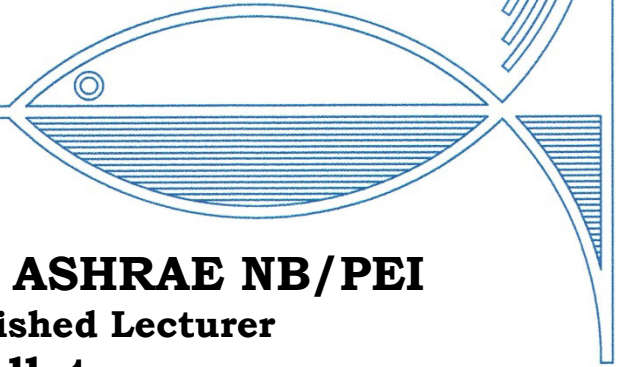




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NB PEI CHAPTER



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Shelby Gallant

### **February 2017 Issue**

## **Next Meeting – ASHRAE NB/PEI Welcomes Distinguished Lecturer Julian R. de Bullet**

**Monday February 20th, 2017**

Location: **Alma City Club**  
**114 Alma St, Moncton**  
Parking is Available

### **Meeting Agenda**

**5:00 pm** – Meet and Greet

**6:00 pm** - Presentation: **Condenser Water Heat Recovery**

**7:00 pm** – Supper: TBA - RSVP is Required

**Members - \$20.00**

**Non-Members - \$30.00**

**Students - \$10.00**

New Members/Students receive a complimentary first meal with ASHRAE NB/PEI.



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**Robert McEwen, P.Eng.**  
Mechanical Design Engineer  
Associate

Moncton Saint John Halifax Charlottetown Toronto Winnipeg Vancouver

## Introduction to Our Speaker

### Julian R. de Bullet – Distinguished Lecturer



President of deBullet Consulting LLC, has over 40 years' experience in the HVAC industry specializing in educational outreach and energy advocacy.

He is a Carrier Environmental Consultant helping develop strategies for high performance buildings that are safer, smarter and sustainable.

He has attended the Montreal Protocol meetings since 2004 and continues to attend associated industry and government meetings.

As ASHRAE Vice President (2001/2003), he served on the Society Board of Directors, the Executive Committee and was Chair of Member Council and Publishing Council. He is Past President of the ASHRAE National Capital Chapter and was Director and Regional Chair for ASHRAE Region III.

He is an ASHRAE Distinguished Lecturer with over 400 technical seminars delivered around the world.

He is an ASHRAE Life Member and holds the ASHRAE Distinguished and Exceptional Service Awards.

He is a recent member of the ASHRAE Society Nominating Committee and a Member of Technical Committee TC8.2-Centrifugal Chillers and TC2.5-Global Climate Change.

## Presentation: Condenser Water Heat Recovery


ASHRAE Standard 90.1 now requires us to consider condenser water heat recovery for large projects. We will discuss the details of designing condenser water heat recovery including load sizing, and controls. We will look at several different method of recovering the heat and analyze their pros and cons. Examples of successful applications and life cycle analysis will be offered.



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## LEADERSHIP U CONGRATS ROBERT HOADLEY !

Robert Hoadley, President Elect of our Chapter, has been awarded the honor of participating in Leadership U, a program open to YEA's, where the YEA shadows a VP from Society during either the winter or summer conference. Rob had the opportunity attended the AHR in Las Vegas as well as Society meetings with Patricia Graeff, Vice President 2016-2017, PE, Fellow ASHRAE. Patricia, senior engineer at Munters Corp from Fort Myers, Florida, will also be our DL in April and speaking on Legionella. She was a member of the committee for SPC188.

**Want to develop soft skills for your professional development and network with industry professionals regionally, nationally and worldwide?**

Learn about Leadership U and other ways to get onboard with the YEA program and  
<https://www.ashrae.org/membership--conferences/young-engineers-in-ashrae>.

**Read Rob's Report on Pages 4 & 5**

### YEA Technical Weekend - March 24-26, 2017

Embassy Suites Buckhead Atlanta, GA

[www.ashrae.org/YTW](http://www.ashrae.org/YTW)

Are you or your company looking for technical training opportunities? YEA Technical Weekend is an opportunity for YEA members to come together for a weekend of energy management courses, technical tours, and networking. This event will be held March 24-26, 2017 in Atlanta, GA and features one professional development course: Effective Energy Management in New/Existing Buildings

Instructor: Richard Pearson, P.E.

Registration is \$450 and includes hotel accommodations for Friday and Saturday, meals during the event and all necessary materials and resources.

For More Information:

<https://www.ashrae.org/membership--conferences/youngengineers-in-ashrae/yeatechnical-weekend>



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# LEADERSHIP U

## Robert Hoadley, P. Eng., HFDP

I was fortunate to have been chosen for the Leadership U program at the 2017 Winter Conference in Las Vegas. I shadowed Society Vice President Patricia Graef throughout the week, and sat in on her meetings with the Executive Committee (ExCom) and the Board of Directors.

These meetings were a glimpse into the decision making process within the society. I was able to witness the debates and votes on matters that will determine the direction of the society in coming years. The biggest take-away I have from these meetings is that the well-being of the grassroots of the society are the basis of all decisions made.



This was my first Society Conference, and I was also fortunate to have had the opportunity to attend several technical seminars and to have sat in on two subcommittee meetings of TC 9.6 – Healthcare Facilities (Water and Infectious Disease Subcommittees). I was also welcomed into several social receptions with the Board of Directors, and was able to make the acquaintance of many Executive Council and Board members. Regardless of what technical or social event I attended, I was always made to feel welcome in the room and a part of the discourse.

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# LEADERSHIP U

## - Continued -

I also had the chance to attend my second AHR Expo whilst in Las Vegas. The trade show allows consultants like myself to meet directly with manufacturers to review new technology and products. I find this review of new products and applied technology to be very important professional development, and integral for young consultants and engineers.

The Board of Directors meeting agenda provides a time for members to bring forward concerns or comments regarding the Society. I took the opportunity to thank the board for the Leadership U program. I also took the opportunity to thank the board on behalf of my home chapter (NB/PEI) for the ongoing support of young engineers through the YEA program. The YEA program has reinvigorated our own chapter's membership and board of directors. We are now fortunate to boast a young and vibrant chapter leadership, and ASHRAE's YEA program is the driving reason for our chapter's renewal.

The Leadership U program was a unique opportunity to be part of the society leadership. Society President Tim Wentz referred to the importance of "being in the room" during his address at the Presidential Luncheon. This week I was welcomed into the room, and I now intend to give back to the Society to the best of my abilities. The YEA Committee should be congratulated for the inception of the Leadership U program.

Robert Hoadley, P. Eng., HFDP  
Fredericton, NB, Canada  
President-elect, NB/PEI Chapter, Region II



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## January's Speaker - Kevin Clannon, CET ASHRAE NB/PEI Past President

Kevin graduated from U.C.C.B. Mechanical Engineering Technology in 1997 and went on to spend several years as a Processing Coordinator at Russel Metals performing estimating, CNC programming and machine load scheduling.



As an Estimator with Western Plumbing & Heating he did HVAC, plumbing take offs along With material and labour estimating.

On sabbatical, Kevin served as a Mechanical Engineering Technology Instructor at N.B.C.C. Saint John teaching CAD/CAM.

Currently he is Senior of Applied Sales with Master Group, where he has been for the past 13 years.

Kevin enjoys several hobbies including sporting clays shooting, cooking and wine making. Along with being involved in ASHRAE Kevin is also a scout leader and avid outdoorsman.

## January's Presentation was: Cooling Tower 101 – The Basics

The Supper Menu was:

Soup - Cauliflower & Parmesan

Main - Dijon Crusted Salmon over warm German Potato Salad & fresh vegetables

- Or Sour Cherry Honey Glazed Pork Loin with Garlic Mashed Potatoes & fresh vegetables

Desert - Chocolate mousse cake





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## EXCERPTS FROM THE 1898 YOUNG ENGINEERS GUIDE

ROBERT HOADLEY, P. ENG.

MY FIRST EMPLOYER, MR JOHN PEA, P. ENG., OF MEDICINE HAT, AB, FOUND AN OLD HANDBOOK AT A BOOK SALE. I HAD JUST STARTED WORKING FOR HIM AS A YOUNG EIT, AND HE GAVE ME THE OLD BOOK ENTITLED: YOUNG ENGINEERS GUIDE, BY J.V. ROHAN OF RACINE, WISCONSIN. THE BOOK WAS FIRST PUBLISHED IN 1894, AND MY COPY IS THE 28TH EDITION, PUBLISHED IN 1898. THE FOLLOWING IS A SHORT EXCERPT FROM THE HANDBOOK.

NOT ONLY SHOULD AN ENGINEER BE EVER ON ALERT TO GUARD AGAINST ACCIDENT, BUT HE SHOULD ALSO BE CAPABLE OF KEEPING THE ENGINE, BOILER, AND APPLIANCES IN GOOD CONDITION, AS THE LIFE OF MACHINERY DEPENDS LARGELY ON HIS COMPETENCY AND THE FAITHFUL PERFORMANCE OF HIS DUTIES.

### AN ENGINEER:

SHOULD BE SOBER.

SHOULD BE INDUSTRIOUS.

SHOULD BE CAREFUL.

SHOULD BE FAITHFUL TO HIS CHARGE.

SHOULD KEEP HIS ENGINE AND ITS SURROUNDING NEAT AND CLEAN.

SHOULD KEEP HIS ENGINE RUNNING SMOOTHLY AND WITHOUT KNOCKS OR POUNDS.

SHOULD LEARN TO LET "WELL ENOUGH" ALONE.

SHOULD NEVER ATTEMPT EXPERIMENTS UNLESS HE KNOWS WHAT HE IS ABOUT.

SHOULD HAVE A PLACE FOR EVERYTHING AND KEEP EVERYTHING IN ITS PLACE.

SHOULD SHOW BY THE QUIETNESS IN RUNNING AND APPEARANCE OF THE ENGINE IN HIS CHARGE THAT IT IS PROPERLY CARED FOR.

SHOULD CONSTANTLY ENDEAVOR TO EXPAND HIS MIND AS TO THE MANAGEMENT, CONSTRUCTION, AND CARE OF BOILERS, ENGINES, AND THEIR APPLIANCES.

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## Radiant Heating in Heritage Buildings

**Robert Hoadley, P. Eng.**

New Brunswick was one of the first areas settled by Europeans in North America. Our communities are older than other areas of the country, and we thus have older buildings. We also have a preponderance of large stone buildings such as our local churches. These older stone buildings tend to have been built a century or more ago.

During the energy crisis of the 1970s, many building owners insulated these older stone buildings, hoping to reduce heat loss and energy costs. These owners then found that by insulating a stone wall, moisture can be trapped in the now-impermeable wall assembly. This moisture will freeze and thaw, and deteriorate the wall quite quickly. Stone walls must be able to breathe, and eliminate the chance that moisture will remain trapped within that wall assembly.

Heat load calculations for modern wall assemblies assume that they are very airtight with low amounts of infiltration. It is important to consider the much higher infiltration that will occur through a stone wall that is breathing as intended. This leads to another common complaint in stone buildings – cold draughts.



Cold wall surfaces also create the perception of cold for building occupants. The mean radiant temperature of a surface is an important variable in the thermal comfort calculations in ASHRAE Standard 55 – Thermal Environmental Conditions for Human Occupancy. Cool walls will create a greater feeling of thermal discomfort for occupants compared to a warmer wall surface.





## Radiant Heating in Heritage Buildings - Continued -

High levels of infiltration and cold wall surfaces make radiant heating a very attractive option in stone buildings. A radiant floor surface will radiate heat to all surfaces within a line of sight of the floor. This radiation will heat the interior surface of a stone wall much more effectively than warm air direct from a grille or indirectly created by convection through a baseboard heater.

Increasing the temperature of the exterior walls will improve thermal comfort by increasing the mean radiant temperature of that wall. The warmed wall will also transmit some thermal energy to air passing through it, thereby reducing the severity of cold draughts in the space.

Radiant floors have the ability to retain heat for long periods of time. This is especially important given the high infiltration through stone walls. Forced air systems that are reliant on warm air to maintain space temperature have their effectiveness reduced when infiltration reduces the air temperature within the space. The surface temperature of a radiant floor will remain constant when adequately controlled, thereby retaining constant heat delivery independent of air infiltration.



We are fortunate in New Brunswick to possess heritage buildings that are not common elsewhere in North America. Just as architects and developers are innovating to reuse these buildings, mechanical engineers and contractors need to find new and better ways to make these buildings comfortable. Properly designed radiant heating systems can provide superior thermal comfort in these buildings, allowing them to be used for years to come.



## 2016-2017 Schedule

**February 20<sup>th</sup> :** Topic: **“Condenser Water Heat Recovery”**  
(Chapter Meeting)

Distinguished Lecturer  
**Julian R. de Bullet**

**February 20<sup>th</sup> :** Topic: **“Chiller Plant Design Fundamentals”**  
(Student Seminar)

Distinguished Lecturer  
**Julian R. de Bullet**

**March 14<sup>th</sup> :** Topic: BACnet Networking Systems  
Theme: TBD

**April 11<sup>th</sup> :** Topic: Legionella & ASHRAE Standard 188-2015 - Distinguished Lecturer

**May 9<sup>th</sup> :** Topic: Humidifiers  
Theme: TBD

**June 13<sup>th</sup> :** Topic: TBD  
Theme: Membership Promotion

<https://www.linkedin.com/company/ashrae>

## Missing Trophy

### ASHRAE NB/PEI is missing the BOAT RACE TROPHY

Our trophy is similar to this.

No photo is available. The mug was copper color and had the old ASHRAE logo in the center.

The base was bigger to accommodate names of winners.

If you know the whereabouts of this trophy or any other chapter trophy please contact:

Kevin Clannon Chapter Historian at

[kclannon@master.ca](mailto:kclannon@master.ca)

or by phone (506)875-0675

