT JERSEY CITY**



**Welcome to Jersey City, NJ! – <http://www.cityofjerseycity.com/>**

An unparalleled history as the nation’s “Golden Door,” Jersey City is fittingly nestled in the shadows of the historic Ellis Island and Statue of Liberty, and is one of the nation’s most diverse cities, comprised of over 265,000 residents.

Located between the Hudson and Hackensack Rivers, Jersey City covers nearly 15 square miles of land at the center of the New York City metropolitan region. Once a city driven by immigrants working in the shipping and manufacturing industries, Jersey City has transformed into a modern urban community. Old factories have been repurposed and reborn into office buildings and housing units, abandoned rail yards are now landscaped parks. Jersey City’s vibrant culture and diversity and commitment to collaboration

and innovation, create an unparalleled quality of life for residents and businesses.

Some cities are known for their landmark attractions, for their action-packed nightlife, or simply for the unmatched quality of their community. All of these elements and more define the City of Jersey City. From the Greenville neighborhood to the bustling Downtown area, the Heights to the West Side, in Bergen-Lafayette, India Square and Journal Square, everywhere you turn you’re surrounded by diversity and growth.



**PLACES TO EAT**

- \* Vu – Stylish New American spot with NYC Views
- \* Piggyback Bar – Lively hangout for Asian-style pub bites
- \* Green Hook Bar & Kitchen – Refined American fare
- \* City Diner – Modern outfit for comfort food & drinks
- \* Light Horse Tavern – Moder American fare in old, airy setup
- \* Taqueria Viva Meixco Kitch Café – Bridght nook for classic Mexican fare
- \* Honshu – Japanese sushi & noodle specialist

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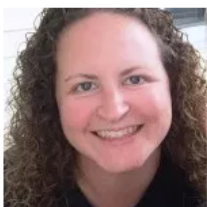
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