



# **Honors and Awards Committee**

## **Reference Manual**

Please consult [www.ashrae.org/honors](http://www.ashrae.org/honors) for additional information and documentation

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## **1. Purpose**

The Honors and Award Reference Manual is a reference for guidelines, forms, procedures, sample documents and other tools that the Committee uses in its day-to-day operations. It ensures consistency in the operation of the Committee and serves as an educational tool for new members. The H&A Reference Manual is an internal document of the Committee and requires the approval of the Committee.

## 2. Appendix A-1: Honors and Awards – General

Prior to Board of Director's approval, the Honors and Awards Committee shall review all recommendations for new awards to ensure that the wording of criteria is sufficiently specific as to clearly establish the purpose of the award, and to ensure that the wording does not conflict with existing awards. Further, the official version of the criteria, as established in the Rules of the Board, shall be the version used in all ASHAE publications.

Members Council shall confirm individuals recommended for the following honors and awards based on the following requirement:

Andrew T. Boggs Service Award	4 or more negative votes defeats
ASHRAE Award for Distinguished Public Service	4 or more negative votes defeats
ASHRAE Hall of Fame	2 or more negative votes defeats
ASHRAE Journal Paper Award	Majority vote
ASHRAE Pioneers of the Industry	2 or more negative votes defeats
Crosby Field Award	Majority vote
Dan Mills Chapter Programs Award	Majority vote
Developing Leader Award	Majority vote
Distinguished 50-Year Member Award	4 or more negative votes defeats
Distinguished 75-Year Member Award	4 or more negative votes defeats
Distinguished Service Award	4 or more negative votes defeats
Donald A. Siller Refrigeration Award	Majority vote
Donald Bahnfleth Environmental Health Award	Majority vote
E.K. Campbell Award of Merit	Majority vote
Energy Genius Award	Majority vote
Exceptional Service Award	4 or more negative votes defeats
F. Paul Anderson Award	2 or more negative votes defeats
Fellow	4 or more negative votes defeats
George B. Hightower Technical Achievement Award	Majority vote
Government Affairs Award	Majority vote
Homer Addams Award	Majority vote
Honorary Member	2 or more negative votes defeats
John F. James International Award	Majority vote
Lincoln Bouillon Award	Majority vote
Lou Flagg Historical Award	Majority vote
Louise and Bill Holladay Distinguished Fellow Award	4 or more negative votes defeats
Lower-GWP Refrigeration and Air-Conditioning Innovation Award	Majority vote
Milton W. Garland Commemorative Comfort – Process – Cold Chain Award for Project Excellence	Majority vote
Poster Presentation Award	Majority vote
Ralph G. Nevins Physiology & Human Environment Award	Majority vote
Science and Technology for the Built Environment Best Paper Award	Majority vote
Service to ASHRAE Research Award	Majority vote
Standards Achievement Award	Majority vote
Student Activities Achievement Award	Majority vote
Technical Paper Award	Majority vote
William J. Collins Jr. Research Promotion Award	Majority vote
Willis H. Carrier Award	Majority vote
YEA Award of Individual Excellence	Majority vote
YEA Inspirational Leader Award	Majority vote
Youth Outreach Award	Majority vote

### 3. Appendix A-2: Awards Schedule

<b>Winter Conference Awards</b>	<b>Maximum # Per Year</b>
<b>Personal Honors and Awards</b>	
ASHRAE Award for Distinguished Public Service	1
ASHRAE Hall of Fame	2
ASHRAE Pioneers of the Industry	2
F. Paul Anderson Award	1
Fellow	No Limit
Honorary Member	3
YEA Inspirational Leader Award	1
<b>Pass-Through Awards</b>	
Developing Leader Award	No Limit
E.K. Campbell Award of Merit	1
John F. James International Award	1
Lower-GWP Refrigeration and Air-Conditioning Innovation Award	No Limit (1 <sup>st</sup> and HM)
Milton W. Garland Comfort – Process – Cold Chain Award for Project Excellence	1
Student Project Competition	3 (first), 3 (second)
Technology Awards / Award of Engineering Excellence	6 categories (up to 3 awards in each category)
<b>Annual Conference Awards</b>	<b>Maximum # Per Year</b>
<b>Personal Honors and Awards</b>	
Andrew T. Boggs Service Award	1
Distinguished 50-Year Member Award	No Limit
Distinguished 75-Year Member Award	No Limit
Distinguished Service Award	No Limit
Exceptional Service Award	20
Louise and Bill Holladay Distinguished Fellow Award	1
<b>Paper Awards</b>	
ASHRAE Journal Paper Award	1
Crosby Field Award	1
Poster Presentation Award	1
Science and Technology for the Build Environment Best Paper Award	1
Technical Paper Awards	4
Willis H. Carrier Award	1
<b>Pass-Through Awards</b>	
Dan Mills Chapter Programs Award	1
Donald A. Siller Refrigeration Award	1
Donald Bahnfleth Environmental Health Award	1
Energy Genius Award	1
George B. Hightower Technical Achievement Award	1
Government Affairs Award	1
Homer Addams Award	1
Lincoln Bouillon Award	1
Lou Flagg Historical Award	1
Ralph G. Nevins Award	1
Service to ASHRAE Research Award	1
Standards Achievement Award	No Limit
Student Activities Achievement Award	1
William J. Collins, Jr. RP Award	1
YEA Award of Individual Excellence	3
Youth Outreach Award	1

#### 4. Appendix A-3: Form of all Honors and Awards

Award	Plaque	Medallion	Lapel Pin	Honorarium	Endowed	Conference Presented	Other
<b>PERSONAL HONORS</b>							
Andrew T. Boggs	♦	♦				Annual	Transportation
ASHRAE Award for Distinguished Public Service	♦	♦				Winter	Transportation
ASHRAE Hall of Fame	♦					Winter	Plaque; trans. to conf.; one night's lodging
ASHRAE Pioneers of the Industry						Winter	Display at HQ and ASHRAE Website
E.K. Campbell	♦			♦		Winter	\$10,000 (from Life Members Club)
F. Paul Anderson	♦	♦				Winter	Transportation
Fellow	♦	♦	♦			Winter	
Honorary Member	♦	♦				Winter	
Louise & Bill Holladay	♦	♦				Annual	Transportation
YEA Inspirational Leader	♦					Winter	Travel and conference registration (YEA)
<b>PERSONAL AWARDS FOR GENERAL SOCIETY ACTIVITIES</b>							
Developing Leader Award	♦		♦			Winter	Plaque (YEA)
Distinguished 50-Yr.	♦		♦			Annual	
Distinguished 75-Yr.	♦		♦			Annual	
Distinguished Service	♦		♦			Annual	
Exceptional Service	♦		♦			Annual	
<b>PERSONAL AWARDS FOR SPECIFIC SOCIETY ACTIVITIES</b>							
Dan Mills Chapter Programs	♦		♦		♦	Annual	Transportation
Donald A. Siller Refrigeration	♦					Annual	Plaque (CTTC)
Donald Bahnfleth Environmental Health	♦					Annual	Transportation (EHC)
Energy Genius	♦					Annual	Plaque (BEQ)
George B. Hightower	♦					Annual	Plaque (Atlanta Chapter)
Homer Addams	♦		♦	♦	♦	Annual	\$5,000 (\$1500 H&A, \$3500 RAC)
John F. James	♦		♦			Winter	Transportation
Lincoln Bouillon	♦		♦			Annual	Transportation
Lou Flagg Historical	♦		♦			Annual	Transportation
Lower-GWP Refrigeration and Air-Conditioning Innovation						Winter	
Milton W. Garland	♦	♦	♦		♦	Winter	Transportation
Ralph G. Nevins	♦		♦	♦	♦	Annual	\$500
Service to ASHRAE Research	♦					Winter	Plaque (RAC)
Standards Achievement	♦		♦			Annual	Transportation
Student Activities	♦		♦			Annual	Transportation
William J. Collins	♦	♦	♦		♦	Annual	Transportation
YEA Individual Excellence	♦					Annual	Plaque (YEA)
Youth Outreach Award	♦					Annual	Plaque (SAC)
<b>PAPER AWARDS</b>							
ASHRAE Journal Paper	♦			♦		Annual	\$500 (divided equally)
Crosby Field	♦			♦		Annual	\$750 (divided equally)
Poster Presentation	♦			♦		Annual	\$250 (each presenter)
Science and Technology for the Built Environment Best Paper Award	♦					Annual	Plaque & Transportation (PEC)
Technical Paper	♦			♦		Annual	\$500 (divided equally)
Willis H. Carrier	♦			♦		Annual	\$500 (divided equally)
<b>SOCIETY AWARDS TO GROUPS OR CHAPTERS</b>							
Government Affairs	♦					Annual	Transportation
Student Project Design	♦			♦		Winter	Honorarium & Transportation (SAC)
Technology Award	♦					Winter	

## **5. Appendix A-4: Plenary Format**

Approved June 22, 2008

These recommendations are made by the Honors and Awards Committee and approved by Members Council on June 22, 2008, to ensure that the recognition of members for their contributions to industry and the Society remains one of the most important activities of ASHRAE.

1. The New Plenary Awards Format should allow for comments by the recipients (or representatives of recipients) of the Louise and Bill Holladay Distinguished Fellow Award, the F. Paul Anderson Award, and the ASHRAE Hall of Fame.
2. The Format must recognize the importance of ASHRAE tradition in the awards process.
3. Changes to the Format should be submitted to the Honors and Awards Committee for its review.
4. The timing of the video presentation should reflect the importance of the award (i.e., Fellow vs. DSA/ESA). To assign equal time to each award detracts from the importance of some awards as it reduces the amount of information shared with the audience.
5. If the Plenary Awards Presentation requires more time, consideration may be given to moving the Photo Session back to its traditional time slot before the Plenary where it is more relaxed and less intrusive.



## 6. Appendix B: Honors and Awards Calendar

Consideration at Winter Conference	Recommending Committee or Council	To Members Council	Presentation
ASHRAE Award of Distinguished Public Service		Annual	Winter
ASHRAE Hall of Fame		Annual	Winter
ASHRAE Pioneers of the Industry		Annual	Winter
Dan Mills Chapter Programs Award	Chapter Technology Transfer Committee	Winter	Annual
Distinguished 50-Year Member		Winter	Annual
Distinguished 75-Year Member		Winter	Annual
Donald A. Siller Refrigeration Award	Chapter Technology Transfer Committee	Winter	Annual
Donald Bahnfleth Environmental Health Award	Environmental Health Committee	Winter	Annual
Energy Genius Award	Building EQ Committee	Winter	Annual
F. Paul Anderson Award		Annual	Winter
Fellow		Annual	Winter
George B. Hightower Technical Achievement Award	Technical Activities Committee & Technology Council	Winter	Annual
Government Affairs Award	Government Affairs Committee	Winter	Annual
Homer Addams Award	Research Administration Committee	Winter	Annual
Honorary Member		Annual	Winter
Lincoln Bouillon Award	Membership Promotion Committee	Winter	Annual
Lou Flagg Historical Award	Historical Committee	Winter	Annual
Paper Awards (ASHRAE Journal Paper, Crosby Field, Poster Presentation, Technical Papers, Willis H. Carrier)	Publications Committee & Conferences & Expositions Committee	Winter	Annual
Ralph G. Nevins Award	TC 2.1	Winter	Annual
Science and Technology for the Built Environment Best Paper Award	Publishing and Education Council		
Service to ASHRAE Research Award	Research Activities Committee & Technology Council	Winter	Winter
Standards Achievement Award	Standards Committee	Winter	Annual
Student Activities Achievement Award	Student Activities Committee	Winter	Annual
Student Project Competition	Student Activities Committee	N/A	Winter
Technology Award / Award of Engineering Excellence	Chapter Technology Transfer Committee	N/A	Winter
William J. Collins, Jr. RP Award	Research Promotion Committee	Winter	Annual
YEA Award of Individual Excellence	Young Engineers in ASHRAE Committee	Winter	Annual
Youth Outreach Award	Student Activities Committee	Winter	Annual
Consideration at Annual Conference	Recommending Committee or Council	To Members Council	Presentation
Andrew T. Boggs Service Award		Winter	Annual
Developing Leader Award	Young Engineers in ASHRAE Committee	Annual	Winter
Distinguished Service Award		Winter	Annual
E.K. Campbell Award of Merit	Life Members Club	Annual	Winter
Exceptional Service Award		Winter	Annual
John F. James International Award	Members Council	Annual	Winter
Louis and Bill Holladay Distinguished Fellow Award		Winter	Annual
Lower-GWP Refrigeration & Air-Conditioning Innovation Award	ASHRAE UN Environmental Liaison Committee	Annual	Winter
Milton W. Garland Award	Refrigeration Committee	Annual	Winter
YEA Inspirational Leader Award	Young Engineers in ASHRAE Committee	Annual	Winter

## 7. Appendix C: Format for Committee Objectives

Committee

Chairperson:

Society Year:

Date:

Objective	Planned Completion Date	Fiscal Impact	Responsibility	Program Approved	Cost Budgeted	Status

- List objectives, not action items or ongoing committee activities such as updating the committee's MOP.
- State objectives in clear, concise, measurable language. If necessary, cite sub-tasks and interim steps as a means of measuring objective completion.
- Cite both the completion date for the overall objective as well as individual sub-tasks.
- State fiscal impact in dollars, hours worked, or trips made. State whether the program has been approved by the council and whether its cost has been included in the budget.
- State the primary responsible individual, subcommittee or body.
- Report a brief but complete statement of status. Cite completion date if objective is fulfilled.

## 8. Appendix D: Guidelines for Awards

### ROB 2.411.003.2 Guidelines for Awards

1. The following guidelines for ASHRAE awards are approved: (99-01-27-51/06-01-25-08/07-03-25-01)
  - A. All requests or suggestions for new awards, revisions to current awards, or award deletions shall be forwarded to the Honors and Awards Committee for review and recommendation before being forwarded to Members Council for review and approval. (10-06-30-15)
  - B. ASHRAE awards are grouped into the following categories, each of which has its defined form of award:
    1. Personal Honors (plaque and medallion)
    2. Personal Awards for General Society Activities (plaque and lapel pin)
    3. Personal Awards for Specific Society Activities (plaque and lapel pin)
    4. Paper Awards (plaque and honorarium)
    5. Society Awards to Groups or Chapters (plaque)
  - C. Awards will normally carry the name of an ASHRAE activity (e.g., Distinguished Service Award, Fellow, Journal Paper Award). No business, product or other commercial name shall be used for an award. Only in very exceptional instances may consideration be given to naming the award after an individual.
  - D. Each proposed award shall be submitted to the Honors and Awards Committee with a detailed description including the name of the award, the suggested category for the award, the reason for establishing the award, and the proposed selection and awarding process.
  - E. Initial total funding for the award shall be described in the proposal, along with provisions for future funding and inflation considerations. Funding shall be self-perpetuating and supporting for the expected life of the award.
  - F. Proliferation of awards that would tend to detract from the worth of existing awards must be avoided. The award must first be considered as applying to an important field of ASHRAE related activity; the name of the award would then add prestige.
  - G. Awards may be proposed by any committee, chapter, or individual to the immediate authority but eventually must pass through the Honors and Award Committee for approval prior to submission to Members Council and then to the Board of Directors. The Honors and Awards Committee will assist anyone wishing to submit a proposal for a new award. The proposal should be reviewed early in the process to allow determination for the appropriate nature of the anticipated award and meeting all necessary criteria for acceptance.
2. This committee shall include in their supporting material for candidates only information pertinent to the requirements for the particular award for which the candidate is being recommended. (70-07-01-11)
3. All voting for honors and awards of the Society shall be strictly secret and held at meetings of Members Council (not by mail ballot), and the H&A Committee shall be instructed to place the necessary information for such voting before Members Council at least two months prior to the applicable meeting. (65-01-28-19/06-01-25-08/10-06-30-15)
4. It is the policy of the Society not to consider for approval any Society honors or awards posthumously, other than the Hall of Fame and Pioneers of the Industry.

## 9. Appendix E: Content, Format, and Handling of Motions

### 1. Introduction

A motion is an important tool for conducting business within the Society and for proposing action on an important issue. A motion should be written in succinct language. If a motion is expected to move through several levels of approval (for example from a subcommittee to a committee, then to a council and ultimately to the Board), state what is recommended but omit references as to which body must approve it. The committee can then pass the motion along to the council (and to the Board, if required) as it is written without having to rephrase it. If a rule or policy already exists, a motion to re-affirm the rule or policy is out of order.

### 2. Content

When a motion is made recommending that a higher body approve it, the following should be included:

- A. Motion (request action)
- B. Background (reason for action)
- C. Fiscal impact (estimated cost of action)

### 3. Format

The body of a motion should contain as completely as possible the following information:

- A. State the action that is being recommended. For example, “I move that \$75,000 be allocated...”
  - B. Qualify elements of the motion so that they are not open for interpretation, debate or negotiation. For example, “I move that \$75,000 be allocated to develop a certification course on fan design...”
  - C. Include the time frame for completing the action if a time is desired. For example, “I move that \$75,000 be allocated to develop a certification course on fan design to be completed by June 2007.”
4. If a motion is anticipated to become a Rule of the Board (ROB) it should be worded as a rule. A rule number should also be suggested. Existing related rules may be included in the background. If a motion is to amend an existing ROB, deletions should be shown as ~~striketroughs~~ and additions should be shown as double underlines. See examples below.
- A. **New ROB:** “I move that a new ROB be added to ROB Volume 2, 2.105.003, to read as follows: *A reference manual should contain reference documents, white papers, guides etc. that the council or committee uses in conducting its work but that are not appropriately a part of the Rules of the Board or the council’s or committee’s Manual of Procedures.*
  - B. **Amendment to existing ROB:** “I move that the proposed change to the Election and Appointment Procedures be approved as follows (~~strike through~~ = deletion; double underline = addition):
    - 1. Unless otherwise provided, the committee members and the respective chairs thereof shall be selected by the President-Elect in advance of the annual meeting and be confirmed by the President-Elect when he/she takes office as President, with the approval of the Board of Directors at the first meeting called after the report on the election. (SBL 7.2)
    - 2. The selection procedure for each standing committee which is not directly elected by the Board of Directors is as follows: At least two months prior to the Annual Meeting, the President-Elect shall submit recommended appointments of standing committees and their respective chairmen and vice chairmen to the Board of Directors. ~~With approval of the Board, these designated shall, at least 30 days prior to the annual meeting.~~ Appointees shall be invited to attend any meetings of their committees that may be called during the Annual Meeting. Committee appointments shall be approved by the Board of Directors as required by the Society Bylaws (65-07-04-23/95-01-29-05).

### 5. Background

Provide progression of events, the reason (what the action would accomplish) or other information that would help the approving body to debate and decide on the issue. The more thorough the background, the more convincing the arguments, the more complete the research, the more beneficial the request is to the betterment of the Society, the more likely the motion will be approved. Include the recommending body’s vote count to assist the approving body in determining the level of support or controversy.

When a motion is made, it must be seconded unless it is from a committee or subcommittee. Once the motion is moved and seconded, the chair then states the motion unless it is presented in writing and all members have copies.

## 6. **Fiscal Impact**

Include an estimate of the cost to take the action requested. State whether this amount has been included in the budget for the year in which the expense will be incurred. If the expense will be incurred in a future year, request that the amount be included in that year's budget. If there will be no fiscal impact, this should be stated.

\* \* \* \* \*

Attachment A - Summary of Motions based on *Robert's Rules of Order Newly Revised*

Attachment B - Format for Motion (used for a motion made during a meeting)

Rev. 2006.09.17

**Summary of Motions**  
**Based on Robert's Rules of Order Newly Revised**

This summary provides *At A Glance* information on handling motions that may arise during a meeting.

MOTION	PURPOSE	SECOND	DEBATABLE	AMENDABLE	MOTIONS HAVING HIGHER RANK	VOTE	DESCRIPTION
1. Main	Introduce business	Yes	Yes	Yes	All	Majority+	The lowest rank of motion. To Amend Rules a 2/3 vote and Previous Notice is required.
2. Postpone Indefinitely	Defer a matter or kill it	Yes	Yes (on the Main Motion as well as postpone)	No	All except 1	Majority	May be applied only to main motions including Questions of Privilege.
3. Amend *	To change or modify a pending motion	Yes	Yes (but confined to the amendment)	Yes	All except 1,2	Majority (The vote is on the amendment only. Main motion returns for vote either amended or not.)	Amend by insert or add, strike out, strike out and insert, substitute (a whole paragraph or resolution)
4. Commit x	To place business in hands of a few (e.g. a committee)	Yes	Yes (as to propriety of committing only)	Yes	5,6,7,8,9	Majority	The motion Commit adheres to the Main Motion and together they make one question.
5. Postpone to set a time	To set a time when a matter must be considered	Yes	Yes (only as to the propriety of postponing)	As to time As to Special or General Order	6,7,8,9	Majority 2/3 for Special Order	If passed the subject cannot be taken up before the set time except by a 2/3 vote. General Order – a certain day Special Order – a certain time
6. Previous Question	To stop debate and order an immediate vote	Yes	No	No	7,8,9	2/3	To make this motion state: The Previous Question is moved on (State main motion or amendment on which vote is demanded.) Calling out question, question carries no requirement for action by the chairman.
7. Table Take from table	To lay aside a matter such that it	Yes	No	No	8,9	Majority	Table is not used to suppress the motion. Postpone

	May be considered later.						Indefinitely should be used to suppress.
8. Orders of the Day	To force a meeting to return to the program, which is the Order of the Day	No	No	No	9	2/3	Must be called for at a time when Orders of the Day are being deviated from (Except Special Orders).
9. Question of Privilege	To get the attention of the Chair at once	No	No	No	Adjourn	Majority	Use to Ask a Question – to attend to some matter of business that cannot wait. Usually decided informally, without floor. Do not wait for recognition from the Chair.

+ A majority means more than half of those who voted for or against the motion. A 2/3 vote means 2/3 of those who voted for or against the motion.

\* There may be only one amendment to the *Main Motion* pending at one time. This 1st degree amendment may have only one amendment (2nd degree) pending at one time. As each is voted, other amendments may be offered in succession. *Previous Question* (stop debate and vote) may be applied to a motion or an amendment. A *Substitute Motion* is an *Amendment*. Amendments must be germane to the subject matter to be amended. After all amendments are voted, vote on what has become the *Main Motion as amended*.

x When a committee is to be appointed, nomination for the committee may be made from the floor. Chair puts vote; beginning with first named in succession. When the naming of the committee devolves upon the chairman, before the committee can act, the names must be announced to the assembly, unless permission is granted to the chairman to do otherwise. Whoever appoints the committee has power to appoint the chairman and fill vacancies. The committee reports to the assembly.

MOTION  
Honors & Awards Committee

Date \_\_\_\_\_

MOVED BY: \_\_\_\_\_

SECONDED BY: \_\_\_\_\_

MOTION: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

BACKGROUND: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

FISCAL IMPACT: \_\_\_\_\_

\_\_\_\_\_

Vote count: For \_\_\_\_\_ Against \_\_\_\_\_ Abstaining \_\_\_\_\_

Chairman voting? ☐ Yes ☐ No

☐ Motion passed ☐ Motion failed

Motion referred to: \_\_\_\_\_

2006-06-12



## 10. Appendix F: Mentoring Program

(ROB 100-128-003)

During the final meeting of the Fiscal Year, the Board of Directors/Board of Governors, Council or Committee Chair shall appoint an incumbent to be the mentor for an incoming member. A mentor should be appointed for each new member. The mentor will be responsible for the following tasks:

1. Before the next meeting of the Board of Directors/Board of Governors, Council or Committee Meeting, the mentor should contact the new member by telephone or email to introduce himself/herself and explain the new relationship and its purpose.
2. The mentor should make every effort to update the new member on:
  - A. Board of Directors/Board of Governors, Council, Committee or Chapter functions, focus and objectives.
  - B. Review the Rules of the Board (ROB) and Manual of Procedures (MOP) with the new member.
  - C. Discuss the typical meeting format and member duties and responsibilities.
3. The mentor should plan to meet the new member before the respective meeting is scheduled to start and introduce him/her to the chair and early arriving members. The mentor should also introduce the new member with pertinent data such as:
  - A. Member's field of expertise and employer
  - B. Chapter and city of the new member
  - C. Former chapter, region and Society positions previously held by the new member
4. The new member will be sent a copy of the group Rules of the Board (ROB), Manual of Procedures (MOP) and a copy of the most recent meeting minutes to acquaint him/her with the function and focus of the group. The new member should be encouraged to develop a rapport with other members to effectively work with fellow members to maximize productivity.
5. The chair of the Board of Directors/Board of Governors, Council, Committee or chapter shall have the following responsibilities:
  - A. Assign a mentor to each incoming new member of the group prior to the first meeting.
  - B. Assure that the time allotted at the beginning of the first meeting is sufficient for proper introduction of the new member by the assigned mentor.
  - C. Assess at a later meeting the effectiveness of the mentor/new member relationship.
  - D. Provide any assistance to enhance the mentor/new member relationship.
6. Completion date: The relationship terminates at the end of the new member's first year in the group.
7. Process of Measurement at the Society and Regional Level:

Measurement	Actual %	Tool	Responsible Party
1. Each BOD/BOG, Council, Committee will include the mentoring program in their Manual of Procedures (MOP).		MOP	Committees / Council
2. The Committee Management by Objectives (MBO) should include an objective for mentoring which will be reported to the Council at each meeting.		MBO	Committees / Council
3. The mentoring program will be monitored to determine its effectiveness through the MBO process.		MBO	Council
4. The Councils at each annual meeting will include in their report to the Board of Directors the status of that Council's mentoring program.		BOD Report	Council

8. Process of Measurement at the Chapter Level:

Focus and measurement will be accomplished using the Presidential Award of Excellence (PAOE) program. Points will be awarded based on a chapter submitting an effective plan to accomplish mentoring of new members. Short term results

will be measured by PAOE compliance. Long term measurement would be completed by retention % reduction for new members who have belonged to the Society for less than two years.

<b>Measurement</b>	<b>Actual %</b>	<b>Tool</b>	<b>Responsible Party</b>
1. Percent of chapters having a mentoring program in place as reported by PAOE		PAOE Report	Membership Promotion Committee
2. Retention decrease of new members		Membership Report	Membership Committee

## **11. Appendix G: Code of Ethics**

### **American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.**

Approved by ASHRAE Board of Directors January 31, 2007

As members of ASHRAE, we pledge to act with honesty, fairness, courtesy, competence, integrity and respect for others in our conduct.

Efforts of the Society, its members, and its bodies shall be directed at all times to enhancing the public health, safety and welfare.

Members and organized bodies of the Society shall be good stewards of the world's resources including energy, natural, human and financial resources

Our products and services shall be offered only in areas where our competence and expertise can satisfy the public need.

We shall act with care and competence in all activities, using and developing up to date knowledge and skills.

We shall avoid real or perceived conflicts of interest whenever possible, and disclose them to affected parties when they do exist.

The confidentiality of business affairs, proprietary information, intellectual property, procedures, and restricted Society discussions and materials shall be respected.

Each member is expected and encouraged to be committed to the code of ethics of his or her own professional or trade association in their nation and area of work.

Activities crossing national and cultural boundaries shall respect the ethical codes of the seat of the principal activity.

## 12. Appendix H: Confidential Information Agreement

The ASHRAE Honors and Awards Committee has an important role in ASHRAE. The selection of highly qualified candidates for all honors and awards is very important.

In order to make the best possible decisions on the nominees, free and open discussion as well as exchange of information must be conducted. This requires the strictest adherence to the requirement that none of the deliberations or other information presented at meetings of the Honors and Awards Committee be disclosed outside of the committee meetings. The requirement for non-disclosure of information is not limited by time.

By signing this confidential information agreement, I agree that I am committed to strictly observing the non-disclosure of any of the Honors and Awards Committee discussions or material pertaining to candidates. I realize that this is an obligation that I will adhere to faithfully and I understand to do otherwise is a breach of trust given to me by my fellow committee members and the Society. In addition, disclosure of restricted Society discussions constitutes a violation of the ASHRAE Code of Ethics contained in the Rules of the Board.

Member Name (printed): \_\_\_\_\_ Date: \_\_\_\_\_

Member Signature: \_\_\_\_\_

Witness Signature: \_\_\_\_\_  
Chair, Honors & Awards Committee

### 13. Appendix I-1: Honors and Awards Review Schedule

#### Honors and Award Manual of Procedures Operating Rules

- 8.14 All Society awards shall be reviewed every five (5) years considering, but not limited to: current prestige and appeal to the society, number of candidates on an annual basis, financial status of the award, and basis for original establishment of award. The awards to be reviewed each year shall be those in a specific group as listed in Appendix A of the H&A Reference Manual (Form of all Honors and Awards chart). The initial year of review of a group of awards shall include those in the “Personal Honors” group. Reviews in succeeding years shall include awards in “Personal Awards for General Society Activities,” “Personal Awards for Specific Society Activities,” “Paper Awards,” and “Society Awards to Groups or Chapters.” Review of award groups shall commence in 2000-01. Elimination of or revisions to awards are to be submitted to Members Council and the Board for approval.

#### Review Schedule

2020-21	ASHRAE Hall of Fame, ASHRAE Pioneers of the Industry, E.K. Campbell, Energy Genius, Homer Addams, Honorary Member, Lincoln Bouillon, Lou Flagg, Service to ASHRAE Research, William J. Collins, YEA Inspirational Leader
2021-22	Andrew T. Boggs, Dan Mills Chapter Programs, Donald Bahnfleth Environmental Health, F. Paul Anderson, Government Affairs, Technology Awards
2022-23	ASHRAE Journal Paper, Dist. 50-Year, Dist. 75-Year, Standards Achievement, Student Activities, Student Design Competition, YEA Award of Individual Excellence, Youth Outreach Award
2023-24	ASHRAE Award for Distinguished Public Service, Crosby Field, George Hightower, Louise & Bill Holladay Distinguished Fellow, Poster Presentation, Science and Technology for the Built Environment Best Paper, Technical Paper, Willis H. Carrier
2024-25	Developing Leader, DSA, Donald A. Siller, ESA, Fellow, John F. James, Lower-GWP, Milton Garland, Ralph Nevins

Approved 06-27-2011

## 14. Appendix I-2: Five-Year Review of ASHRAE Honors and Awards

### Sample Memorandum to Councils and Committees

March 21, 2005

TO: Council/Committee Chairs for Pass-Through Awards

FROM: Donald G. Rich  
Chair, Honors and Awards Committee

SUBJECT: Five-Year Review of ASHRAE Honors and Awards

The Society Honors & Awards Committee is required to review all Society awards at least every five years. This is to ensure that each award continues to meet its intended need and that the candidate-selection process for each award is properly implemented. This applies not only to those awards that H&A administers (Hall of Fame, F. Paul Anderson, Fellow etc.), but also to the so-called “pass-through” awards that originate from other Society groups.

In order to properly conduct this review H&A must obtain input from each group that sponsors a “pass-through” award. Specifically, H&A must receive answers from your committee (Council) to the following questions as they apply to the particular award(s) that your committee (Council) sponsors.

1. Does the award have current appeal?
2. Does the award’s scope overlap or conflict with other current or proposed awards? Do you believe the majority of ASHRAE members would be of the opinion that this award should be
3. presented at a Chapter Meeting, a Regional Meeting, a Society Committee function, the Plenary Session, or possibly some other Society function? Please state the reasons for your choice.
4. What are the criteria for the award? Do they include a requirement for adherence to the ASHRAE Code of Ethics? Do they include a limit on the number of candidates that may receive the award annually? Please include a criteria statement that can be published in the awards section of the ASHRAE website.
5. Is there a written process for the selection of candidates? If so, please send a copy. Also, please include a statement regarding the selection process that can be published in the ASHRAE website
6. Are there financial commitments associated with the award such as travel costs, honoraria, or earmarked income from the ASHRAE Foundation?
7. Of the following six groups, which do you feel is most appropriate for your award?
  - A. Personal Honors
  - B. Personal Awards for General Society Activities
  - C. Personal Awards for Specific Society Activities
  - D. Paper Awards
  - E. Society Awards to Groups or Chapters
  - F. Regional Awards
8. Is your award named for an individual? If so, provide details as to why it is so named and a brief statement regarding that individual that can be given to each award recipient.

Your reply by August 1, 2005 will be greatly appreciated.

Thank you for your help on this important project.

Cc: Staff Liaisons, Councils and Committees for Pass-Through Awards

### 15. Appendix I-3: Sample Five-Year Review Tracking Sheet

Award	Responsible Council or Committee	Council or Committee Chair	Staff Liaison	Date Response Received
Andrew T. Boggs Service Award	Honors & Awards			
ASHRAE Award for Distinguished Public Service	Honors & Awards			
ASHRAE Hall of Fame	Honors & Awards			
ASHRAE Journal Paper Award	Publications			
ASHRAE Pioneers of the Industry	Honors & Awards			
Crosby Field Award	Conferences & Expositions			
Dan Mills Chapter Programs Award	Chapter Technology Transfer			
Developing Leader Award	Young Engineers in ASHRAE			
Distinguished 50-Year Member Award	Honors & Awards			
Distinguished 75-Year Member Award	Honors & Awards			
Distinguished Service Award	Honors & Awards			
Donald A. Siller Refrigeration Award	Chapter Technology Transfer			
Donald Bahnfleth Environmental Health Award	Environmental Health			
E.K. Campbell Award of Merit	Life Members Club			
Energy Genius Award	Building EQ			
Exceptional Service Award	Honors & Awards			
F. Paul Anderson Award	Honors & Awards			
Fellow	Honors & Awards			
George G. Hightower Technical Achievement Award	Technical Activities			
Government Affairs Award	Government Affairs			
Homer Addams Award	Research Administration			
Honorary Member	Honors & Awards			
John F. James International Award	Members Council			
Lincoln Bouillon Award	Membership Promotion			
Lou Flagg Historical Award	Historical			
Louise & Bill Holladay Distinguished Fellow Award	Honors & Awards			
Lower-GWP Refrigeration and Air-Conditioning Innovation Award	ASHRAE UN Environmental Liaison Committee			
Milton Garland Commemorative Comfort – Process – Cold Chain Award for Project Excellence	Refrigeration			
Poster Presentation Award	Conferences & Expositions			
Ralph G. Nevins Physiology & Human Environment Award	TC 2.1			
Science and Technology for the Built Environment Best Paper Award	Publications and Education Council			
Service to ASHRAE Research Award	Research Administration			
Standards Achievement Award	Standards			
Student Activities Achievement Award	Student Activities			
Student Design Project Competition	Student Activities			
Technical Paper Awards	Conferences & Expositions			
Technology Awards / Award of Engineering Excellence	Chapter Technology Transfer			
William J. Collins, Jr. RP Award	Research Promotion			
Willis H. Carrier Award	Conferences & Expositions			
YEA Award of Individual Excellence	Young Engineers in ASHRAE			
YEA Inspirational Leader Award	Young Engineers in ASHRAE			
Youth Outreach Award	Student Activities			

16. Appendix I-4: Honors and Awards Recommendation Form

Honors and Award Recommendation Form  
\*All fields are required for H&A approval\*

Name of Award: \_\_\_\_\_

Name of Candidate(s): \_\_\_\_\_

ASHRAE Member Number(s): \_\_\_\_\_

Statement of Candidate’s Qualifications for the Award:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

The signature below certifies that:

- ✓ The procedures for the award above submitted to the Honors and Awards Committee were followed in making this recommendation.
- ✓ To the best knowledge of the nominator, the nominee adheres to the ASHRAE Code of Ethics.

\_\_\_\_\_  
Council/Committee Chair

\_\_\_\_\_  
Date

Please submit to:  
Honors & Awards Committee  
[HonorsandAwards@ashrae.org](mailto:HonorsandAwards@ashrae.org)



## 17. Appendix J-1: Guidelines for ASHRAE Fellow Nominators

Revised February 2018

*The deadline for receipt of Fellow  
Nominations at ASHRAE Headquarters is  
December 1*

Email the completed nomination in Adobe pdf format to: [HonorsandAwards@ashrae.org](mailto:HonorsandAwards@ashrae.org)

The Fellow Grade of membership recognizes **exceptional** contributions which distinguish the nominee.

### Fellow Qualifications

#### Section 15.2, Honors & Awards Manual of Procedures

- 15.2.1 Requirements for eligibility for election to the Fellow Grade by the Board of Directors:
  - 15.2.1.1 Good standing as Full Member grade for at least ten (10) years
  - 15.2.1.2 Participation or service to ASHRAE is not a metric to be evaluated.
  - 15.2.1.3 Attained distinction and made substantial contribution in HVAC&R and in the built environment such as:
    - 15.2.1.3.1 Education and/or research
    - 15.2.1.3.2 Engineering design/consulting/forensics
    - 15.2.1.3.3 Invention/original work
    - 15.2.1.3.4 Engineering executive on projects of unusual or important scope
    - 15.2.1.3.5 Sharing knowledge and contribution through outreach activities such as mentoring, publications, oral presentations and involvement in industry activities
    - 15.2.1.3.6 Other activities leading to advancement of the arts and sciences of HVAC&R and the built environment including that of contractors, manufacturers and their representatives
  - 15.2.1.4 Distinction is interpreted to mean: seen by his/her peers in the industry as a person of Excellence
  - 15.2.1.5 Substantial contribution is interpreted to mean: one or more contributions to the industry which had a notable, unique, and positive impact in the advancement of the arts and/or sciences of HVAC&R, the built environment and a sustainable world.

Proposals for Fellow undergo a peer review by the ASHRAE Honors and Awards Committee.

References: (Available at <http://www.ashrae.org/honors>)

- Complete listing of ASHRAE Fellows
- ASHRAE Fellow Nomination Form for current year

### Requirements for Eligibility

The basic requirements are: good standing as Full Member grade for at least 10 years, and acknowledged distinction and having made substantial contribution(s) in HVAC&R. Hence, these will be the criteria for evaluation. For this particular award, activities and service within ASHRAE are not considered. The DSA and ESA recognize achievement in those areas.

### Distinction and Substantial Contribution

A working definition for distinction is: “seen by his/her peers in the industry as a person of excellence.” Amongst the potential measures for distinction are:

1. Comments from the referees and presenters of the nomination, and their own standing in the industry and proper perspective to evaluate the quality and eminence of the applicant
2. Recognitions, awards, citations from other organizations, clients, associations, municipalities, etc.

A working definition for substantial contribution is: “one or more contributions to the industry which had a notable, unique and positive impact in the advancement of the arts and/or sciences of HVAC&R, the built environment and a sustainable world.”

That definition acknowledges that a contractor who might have conceived one particular, new, and unique method for installation of equipment, which led to major changes in the cost and efficiency, and was emulated by his/her competitors might be a stronger

candidate than a researcher with 200 published papers openly cited by other experts in that area, but never leading to a tangible impact on the industry. Potential measures, or qualifiers of substantial contribution are:

1. Special aspects of the main contribution(s)
2. Importance of this contribution(s) in value and/or impact on the industry
3. Aspects of the contribution(s) that are original and attributed exclusively to the candidate
4. Recognition(s) and/or awards, if any, that followed this contribution(s)
5. Sharing knowledge and contribution through outreach activities such as mentoring, publications, oral presentations and involvement in industry activities

In general, reference letters from professionals familiar with the nature of the contribution(s), should provide insight into answers to those questions.

### **Differentiation between advancements in the “arts” and in the “sciences”:**

#### **1. Contributions in the “sciences”:**

Advancement in the “science” of HVAC&R, via activities such as education and research, should be measured by quality rather than quantity. For example, one single research publication, presenting a new and original computer model which resulted in major impact on the industry might be a “distinctive and substantial” contribution – on the other hand, a series of 40 papers all presenting results using a commercially available model differing in their correspondence boundary or initial conditions, while potentially of interest and impressive would not by itself meet the criteria for advancement to a fellow grade. (Nominations with publications listed are encouraged to attach copies of three publications considered by the candidate to be the major contributions).

Distinctive and substantial contributions through research and related activities should also demonstrate relative broad application in the industry. Five patents resulting from research, with none leading to a product of benefit to society, will never compare with one single patent which was applied to a product and resulting in improved quality of life for the public. (Nominations based on research should include at least one and not more than three examples of research programs and/or patents that led to product advancements, or some other tangible evidence of advancement in HVAC&R).

In like manner, distinctive and substantial contributions in education would not be measured solely by publications, changes in curriculum, dollars of research, administrative roles, but rather by the product – that is quality and accomplishments of students having entered into the HVAC&R industry and their testimonies of the impact of their professor in their lives.

#### **2. Contributions in the “arts”:**

Distinction and substantial contributions in the “arts” (that is, “how to do it,” “applications,” etc.), could be on the part of ASHRAE members serving the public as a) design/consultant engineers, b) contractors, c) OEMs/sales engineers, and/or d) building owners/facility users. (That is the “big four”).

The criteria are harder to define and implement, in part for two reasons: a) quantity might become an important parameter, b) the work is usually made by groups of professionals rather than one unique person. However, two aspects should not be compromised – the impact and uniqueness of the contribution.

The impact of the contribution upon society, rather than the specific nature of the contribution itself, could be addressed by considering questions such as: a) How has this contribution shown a measurable financial benefit? b) How has this contribution shown a documented benefit on the environment /comfort? c) How has this contribution shown a quantifiable societal benefit? Examples for the above could be: a) new motor type applied to elevators in a high rise hotel, reducing the cost of power consumed, with broad potential application in other buildings, b) unique distribution and installation strategies for emergency portable chillers following a major storm, c) development of low-head hydro refrigeration systems in parts of Africa.

### **Fellow Nomination Requirements**

A nomination for elevation to ASHRAE Fellow must be initiated by an ASHRAE member and supported by at least one Fellow Member of ASHRAE who has knowledge of the nominee’s background. If the nominator is an ASHRAE Fellow, the professional references need not be a Fellow. The nomination must also be accompanied by at least one professional reference (not more than two). The nominator and professional references must be capable of evaluating the nominee’s distinction and contributions with a substantial impact on the advancement of the arts and/or sciences of HVAC&R.

1. Determine the completion date for your nomination and when each of the following tasks will be accomplished. **The deadline for receipt of Fellow nominations at ASHRAE Headquarters is December 1.**
2. Determine the membership status of your nominee:
  - A. Has the nominee been Full Member grade in good standing for the last ten (10) years?
  - B. Can you attest that the nominee adheres to the ASHRAE Code of Ethics?

If the answer to either of these is 'no' and will be 'no' at the time of submission, STOP: The nominee does not qualify! If you are unsure of the member grade requirements, contact the Honors & Awards Committee Staff Liaison at (678) 539-1128 or [HonorsandAwards@ashrae.org](mailto:HonorsandAwards@ashrae.org).
3. Confirm that your nominee's ASHRAE Biographical Record is current. **Do not include a personal Curriculum Vitae (CV) or Resume with your nomination.**
4. Obtain a digital photograph of the nominee for submission with the nomination package.
5. Identify your ASHRAE Fellow and Professional Reference(s). See Instructions for **ASHRAE Fellow and Professional Reference Letters**. Solicit references from at least one ASHRAE Fellow and one (and not more than two) professional reference(s) for each individual contribution identified for the nominee. The nominee's ASHRAE Biographical Record will generally give you most of the details you will require in preparing the nomination.

References must be from organizations different than that of the nominee. They are not required to be ASHRAE members, but must be capable of describing the impact of the nominee's substantial contribution(s) to the advancement of HVAC&R and to the built environment.
6. Complete the ASHRAE Fellow Nomination Form.
7. Write your nomination letter as the nominator. After all the work and your vast knowledge of the nominee's qualifications, you are in the most supportive position. As appropriate, refer to specific items in the nominee's ASHRAE Biographical Record.
8. Prepare a description of the nominee's substantial contribution(s) and distinction in the advancement of HVAC&R and the built environment. See section IV of the Fellow Nomination Form. This should be 100 words or less in length. **This is a Mandatory requirement.**

#### **Guidelines for ASHRAE Fellow and Professional Reference Letters**

##### **1. Nominator's Request for Fellow Letters**

Following a phone call, and obtaining a commitment for a letter from at least one ASHRAE Fellow (or two):

- A. Send the nominee's ASHRAE Biographical Record and the **Fellow Qualifications** to the Fellow(s) preparing letters
- B. Request a letter of support in pdf format identifying the nominee by name. The letter of support must be a testimony of the distinction and professionalism of the nominee
- C. Advise the Fellow that ASHRAE service should not be the focus of the letter. The letter should refer to the professionalism and ethics of the candidate.
- D. Instruct the Fellow to provide the following information in a one-page letter:
  1. Relationship of Fellow to the nominee
  2. Highlights of the nominee's educational and professional background
  3. Highlights of the nominee's significant contributions
  4. Explanation of how the nominee has attained distinction
- E. Agree to a deadline well in advance of December 1 and provide your email address for the response

##### **2. Nominator's Request for Professional Reference Letters**

Following a phone call (or email exchange), and obtaining a commitment from one or two professional references.

- A. Send the nominee's ASHRAE Biographical Record, the **Fellow Qualifications**, and the completed Fellow Nomination Form to the individuals providing Professional Reference letters
- B. Request a letter of support in pdf format identifying the nominee by name. The letter of support must be a testimony of the distinction of the contributions and technical accomplishments of the nominee

- C. Instruct the individual to provide the following information in a one-page letter:
1. His/her name, contact information, and position in the industry
  2. His/her professional background and expertise and relationship to the nominee
  3. Critical evaluation and demonstration of substantial impact in the advancement of the arts and sciences of HVAC&R of the substantial contribution(s)
  4. Comments on nominee's distinction
- D. Agree to a deadline well in advance of December 1 and provide your email address for the response

### Things to Remember

1. **The deadline for receipt of your Fellow nomination at Society Headquarters is December 1.**
2. **Email the completed nomination package in Adobe pdf electronic format to [HonorsandAwards@ashrae.org](mailto:HonorsandAwards@ashrae.org)**
3. It is the responsibility of the nominator to submit the nomination packet to Society Headquarters by the **December 1** due date. Sending the packet earlier will enable the Staff to review the packet and let you know if you omitted an important document.
4. Make sure the nomination is in order by using the "Check List" provided at the end of this document. Avoid having the nomination returned or delayed by not providing all required information.

### What to Expect

1. Receipt is acknowledged by the Honors and Awards Staff Liaison in writing to the nominator. If an acknowledgement is not received within five (5) business days, contact the Honors and Award Committee/Staff Liaison at [HonorsandAwards@ashrae.org](mailto:HonorsandAwards@ashrae.org).
2. The Staff Liaison will send the nomination to the Honors and Awards Committee for evaluation at the next Winter Conference, which usually occurs in late January.
3. The Honors and Awards Committee reviews the nomination and will vote whether to forward the nomination to the Board of Directors for election of the nominee to Fellow grade.
4. Those nominees elected to Fellow grade by the Board of Directors will be presented a lapel pin and a plaque with a medallion at the Plenary Session during the following the next Winter Conference.

### ASHRAE Fellow Nomination Check List

An incomplete nomination will be returned without review by the Honors and Awards Committee.  
Material that is supplementary to that required is not evaluated by the Committee.

1. **Nominator, Fellow, and Professional References**
  - ☐ Is the Nominator an ASHRAE Member?
  - ☐ Have you included your own letter as nominator?
  - ☐ Is there at least one supporting letter from an ASHRAE Fellow?
  - ☐ Are there one or two Professional Reference letters?
  - ☐ Are names, email addresses, and addresses of the Nominator, Fellow, and Professional Reference(s) included?
2. **Letters of Support from Fellow and Professional References**
  - ☐ Do the letters support the distinction of the nominee?
  - ☐ Do the letters from the Professional Reference(s) clearly evaluate the contribution(s) with a substantial impact on the advancement of the arts and/or sciences of HVAC&R and on the industry?
3. **Professional Record**
  - ☐ Does the significant work and/or publications listed on the Fellow Nomination Form emphasize the contribution(s) with a substantial impact on the advancement of the arts and/or sciences of HVAC&R?
  - ☐ Is a current ASHRAE Biographical Record attached?

- ☐ Are there contributions to ASHRAE Technology that distinguish the nominee from his/her peers adequately identified as such?

4. **Brief Description of Nominee's Accomplishments**

- ☐ Have you provided the **MANDATORY** 100-words-or-less description of the contribution(s) with a substantial impact on the advancement of the arts and/or sciences of HVAC&R and on the industry?

5. **Overall Fellow Nomination Packet**

- ☐ Is the submittal legible and does it conform to the Guidelines?
- ☐ Is a digital photograph of the nominee included?
- ☐ Have you included all of the required materials?

## 18. Appendix J-2: ASHRAE Fellow Nomination Form

**Revised February 2018**

### **FELLOW NOMINATIONS ARE DUE IN ASHRAE HEADQUARTERS DECEMBER 1**

All nomination material must be provided to ASHRAE electronically. Email the completed nomination package in Adobe.pdf electronic format to: [HonorsandAwards@ashrae.org](mailto:HonorsandAwards@ashrae.org)

**PLEASE REVIEW THE GUIDELINES FOR ASHRAE FELLOW NOMINATORS BEFORE COMPLETING THIS FORM**

<b>I. NOMINEE'S NAME:</b> _____	Nomination Date: _____
Year Elected to Full Member: _____	<div style="border: 1px solid black; padding: 10px; background-color: #f0f0f0;"><b>FOR STAFF USE ONLY</b>  <b>Date Nominee Advanced to Full Member Grade</b></div>
Grade: _____	
Current Position Title: _____	
Company: _____	
Address: _____ _____ _____	
Phone: _____	
Email Address: _____	

<b>II. NOMINATOR:</b>	<b>Nominator attests that to the best of his/her knowledge the nominee adheres to the ASHRAE Code of Ethics.</b>	
Name: _____		<div style="border: 1px solid black; padding: 10px; background-color: #f0f0f0;"><b>ASHRAE Grade Supplied by Staff</b></div>
Address: _____ _____ _____		
Phone: _____		
Email Address: _____		

### III. SUPPORTING FELLOWS AND PROFESSIONAL REFERENCES:

(Note that Professional References do not have to be ASHRAE Members)

#### FELLOW REFERENCE (AT LEAST ONE REQUIRED – UNLESS THE NOMINATOR IS A FELLOW)

1. Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Email: \_\_\_\_\_

ASHRAE Grade Supplied  
by Staff

#### ADDITIONAL REFERENCES

2. Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Email: \_\_\_\_\_

ASHRAE Grade Supplied  
by Staff

3. Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone: \_\_\_\_\_  
Email: \_\_\_\_\_

ASHRAE Grade Supplied  
by Staff

### IV. OUTSTANDING ACCOMPLISHMENTS:

Provide a **100 words or less** description of the nominee's substantial contribution(s) and distinction in the built environment. **THIS IS A MANDATORY REQUIREMENT.**

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**V. SIGNIFICANT WORK:**

List in chronological order three of the nominee's most significant achievements/projects and/or publications. For each achievement/project or publication, identify the specific contribution listed in the **Fellow Qualifications** and provide a BRIEF summary.

**ACHIEVEMENTS/PROJECTS**

	<b>DATES: FROM/TO</b>	<b>ACHIEVEMENT/ PROJECT NAME</b>	<b>ACHIEVEMENT/PROJECT FOCUS/DESCRIPTION</b>	<b>CONTRIBUTION</b>
1.				
2.				
3.				

**PUBLICATIONS**

	<b>DATE</b>	<b>TITLE</b>	<b>PUBLICATION</b>	<b>TYPE</b>
1.				
2.				
3.				



## 19. Appendix K: Pioneers of the Industry Nomination Form

**Pioneers of the Industry Nominations are due in ASHRAE Headquarters December 1.**

Please return to:

ASHRAE

Attn: Honors and Awards Committee

180 Technology Parkway, Peachtree Corners, GA 30092

Tel: (678) 539-1128 ♦ Fax (678) 539-2128

Email: [HonorsandAwards@ashrae.org](mailto:HonorsandAwards@ashrae.org)

1. Name of Nominee:
  - A. Date and Place of Birth:
  - B. Last Occupation or Profession:
  - C. Significant Positions Held:
2. List outstanding contributions of the nominee which have advanced the heating, refrigeration, air conditioning and ventilation industry. Include other pertinent information that clearly indicates the nominee's outstanding contributions in order of significance. Note: Attach additional sheets, if necessary.
  - A. Other:
  - B. Type of Activity:
3. Honors and/or Recognitions:
4. Publications:
5. Professional Memberships (include offices held and committee involvement):
6. Criteria for ASHRAE Pioneers of the Industry:
  - A. Must have made milestone contributions to the growth of Air Conditioning, Heating, Refrigeration, and/or Ventilation. A milestone contribution is an innovative technological advancement in the industry. Evidence of distinction in these areas may be accomplished through invention, entrepreneurial activity, research, publishing, outstanding academic, or engineering leadership, or a combination thereof.
  - B. Must be deceased.
  - C. The personality and popularity of the candidate and evidence of awards shall be considered only in the context of evaluating the contribution which shaped the industry.

**\* \* \* A biography and photo of the nominee are required with the nomination. \***
7. Nomination submitted by:
  - A. Name:
  - B. Address:
  - C. Phone:
  - D. Email:

## 20. Appendix L: DSA/ESA Instructions and Point Tally Form



### INSTRUCTIONS

#### NOMINATION AND POINT TALLY FORM

For Distinguished Service Award (DSA)

And Exceptional Service Award (ESA)

**Revised August 2019**

**DSA/ESA Nominations are due at ASHRAE Headquarters May 1**

1. **The DSA/ESA Nomination and Point Tally Form, a current ASHRAE Biographical Record, and digital photo of the nominee must be provided to ASHRAE electronically. Email the completed nomination in Adobe pdf format to [HonorsandAwards@ashrae.org](mailto:HonorsandAwards@ashrae.org).**
2. Member nominated by other members, chapters, regions, committees as well as self-nominations are accepted by the Honors and Awards Committee for DSA and ESA submissions.
3. A current ASHRAE Biographical Record must be provided with each DSA/ESA nomination. **Each point count listed on the Point Tally Form should be supported by the dates and activities detailed on the nominee's ASHRAE Biographical Record.**
4. Attach a digital photograph of the nominee to the nomination package. This is a **MANDATORY** requirement.
5. In the second column of the Point Tally Form, list dates (Society years) and name for each activity claimed, e.g., standing committee name, standard project committee name, title of publication or lecture.
6. In the third column of the Point Tally Form (ASHRAE BIO SECTION), list the Section on the nominee's ASHRAE Biographical Record corresponding to each activity and date listed in the first column, e.g., 5a, 5b, etc.
7. In the last column of the Point Tally Form, list points for each activity and the totals for each category at the end of each section.
8. **Points are required in at least three (3) categories (A-F) for the DSA.**
9. **Three points are required in at least three (3) categories (A-F) for ESA.**
10. Use an additional sheet if more than two (2) published papers are claimed in Categories E and F.
11. If multiple points are claimed for the same activity or position, list all years in the Activity/Date column.
12. **Note that all Categories A-F have point maximums for several activities.**
13. List the total for each category and the total points claimed on the last page of the Point Tally Form.
14. When preparing the Point Tally Form, use General Standing Committee and Council names as they existed during the nominee's participation. Points will be approved for service on committees, councils, offices, boards, etc., that have over time been phased out or replaced. Points will be approved by the Honors and Awards Committee as equal as possible to parallel office/point designations presently in use.
15. Category E: General Activities, line item 5 – ASHRAE-sponsored Conferences includes YEA Leadership Weekend 1.0, YEA Leadership Weekend 2.0, and YEA Leadership International.
16. Receipt is acknowledged by the Honors and Awards Staff Liaison in writing to the nominator. If an acknowledgement is not received within ten (10) days, call 678/539-1128 or email [HonorsandAwards@ashrae.org](mailto:HonorsandAwards@ashrae.org).

#### **General Standing Committees and Councils include:**

Accreditation Services

Admissions and Advancement

Advocacy

Government Affairs

Handbook

Historical

Honors and Awards

Scholarship Trustees

Society Programs

Society Rules

ASHRAE Program  
Board Planning  
Board Policy for Standards  
Building Energy Quotient  
Certification

Chapter Programs  
Chapter Technology Transfer  
Chapter Regional  
Charter and Bylaws  
Conferences and Expositions  
Continuing Education  
Course Development  
Electronic Communications  
Environmental Health  
Finance  
Foundation Trustees

International  
Joint Expo Policy  
Journal/Insights  
Meetings Arrangements  
Members Council

Membership Promotion  
Nominating  
Planning  
President-Elect Advisory  
Professional Development  
Publishing & Education Council  
Publications  
Refrigeration  
Regions Council  
Research Administration  
Research Promotion

Standards  
Standards Advisory  
Student Activities  
Technical Activities  
Technical, Energy & Gov.  
Activities  
Student Activities  
Technology Council  
Young Engineers in ASHRAE

### CHECK LIST

#### **FOR COMPLETION OF THE DSA/ESA POINT TALLY FORM**

**An incomplete nomination will be returned without review by the Honors and Awards Committee.**

- ☐ Is the nominee's ASHRAE Biographical Record current?
- ☐ Is each point count listed on this Point Tally Form supported by the dates and activities detailed on the ASHRAE Biographical Record?
- ☐ Does the third column of the Point Tally Form list the section of the ASHRAE Biographical Record corresponding to each activity and date listed in the second column?
- ☐ Is a digital photo of the nominee provided with the nomination package?
- ☐ Are points claimed in at least three (3) categories for the DSA?
- ☐ Are three (3) points claimed in at least three (3) categories for the ESA
- ☐ If more than two (2) published papers are claimed in Categories E and F, are they listed in an attachment?
- ☐ Did you note that all Categories A-F have point maximums for several activities?
- ☐ Are the totals for each category and the total number of points claimed entered on the first and last pages of the Point Tally Form?
- ☐ Did you confirm that no activities were double counted or listed under more than one category? For instance, credit as a committee member and chair of that committee for the same dates should not be claimed.

(For Staff Use Only)



**NOMINATION AND POINT TALLY FORM**  
**For Distinguished Service Award (DSA)**  
**And Exceptional Service Award (ESA)**

**Revised August 2019**

**Please review and follow the instructions for completion of this form.**

<b>NAME OF NOMINEE:</b>	<b>REGION:</b>	<b>CHAPTER:</b>
<b>ADDRESS:</b> _____		
<b>PHONE:</b> _____		
<b>EMAIL:</b> _____		
<b>NOMINATION SUBMITTED BY:</b>		
<b>NAME:</b> _____		
<b>ADDRESS:</b> _____		
<b>PHONE:</b> _____		
<b>EMAIL:</b> _____		
<b>NOMINATION TYPE:</b>		
<input type="checkbox"/> <b>DSA NOMINATION</b> (Minimum 15 points and points in at least 3 categories are required)		
<input type="checkbox"/> <b>ESA NOMINATION</b> (Minimum 45 points and 3 points in at least 3 categories are required)		
<b>SUMMARY OF POINTS: (Note Point Maximums for activities in all Categories A-F.)</b>		
<b>CATEGORY A:</b>	<b>(SOCIETY OFFICERS/BOD/ REGIONAL POSITIONS/CHAPTER OFFICERS/CHAPTER BOARD OF GOVERNOR/ OTHER LISTED CHAPTER POSITIONS)</b>	
<b>CATEGORY B:</b>	<b>(SOCIETY GENERAL OR AD HOC COMMITTEES)</b>	
<b>CATEGORY C:</b>	<b>(STANDARD PROJECT COMMITTEES - SPC/SSPC/GPC/SGPC)</b>	
<b>CATEGORY D:</b>	<b>(TECHNICAL COMMITTEE (TC) AND TASK GROUP (TG))</b>	
<b>CATEGORY E:</b>	<b>(GENERAL ACTIVITIES)</b>	
<b>CATEGORY F:</b>	<b>(SPEAKERS/AUTHORS/ASHRAE PUBLISHED PAPERS)</b>	
	<b>TOTAL POINTS IN ALL CATEGORIES:</b>	

CATEGORY A: SOCIETY OFFICERS/BOARD OF DIRECTORS/ REGIONAL POSITIONS/CHAPTER OFFICERS/ CHAPTER BOARD OF GOVERNORS/ OTHER LISTED CHAPTER POSITIONS				
SOCIETY POSITIONS	ACTIVITY/DATES Society Year(s)	ASHRAE Bio Section	POINTS	TOTAL
1. Society President			5	
2. Society President Elect			4	
3. Society Vice President or Treasurer			3 per year	
4. Society Board of Directors: a. Director and Regional Chairman b. Director-at-Large			3 per year 2 per year	
5. Assistant Regional Chairman (prior to 2014-15 Society Year)			1 per year	
6. Regional Members Council Representative			1 per year	
			<b>SUBTOTAL (1-6)</b>	
<b>CHAPTER POSITIONS</b> - For items 7-13, a <u>maximum of 3 points</u> may be claimed for all chapter officer, Board of Governor, and other list chapter positions (except Chapter President); Points for Regional Vice-Chair should be entered in Category B4				
7. Chapter President			1 per year	
8. Chapter Officers (President-Elect, VP, Secretary, Treasurer, CRC Delegate, or CRC Alternate)			½ per year	
9. Chapter Board of Governors <i>Do not include points here for positions claimed in 7 above</i>			¼ per year	
10. Student Branch Advisor			½ per year	
11. Chapter Historian <i>Do not claim points for Regional Historian for same year</i>			½ per year	
12. Chapter Webmaster <i>Do not claim points for Regional Webmaster for the same year</i>			½ per year	
13. Chapter Committee Chair <i>Give committee names, year(s) served</i>			½ per year	
3 points maximum plus points for service as Chapter President			<b>SUBTOTAL (7-13)</b>	
<b>REGIONAL POSITIONS</b> - For items 14 – 17, a <u>maximum of 3 points</u> may be claimed				
14. Regional Refrigeration Chair			½ per year	
15. Regional Historian <i>Do not claim points for Chapter Historian for same year</i>			½ per year	
16. Regional Webmaster <i>Do not claim points for Chapter Webmaster for</i>			½ per year	

<i>same year</i>				
<b>17. Regional Treasurer or ARC after 2014-15 Society Year</b>			<b>½ per year</b>	
<b>3 points maximum</b>			<b>SUBTOTAL (14-17)</b>	
<b>TOTAL POINTS FOR CATEGORY A</b>				<input type="text"/>

### CATEGORY B: SOCIETY GENERAL STANDING OR AD HOC COMMITTEES

(See **Instructions** for listing of committees)

**Note:** *There is no point limit in this category except for an Ad Hoc Committee.*

*Service on phased-out committees may be claimed provided adequate detail is given. The ASHRAE Biographical Record must reflect this activity. If you have served as a committee chair or subcommittee chair, please list points for the years you served in lieu of, **not** in addition to, the points you should list as a committee member. List separate entries for Chair and Subcommittee Chair service on your ASHRAE biographical record.*

	<b>ACTIVITY/DATES Society Year(s)</b>	<b>ASHRAE Bio Section</b>	<b>POINTS</b>	<b>TOTAL</b>
1. Councils: Members, Publishing & Education, and Technology <i>(Only Voting members, including Vice-Chairs should claim points here. BOD Officer nor non-voting Members should not claim points)</i>			1 per year	
2. General Standing Committee Chairs <i>(BOD Officer or Member, &amp; CRC Delegate &amp; Alternate, should not claim points)</i>			2 per year	
3. General Standing Vice Chairs or Subcommittee Chairs <i>(No points if also serving as the General Committee Chair)</i>			1½ per year	
4. General Standing Committee Member <i>(Regional Vice-Chair points should be entered here. BOD Officer or BOD Member should not claim points)</i>			1 per year	
5. Nominating Committee Alternate <i>(Nominating Committee Members and Vice-Chairs should claim points in B4)</i>			½ per year	
6. Consultant (unpaid) <i>(Give details)</i>			½ per year	
7. Presidential Ad Hoc Committee <u>Maximum 7 points</u> <b>List committee name and years served:</b> a. Chair b. Vice-Chair or Member			2 per year ½ per year	
8. Region -At-Large Sub-Region Chair			2 per year	
9. Research Advisory Panel Chair and/or Position Document Committee Chair <u>Maximum 3 points</u>			1 per year	
10. Research Advisory Panel Member and/or Position Document Committee Member			½ per year	

<u>Maximum 3 points</u>				
<b><u>There are point limits in this category <i>Ad Hoc Committees, Position Document Committees and the Research Advisory Panel</i></u></b>	<b>TOTAL POINTS FOR CATEGORY B</b>			

<b>CATEGORY C: STANDARD PROJECT COMMITTEES (SPC/SSPC/GPC/SGPC/TAG)</b> <b><u>The maximum in this category is 10 points. List committee name and years served.</u></b>				
	<b>ACTIVITY/DATES Society Year(s)</b>	<b>ASHRAE Bio Section</b>	<b>POINTS</b>	<b>TOTAL</b>
1. Standing Standard Project Committee (SSPC or SGPC) Chair			1½ per year	
2. Standard Project Committee (SPC or GPC) Chair			1½ per year – 4 per project maximum	
<i>(Points for Chair are in addition to points for member or Vice-Chair)</i>				
3. Standing Standard Project Committee (SSPC or SGPC) Voting Member or Vice-Chair			1 per year	
4. Standard Project Committee (SPC or GPC) Voting Member or Vice-Chair			1 per year – 3 per project maximum	
5. Standing Standard Project Committee (SSPC or SGPC) Non-Voting Member			½ per year	
6. Standard Project Committee (SPC or GPC) Non-Voting Member			½ per year – 2 per project maximum	
<b><u>The maximum in this category is 10 points.</u></b>	<b>TOTAL POINTS FOR CATEGORY C</b>			<input type="text"/>

<b>CATEGORY D: TECHNICAL COMMITTEE (TC) 10 Points Maximum per Committee</b> <b>TASK GROUP (TG) 3 Points per TG or 7 Points Total</b> <b><u>The maximum in this category is 10 points. List TC/TG name and years served.</u></b>				
	<b>ACTIVITY/DATES Society Year(s)</b>	<b>ASHRAE Bio Section</b>	<b>POINTS</b>	<b>TOTAL</b>
1. TC/TG Chair or Secretary			1 per year	
2. Vice Chair, Member, or Subcommittee Chair			½ per year	
3. Corresponding Member <i>(Provisional Corresponding Members should not claim points.)</i>			¼ per year	
<b>HANDBOOK ACTIVITY: <i>Author/Reviser (Maximum of 7 points may be claimed)</i></b>				
4. Handbook – New Chapter Principal author (give specific details).			2 per chapter	
5. Handbook – Chapter Reviser			½ per chapter	
<b><u>The maximum in this category is 10 points.</u></b>	<b>TOTAL POINTS FOR CATEGORY D</b>			<input type="text"/>

**CATEGORY E: GENERAL ACTIVITIES****List name, date, location, and details for each activity**

	<b>ACTIVITY/DATES Society Year(s)</b>	<b>ASHRAE Bio Section</b>	<b>POINTS</b>	<b>TOTAL</b>
1. Technical Paper Session Chair			¼ per session	
2. Seminar, Workshop, or Conference Paper Session Chair			½ per seminar	
3. Forum or Debate Moderator			¼ per forum	
4. ASHRAE Annual & Winter Conference Chair Co-chair Subcommittee Chair Technical Conference Chair			2 per conference 1 per conference 1 per conference 2 per conference	
5. CRC or other ASHRAE-sponsored Conferences Chair Co-Chair Vice Chair Subcommittee Chair			2 per conference 1 per conference ½ per conference ¼ per conference	
<b><i>Society Annual/Winter Conference or ASHRAE-Sponsored Conference or Special Presentations</i></b>				
6. Intersociety Assignment <b>(Maximum 10 points for sub-category E-6)</b> a) Representing ASHRAE on Conference Committee b) Representing ASHRAE (unpaid on Continuing Assignment (ANSI, ABET, ICC) c) Representing ASHRAE (for fee or expenses – non-Staff)			1 per conference  2 per year  1 per year	
7. International Services <b>(Maximum 7 points for sub-category E-7)</b> a) Chair or co-chair of ASHRAE international co-sponsored conference b) Technical paper presented at ASHRAE co-sponsored conference* c) ASHRAE Associate Society Alliance representative			1 per conference ½ per paper  ½ per year	
<b>*Use an additional sheet if more than 2 papers are being claimed for points</b>				
8. ASHRAE Foundation Trustee a) Chair b) Officer/Member			2 per year 1 per year	
9. HVAC&R Research Journal a) Editor b) Associate Editor			2 per year 1 per year	



	<b>TOTAL POINTS FOR CATEGORY E</b>	<input type="text"/>
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<b>CATEGORY F: Publications and Presentations – Society Annual/Winter Conference or ASHRAE - Sponsored Conference or Special Presentations</b>				
Give details, i.e., when paper was delivered, title and page numbers, where paper was published or in what ASHRAE Transactions edition it was published and the page numbers. Papers in the Transactions qualify for points for each one published. <b>Use additional sheet if more than two (2) papers are being claimed for points. No points may be claimed for paid lectures or services.</b>				
	ACTIVITY/DATES Society Year(s)	ASHRAE Bio Section	POINTS	TOTAL
1. Technical Paper, ASHRAE Research Journal Author			1 per paper	
2. Symposium and/or Conference Paper, ASHRAE Journal, ASHRAE Specialty Publications Author			1 per paper	
3. Seminar, Technical Session Speaker			½ per presentation	
4. Webcast Presenter detail where and when			½ per presentation	
5. ASHRAE Distinguished Lecturer – State location and date			¼ per presentation	
6. Design Manual & Guide – New Chapter Principal Author (Give Specific Details)			2 per chapter	
7. Design Manual/Guide – Chapter Reviser			½ per chapter	
<b>Note: Points in Category F are limited to the total of Categories A through E</b>		<b>TOTAL POINTS FOR CATEGORY F</b>		

<b>ENTER TOTAL POINTS IN ALL CATEGORIES A through F</b>	<input type="text"/>
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ESA/DSA Nominations are due at ASHRAE Headquarters **May 1**

The ESA/DSA Point Tally Form, a current ASHRAE Biographical Record, and digital photo of the nominee must be provided to ASHRAE electronically.

Email the completed nomination in Adobe pdf format to: [HonorsandAwards@ashrae.org](mailto:HonorsandAwards@ashrae.org)

## 21. Appendix M: ASHRAE Hall of Fame Nomination Form

### Hall of Fame Nomination Form Hall of Fame Nominations are due at ASHRAE headquarters December 1.

1. Name of Nominee:
  - A. Date and Place of Birth:
  - B. Last Occupation or Profession:
  - C. Significant Positions Held:
2. List outstanding contributions of the growth of ASHRAE related technology. Include other pertinent information that clearly indicates the nominee's outstanding contributions in order of significance. Note: Attach additional sheets, if necessary.
  - A. Other:
  - B. Type of Activity:
3. Honors and/or Recognitions:
4. Publications:
5. Professional Memberships (include offices held and committee involvement)
6. Criteria for ASHRAE Hall of Fame:
  - A. Must have been an ASHRAE Member (any grade) or a member of a predecessor society.
  - B. Must have made milestone contributions to the growth of ASHRAE-related technology and distinction in the Society. A milestone contribution is an innovative technological advancement in the industry and/or service to ASHRAE resulting in improved stature and leadership in the Society. Evidence of distinction in these areas may be accomplished through invention, entrepreneurial activity, research, publishing, outstanding academic, Society or engineering leadership, or a combination thereof.
  - C. Must have shown evidence of distinction in the Society, either technically or academically
  - D. Must be deceased.
  - E. The personality and popularity of the candidate and evidence of Society awards shall be considered only in the context of evaluating the contribution which shaped the industry.

**\*\*\* A biography and photo of the nominee are required with the nomination. \*\*\***
7. Nomination submitted by:
  - A. Name:
  - B. Address:
  - C. Phone:
  - D. Email:
8. Family Member/Representative to accept award at ASHRAE conference presentation:
  - A. Name:
  - B. Address:
  - C. Phone:
  - D. Email:

Please return to: ASHRAE  
Attn: Honors and Awards Committee  
[HonorsandAwards@ashrad.org](mailto:HonorsandAwards@ashrad.org)

## 22. Appendix N-1: Checklist for Write-Ups

### 1. **F. Paul Anderson Award**

This is considered to be ASHRAE'S highest award. The following information shall be included:

- A. Considerable activity in fields of the Society.
- B. Outline broad based activity of outstanding value to the industry such as consulting, contracting, engineering, design, and outstanding work or service in any specific field(s) of the Society.
- C. A full-page letter of recommendation to the Board of Directors. Sample write-up is included as Appendix N-2 in the H&A Reference Manual.

### 2. **ASHRAE Hall of Fame**

The following information shall be included:

- A. Milestone contributions to the growth of ASHRAE related technology.
- B. Evidence of distinction within the society, either technically or academically.
- C. A listing of the outstanding contributions which have advanced ASHRAE related technology.
- D. A full-page letter of recommendation to the Board of Directors. A sample write-up is included as Appendix N-3 in the H&A Reference Manual.

### 3. **ASHRAE Pioneers of the Industry**

The following information shall be included:

- A. Milestone contributions to the growth of air conditioning, heating, refrigeration and ventilation and benefits to the industry.
- B. Evidence of distinction, either technically or academically.
- C. A listing of the outstanding contributions which have advanced the heating, refrigeration, air conditioning and ventilation industry.
- D. A full-page letter of recommendation to the Board of Directors.

### 4. **Honorary Member**

The following information shall be included:

- A. The recipient should be a person of preeminent professional distinction.
- B. The candidate shall not be a member of the Society.
- C. Write-up should include reason for the selection, outlining works of distinction in any field of endeavor, not necessarily ASHRAE-related.
- D. A full-page letter of recommendation to the Board of Directors. Sample write-up is included as Appendix N-4 in the H&A Reference Manual.

### 5. **Louise and Bill Holladay Distinguished Fellow Award**

The following information shall be included:

- A. Candidate must be an ASHRAE Fellow.
- B. Evidence of continued preeminence in engineering or research work. Indicate type of work and number of years involved to show continuity.
- C. A full-page letter of recommendation to the Board of Directors. Sample write-up is included as Appendix N-5 in the H&A Reference Manual.

### 6. **Fellow**

The following information shall be included:

- A. Write-ups should follow the "Guidelines for Selection of ASHRAE Fellows," (See Appendix I-1 of H&A Reference Manual).
- B. A full-page letter of recommendation to the Board of Directors, outlining activities reflecting "unusual distinction" of candidate. Sample write-up is included as Appendix N-6 in the H&A Reference Manual.

7. **Andrew T. Boggs Service Award**

The following information shall be included:

- A. Candidate must be a recipient of the Exceptional Service Award.
- B. The award is for continuing service to ASHRAE above and beyond that required for the Exceptional Service Award. Service should be unselfish, dedicated and extend over a considerable length of time.
- C. A full-page letter of recommendation to the Board of Directors. Sample write-up is included as Appendix N-7 in the H&A Reference Manual.

8. **ASHRAE Award for Distinguished Public Service**

The following information shall be included:

- A. Recipient must be a member recognized for distinguished public service.
- B. A detailed statement outlining the public service rendered should be provided.
- C. A full-page letter of recommendation to the Board of Directors. Sample write-up is included as Appendix N-8 in the H&A Reference Manual.

9. **ASHRAE Pioneers of the Industry Award**

The following information shall be included:

- A. The candidate shall not be a member of the Society.
- B. A detailed statement outlining the public service rendered should be provided.
- C. A full-page letter of recommendation to the Board of Directors. Sample write-up is included as Appendix N-9 in the H&A Reference Manual.

### **23. Appendix N-2: Sample Write-Up for F. Paul Anderson**

April 15, 1999

TO: ASHRAE Board of Directors

FROM: ASHRAE Honors and Awards Committee

SUBJECT: PROFESSOR ARTHUR E. BERGLES, NOMINEE FOR F. PAUL ANDERSON AWARD

Professor Arthur E. Bergles is an ASHRAE Fellow, active member and respected professor of mechanical engineering from the Department of Mechanical Engineering, Rensselaer Polytechnic Institute, New York. Professor Bergles is a unique researcher and is highly recognized internationally for his work in the field of heat and mass transfer. He is a leading international personality in this field in general, and in particular has performed outstanding work to advance science and technology with respect to boiling and condensation relationships to heat transfer; as well as methods on enhancement of heat transfer.

Professor Bergles' professional career began as Associate Professor at MIT and Georgia Institute of Technology in teaching and research, Department Chairman and Professor at Iowa State University (teaching and research for 14 years), and as Professor of Engineering and Dean of Engineering for Rensselaer Institute since 1986.

He has published very widely and has been a consultant to numerous industrial companies. He has contributed to all major handbooks, including ASHRAE's Handbook on Fundamentals and has served on the editorial board of many journals.

He has given approximately 300 lectures at conferences and academic centers throughout the world. A widely published author, he has written 22 books, 313 papers, 130 articles and reports. Some of these articles and papers included 27 ASHRAE Transactions papers, two ASHRAE Journal articles, one International Journal of HVAC&R Research article, and one International Journal of Refrigeration. He holds one patent and has sponsored 46 research programs in academic and industrial laboratories including six ASHRAE projects.

His technical credentials and academic excellence is documented by membership in the U.S. National Academy of Sciences. He has received more than 25 other national and international medals, honors and awards. In 1997, he was awarded Doctor Honoris Causa of the University of Porto. In 1998, he received the A.V. Luikov Medal, the highest award of the International Center for Heat and Mass Transfer. His work has been of immense importance in the development in theory, applications and engineering, particularly in the HVAC&R engineering field and sciences.

The Honors and Awards Committee unanimously recommends that Professor Arthur E. Bergles be awarded the F. Paul Anderson Award.

## 24. Appendix N-3: Sample Write-Up for ASHRAE Hall of Fame

November 12, 2001

TO: ASHRAE Board of Directors

FROM: Honors and Awards Committee

SUBJECT: MILTON W. GARLAND, NOMINEE FOR ASHRAE HALL OF FAME

Milton Garland was born in Harrisburg, Pennsylvania in 1895 and was called home in the year 2000 at the age of 104. Mr. Garland received a BSME in 1920 and an Honorary Doctorate of Engineering degree in 1995 from Worcester Polytechnic Institute. He earned a P.E. license in early 1930 and was a Life Member of NSPE.

Mr. Garland joined ASHRAE in 1946 and became a Life Member in 1960. He received Fellow/Life Member grade of membership and the Distinguished Service Award in 1970. Mr. Garland was the 1988 recipient of the Paul Anderson Award and was presented with the Louise and Bill Holiday Distinguished Fellow Award in 1995.

Mr. Garland was named a pioneer in technology by ASHRAE during the Society's Centennial Celebration. He was an inventor and author, affectionately known as "Mr. Refrigeration" by all those who knew him, and the oldest active engineer, continuing to work up to one month prior to his passing. In 1998, at the age of 102, Milton Garland was honored by the United States Senate as the nation's oldest worker in a ceremony held at the White House Visitor's Center.

Mr. Garland provided the initial \$10,000.00 contribution to establish the Region III Milton W. Garland/Jose A. Reig Student Challenge Award in 1991. The York-Frick Company provided a \$10,000.00 endowment fund and Region III provided \$2,300.00 to establish the Society's Milton W. Garland Refrigeration Award in 1989. The York-Frick Company also provides annual scholarships to deserving children of Frick family employees in his memory.

During his 80-year career with the Frick Company and York-Frick, Mr. Garland made significant contributions to this profession. Some of his most notable achievements were the development of ice-skating rink refrigeration in 1936 that brought the sport indoors and the development of the first successful machinery for making dry ice. He provided engineered systems to cool concrete mixture for the construction of the Hoover Dam, which otherwise may not have been constructed. Mr. Garland developed cold storage facilities to preserve and transport food for troops in World War II. He designed an all-weather laboratory to test aircraft engines to assist the atomic energy program and developed a process to make synthetic rubber.

During his career, Mr. Garland received 41 patents for refrigeration devices and processes and also published many papers and articles from 1952 through 1980. He was an active member of ASHRAE, NSPE, ASME, and IIAR. Mr. Garland was judged by his peers at the International Institute of Ammonia Refrigeration and was honored as the first recipient of the Andy Ammonia Award in 1996 for his paper entitled "The Influence of Vapor Pressure in the Condensing Process of the Ammonia Refrigeration Cycle."

In his retirement years, Mr. Garland organized a training school for Frick's refrigeration engineers and wrote an engineering design manual. He called it "Industrial Refrigeration 102" in honor of his age at the date of publication. In addition to his dedication to the engineering profession, Mr. Garland still found time to participate in community and church activities. He also served in the U.S. Navy during World War I.

The achievements of this great man are without parallel and far exceed the award requirements. The Honors and Awards Committee unanimously recommends Milton W. Garland for induction into the ASHRAE Hall of Fame.

## **25. Appendix N-4: Sample Write-Up for Honorary Member**

April 26, 1994

TO: Board of Directors, ASHRAE

FROM: ASHRAE Honors and Awards Committee

SUBJECT: HENRY VOGT HEUSER, NOMINEE FOR HONORARY MEMBER

Henry Heuser received his BSME degree from Purdue University in 1936 when he joined the Henry Vogt Machine Company in Louisville, KY. He served as President and Director from 1956 to 1984 and as Chairman from 1956 to 1984 and as Chairman of the Board from 1984 to 1991.

Mr. Heuser was very active in ASME but a significant portion of his company's technology deals with refrigeration and ice making.

Henry has been extremely active in the community as well as serving on many directorates, such as, Louisville Labor-Management Committee, University of Louisville Board of Overseers, KY Southern College, Louisville Chamber of Commerce, Associated Industries of Kentucky, Nat'l Association of Manufacturers, Children's Hospital and Louisville Development Committee.

He is also a member of many civic organizations including Rotary, Pendennis, Filson, Louisville Country Club, and the Newcomer Society. He is also an Elder and Trustee of the Highland Presbyterian Church.

From 1967 to 1991, he served on twenty-six boards or committees varying from universities to city mayor's planning and control committees.

The Honors and Awards Committee unanimously recommends Henry Vogt Heuser be approved as an Honorary Member.

## **26. Appendix N-5: Sample Write-Up for Louise and Bill Holladay Distinguished Fellow Award**

December 1, 1995

TO: ASHRAE Board of Directors

FROM: ASHRAE Honors and Award Committee

SUBJECT: Harold E. Straub, Nominee for Louise and Bill Holladay Distinguished Fellow Award

Harold E. Straub was born in Carlinville, Illinois on October 3, 1919. He graduated from the University of Missouri in 1949 with a B.S. Degree in Mechanical Engineering. In 1952 he received his Master of Science Degree in Mechanical Engineering from the University of Illinois.

Following his graduation, he taught Heat-Power courses and conducted research at the University of Illinois. In 1955 Harold's feelings that an Engineer "should make thing work, not just theorize," prompted him to leave academia for industry and join Titus Manufacturing Corporation. He has remained with this organization, starting as Chief Research Engineer, and progressing to his current position of Vice President of Production Engineering and Chief Engineer. In 1964 he was recognized by the University of Missouri, School of Mines and Metallurgy with an Honorary Degree of Mechanical Engineering.

Due to his experience and knowledge of the theories of air distribution, he has been a prominent figure in many notable construction projects. An example was during the design of the Astrodome in Houston, Texas where he was asked to develop the conceptual air distribution system.

Mr. Straub has made many contributions to our industry, including 10 patents, 28 published articles. The Space Air Diffusion chapter of the Fundamentals Handbook is based extensively on Mr. Straub's research and he served as a reviewed/author since 1062. He has been on the ASHRAE Standards Committee, numerous Technical Committees, Research Projects as well as a member of the Monitoring Committee for RP 703, 705, and 755. In addition, he has made significant contributions to the International Standards Organization, the Air Diffuser Council, and the American Refrigeration Institute.

Mr. Straub became a Member of ASHVE in 1950 and in 1973 received the Distinguished Service Award. In January 1984 he was elevated to the grade of Fellow and became a Life Member.

The Honors and Awards Committee unanimously endorses the nomination of Harold E. Straub for the Louise and Bill Holladay Distinguished Fellow Award.



## **27. Appendix N-6: Sample Write-Up for Selection of Fellow**

April 15, 1999

TO: ASHRAE BOARD of Directors

FROM: ASHRAE Honors and Awards Committee

SUBJECT: WINFIELD L. (ROY) KELLEY, NOMINEE FOR FELLOW

Winfield Kelley graduated from The University of Florida with a B.S. Degree. His first work after graduation was with Honeywell Corporation as a sales engineer. Mr. Kelley served three years with the U.S. Army, where he attended the U.S. Army School of Engineering. He then spent seven years as a principal for a mechanical contracting company, doing air-conditioning, sheet metal, and plumbing work.

Mr. Kelley was a pioneer in variable air volume air distribution, virtually unknown in the 1960's. He then entered the manufacturing business, where he designed, manufactured, and patented many innovative products for the distribution and delivery of air. He invented and manufactured the fan-powered box, a new concept in air delivery; at the same time he was reorganizing Warren Manufacturing Company, which became Warren Technologies.

While the company continued to manufacture and sell electric duct heaters, Mr. Kelley headed a four-man design team charged with developing new products. Many of his patented designs are still used today, and would be described as "indoor environmental solutions."

The Miami Herald recognized Warren Technologies as the "Small Business of the Year" in 1990. Both HPAC and Contracting Business magazines presented Warren Technologies, under Mr. Kelley's brilliant guidance with "The Innovative Product Award" as voted by their readers. Some of the most impressive buildings in the USA, Hong Kong, and Japan, including the Joe Robbie Stadium in Miami, have been fitted with Mr. Kelley's innovative devices.

Mr. Kelley is a 30-year member of ASHRAE. He has published seven articles and is a noted speaker on IAQ, VAV and individual room temperature controls. He holds 15 patents in the U.S. and foreign countries for various HAC products. His mission is to produce products that have real value for health, comfort and efficiency.

The Honors and Awards Committee unanimously recommends Winfield L. (Roy) Kelley for advancement to the grade of ASHRAE Fellow.

## **28. Appendix N-7: Sample Write-Up for Andrew T. Boggs Service Award**

November 1990

TO: Board of Directors, ASHRAE

FROM: ASHRAE Honors and Awards Committee

SUBJECT: PRESTON E. McNALL, Jr., NOMINEE FOR ANDREW T. BOGGS AWARD

Mr. McNall received the ASHRAE Distinguished Service Award in 1972. Since that time, he has continued being ever active in serving on ASHRAE Committees, the Board of Directors, ASHRAE Vice-President, and has continued his activity in writing papers on ASHRAE related subjects. The Honors and Awards Committee feels that Mr. McNall's extended, notable service to ASHRAE, as summarized below, indeed meets the criteria for the A.T. Boggs Service Award.

Following are principal ASHRAE activities of Preston McNall subsequent to his receiving the Distinguished Service Award: R&T Committee, 5 years; Metric Committee, Chairman 3 years; Standards Committee, 3 years; Environmental Health Committee, 4 years; Director at Large; Vice President, 2 years during which he also served as Chairman of Member Council; Presidential Ad Hoc Committee on Legionnaire's Disease; Chapter 7, Fundamental Handbook, 4 years; and Presidential Committee on Environment, 2 years.

In addition to serving in the above listed capacities, Mr. McNall was author or co-author of some 25 articles and papers, since 1972, dealing with the technology embraced by ASHRAE.

The Honors and Awards Committee is proud to unanimously recommend Preston E. McNall for receipt of the Andrew T. Boggs Service Award.

## **29. Appendix N-8: Sample Write-Up for ASHRAE Award for Distinguished Public Service**

April 15, 1999

TO: ASHRAE Board of Directors

FROM: ASHRAE Honors and Awards Committee

SUBJECT: JERRY G. BARTOS, NOMINEE FOR THE ASHRAE AWARD FOR DISTINGUISHED PUBLIC SERVICE

Jerry Bartos has provided exemplary service to the public over a period of 30 years that established him as a role model for engineers of all disciplines. His record of service to the local, state, national, and international communities indicates he has definitely improved the public image of engineers.

Jerry Bartos has always believed in a strong commitment to business and civic affairs of his community. He has served the community with dedication. His leadership roles are numerous and the following is only a partial list:

- A Beautiful Clean Dallas – President 1975
- North Dallas Chamber of Commerce – President 1975-76
- U.S. Chamber of Commerce – Regional Chair of Small Business, 1978-79
- White House Conference on Small Business Chair – Dallas Delegate 1980
- Greater Dallas Planning Council – President 1984-86

Mr. Bartos has served on dozens of committees and boards. Some are listed below:

- Texas State Fair Pan-American Committee
- Texas Safety Association, Board of Directors
- Big Brother/Big Sisters of America, National Board
- North Texas Leadership Council, Board of Directors
- National Trust for Historic Preservation
- Dallas Council on World Affairs

Jerry Bartos has been very active in local, state and national politics. He has served as a member of the Dallas County Republican Men's Club. He has been a frequent delegate to Republican Party Conventions, and served as co-chair of one of the host committees for the 1985 National Republican Party Convention in Dallas.

He has also been elected to serve his community in the following roles:

- Dallas Independent School District, Board Member – 1979-81
- Dallas City Council, Member – 1987-93

In the early 1990's Mr. Bartos served as the chair of a delegation representing the city of Dallas to create the Dallas/Brno (Moravia, Czechoslovakia) sister-city relationship. He led this delegation to Brno to establish this international partnership.

Because of Mr. Bartos' dedicated and continuous endeavors in community civic affairs, the Honors and Awards Committee unanimously recommends Jerry G. Bartos for the ASHRAE Award for Distinguished Public Service.

### **30. Appendix N-9: Sample Write-Up for the ASHRAE Pioneers of the Industry Award**

February 2012

TO: Board of Directors, ASHRAE

FROM: ASHRAE Honors and Awards Committee

SUBJECT: WILLIAM E. FONTAINE, NOMINEE FOR THE ASHRAE PIONEERS OF THE INDUSTRY AWARD

William Ellsworth Fontaine was born in Chicago, Illinois on May 5, 1905, and died on February 26, 1993 in Lafayette, Indiana, after having served as Distinguished Herrick Professor of Mechanical Engineering, and Founding Director of the Ray W. Herrick Laboratories at Purdue University.

Professor Fontaine's major contribution to the HVAC&R Industry was establishing the Ray W. Herrick Laboratories at Purdue University. Its successes have had a great influence on expanding industry support of graduate student research that in the 1950s was usually limited to supporting fellowships. Professor Fontaine recognized that engineering graduate students were getting a more scientifically based education and were becoming better able to contribute to the Industry's specific research needs related to their specific products. In other words, he was able to convince companies to enter contract relationships with the Herrick Laboratories using graduate students to work on their specific research problems under professorial supervision. He successfully found ways to protect sponsors' proprietary interests without compromising students' needs to write and publish their theses. This was a completely new paradigm for HVAC&R related and cooperative research between industry and academia- and quite a shift from the typical aerospace and Department of Defense research of the 1950s. The way that the Herrick Laboratories under Professor Fontaine's leadership handled such issues became a role model for the way industry and many other universities do directed research.

The laboratories grew steadily under Professor Fontaine's leadership, and continue to do so since his retirement. More than 700 students have graduated from the laboratories since Fontaine's dream became a reality; close to half of them were specifically relevant for the HVAC&R industry. Amongst these graduates were some notable leaders in the industry: Will Stoecker (University of Illinois); Carl Johnson (past vice-president at RANCO Controls), Terry Manon (past vice-president of the Trane Company) Edward Eisele (past vice-president of Whirlpool), Richard Erth (vice-president at Borg) and Ken Cooper (Poolpak Int., currently Director of Special Projects); as well as more recent graduates such as Anthony Jacobi (University of Illinois), Bill Murphy (University of Kentucky), and Dennis O'Neal (Texas A&M), all heavily involved in ASHRAE and part of Bill Fontaine's legacy.

In the form of summary: Professor Fontaine's milestone contribution was establishing the Ray W. Herrick Laboratories at Purdue University; the first of its kind. Bill Fontaine's unique and pace-setting goal was to increase and enhance engineering research for the good of the HVAC&R Industry using the research of graduate students directed by their major professors and with cooperation from the engineering personnel who were employed by the sponsoring organizations. He did this maintaining protection of proprietary interests of the sponsors and the academic need to publish the theses written by the students. The outcome has been tangible advancement of the arts and sciences of HVAC&R. Based on these accomplishments the Honors and Awards Committee unanimously recommends William E. Fontaine's recognition as an ASHRAE Pioneer of the Industry.

## **31. Appendix O: Biographies for Named Awards**

### **1. Andrew T. Boggs Service Award**

A native of Pennsylvania, Andrew Boggs, III, grew up in New Jersey. Following high school, he attended Norwich University, the oldest private military college in the United States. World War II interrupted his studies at Norwich. After serving during the war as a tank commander in Europe for which he received the Belgian Military Cross, he returned to Norwich and graduated with a degree in chemistry. He remained in the Army Reserve and retired as a major in 1965.

Mr. Boggs's business career started when, as a teenager, he went to work for the Edison Electric Institute in New York. After graduation from college, he returned to EEI where his duties included collection and correlation of all research material for the preparation of reports on heat pump technology and air conditioning practices and theories.

Mr. Boggs worked for EEI until 1955 when he became ASRE technical secretary. He assisted ASRE's Research, Standards, Program and General Technical Committees. Much of his ASRE work increased American involvement in the International Organization for Standardization (ISO). He also was managing editor of the ASRE Data Book and answered all technical inquiries. During his professional career he authored several papers, and is listed in "Who's Who in Engineering."

After ASRE's merger with the American Society of Heating and Air-Conditioning Engineers in 1959, he took over the Membership Department at the Worth Street office (ASHAE's former headquarters) while continuing to manage the Technical Department at the Fifth Avenue office (ASRE's former headquarters). Mr. Boggs was named ASHRAE's associate secretary in 1961, and in 1967, he became ASHRAE's executive secretary, the chief staff position.

Widely respected among his peers, Mr. Boggs has long been active in the Council of Engineering and Scientific Society Executives. He served as its president in 1981-82. He also has been president of the Alumni Association and a member of the Board of Trustees of Norwich University, was elected a Fellow of his University, and in 1977, was given Norwich's Outstanding Alumnus Award.

He was named an ASHRAE Fellow in 1979 and considered it one of the greatest honors bestowed upon him. Mr. has represented ASHRAE countless times, encouraged members to become active in the industry and championed the importance of ASHRAE is important to the wellbeing of humanity.

When Mr. Boggs retired in 1985, he was named an ASHRAE Honorary Member and Executive Vice President Emeritus. In 2001, Mr. Boggs received the Distinguished Fifty-Year Member Award.

The Andrew T. Boggs Service Award was established in 1986 to recognize a past recipient of the Exceptional Service Award for continuing unselfish, dedicated, and distinguished work on behalf of the Society. The award honors Andrew T. Boggs, ASHRAE Executive Vice President Emeritus, for his 30 years of outstanding service and leadership. The award consists of a plaque with a medallion.

### **2. Crosby Field Award**

Colonel Field, as he was called by his friends and admirers, was born in 1889 in Jamestown, New York. In 1909, he received a B. S. degree from New York University and three years later an M.E. degree from Cornell University. In 1914, he was awarded an M. S. degree in electrical engineering from Union College, and later, studied chemical engineering at Brooklyn Polytechnic Institute.

Following his graduation from Union College, he joined General Electric Company's Test Program, working for a time under Dr. Steinmetz in the Protective Apparatus Laboratory. Here he developed several inventories including the Oxide Film Arrestor. From 1914-15, he was in private practice as a consulting engineer until associating as Chief Engineer with Standard Aniline Products Company from 1915-17.

From 1917-19, he served in the U.S. Army, Ordnance Department in various capacities from Major to Acting Chief of the Explosives and Loading Section, Inspection Division. Following World War I, he joined National Aniline and Chemical Company as Engineering Manager in charge of all engineering including construction, maintenance, power plant, appraisal and engineering research.

From 1923 to 1942, Colonel Field was a Vice President, Director and Secretary of the Brillo Manufacturing Company, during which time his invention of the automatic single pass machine for the production of steel wool completely revolutionized the industry. One of his machines did the work of 250 machines of the type superseded. By a constant

program for the development of new products, he was able to avoid any appreciable technological unemployment, actually increasing the total number of employees.

In 1938, Colonel Field was President of ASRE. He was first elected a Director of the Society in 1932 and remained on the Board for 12 years. He was a frequent contributor to *Refrigerating Engineering*, and was a contributing author of a chapter in the *Refrigerating Data Book*.

Concurrently, during this period, Colonel Field was President of the Flakice Corporation and introduced Flakice frozen water ribbons, helping to make the small ice industry of today possible. He returned to active duty in the U.S. Army in 1942 as Assistant Director of Safety, Office of Chief of Ordnance with the rank of Colonel.

Affiliated with ASME since 1915, he was elected Fellow in 1938. He also served as Fellow of the American Institute of Electrical Engineers, and a Past-President of ASRE, as well as numerous other engineering societies and fraternal bodies.

Colonel Field received the U.S. Legion of Merit in 1946 for his work in safety methods in the loading of ammunition. His manual for investigators, "The Study of Missiles Resulting from Accidental Explosions," published in 1947, was later adapted, and is still in use by the U.S. Atomic Energy Commission Division of Operational Safety.

In 1953, Colonel Field was awarded the ASME Medal for "his high engineering skills and inventions which established and expanded industries and made invaluable contributions to improved designs and production techniques in many fields." He was also named Honorary Member and became a Fellow of ASME. He was named an Honorary Member of ASHRAE in 1961, and in 1968 received the ASHRAE F. Paul Anderson Award.

Always conscious of his responsibilities as an engineer, Colonel Field devoted a great deal of his life to active participation in engineering societies and other organizations winning almost all top honors and awards. His many patents and published articles have contributed greatly to the progress of the industries he served and to the welfare of the general public.

Colonel Field passed away September 20, 1972 at the age of 83.

The Crosby Field award was established in 1973. This award is for the highest rated paper presented at a Technical Session or Symposium for the Society year. The award consists of a \$750 honorarium and plaque.

### **3. Dan Mills Chapter Programs Award**

Daniel M. Mills was born September 27, 1908 in Hanover, Indiana. He attended Madison Indiana high school, graduating with a diploma in 1928, and Purdue University graduating with a B.S. in chemical engineering in 1933.

In 1936, Mr. Mills began his career with Surface Combustion of Toledo as a sales engineer, continuing until 1940. He was then employed with F. J. Evans Engineering as Vice President from 1940-1965. At that time, he founded his own company of D. M. Mills and Associates serving as President, and in 1991 became Chairman of the Board of Mills-Wilson-George, Inc., serving until his death.

Mr. Mills served on numerous ASHRAE committees including the Chapter Delegates Committee, the Nominating Committee, and as the Chair of the Life Members Club. He also held many chapter offices with the Houston and Memphis Chapters.

Mr. Mills was a member of the Memphis Joint Engineers Society having served as Chair, and a member of the advisory councils for numerous manufacturers such as General Controls and Peabody and Reznor.

Mr. Mills received the Distinguished Service Award in 1966, became a Life Member in 1972, and was awarded the grade of Fellow in 1985. He was also named by the Memphis Engineers Joint Council, the Featured Engineer of the Year in 1965, and received a Certificate of Appreciation in Advancement and Promotion Engineering Profession in 1979. Mr. Mills assisted with the charter of several ASHRAE Student Branches including the one at the University of Texas.

Mr. Mills passed away in November 1992.

The Dan Mills Technical Award was established in 1988, and recognizes a Chapter Technology Transfer Committee Chapter Chair who excels in promoting technical and energy activities. Prior to 2014 the award recognized a Chapter TEGA Chair who excelled in meeting TEGA goals in technical, energy, and government activities. In 2019, the Dan Mills Technical Award and the Chapter Program Star Award were combined to create the Dan Mills Chapter Programs Award. The award consists of a plaque and lapel pin.

#### **4. Donald Bahnfleth Environmental Health Award**

Donald R. Bahnfleth, born July 16, 1927 had an extensive career as research professor, editorial director of Heating/Piping/Air Conditioning magazine, and consulting engineer. He wrote over 30 articles and gave speeches all over the world. He was the driving force in opening up opportunities for women and minorities in all ASHRAE activities. In addition, he was outstanding in planning and directing complex heating, ventilating, and air conditioning projects.

During his ASHRAE presidential year of 1985-1986, Donald R. Bahnfleth recognized the increasing interest in and concerns about indoor air quality in buildings and ASHRAE's potential role in addressing those concerns. As president he emphasized research efforts in energy use, indoor air quality, and fire and smoke control. He convened a presidential ad hoc committee with some of the world's leading experts in the field and charged them with examining the issue of IAQ and ASHRAE's role. The findings of this ad hoc led to the initiation of the ASHRAE IAQ conference series that continues to this day, the creation of the Environmental Health Committee, and a recognition of ASHRAE as a key source of information, standards, research and publications in the field.

Donald R. Bahnfleth died August 11, 2016 at the age of 89.

The award, originally named the Environmental Health Award, was renamed to the Donald Bahnfleth Environmental Health Award in 2019. The Environmental Health Committee renamed this award in an effort to recognize the key role of Mr. Bahnfleth in ASHRAE's environmental health activities and to ensure that his role is remembered. Established in 2006, this award recognizes excellence in volunteer service focused on environmental health issues.

#### **5. Donald A. Siller Refrigeration Award**

Donald A. Siller, P.E., was born in Chicago, Illinois on October 6, 1940. He received a Bachelor's in Mechanical Engineering from the Illinois Institute of Technology in 1964 and an MBA from Washington University in 1977. He was the president and owner of Electro Motion Refrigeration, Inc. in Chesterfield, Missouri until 2004 and through his knowledge became a leading expert in the area of Refrigeration.

Totaling more than forty years of experience in industrial refrigeration system engineering, design and applications, Don was a registered professional engineer and longtime member of ASHRAE.

Don worked on a number of large scale refrigeration projects, including design of the Pinnacle Foods Ammonia Blast Freezing system, the replacement of the HCFC in Mid States Dairy, the Hazelwood Farms Bakery blast freezer, and computer control system for par-baked products.

While representing the St. Louis Chapter as Chapter President, Secretary, and Membership Promotion Chair for a number of years, Don, through his commitment and dedication to ASHRAE, inspired members to work together to bring change and excellence within the refrigeration industry.

Constantly challenging the Society to remember the "R" in ASHRAE, he worked tirelessly to disseminate knowledge regarding the refrigeration industry and was well respected by his peers. Don served on a number of ASHRAE committees and councils, including the Refrigeration Committee, the Chapter Technology Transfer Committee, and Technology Council. He was also an ASHRAE Life Member and Distinguished Service Award recipient. It is because of his work, service, and tireless dedication to the Society and the industry, that this award bears his name.

Donald A. Siller, P.E. died in September 2013 at the age of 73.

The Chapter Technology Transfer Committee's "Refrigeration 'R' in ASHRAE' Award" was renamed the "Donald A. Siller Refrigeration Award" in 2015, and recognizes exceptional performance by a Chapter Refrigeration Chair for planning activities and providing technology transfer on the subject of refrigeration. The award consists of a plaque and lapel pin.

#### **6. E.K. Campbell Award of Merit**

Member and Secretary of the Life Members Club, E.K. Campbell enjoyed a long association with the Society since joining ASHVE in 1920. He served as Secretary-Treasurer for the ASHRAE Life Member Club from its inception until his death on November 25, 1962. Numerous functions have included terms on the ASHVE Council from 1931-33 and 1939-42 and as national Treasurer from 1942-43.

Mr. Campbell represented the Society in the development of the insurance code for heating and ventilating garages from the standpoint of carbon monoxide. Additionally, he served as Chair of the committee to develop a code for testing and rating heavy-duty furnaces.

Other committees on which he has served are: Technical Advisory on Garage Ventilation, Chair, 1928-30; Technical Advisory on Ventilation of Garages and Bus Terminals, Chair, 1931-35; Increase of Membership, 1931; Chapter Relations, member 1931, Chair, 1932-33; Membership, Chair 1933, 1939, member, 1940; Research 1934-36; Intermittent Heating, Chair, 1937; Technical Advisory on Heat Requirements of Buildings, 1939-42; and Finance Committee of Committee on Research, 1941.

Active as well in the Kansas City Chapter, he served as President from 1931-31, and was a member of various committees. A graduate of Grinnell College, Mr. Campbell was President of the E. K. Campbell Company, a firm he founded in 1910. He first developed the furnace fan system based on recirculation instead of carbon dioxide. Mr. Campbell has written numerous articles and presented papers at Society meetings.

Chairman of the Board of E. K. Campbell Company, ASHRAE Fellow and Life Member, Mr. Campbell died at the age of 87.

The Life Members Club "Award of Merit" was renamed the E.K. Campbell Award of Merit in 1963, and is presented by the Life Members Club to honor outstanding service and achievement in teaching. The award consists of a \$10,000 honorarium and plaque.

## **7. F. Paul Anderson Award**

He is noted now as the namesake of the F. Paul Anderson Award. This is ASHRAE's highest award. It is given once per year to a member for "notable achievement, outstanding work or service in any field in the Society." Clearly he must have been an unusual ASHRAE contributor himself.

He was born in South Bend, Indiana in 1867. There was no record available of his early life or accomplishments outside his professional experience. He graduated from Purdue University in Mechanical Engineering in 1890 and later received a Professional Mechanical Engineering degree in 1894.

In 1891 he was appointed Professor and Dean of the School of Mechanical Engineering at the then A&M College of Kentucky at Lexington. This soon became the University of Kentucky. He had a long and productive career there. He introduced several new courses in ME as well as other departments. He introduced cultural requirements for a degree in engineering long before courses in the humanities were required for engineering degrees, as is universal in these days. He devoted his professional life to building a notable College of Engineering, and under his leadership it became one of the top schools in the nation.

In 1921 he joined ASHVE and immediately became active. He made several comments on technical papers and authored one on dust in building materials in 1923. He was named Director of Research in 1923, after the untimely death of the first director. The Laboratory in Pittsburgh, Pennsylvania was only two years old. He served for four years shuttling between Lexington and Pittsburgh. He recruited many of his best students and young faculty members to work in the laboratory. During his tenure 62 papers were published on heating, ventilating and air conditioning. He published a paper on the need or ventilation standards in 1926. He also was trying to develop a "zone of comfort of atmosphere" including solar energy and temperature to provide an ideal environment. He also published a paper on radiator performance in 1928. He was a prolific commenter on many technical presentations in national meetings.

In 1927 he was elected President of ASHVE as a result of his many contributions. He was on several important committees including the Advisory Council, and helped formulate many new policies for the growing Society.

He was also a member of the National Research Council, the American Association for the Advancement of Science and the Royal Society for the Encouragement of Arts.

ASHVE initiated an award in 1930 to recognize a person who had made the greatest contribution to the field of heating and ventilation. It was named the F. Paul Anderson Award. Thornton Lewis, President of ASHVE in 1929, said "He has directed the education of more engineers engaged in the heating and ventilating profession than any other man in the world." The award consists of a plaque with a medallion.

F. Paul Anderson was Dean of Engineering at the University of Kentucky for 43 years until his death in 1934 at the now early age of 67.



## **8. George B. Hightower Award**

Mr. Hightower was a native of Atlanta, GA, born March 28, 1911. He was a 1933 graduate of Virginia Military Institute with a degree in Electrical Engineering and as a Second Lieutenant in the Cavalry Reserve. He entered the Air Force on January 21, 1942 and on September 8, 1943, he left Norfolk, VA by convoy through the German bombing attacks in the Mediterranean to Bombay, India. He later served as a Major in the Air Force Flying Tigers and was stationed in China during the Japanese invasion. As the Japanese approached, he was responsible for destroying several air bases after the American and Chinese forces had evacuated, often behind Japanese lines.

His dedication and abilities were described by one of his fellow officers in a letter to their commanding officer stating "His evacuation of Sincheng, Namyung, and Kanchow could not have been improved upon Hightower has a keen faculty of grasping a complicated over-all picture in one squint, and of retaining it for prompt, balanced and constructive decisions later." He was the recipient of the Legion of Merit, the Bronze Star with Oak Leaf Clusters, the American Theater Ribbon, and the Asia Pacific Campaign Ribbon.

Mr. Hightower spent 55 years in the engineering and contracting professions. 35 years of those years as one of the owners of Conditioned Air Engineers, a commercial air conditioning contracting firm in Atlanta, GA. During that time he actively served in numerous capacities including on the Board of Directors of the National Society of Professional Engineers (NSPE), Georgia Society of Professional Engineers (GSPE), Georgia Engineering Foundation (GEF), Society of American Military Engineers (SAME), National Environmental Balancing Bureau (NEBB), and the American Society of Heating, Refrigeration, & Air Conditioning Engineers (ASHRAE). He was a Fellow of the SAME and ASHRAE and awarded Life Member status from Associated Mechanical Contractors of Atlanta (AMCA) and ASHRAE. He was recognized as Eminent Engineer by Tau Beta Pi.

Mr. Hightower died on November 8, 2008 at the age of 91.

Established in 2006, the George B. Hightower Technical Achievement Award recognizes an individual for excellence in volunteer service in the area of Technical Committee/Technical Group/Technical Research Group leadership and contribution. The form of the award is a plaque.

## **9. Homer Addams Award**

The Homer Addams Award recognizes a graduate student who has been engaged in an ASHRAE research project. The award was authorized in June, 1956, and the first award was given in 1957. In June, 1959, the ASHRAE Board of Directors was pleased to receive a \$10,000 endowment from Paul K. Addams, Homer Addams' son. In 1991 the endowment of the award was increased to \$25,000 and the honorarium was increased from \$600 to \$1500. The award also consists of a plaque and lapel pin.

Mr. Addams was born June 22, 1873, in Addamstown, Pennsylvania, a town established by his ancestors in the early 1700's. He began his business career at the age of 15 after completion of preliminary education in public schools in the Addamstown area and in the Schuylkill Seminary. The desire for education was so great that he managed to combine business with study, taking business and engineering courses in his off hours.

His first job was as a helper, installing heating plants in Eastern Pennsylvania. In 1895, he joined Barber and Ross, a heating contracting firm in Washington, D.C. Mr. Addams handled development, engineering and research of the products for a group of cast-iron boiler manufacturers in Philadelphia in 1896. During that same year, he was a founder of The American Society of Heating and Ventilating Engineers.

In 1903 he was employed by the Kewanee Boiler Company of Illinois. He went to Washington as a special representative to contact government agencies and to act as a consultant on various heating projects. He rejoined the Kewanee Boiler Company in 1911 to set up a New York branch and also to serve as sales manager of the operation. From 1911-18, he spent much time in Washington as a liaison representative between the company and the government on the design and development of boilers and hot water heaters.

Foreseeing the extended growth of construction along the eastern seaboard and the prospect of sizeable business volumes, Mr. Addams joined with the Kewanee Boiler Company of Illinois in 1920 to form a subsidiary company known as the Kewanee Boiler Company of New York. His initial position with the new firm was Vice President, and in 1921 he became President. The same year he acquired the Fitzgibbons Boiler Company, of Oswego, New York, and also became its President. He resigned as President in 1947, and was succeeded by his son, Paul K. Addams. Concurrently, he became Chairman of the Board of the firm and pursued his responsibilities with the same fervor that marked his long and outstanding career.

Dr. Addams' career closely paralleled that of ASHVE, being identified with the advancement of engineering practice, research and development techniques in the field of heating and air conditioning. He received the F. Paul Anderson Medal in 1952 in recognition of his notable contributions to the advancement of the fields of boiler design and performance.

In the 1951 he was awarded the degree of Doctor of Science from Albright College.

Homer Addams served as ASHVE President in 1924. He also served as First Vice President, Treasurer and on the ASHVE Council. He was active in the founding of the Society's Research Laboratory at the United States Bureau of Mines, Pittsburgh, Pennsylvania, in 1919, and was a member of the first Guide Committee in 1922. He served ASHVE with many committee assignments

He also held membership in the American Society of Mechanical Engineers, the American Uniform Boiler Low Society, the Steel Boiler Institute, Inc., the Engineers Club of New York, the Engineers Club of Philadelphia, and the Greenleaf Lodge, F. & A. M., Allentown, Pennsylvania.

#### **10. John F. James International Award**

John F. James was born in Kiukiang, China, the son of an English missionary who worked in various parts of the world, and spent several childhood years in Hong Kong. Eventually the family settled in Bournemouth, a city on the south coast of the United Kingdom. Mr. James obtained his academic qualifications through Bournemouth Technical College and South Bank Polytechnic and was a Chartered Engineer.

In 1960, after completing his National Service commitment as a member of the Royal Air Force, he joined the firm of R. W. Gregory & Partners in London as a Design Engineer, in which position he was responsible for the design and supervision of all building services and structural work on major projects. He became a Partner of the firm in 1972 and remained in this capacity until 1991, when he became a Director and Partner in the London office of the Canadian firm, The Mitchell Partnership.

Mr. James was widely respected for his work in integrating mechanical and electrical building engineering services. Among his many designs were innovative systems for a \$70 million sports facility in Saudi Arabia, cold storage facilities with requirements to  $-29^{\circ}\text{C}$ , underground military complexes, and a deicing plant for British Airways. He was elected a Fellow of The Chartered Institution of Building Services Engineers in 1972 and was made a Fellow of the Institution of Hospital Engineers in 1982. He also served on the British Standards Institute Committee which developed specifications for expansion vessels using an internal diaphragm for sealed hot water heating systems.

Mr. James joined ASHRAE in 1979. After serving with distinction on a number of ASHRAE Standing and Technical Committees, in June of 1989, he was elected as a Director-at-Large of the ASHRAE Board of Directors. In June 1992, he was elected as a Vice President of the Society, the first member residing outside North America and the non-contiguous states and territories to become an ASHRAE officer and member of the Executive Committee. In January 1993, he was made a Fellow of ASHRAE. Using his broad contacts in the European HVAC&R industry, Mr. James served as an ASHRAE liaison there, assisting in the dissemination of technology to ASHRAE members and others throughout Europe. In 1993, Mr. James received the International Activities Award in recognition of his outstanding efforts to enhance the Society's image in the international community.

Mr. James passed away on June 29, 1993 while attending the Society's 1993 Annual Meeting in Denver, Colorado.

The International Activities Award was established in 1983 to recognize members of the Society, both international and domestic, who have done the most to enhance the Society's international presence or posture. The award was renamed the John F. James International Award in 1996. The award consists of a plaque and lapel pin.

#### **11. Lincoln Bouillon Award**

Lincoln Bouillon joined ASHVE in 1933 and was President of the Pacific Northwest Chapter in 1935. Following the formation of ASHRAE, he achieved a grade of Fellow in 1963 and held Society officer positions as a member of the Board of Directors from June 1962, Vice President for the 1964-65 fiscal year and President-elect for the 1965-66 year.

Other activities in which he participated at the Society level included membership on the Program Committee, Technical Coordinating Committee, the Task Force for the New Psychometric Chart, the Charter and Bylaws Committee, and the Finance Committee.

During his career, he emphasized membership promotion and felt that people making their living in air conditioning should become active participants in the Society. He spearheaded a membership campaign in 1965 that resulted in 105 new members for the Puget Sound Chapter, an increase of about 40% during a three-month period.

The Lincoln Bouillon Award was established in 1967 to commemorate Mr. Bouillon's effort in increasing Society membership. The award is given each year to a Society member who has achieved the most outstanding record in membership activities during the previous year.

The award was initiated by Clarence F. Fleming, Membership Promotion Chairman, and approved by the Board of Directors in memory of President Lincoln Bouillon. An award is presented annually to the individual who performs the most outstanding work in increasing the membership of the Society. The award consists of a plaque and lapel pin.

Lincoln Bouillon's legacy to ASHRAE and the consulting engineering industry continues with the firm he founded in 1931, in Seattle, Washington, that bears his name today.

## **12. Lou Flagg Historical Award**

Louis Flagg was born April 12, 1914 in Augusta, Maine. He graduated from Central High School in 1932, and from the University of Maryland with a B.S. in electrical engineering in 1936. He worked for Kingswell, Inc. as an Assistant Superintendent until 1941, when he joined the U. S. Army. He was serving as Lt. Colonel in 1946 when he left the army to begin a long career with Honeywell, working in Washington, D.C., New York City and Minneapolis until his retirement in 1984.

Mr. Flagg served ASHRAE for more than 50 years on numerous committees and councils, becoming Society President in 1988-89. During Mr. Flagg's service to ASHRAE, he received the Distinguished Service Award, the "Logbook of Time" Award as historian for ASHRAE's Region VI, the Presidential Certificate of Honor, the Andrew T. Boggs Distinguished Service Award, and the Distinguished Fifty-Year Member Award. He was elected Fellow in 1984. He also received the Centennial Medal from the University of Maryland College of Engineering.

Mr. Flagg authored many articles and chapters of books including the ASHRAE Handbook and its predecessor ASHRAE Guide, the IEEE Gray Book, and a Training Book on Pneumatic Controls for the United Association of Pipefitters.

Mr. Flagg's many building projects during his career included the Senate Office Building and buildings for the Richmond News and the University of Richmond. Mr. Flagg died October 27, 1999 after courageously battling breast cancer for over four years.

The Lou Flagg Historical Gold Ribbon Award was approved by the ASHRAE Board of Directors in June 2002 "to recognize a Chapter Gold Ribbon Award winner for compiling information on outstanding historical projects or persons related to HVAC&R." At the recommendation of the Historical Committee, the name of the award was changed to the Lou Flagg Historical Award in June 2003. The award consists of a plaque and lapel pin.

## **13. Louis and Bill Holladay Distinguished Fellow Award**

William L. Holladay became a member of ASRE in 1930. He was a Presidential Member, Fellow, and Life Member. He was elevated to the grade of Fellow in 1950 and became President of ASHRAE in 1968.

Mr. Holladay served as chairman of the Honors and Awards Committee twice, chaired the Charter and Bylaws Committee for two years, and the Weather Data Committee for eight years. In 1961, he was a member of the Research and Technical Committee. He was President of the Southern California Chapter twice during his career while the chapter was still an ASRE Section. He also held membership positions on TC 2.1, Physiology and Human Environment, and TC 2.2, Plant and Animal Environment.

Mr. Holladay published ten papers and two books and authored several ASHRAE Journal articles. In an ASHRAE video, "Leadership Recalled," made before he died, Mr. Holladay noted that he was the first member of the "white goods" business (sales of refrigerators) to join ASRE. He also held a patent on a heat exchanger.

Mr. Holladay initiated the Louise and Bill Holladay Distinguished Fellow Award in 1979. In 1978 Mr. and Mrs. Holladay contributed \$5000 to finance the new award with the "hope that the income from the gift be used to finance a medal for Distinguished Fellowship, the criterion for which would be pre-eminence in Engineering. And it is our hope also that it may be known as the Louise and Bill Holladay Distinguished Fellow Award. The award consists of a plaque with a medallion.

Mr. Holladay died in 2001 at the age of 98.

#### **14. Milton W. Garland Commemorative Comfort – Process – Cold Chain Award for Project Excellence**

In 1998 Mr. Milton W. Garland was honored as the nation's oldest worker, having begun his career in 1920 at the Frick Co., now part of York International. He was known as “Mr. Refrigeration” for his work in refrigeration systems for gold mines in South Africa and in the ice cream factories of Philadelphia.

Mr. Garland held some 40 patents of refrigeration-related items, ranging from icemakers to screw compressor volume controls. His work in refrigeration aided in the construction of Hoover Dam for which he designed systems to cool the water, sand and rock used to make the concrete to build it.

He was a recipient of the ASHRAE F. Paul Anderson Award, the Distinguished 50-Year Member Award and the Louise and Bill Holladay Distinguished Fellow Award. In 1996, he received the first Andy Ammonia Award from the International Institute of Ammonia Refrigeration for his paper, The Influence of Vapor Pressure in the Condensing Process of the Ammonia Refrigeration Cycle.

At ASHRAE's Centennial Meeting in 1995, Mr. Garland was recognized as a pioneer in technology. In 1989, ASHRAE endowed an award in his honor - the Milton W. Garland Commemorative Refrigeration Award for Project Excellence. The award consists of a plaque with a medallion, and a lapel pin. In 2021, the Milton W. Garland Commemorative Refrigeration Award for Project Excellence and the Refrigeration Comfort Cooling Award for Project Excellence were combined to create the Milton W. Garland Commemorative Comfort – Process – Cold Chain Award for Project Excellence. The award consists of a plaque and lapel pin.

Milton Garland, P.E., Fellow ASHRAE, died in July 2000 at age 104. He was inducted into the ASHRAE Hall of Fame at the Society's 2003 Winter Meeting.

#### **15. Ralph G. Nevins Physiology and Human Environment Award**

The Ralph G. Nevins Physiology and Human Environment Award is given once each year to a young researcher who has distinguished himself in man's response to the environment, which may include thermal, acoustical, olfactory, microbial or other effects. The award includes a plaque, \$500 honorarium, and lapel pin. This award honors Ralph Nevins, a remarkable man of many accomplishments, who died of cancer at the age of 48. The award recognizes Dr. Nevins' great interest in students and the environmental field, and is funded by memorial contributions in his name.

He was born in 1925 and grew up in Dodge City, Kansas. He earned BS and MS degrees in Mechanical Engineering from the University of Minnesota and a PH.D. from the University of Illinois. He spent a year in the military and joined the faculty at Kansas State University as an instructor. He rose quickly to full professor and ME Department Head in 1957. He was the Kansas Power and Light Company Distinguished Professor, 1963-67, and he received distinguished alumni and service awards from the University of Illinois in 1970 and 1971. He conducted much original research. In 1958 he co-authored a paper on a concentrating solar collector.

In 1961, ASHRAE decided to close its research laboratory, located in Cleveland since 1924, and invited interested organizations to bid on receiving its considerable equipment. Dr. Nevins, seeing an opportunity to develop a significant new program, bid on ASHRAE's environmental chamber. He, with the University's permission, obtained from the state of Kansas \$160,000 for a building and a like amount from the National Institutes for Health for installation and operation. He obtained the chamber and promised to carry on research in ASHRAE's interest for at least 5 years. The new facility was named the Institute for Environmental Research, and Dr. Nevins became its Director. The results are history. Dozens of the Institute's students have received the Ralph G. Nevins Award over the years, and more than 10 graduate students and associated KSU faculty members are now ASHRAE Fellows and valuable contributors to ASHRAE. Some have received the Louise and Bill Holladay Distinguished Fellow Award.

He was instrumental in developing the engineering Ph.D. program and the College of Engineering Center for Effective Teaching at KSU. In 1967 he was promoted to Dean of Engineering at KSU. Along the way he received ASHRAE's Distinguished Service Award. He published over 70 technical papers in ASHRAE, ASME, ASEE and others. He delivered many technical speeches, several of which were invited and some were overseas. He was on many ASHRAE General Committees and on the Board 1964-66. He was on several Technical Committees and Standards Project Committees.

In 1973 he accepted the position of Fellow and Head of the Environmental Engineering Group and Member of the Executive Committee of the John B. Pierce Foundation Laboratory, New Haven, Connecticut, a world class environmental research organization. In association with Yale University, he was also a visiting professor of Environmental Technologies.

Unfortunately, within a year he died. However, he was working with some Pierce scientists even before his appointment, and he authored or co-authored 6 papers from Pierce. Some of the papers were published posthumously.

He was active in ASME, serving on many committees, including the National Nominating Committee, Policy Board and ME Department Heads Committee. In ASEE he was Midwest Section Chair, a member of their Distinguished Lectureship Roster, member of several committees and Vice President 1968-70. He was a registered engineer in Kansas and a member of NSPE. His name appears in eight "Who's Who" publications of well-known engineers and other significant people.

He was on the Board of Directors and Chair of the Budget Committee of Project Concern. He was Chair of the Kiwanis Club, Manhattan, Kansas, and a Director of the Chamber of Commerce. He was a Director of the Kansas State Bank. He was a member of the Governor of Kansas' Committee on Marijuana Investigation. He was a member of the Methodist Church and of the US Naval Reserve. He was a private pilot, an amateur radio operator, a scuba diver, and a Mason. He was a pianist and a percussionist in the KSU Symphony Orchestra.

## **16. William J. Collins, Jr. RP Award**

William J. Collins, Jr. was born May 26, 1915 in Iron River, Michigan where he lived and graduated from high school in 1931. He received a BSME Degree from Michigan Tech University in 1935. After working a year for Swift and Company as an engineer, he was employed by C. A. Dunham in the Research and Development Department in Michigan City, Indiana.

In late 1937 he joined Loeffler-Givens Supply Company of Oklahoma City as a consulting engineer. In 1941, Mr. Collins was employed by the Austin Company of Ft. Worth, Texas. In 1942, he joined the U.S. Army Corp of Engineers, where he served until 1946 as a Lt. Colonel Reserve. Mr. Collins returned to Oklahoma City and established Collins Engineering Associates and served as CEO and President for thirty years.

Mr. Collins became a member of ASHVE in 1949, and served actively in the Society. He was the first editor of the Central Oklahoma Newsletter – The "Southwester". He served as Chapter President in 1952, and introduced the ASHRAE diamond studded Past Presidents Pin, which continues today.

By 1954, Society membership had grown to the point that it was difficult for the Society President to visit all chapters. This was the beginning of regional meeting. Mr. Collins chaired the first of these meetings. The regional meeting concept was added to the Society Bylaws in 1952.

In 1959, Mr. Collins was elected to a 3-year term on the Council of ASHAE. However, he was only able to serve part of one day, due to the merger of ASHAE and ASRE. That merger resulted in becoming ASHRAE. Mr. Collins was to serve 1-1/2 years on the ASHRAE Board of Directors as a RVC, was re-elected for a 3-year term, and was instrumental in the forming of Region VIII. From that point, he went on to become Society Vice President and then President.

In 1971, Mr. Collins and others from Region VIII were able to develop the Golden Gavel Award. From this program, he developed the PAOE system, which has developed into a major portion of chapter operations planning.

In 1972, Mr. Collins was instrumental in developing the Research Promotion program (now Resource Promotion) that today is successful in financing a great portion of the research that ASHRAE contacts. The Society Board of Directors, in an effort to show gratitude to Mr. Collins, created the William J. Collins Research Promotion Award. This award recognizes the outstanding Chapter Resource Chair in Society annually.

In 1976 Collins-Soter Engineering was formed, and in 1991, he started the Collins Enterprises to pursue projects at a less hectic pace.

Mr. Collins is a Presidential, Fellow and Life Member, as well as serving actively in Central Oklahoma Chapter. He has also served as a Trustee on the Foundation Committee, and as Chair of the Journal and Insights Committee.

Mr. Collins has served as President of the Consulting Engineers Council of Oklahoma and is a Life Member. He is also a Life Member of the American Consulting Engineers Council and is a member of the Hall of Fame at Oklahoma State University.

Mr. Collins has received numerous ASHRAE awards including becoming a Fellow in 1966, the Distinguished Service Award in 1965, the Regional Award of Merit in 1978, the Andrew T. Boggs Service Award in 1993, the F. Paul Anderson Award in 1997, and The Distinguished 50-Year Member Award in 1999.

The William J. Collins, Jr. RP Award was established in 1985 to honor the Chapter RP Chair who excels in raising funds for ASHRAE's RP Campaign. The award "recognizes the Chapter RP Chair who excels in raising funds for ASHRAE. The award consists of a plaque with a medallion, and a lapel pin."

## **17. Willis H. Carrier Award**

Dr. Willis H. Carrier was born in Angola, New York in 1876. He received his elementary education in district schools of Erie County and graduated from Central High School, Buffalo, New York. He received a degree in mechanical engineering from Cornell University in 1901 and his doctorate was conferred upon him at Lehigh University in 1935. He also received his doctor of science degree from Alfred University in 1942. Known widely as "The Father of Air Conditioning," it is said he installed the world's first scientifically designed air conditioning system in 1902.

Dr. Carrier was employed by Buffalo Forge Company as a project engineer from 1901 until 1906. During this period he devised a solution to a major temperature and humidity problem occurring during summer at the Sackett-Wilhelms Lithographing and Publishing Company in Brooklyn, New York. This solution led to the invention of the spray type dehumidifier which later became a standard in controlling space temperature and humidity.

1907, Dr. Carrier and a group of his colleagues formed Carrier Air Conditioning Company of America as a subsidiary of Buffalo Forge Company. After the company became independent in 1915, he served as President until 1931, at which time he became Chairman of the Board.

Dr. Carrier was associated with all the "firsts" during the infant stages of air conditioning. He is credited with the design of the centrifugal refrigeration machine. Dr Carrier provided the first air conditioning not only in the printing and textile fields, but also made some of the first installations in paper mills, rubber, chemical, pharmaceutical, rayon, candy, aircraft, electrical and motion picture manufacturing plants.

Some of his notable accomplishments are: received Gold Achievement Medal as member of ASME; served as President of both ASRE and ASHVE; holder of many patents and author of numerous publications; Member of ASRE Advisory Board and edited the first publication of Refrigerating Data Book; Published "Fan Engineering" in 1914; presented paper to ASRE entitled "Rational Psychometric Formulae" which set in place the science of air conditioning; received the F. Paul Anderson Award in 1932; presented paper in 1915 to ASRE entitled "Centrifugal Compression as Applied to Refrigeration" which described his work leading to the development of centrifugal refrigeration machines; inducted into National Inventors Hall of Fame in 1985, joining a list of distinguished inventors such as Thomas A. Edison, Alexander Graham Bell, Charles Goodyear and George Eastman.

Dr. Willis Haviland Carrier died in 1950 at the age of 74. He was inducted into the ASHRAE Hall of Fame on June 25, 1994 at the Society's 1994 Annual Meeting in Orlando, Florida.

The Willis H. Carrier Award was established in 1960. It is sponsored by the Carrier Corporation and is awarded for the best published paper of outstanding quality presented at a Society meeting by a member of any grade who was 32 years of age or less at the time of presentation of the paper. The award consists of a \$500 honorarium and a plaque.

### **32. Appendix P-1: History of F. Paul Anderson Award**

Philadelphia, Pennsylvania

January 13<sup>th</sup>, 1930

The Council of the American Society of Heating & Ventilating Engineers

Gentleman:

I herewith take pleasure in presenting to the American Society of Heating and Ventilating Engineers a certified check for the sum of One Thousand Dollars, subject to the following conditions:

1. That this sum, together with such other sums as may be added to it, be made a permanent endowment fund, the income from which shall be used to provide an annual medal of award (accompanied by suitable certificate), to some member of the A.S. H.V. E. in recognition of work done or services performed in the field of Heating, Ventilation or Air Conditioning;
2. That the Council of the A.S. H.V.E. shall in its discretion invest the principal and administer this fund, decide itself, or by special committee appointed by it, to whom the award shall be made, and shall decide and announce to the Society at least one year in advance, the conditions upon which the award will be made;
3. While it is herein stated that this is to be an annual award, the Council of the A.S.H.V.E. shall have the power to refuse to award the said medal in any year if in its opinion no work or service worthy of the honor has been performed in accordance with the conditions which the said Council previously set forth. Should such conditions prevail, the income from the fund shall be added to the principal;
4. That all decisions of the Council relating to this award shall be made by a majority vote of all the members of the Council;
5. Should the A.S.H.V.E. go out of existence, then its last Council duly elected shall have the power to dispose of this endowment fund in such manner and for such purpose as may best promote the art of Heating and Ventilating.
6. The name of this award shall be "The F. Paul Anderson Medal."

(Signed) Thornton Lewis

**33. Appendix P-2: History of Milton W. Garland Commemorative Comfort – Process – Cold Chain Award for Project Excellence**



**ASHRAE** American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc.  
1791 Tullie Circle, NE • Atlanta, Georgia 30329 • Tel 404.636.8400 • Tlx 705343 • Fax 404-321-5478

**J. Thomas Sobieski**  
Vice Chairman, Region III  
Refrigeration

Reply to: Miller Picking Corporation  
P. O. Box 130  
Johnstown, PA 15907  
Ph: 814-479-4023  
Fax: 814-479-2469

January 29, 1990

TO: Mr. David Rickelton, P.E.  
Chairman, Honors and Awards Committee  
3413 Highview Road  
Charlotte, NC 28210

Re: Refrigeration Award

Dear Mr. Rickelton:

As a follow up to your telephone conversation with Fred Pearson this past November, you are aware that he, I, and many others (see attached letters) have been actively pursuing the establishment of a Society level Refrigeration Award named after Milton W. Garland. The award would be similar in concept to the Lincoln Bouillon Award for membership and the Williams J. Collins, Jr. Award for research promotion in that it would promote refrigeration activities and education at the chapter level by recognizing superior achievement by chapter refrigeration committee chairpersons.

To date we have made progress. A motion to establish the award has passed the Region III CRC, has been presented at the Members Council meeting in October, which then referred it to the Refrigeration Committee (see copy of Members Council minutes, page 11 attached). The motion has been put on the Refrigeration Committee agenda to be held in Atlanta on Sunday, February 11, 1990 at 8:30 a.m., has the endorsement of the Chairman, Mr. Stan Westhoff (see letter attached) and, therefore; has excellent prospects of passing.

Financing of at least \$2,000.00 has been secured by Region III funds and we have a verbal indication that Frick Company (Mr. Garland's long time employer) would be willing to donate \$10,000.00 which would also cover the cost of transportation of the award recipient to the annual meeting.

Also, in accordance with "Rule of the Board" #S80-001-006, I have enclosed a Biographical Record (please note in particular that Mr. Garland is an ASHRAE fellow, recipient of the Life Member Award, Distinguished Service Award and the F. Paul Anderson Award) and many letters of endorsement from distinguished ASHRAE members recommending establishment of the award in the name of Milton W. Garland. Mr. Garland is my immediate predecessor as Refrigeration Vice Chairman Region III and I can attest that he made every effort to assist me in the transition and has continued to volunteer his time to the Region in many ways but especially as a teacher through seminars and chapter programs.

Letter to Mr. David Rickelton  
January 29, 1990

I would like to ask for your help in reviewing the enclosed to see if any additional information would be required by your committee to properly evaluate this proposal and also request some time on your agenda to explain the award to your committee members. Hopefully, your meeting would be after the Refrigeration meeting so I could come before you with the passed motion.

We, also, would like to have your Committee's endorsement at this meeting so that the motion can be taken to the Board of Directors and hopefully approved so that we could make a special presentation to Mr. Garland at the summer meeting in St. Louis to celebrate his 95<sup>th</sup> birthday which will occur in August and also have the award in place so that the first award can be made to coincide with the first year the Refrigeration Committee has full grassroots status and has become part of the PAOE system. The first recipient would be selected based on PAOE points earned this society year (1989-90) and would be selected at the winter meeting of the Refrigeration



Committee in January 1991 (in New York) and with actual award presentation made at the Plenary Session at the annual meeting in June 1991 (in Indianapolis).

I will call you before the Atlanta meeting to arrange details and provide any additional information you may require.

Best regards,

(Signed) J. Thomas Sobieski

cc: George W. Buckler, Vice President and Chairman of Technology Council  
Neil R. Patterson, Vice President and Chairman of Member Council  
Stanley M. Westhoff, Chairman Refrigeration Committee  
James H. Norman, Manager Technical Services

### 34. Appendix P-3: History of ASHRAE Award for Distinguished Public Service

#### ASHRAE-ALCO AWARD (Letter)

AMERICAN SOCIETY OF HEATING, REFRIGERATION AND AIR-CONDITIONING ENGINEERS, INC.

John E. Dube  
C/o Alco Valve Company  
P.O. Box 398  
Creve Coeur Branch  
St. Louis, Missouri 63141  
U.S.A.

United Engineering Center  
345 East 47<sup>th</sup> Street  
New York 17, N.Y. Plaza 2-6800

July 4, 1965

TO THE BOARD OF DIRECTORS:

A great deal has been said about the poor public image of engineers, but like talking about the weather, nothing is ever done about it.

The improvement of our image would not be merely an idle gesture to gain friends and increase popularity, it is of vital importance if we are to attract bright and capable young men, potential leaders, to a career in engineering.

Some people think this is an imaginary problem, but I fear they are indulging in wishful thinking. About 1961 the Bar Association of my home state of Missouri engaged an independent research organization to find out what the Missouri public thought of the Legal Profession and why. The project was financed by a grant from the Prentice-Hall Foundation and the report was published in 1963. It contained a by-product that was of particular interest to me as an engineer:

The public was asked to rate lawyers "in general reputation in the community" in comparison with six other occupational groups. Without regard to competency, merely on the basis of community reputation, lawyers were ranked against bankers, clergy, doctors, dentists, teachers and engineers.

In this study, which appears to have been conducted in a highly objective and competent manner, engineers came out last with an alarming consistency. We were last in the large cities as well as in the country; we were named last by every single occupational grouping of people who were interviewed. Every one of these categories placed engineers' reputation in the community last; white collar, blue collar, service worker, farm worker, armed forces, retired, housewives, unemployed and "others." There was a further breakdown by income groups and the only people who gave us a little break were those with annual incomes over \$10, 000. They put us second last just ahead of the teachers.

Since this study was conducted for the benefit of the legal profession, it did not go into depth for the other occupations and no qualifying data was sought to explain the poor standing of engineers.

Letter to BOD

July 4, 1965

I have heard many explanations of this regrettable phenomenon and so have you, no doubt. The term engineer has been abused, the public is confused and does not know what an engineer is, his work does not bring him in direct contact with the public, engineers are inept in the field of public relations, etc. I am sure these are all factors contributing in varying degrees to our poor public image, but in my judgment there is another even more significant factor and that is the engineers' general indifference to civic affairs.

It is a peculiar enigma that, in an age when technical change and progress have become the most powerful force in human society, the people responsible for most of this change and progress, the engineers, seem to shun the council tables and public forums where the destiny of the product of their efforts is decided.

I am convinced that this incredible indifference is on of the major contributing factors to the poor public image of engineers.

Of course, civic mindedness is primarily a personal matter and not the direct concern of a technical society. Indirectly, however, the Society has an obligation to motivate its members to individually take part in public affairs on all levels. To this end I am proposing to this Board of Directors the creation of a new award to be given annually to a member of the Society who has distinguished himself conspicuously, not in the advancement of our arts and science not through special service on behalf of the Society, but who distinguished himself conspicuously, on a voluntary basis, in behalf of his community or his country.

We need engineers of highest technical competency and we reward them. We also need engineers endowed with a high degree of social responsibility and public awareness – and we should also reward them.

Specifically, I am proposing that this Board of Directors accept on behalf of the Society the sum of \$1,500.00 from the Alco Valve Company to establish and maintain an award to be known as the “ASHRAE-Alco Medal for Distinguished Public Service,” that the medal and a suitably inscribed scroll be awarded annually to a member of the Society, said member to be chosen by the Honors and Awards Committee and approved by the Board of Directors; and that the Honors and Awards Committee be charged with the preparation of rules governing the administration of the award.

(Signed) John E. Dube  
President

June 1, 1987

**ROBERT V. OGRODNIK**  
**PRESIDENT**

Mr. Frank M. Coda  
ASHRAE  
1791 Tullie Circle, NE  
Atlanta, DA 30329

Dear Frank:

This is to acknowledge your correspondence concerning the ASHRAE/Alco Award for Distinguished Public Service and to inform you that Alco will continue to support this award, estimated to cost \$300 per year. This confirms my telephone conversation with David McMinn.

Kindly send your invoice annually to my attention and we will remit the appropriate amount due.

I also ask for the opportunity to attend the function at which the above award is presented.

Please excuse the delay in formally establishing our position on this award. We trust this response meets with your approval and satisfaction.

Sincerely,

(Signed) Robert V. Ogrodnik

RVO/db

Cc: D. Goode  
J. Behr  
D. Hannasch

**ALCO CONTROLS DIVISION**  
**EMERSON ELECTRIC CO.**  
**P.O. BOX 12700**  
**ST. LOUIS, MISSOURI 63141**

**OFFICE: 11911 ADIE ROAD**  
**PHONE: (314) 569-4500, -4509**  
**TELEX: 447162**

### 35. Appendix Q: Past Presidents and Recipients of Honors and Awards

#### Society Presidents

##### **American Society of Heating and Ventilating Engineers (ASHVE)**

1894 Edward P. Bates	1909 William G. Snow	1924 Homer Addams	1939 J. F. McIntire
1895 Steward A. Jellett	1910 James D. Hoffman	1925 S. E. Dibble	1940 F. E. Giesecke
1896 R. C. Carpenter	1911 Reginald P. Bolton	1926 W. H. Driscoll	1941 W. L. Fleisher
1897 William M. Mackay	1912 John R. Allen	1927 F. Paul Anderson	1942 E. O. Eastwood
1898 Wiltsie F. Wolfe	1913 John F. Hale	1928 A. C. Willard	1943 Merrill F. Blankin
1899 Henry Adams	1914 Samuel R. Lewis	1929 Thornton Lewis	1944 S. H. Downs
1900 D. M. Quay	1915 Dwight D. Kimball	1930 L. A. Harding	1945 C. E. A. Winslow
1901 J. H. Kenealy	1916 Harry M. Hart	1931 W. H. Carrier	1946 Alfred J. Offner
1902 A. E. Kenrick	1917 J. Irvine Lyle	1932 F. B. Rowley	1947 Baldwin M. Woods
1903 H. D. Crane	1918 F. R. Still	1933 W. T. Jones	1948 George L. Tuve
1904 Andrew Harvey	1919 Walter S. Timmis	1934 C. V. Haynes	1949 A. E. Stacey, Jr.
1905 William Kent	1920 E. Vernon Hill	1935 John Howatt	1950 Lester T. Avery
1906 John Gormly	1921 Champlain L. Riley	1936 G. L. Larson	1951 Lauren E. Seeley
1907 C. B. J. Snyder	1922 Jay R. McColl	1937 D. S. Boyden	1952 Ernest Szekely
1908 James Mackay	1923 H. R. Gant	1938 E. Holt Gurney	1953 Reg. F. Taylor

##### **American Society of Refrigerating Engineers (ASRE)**

1905 John Edwin Starr	1919 George E. Wells	1933 Alfred W. Okley	1947 R.H. Money
1906 W. Everett Parsons	1920 Fred E. Mathews	1934 A. R. Stevenson, Jr.	1948 Clifford F. Holske
1907 David S. Jacobus	1921 Fred Ophuls	1935 Harry Harrison	1949 Burgess H. Jennings
1908 Edgar Penney	1922 Harry Sloan	1936 L. S. Morse	1950 John G Bergdoll, Jr.
1909 Louis Block	1923 William S. Shipley	1937 H. M. Williams	1951 Paul B. Christensen
1910 Roderick H. Tait	1924 George A. Horne	1938 Crosby Field	1952 Edward Simons
1911 Edward N. Friedmann	1925 Van R. H. Greene	1939 Gardner Poole	1953 Richard C. Jordan
1912 Thomas Shipley	1926 L. Howard Jenks	1940 George E. Husle	1954 Arthur J. Hess
1913 Peter Neff	1927 Willis H. Carrier	1941 L. L. Lewis	1955 Leon Buehler Jr.
1914 Henry Torrance	1928 George B. Bright	1942 W. R. Hainsworth	1956 Carlyle M. Ashley
1915 Louis K. Doelling	1929 Arthur J. Wood	1943 Charles R. Logan	1957 Hermann F. Spoehrer
1916 Theodore O. Vilter	1930 Harry D. Edwards	1944 A. B. Stickney	1958 Cecil Boling
1917 Nicolai H. Hiller	1931 Alvin H. Baer	1945 John F. Stone	
1918 Ezra Frick	1932 Glenn Muffly	1946 Charles S. Leopold	

##### **American Society of Heating and Air-Conditioning Engineers (ASHAE)**

1954 L.N. Hunter	1956 John W. James	1958 E.R. Queer
1955 John E. Haines	1957 P.B. Gordon	1959 Arthur J. Hess

## American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE)

Jan. 1959 - June 1959	Cecil Boling	July 1991 - June 1992	Donald G Rich
June 1959 - Feb. 1960	Arthur J. Hess	July 1992 - June 1993	Richard A. Charles
June 1960 - Feb. 1961	Walter A. Grant	July 1993 - June 1994	Neil R. Patterson
Feb. 1961 - June 1961	Robert H. Tull	July 1994 - June 1995	Billy R. Manning
June 1961 - June 1962	John Everetts, Jr.	July 1995 - June 1996	Richard B. Hayter
June 1962 - June 1963	John H. Fox	July 1996 - June 1997	James E. Hill
June 1963 - June 1964	Frank H. Faust	July 1997 - June 1998	Donald E. Holte
June 1964 - June 1965	John E. Dube	July 1998 - June 1999	George A Jackins
June 1965 - June 1966	James W. May	July 1999 - June 2000	Harley W. Goodman, Jr
June 1966 - Sept. 1966	Lincoln Bouillon	July 2000 - June 2001	James E. Wolf
June 1967 - June 1968	P. N. Vinther	July 2001 - June 2002	William J. Coad
June 1968 - June 1969	William L. Holladay	July 2002 - June 2003	Donald G. Colliver
June 1969 - June 1970	William G. Hole	July 2003 - June 2004	Richard H. Rooley
June 1970 - June 1971	Frank H. Bridgers	July 2004 - June 2005	Ronald P. Vallort
June 1971 - June 1972	Stanley F. Gilman	July 2005 - June 2006	Lee W. Burgett
June 1972 - June 1973	Walter F Spiegel	July 2006 - June 2007	Terry E. Townsend
June 1973 - June 1974	Roderick R. Kirkwood	July 2007 - June 2008	Kent W. Peterson
June 1974 - June 1975	David Rickelton	July 2008 - June 2009	William A. Harrison
June 1975 - June 1976	William J. Collins, Jr.	July 2009 - June 2010	Gordon V. Holness
June 1976 - June 1977	William R Chapman	July 2010 - June 2011	Lynn G. Bellenger
July 1977 - June 1978	Bruno P Morabito	July 2011 - June 2012	Ronald E. Jarnagin
July 1978 - June 1979	Morris Backer	July 2011 - June 2012	Thomas E. Watson
July 1979 - June 1980	Hugh D. McMillan, Jr	July 2013 - June 2014	William P. Bahnfleth
July 1980 - June 1981	Charles E Sepsy	July 2014 - June 2015	Thomas H. Phoenix
July 1981 - June 1982	Jack B. Chaddock	July 2015 - June 2016	David T. Underwood
July 1982 - June 1983	Clinton W. Phillips	July 2016 - June 2017	Timothy G. Wentz
July 1983 - June 1984	Richard R Perry	July 2017 - June 2018	Bjarne W. Olesen
July 1984 - June 1985	Robert O. McDonald	July 2018 - June 2019	Sheila J Hayter
July 1985 - June 1986	Donald R Bahnfleth	July 2019 - June 2020	Darryl K. Boyce
July 1986 - June 1987	Frederick H Kohloss	July 2020 - June 2021	Charles E. Gullledge III
July 1987 - June 1988	H. E. "Barney" Burroughs	July 2021 - June 2022	Mick Schwedler
July 1988 - June 1989	Louis E Flagg	July 2022 - June 2023	Farooq Mehboob
July 1989 - June 1990	David S. Butler Sr.	July 2023 - June 2024	Ginger Scoggins
July 1990 - June 1991	A. Damon Gowan		

### ASHRAE Honors and Awards Recipients

#### Andrew T. Boggs Service Award

Established in 1986, this award annually recognizes a past recipient of the Exceptional Service Award for continuing unselfish, dedicated, and distinguished work on behalf of the Society. The award honors Andrew T. Boggs, ASHRAE Executive Vice President Emeritus, for his 30 years of outstanding service and leadership.

1987	Frederick J. Reed	1999	Donald E. Nichols	2014	Kenneth W. Cooper
1988	Sam P. Soling	2000	David S. Butler, Sr.	2015	William A. Harrison
1989	Hans O. Spauschus	2001	Ross F. Meriwether	2016	H.E. Barney Burroughs
1990	Morris L. Markel	2002	William J. Coad	2017	Steven T. Taylor
1991	Preston E. McNall, Jr.	2003	George A. Jackins	2018	Van Baxter
1992	Frank H. Faust	2004-07	(No award given)	2019	Ross Montgomery
1993	William J. Collins, Jr.	2008	Donald G. Rich	2020	Bjarne Wilkens Olesen
1994	Thomas J. White	2009	Laurance S. Staples	2021	Arthur D. Hallstrom
1995	Richard P. Perry	2010	Donald G. Colliver	2022	James R. Fields
1996	Louis F. Flagg	2011	Richard Hayter	2023	William P. Bahnfleth
1997	(No award given)	2012	(No award given)		
1998	Kenneth W. Wicks	2013	Richard A. Charles		

### ASHRAE Award for Distinguished Public Service

In 2008 the ASHRAE-Alco Award for Distinguished Public Service was renamed the ASHRAE Award for Distinguished Public Service. This award recognizes a member of the Society who has performed outstanding public service in their community, and in doing so, has helped to improve the public image of the engineer.

2009	Kenneth M. Fulk	2015	William Sigman	2020	Carl F. Huber
2010-12	(No award given)	2016	Erich Binder	2021	(No award given)
2013	Harold Lewis	2017-18	(No award given)	2022	Steven J. Williams
2014	Jeff Gatlin	2019	Patricia Graef	2023	William F. McQuade

### ASHRAE Hall of Fame

Established in 1990, this award honors deceased members who have made milestone contributions to the growth of ASHRAE-related technology and/or the development of ASHRAE as a Society. Individuals inducted into the Hall of Fame must have been an ASHRAE member (any grade) or a member of a predecessor Society.

1994	F. Paul Anderson	2005	Henry Galson	2017	(No award given)
1994	Willis Haviland Carrier	2005	Gardner Voorhees	2018	Lynn G. Bellenger
1994	Francis W. Hutchinson	2006	Jasper G. Woodroof	2018	Seichi "Bud" Konzo
1995	Carlyle Martin Ashley	2007	Mary E. Pennington	2018	A. Damon Gowan
1995	A. Pharo Gagge	2008	Frank J. Dean, Jr	2019	George Hightower
1996	Gianfelice Bertolini	2008	P. Ole Fanger	2020	Frederick Ernst Giesecke
1996	John Engalitcheff, Jr.	2009	(No award given)	2020	Richard Perry
1996	Margaret Ingels	2010	William J. Collins, Jr	2021	William M. Mackay
1996	George Lewis Tuve	2010	J. Donald Kroeker	2021	Hugh J. Barron
1997	Reuben N. Trane	2011	(No award given)	2022	Raymond G. Alvine
1998-99	(No award given)	2012	Roderick R. Kirkwood	2022	Alwin B. Newton
2000	Rudolf Plank	2013	Wilbert F. Stoecker	2023	Curtis Oneal Pedersen
2001	Charles S. Leopold	2014	Fred W. Wolf, Jr.		
2002	(No award given)	2015	Rolla Carpenter		
2003	Frank H. Fraust	2015	Robert Tamblyn		
2003	Milton W. Garland	2016	Calvin D. MacCracken		
2004	(No award given)	2016	John Edwin Starr		

### ASHRAE Journal Paper Award

This award is presented to the author of the best article published in the ASHRAE Journal during the Society year.

1983	Bruce J. Novell	2004	Joseph W. Lstiburek
1984	Francis J. McCabe	2005	Dennis Stanke
1985	R.L. Webb & A. Villacres	2006	Michel Bernier
1986	Carl H. Jordan & Makio Goto	2007	Fredrick Rohles
1987	Clifford M. Scofield & James R. Taylor	2008	James Cummings & Charles Withers, Jr
1988	Mark O. McLinden & David A. Didion	2009	James Steven Brown
1989	Carl H. Jordan	2010	Steven T. Taylor & C. Hwakong Cheng
1990	Gershon Meckler	2011	John A. Murphy
1991	William J. Coad	2012	John A. Murphy
1992	Thomas B. Romine, Jr	2013	Daniel Nall & Robert Sedlack
1993	F. Sherwood Rowland	2014	Paul Lindahl
1994	Marhta J. Hewett, Mary Sue Lobenstein, & Susan K. Nathan	2015	Philip Bartholomew
1995	Bernard A. Nagengast	2016	Hugh Crowther & Yi Teng Ma
1996	Steven T. Taylor	2017	Omar Hawit & Trevor Jaffe
1997	Lewis G. Harriman, III	2018	Dan Koenigshofer & John Roberts
1998	Gurvinder Singh & John Mitchell	2019	Edward A. Arens, Tyler Hoyt, Gwelen Paliaga & Hui Zhang
1999	Lewis G. Harriman, III, Donald G. Colliver, & K. Quinn Hart	2020	Frank Shadpour & Stefanie Johnson
2000	Rudolph Stegmann	2021	Rajavel Balaguru, Thomas Bise & Paul Bauch
2001	Thomas B. Hartman	2022	Jamie Kono, Jim Gieselman, Meghan McNulty & Barry Abramson
2002	John Frederick Straube		
2003	Gordon V. R. Holness		

## ASHRAE Pioneers of the Industry

Established in 2010, this award honors deceased individuals who have made milestone contributions to the growth of air conditioning, heating, refrigeration, and ventilation. Individuals inducted into the Pioneers of the Industry must have shown evidence of distinction either technically or academically.

2011-12	(No award given)	2015	Carl Linde	2017	Frederick Wittenmeier
2013	Gillbert Carson	2015	Andrew Muhl	2018	Sadi Carnot
2013	William F. Fontaine	2016	Daniel Livingston Holden	2019	(No award given)
2014	John Gorrie	2016	Benjamin Franklin Sturtevant	2020	Warren S. Johnson
2014	Alfred R. Wolff	2017	Carl Georg Munters	2021-23	(No award given)

## Crosby Field Award

Established in 1973, the Crosby Field Award was named for a former ASHRAE President. This award is for the highest rated paper presented at a Technical Session or Symposium for the year.

- 1974 Paul R. DeCicco & Robert J. Cresci, "Smoke and Fire Control in High-Rise Office Buildings"
- 1975 Herbert P. Becker, "Energy Conservation Characteristics of Various Pumping Systems Compared with Variable Speed Systems"
- 1976 J.E. Hill & T. Kusuda, "Dynamic Characteristics of Air Infiltration"
- 1977 Clayton A. Morrison, James M. Wheeler, Jr., & Erich A. Farber, "An Experimental Determination of Shading Coefficients for Selected Insulating Reflective Glasses and Draperies"
- 1978 William Rudoy & L.M. Robins, "Comparison of Cooling Load Calculation"
- 1979 Istvan L. Ver, "A Review of the Attenuation of Sound in Straight Lined and Unlined Ductwork of Rectangular Cross Section"
- 1980 George T. Tamura, "The Calculation of House Infiltration Rates"
- 1981 Lawrence G. Spielvogel, "The Solar Bottom Line"
- 1982 Warren E. Blazier, Jr., "Revised Noise Criteria for Design and Rating of HVAC Systems"
- 1983 Robert D. Fischer, Lawrence J. Flanigan, Sherwood G. Talbert, & Daniel A. Jaffee, "Degree Days Method for Simplified Energy Analysis"
- 1984 Brian P. Leaderer & William S. Cain, "Air Quality in Buildings During Smoking and Nonsmoking Occupancy"
- 1985 D.W. DeWerth, S.G. Talbert, S.M. Sobieski, & D.D. Paul, "Vent Capacity Data for High Efficiency, Condensing-Type, Gas-Fired Appliances"
- 1986 William J. Coad, "Variable Flow in Hydronic Systems for Improved Stability, Simplicity and Energy Economics"
- 1987 Will K. Brown, Jr., "Fundamental Clean Room Concepts"
- 1988 John P. Kettler, "Efficient Design and Control of Dual- Duct Variable-Volume Systems"
- 1989 Joseph H. Eto & Cecile Meyer, "The HVAC Costs of Increased Fresh Air Ventilation Rates in Office Buildings"
- 1990 Milton Meckler, "Computer Analysis of Smoke Transport During Hotel Fire"
- 1991 Emil E. Friberg, "Central Heating and Cooling Plant Economics for the College Campus"
- 1992 Eric D. Larson & Lars J. Nilsson, "Electricity Use and Efficiency in Pumping Air-Handling Systems"
- 1993 Nancy J. Banks, "Field Test of a Desiccant-Based HVAC System for Hotels"
- 1994 Dale T. Hitchings & Richard S. Shull, "Measuring and Calculating Laboratory Exhaust Diversity—Three Case Studies"
- 1995 Frederic B. Morris, James E. Braun, & Stephen J. Treado, "Experimental and Simulated Performance of Optimal Control of Building Thermal Storage"
- 1996 Paul C. Tseng, Robert Krout, Dale Stanton-Hoyle, & Steve Kimsey, "Energy Program of Requirements for a New Detention Center—Energy Design Criteria for Prisons"
- 1997 Robert H. Green & Linda Roberts, "The Effect of Air-Coil Design on the Performance of Heat Pumps and Air Conditioners"
- 1998 Shuzo Murakami, Shinsuke Kato, & Jie Zeng, "Flow and Temperature Fields Around Human Body with Various Room Distribution, Part I—CFD Study on Computational Thermal Manikin"
- 1999 Richard J. deDear and Gail Schiller Brager, "Developing an Adaptive Model of Thermal Comfort and Preference"
- 2000 Melvin W. First, Edward A. Nardell, William Chaisson, & Richard Riley, "Guidelines for the Application of Upper-Room Ultraviolet Germicidal Irradiation for Preventing Transmission of Airborne Contagion—Part I"
- 2001 Steve Kavanaugh & Marita Allan, "Thermal Conductivity of Cementitious Grouts and Impact on Heat Exchanger Length Design for Ground Source Heat Pumps"
- 2002 Jim L. Heldenbrand, "NBS Research and ASHRAE's 90 Series Standards"
- 2003 Paul L. Riemer, John W. Mitchell, & William A. Beckman, "The Use of Time Series Analysis in Fault Detection and Diagnosis Methodologies"
- 2004 William J. Rahmeyer, "Pressure Loss for PVC Pipe Tees"
- 2005 Ali A. Jalalzadeh-Azar, "A Comparison of Electric al and Thermal-Load Following CHP Systems"
- 2006 Sang-Min Lee & Jin-Won Lee, "A New Local Ventilation System Using a Vortex Flow Generated with a Finned Rotating Annular Disk"
- 2007 Michael R. Collins, Ph.D., & John L. Wright, Ph.D., P.Eng., "Calculating Center-Glass Performance Indices of Windows with a Diathermanous Layer"



- 2008 Francis M. Farrell, Thomas M. Fitch, & Michael J. Morgan, “Development and Performance of a Retrofittable, High-Efficiency, Grease Filter System for Kitchen Hoods”
- 2008 Kee-Chiang Chung, Ph.D., Tsai Kuo-Pao, & You-Hsuan Wang, “Performance of Local Ventilated Hood 1: A General Ventilation Working Environment”
- 2009 Jelena Srebric, Ph.D. & Paulo Cesar Taberes Velasco, Ph.D., “The Role of Plants in the Reduction of Heat Flux Through Green Roofs: Laboratory Experiments”
- 2010 Jeffrey D. Spitler, Ph.D., P.E., & Bereket A. Nigusse, Ph.D., “Refinements and Improvements to the Radiant Time Series Method”
- 2011 Jacob L. Edmondson, Dennis L. O’Neal, Ph.D., PE, John A. Bryant, PhD, PE, & Michael A. Davis, Ph.D., “Performance of Series Fan-Powered Terminal Units with Electronically Commutated Motors”
- 2012 John A. Bryant, Ph.D, P.E., Michael A. Davis, Ph.D, & Dennis L. O’Neal, Ph.D, P.E., “Modeling the Performance of ECM and SCR Parallel Fan-Powered Terminal Units in Single-Duct VAV Systems”
- 2013 James W. VanGilder, P.E., Christopher M. Healey, Ph.D., Zachary M. Pardey, & Xuanhang Zhang, “A Compact Server Model for Transient Data Center Simulations”
- 2014 Didier Thevenard, PhD, Peng, & Mark W. Shephard, “Temperature Trends for Locations Listed in the Tables of Climatic Design Conditions in the 2013 ASHRAE Handbook – Fundamentals”
- 2015 John A. Shonder & Cyrus Nasser, “Achieving Deeper Energy Savings in Federal Energy Performance Contracts”
- 2016 Stephen Kujak & Edward M. Hamilton, “Examination of the Reactions of R-40 with R-134a and POE Refrigeration System Materials”
- 2017 Michael Roth, “Updating the ASHRAE Climate Design Data for 2017”
- 2018 Amy Van Asselt, Douglas T. Reindl, Ph.D., P.E., & Gregory F. Nellis, “Strategies to Increase Deployment of Renewables Using Cool Thermal Energy Storage”
- 2019 Charles S. Barnaby & Peter Simmonds, “Development of a Unified Tool for Analysis of Room Loads and Conditions”
- 2020 Dennis O’Neal & Peng Yin, “Using Normalized Airflows and Powers to Model the Performance of Multi-Speed Fan Coil Units with Permanent Split Capacitor Fan Motors (RP-1741)”
- 2021 Zhitao Han, Li Ding & Gang Wang, “Experimental Investigation of Induction Motor Power Factor and Efficiency Impacted by Pulse Width Modulation Power and Voltage Controls of Variable Frequency Drives”
- 2022 Liping Liu, Brent Bartone, Zahra Habib, Kinshuk Makhija & Kashif Nawaz, “Impact and Value of ASHRAE’s Standards and Technology (RP-1848)”

#### **Dan Mills Chapter Programs Award**

Established in 1988, this award recognizes a Chapter Technology Transfer Committee Chapter member (Chair or Vice-Chair) who excels in promoting technical and energy activities of the CTT Committee. Prior to 2014, this award recognized a Chapter TEGA Chair who excelled in meeting TEGA goals in technical, energy, and government activities. In January 2019, the Dan Mills Technical Award was combined with the Chapter Programs Star Award and renamed.

2000	Charles E. Gullledge III, North Piedmont Chapter	2010	Jean-Gabriel Joannette, Montreal Chapter
2001	Christopher Winfree, Southern Piedmont Chapter	2011	Keith H. Reihl, Houston Chapter
2002	Christopher Winfree, Southern Piedmont Chapter	2012	(No award given)
2003	Meredith T. Krieg, North Piedmont Chapter	2013	Eric M. Fullerton, Arkansas Chapter
2004	Henry Manczyk, Rochester Chapter	2014	Lee Huffines, North Piedmont Chapter
2005	Rajean Blais, Montreal Chapter	2015-19	(No award given)
2006	Wei Sun, Detroit Chapter	2020	Beatriz Salazar, Toronto Chapter
2007	Bryan Lampley, North Piedmont Chapter	2021	Andrew Grant, Arkansas Chapter
2008	Thomas Kroeschell, Illinois Chapter	2022	Mitchell Rohrer, Hamilton Chapter
2009	Oscar Cobb, Detroit Chapter	2023	Badri Patel, Toronto Chapter

#### **Developing Leader Award**

Established to recognize new members who have shown a diverse involvement and commitment to ASHRAE within five (5) years of Associate Member join date.

- 2019 Chi Fung Chow (Taylor), Ashu Gupta, Lindsey King, Manalee Nabar
- 2020 Abhishek Khurana, Akshay Bhargava, Elise Kiland, John Constantinide, Joseph Higham, Margaret Mathison, Rupesh Iyengar, Stephen Forner, Vanessa Freidberg
- 2021 Madison Schultz, Alekhyia Kaianathbhatta, Anthony Fontanini, Enrica Galasso, Kimberly Pierson, Matt Clark, Badri Patel, Eleazar Rivera, Elise Backstrom, Jacob Moberg, Cinthya Mendez
- 2022 Sheung Yu Lai, Sarah Bordenkecher, Nissun Feiner, KokZhen Law, Kajen Ethirveerasingham, Chee Huan Leow, Chak Mou Lam, Anoop Peediyakkan, Ahmed Abdel Salam
- 2023 Anuj Gupta, Jayson Bursill, Christopher Kriepps, Chelsea Moussouni, Bin Lin, Vinod Venugopal, Joshua Vasudevan, Jacob Kopocis, Harrison Kesling

## Distinguished 50-Year Member Award

Established in 1967, this award recognizes individuals who have been ASHRAE members for a minimum of 50 years, were a Past Society President, a Fellow, recipient of the Distinguished Service Award, or otherwise performed outstanding service for the Society.

Abedin, Ainul—2019	Briley, George C.—2003	Cooper, William S.—2002
Achenbach, Paul R.—1992	Brink, Laurence K.—2013	Copeland, Billy, Jr.—2021
Adams, Ludwig—1994	Britton, Paul E.—2005	Copeland, Charles—2019
Advani, Atma—2021	Brown, onny.—2021	Copeland, John E.—2005
Akerman, Joseph R.—1996	Brown, Floyd L.—2013	Costantino, Mario—2012
Algie, Wallace L.—1999	Brown, Leonard N.—1999	Coughlin, Robert J.—2007
Altieri, John L.—2003	Brown, Seymour W.—1993	Cox, William A., Jr.—1996
Amann, Willard L.—2002	Bruechert, Carl J.—2002	Crider, Thomas G.—1985
Anderson, Philip P., Jr.—1996	Bryan, William L.—1992	Crosland, Robert B., Jr.—1996
Angus, Donald L.—1996	Buckley, Jack B.—1998	Cross, Robert C.—1986
Appleby, Loran V.—2002	Buckley, James—2023	Cummings, Robert W.—1978
Armstrong, Richard M.—1983	Buckley, Norman A.—1996	Cummings, Samuel, Jr.—2022
Ashley, Carlyle M.—1981	Buckmaster, C. Roger—2003	Daly, Edward—2009
Ask, Andrew—2022	Buehler, Leon—1974	Davidson, Lindell A.—2014
Asker, Gunnar C.F.—1998	Bullock, Charles E.—2016	Davis, Willard J.—2003
Atwood, Theodore—2004	Burdick, Robert S.—2015	Day, Vincent S.—1976
Avery, Gil—2006	Burkhardt, Robert G.—2005	De Saram, J.A. Hugh C.—2023
Ayres, J. Marx—1996	Burr, Griffith C., Jr.—2010	Dean, Bob W.—1999
Azer, Naim—2018	Burr, Richard W.—2020	Debes, Gary—2023
Baade, Peter K.—2000	Burroughs, Barney—2018	Deltz, Paul N.—2015
Bahnfleth, Donald R.—2004	Bushnell, James—2023	Deschamps, Nicholas—2022
Barbier, William—2007	Butler, Perc M.—1999	Dewerth, Douglas W.—2020
Barker, Perley K.—1996	Buzzard, Francis H.—1989	Dibble, S.E.—1967
Barnard, Lloyd—2009	Caffrey, Ronlad J.—2013	Digiaco, William A.—2002
Basso, Peter J.—2008	Callahan, Charles D.—2020	Donley, Wallace L.—2003
Batherman, Richard E.—2008	Calm, James—2023	Dorgan, Charles—2021
Bathgate, Thomas—2018	Campbell, George S.—1986	Downing, Ralph C.—2002
Baum, Albert L.—1967	Carroll, J. Raymond—1996	Drake, Margaret S.—2006
Baum, Richard T.—2004	Carscallen, George F.—2010	Driscoll, Daniel—2019
Becker, Stephen A.—2020	Carter, Franklyn Y.—1993	Dugan, John T.—2010
Behls, Herman F.—2016	Carter, Hugh C.—2007	Dugan, Philip A.—2012
Bendelius, Arthur G.—2015	Cawley, Richard E.—2020	Duignan-Woods, Eileen—2016
Bennett, Arthur H.—2013	Chaddock, Jack B.—2002	DuPernell, Paul C.—2003
Benz, Donald L.—1999	Chapman, William P.—1998	Dussault, Richard—2023
Bergdoll, John G.—1974	Charles, Richard A.—2012	Elmahdy, Hakim—2023
Bertrand, Luc—2017	Chato, John—2009	Engdahl, R.B.—1988
Bevirt, W. David—1999	Chee, Yan Pong—2021	Engen, Byron—2018
Bishop, Marion W.—1985	Chenault, Charles V.—1999	English, Richard A.—2003
Bishop, Walter P.—2013	Chenh, Hung C.—2019	Ervin, Dixon A.—2003
Bisset, John B.—2020	Cherne, Realto E.—1979	Evans, Bruce L.—1986
Blackmore, Joseph C.—1986	Chewning, Ray C.—1995	Evans, Richard A.—2006
Blankin, Merrill—1969	Christensen, Paul B.—1986	Evans, Robert J.—2006
Blazier, Warren E.—2008	Clark, Kenneth—2018	Everetts, John, Jr.—1979
Bodinus, William S.—1991	Clarke, John H.—1991	Fahnestock, Maurice K.—1982
Bochat, James—2021	Clements, Waller S.—2013	Falk, David S.—1986
Boehmer, Andrew P.—1985	Clements-Croome, Derek—2021	Faust, Frank H.—1980
Boggs, Andrew—2001	Cloke, Jr., Thomas H.—2003	Ferdelman, Thomas J.—2012
Boling, Cecil—1986	Cohen, Raymond—2017	Ferreira, Francis—2020
Bottum, E.W.—1988	Cohen, Walter—2010	Flagg, Louis F.—1997
Bourquin, Paul A.—1999	Colborne, William G.—2003	Fleming, William—2022
Bovay, Harry E., Jr.—1996	Colen, Harold R.—2000	Fogleman, Sam R.—2005
Bowman, Richard—2023	Collins, Jr., William J.—1999	Foster, Theodore G.—1999
Boyd, Robert L.—1991	Conley, Harry E.—2004	Fox, John H.—1985
Boyd, Spencer W.—1986	Conrad, Paul R.—2019	Frankfurt, William W.—1993
Braun, Robert H.—2008	Cooper, D.S.—1988	Freeman, George—2001
Bridgers, Frank H.—1997	Cooper, Kenneth—2021	Friberg, Emil—2017

Friedman, Dick—2004  
 Fuller, Robert H.—2020  
 Galazzi, Joseph A.—1995  
 Galson, Edgar L.—2004  
 Gant, H.P.—1967  
 Garbarino, Arthur—2009  
 Gardner, M. David—2018  
 Garland, Milton W.—1996  
 Gates, Albert S., Jr.—1991  
 Gatley, Donald P.—2012  
 Geary, David F.—2020  
 Gendler, Gershon L.—1995  
 Giannini, Albert—1997  
 Gilbertson, Thomas A.—2013  
 Gilmore, Clarence F.—1996  
 Glaser, Donald L.—2013  
 Goldberg, Norman—1999  
 Goldman, Ralph F.—2020  
 Gonzales, Don J.—2005  
 Goodman, Harley W., Jr.—2012  
 Goodman, William—1991  
 Govan, Francis A.—2008  
 Graber, Ernst—1986  
 Graef, Patricia—2023  
 Graham, J. Barrie—2004  
 Grant, Walter A.—1979  
 Grant, Walter H.—1990  
 Grant, Whitney I.—2000  
 Green, Waring M.—2003  
 Greenberg, Alfred—2003  
 Groff, Gerald C.—2006  
 Grumman, David L.—2014  
 Grondzik, Walter—2019  
 Gupta Vijay—2018  
 Gupta, Hem C.—2008  
 Gupton, Guy W.—2008  
 Gusler, Denard L.—2004  
 Guttman, Karl—2000  
 Hahn, Warren G.—2017  
 Haines, Roger W.—2003  
 Hallstrom, Arthur—2023  
 Halyard, Paul J.—2016  
 Handegord, Gustav—2001  
 Hansen, E.G.—2005  
 Hansen, III, Charles—1999  
 Hanson, Lars C.—1986  
 Hardin, Donald, C.—2008  
 Harju, Richard J.—2011  
 Harmon, John J.—2007  
 Harnack, John L.—2004  
 Harrison, Harry—1967  
 Harrison, Warren D.—1999  
 Harrison, William—2018  
 Hayakawa, T. George—2006  
 Hayter, Richard—2018  
 Heffron, Donald B.—2000  
 Hegberg, R.A.—2005  
 Heiman, Jordan L.—2000  
 Hellman, Albert A.—2000  
 Henck, Charles—2023  
 Hershman, Mark P.—2020  
 Hertzler, John R.—1978  
 Hesselschwerdt, August, Jr.—1986  
 Hiers, Charles R.—1977  
 Hightower, G.B.—1988  
 Hill, James—2021  
 Hirsch, Sylvan R.—1983  
 Hole, William G.—1992  
 Holladay, William L.—1983  
 Holness, Gordon V.R.—2017  
 Holste, Frederick R.—2011  
 Horvay, J. Benjamin—2000  
 Howell, Ronald H.—2020  
 Hubbard, Bernardo—2022  
 Humphreys, Clark M.—1981  
 Hungerford, Leo—1980  
 Hunton, Richard—2018  
 Ibison, J.L.—1988  
 Jackins, George—2009  
 Jackins, Lane—2021  
 Jain, Prem—2009  
 James, Jack K.—1996  
 James, John W.—1983  
 Jarik, George—2009  
 Jennings, Burgess H.—1984  
 Jennings, Irving C.—1975  
 Jensen, Robert E.—2005  
 Johnson, Gary E.—2014  
 Jensen, Ronald—2018  
 Johnson, Norman W.—2016  
 Johnson, Victor J.—1998  
 Jones, Robert R.—2013  
 Jordan, Carl H.—2010  
 Jordan, Richard C.—1983  
 Jorgensen, Robert—2003  
 Kalischer, Milton—1979  
 Kampmeyer, John—2018  
 Kelley, Winfield—2018  
 Kelso, Richard—2018  
 Kelter, S. Louis—2017  
 Kennedy, Edwin C.—2004  
 Kennedy, John M.—2004  
 Kenny, Eoin—2008  
 Kerschbaumer, H.G.—2020  
 Kessner, Ronald—2022  
 Kilker, Robert L.—2003  
 Kimball, William—2018  
 Kirkwood, Roderick R.—1996  
 Klote, John H.—2020  
 Knights, Charles R.—2011  
 Kramer, Daniel E.—2004  
 Kroll, Morton—2009  
 Kuenhner, Richard L.—2004  
 Kwok, Ping Ki—2016  
 L'Anglais, F.—2007  
 Laksanakorn, Wichai—2020  
 Landman, William—2021  
 Lang, James H.—2015  
 Lee-Thorp, Vincent D.—2015  
 Lehr, Valentine A.—2020  
 Lesser, N.I.—2005  
 Lewis, Oliver K.—2011  
 Lewis, Rodney H.—2017  
 Linstromberg, William J.—2003  
 Lipshultz, Max—2009  
 Lizardos, Evans J.—2015  
 Lloyd, Robert T.—2004  
 Lodge, Robert H.—2014  
 Loewer, Harald E.—2012  
 Lum, Franklin Y.S.—2020  
 Logsdon, R.F.—2005  
 Lortie, Rodney—2017  
 Lotz, W.A.—2007  
 Mackie, Edward I.—2014  
 MacPhee, Carl W.—2007  
 Malphus, William—2023  
 Mastro, Gus—2023  
 Maxwell, Norm—2021  
 McCarry, Blair—2023  
 McCoy, David—2023  
 McFall, James D.—2013  
 McGuire, Anthony—2022  
 McMillan, Hugh, III—2023  
 McMinn, David N.—2007  
 McNall, Preston E.—2003  
 McNeil, Daniel C.—2000  
 Meckler, Milton—2008  
 Melton, BJ—2014  
 Mendez, Florentino—2023  
 Menster, Paul C.—2003  
 Menzies, George E.—2017  
 Meriwether, Ross—2019  
 Merrick, Richard H.—2003  
 Miller, Clint D.—2006  
 Miller, Richard—2019  
 Missimer, Dale—2001  
 Morabito, Bruno P.—2002  
 Morris, Denis J.—2016  
 Morse III, Charles—2018  
 Moseley, Terrell D.—2006  
 Moyer, Robert—2023  
 Mumma, Stanley A.—2020  
 Munger, Gurdon—2001  
 Murthy, S.K.—2023  
 Nack, Donald H.—2004  
 Nagengast, Bernard—2018  
 Nettleship, Louis C.—1995  
 Newman, James L.—2013  
 Nishi, Yasunobu—2019  
 Nolfo, Andrew—2021  
 Norman, James—2021  
 North, Forrest H.—2003  
 O'Dell, Leonard J.—2005  
 Olsen, Erling J.—2017  
 Ossi, Fareed—2011  
 Ostrander, William—2018  
 Pagliasotti, Robert D.—2017  
 Paranjpey, Ramesh P.—2020  
 Pasch, Roger—2018  
 Pearson, Richard J.—2017  
 Perkins, C. Stuart—2004  
 Perry, Richard P.—2014  
 Pflug, Irving—2001

Phillips, Herbert—2018  
 Pietsch, Joseph A.—2006  
 Pons, Ramon—2018  
 Powell, Frank J.—2008  
 Procell, Charles J.—2016  
 Punsalan, Laurentino—2018  
 Ratai, Walter R.—2008  
 Reid, David—2018  
 Rhea, Hal H.—2006  
 Rich, Donald G.—2007  
 Rivers, Richard—2018  
 Roberts, Jack—2001  
 Romine, Thomas B.—2000  
 Ross, Donald E.—2006  
 Roubal, James P.—2010  
 Rountree, Harry E.—2003  
 Sanchez, Alberto J.—2017  
 Schreiner, John R.—2002  
 Schulze, Sr., James—2018  
 Schumacher, Ernest W.—2008  
 Scofield, Clifford M.—2012  
 Scott, Norman—2018  
 Scriven, James A.—2016  
 Seppanen, Olli—2021  
 Seth, Anand—2021  
 Setty, Boggarm—2023  
 Shah, Mirza M.—2020  
 Shavit, Gideon—2023  
 Shefferman, Sholom M.—2006  
 Shitzer, Avraham—2019  
 Simpson, Charles D.—2020  
 Sirjord, Jr., Arthur B.—2003  
 Sisti, Michael F.—2008  
 Slabinski, Stanley—2020

Smith, Thomas—2011  
 Sobieski, J. Thomas—2016  
 Sosoka, John—2022  
 Soumerai, Henri P.—2002  
 Sowell, Edward—2019  
 Speich, Carl F.—2010  
 Spiegel, Walter F.—2000  
 Spielvogel, Lawrence G.—2012  
 Stambaugh, Leo—2018  
 Stamper, Eugene—2017  
 Staples, Laurance S.—2017  
 Stefanutti, Uberto V.—2003  
 Stoecker, Wilbert F.—2002  
 Straub, Harold E.—2000  
 Suggs, Robert, III—2022  
 Sullivan, E.P.—2005  
 Sun, Tseng-Yao—2016  
 Swenson, Carl A.—2016  
 Swygert, Harold B.—2008  
 Tambllyn, Robert T.—2007  
 Tan, Sunny C.L.—2017  
 Taylor, William—2006  
 Teske, Edward R.—2000  
 Thompson, C. Alan—2019  
 Thornton, Raymond—2001  
 Thuman, Joseph—2021  
 Tilney, Ralph—2001  
 Timmer, Chester W.—2003  
 Todorovic, Branislav—2023  
 Toub, Samuel—2019  
 Trueman, Cedric—2019  
 Tully, Richard E.J.—2006  
 Vaculik, Frantisek—2020  
 Valerio, E.L.—2007

Vallort, Ronald P.—2015  
 Voelz, Robert—2001  
 Vogel, Chester T.—2010  
 Waeldner, William J.—2003  
 Wallstrom, Lloyd L.—2002  
 Warwicker, Brian—2021  
 Watson, Thomas—2023  
 Weeks, Thomas—2023  
 Weld, Gordon B.—2016  
 Wells, George, III—2022  
 Wells, Robert D.—2007  
 Wells, William P.—2000  
 Welsh, John W.—2016  
 Werman, Lynn—2022  
 Whitmer, Lionel—2023  
 Wicks, Kenneth W.—2003  
 Williams, Gerald—2023  
 Williams, Verle A.—2013  
 Williams, Thoma—2018  
 Willis, Lyle—2023  
 Wingfield, Gary L.—2016  
 Wolf, James—2018  
 Wolfberg, Howard A.—2006  
 Wolfert, John E.—2010  
 Woods, James E.—2013  
 Woodworth, J.I.—2005  
 Woody, Alfred—2019  
 Wright, J. Richard—2011  
 Yamamoto, George S.—2018  
 Young, E.H.—2005  
 Yousoufian, Hrant H.—2014  
 Zagar, Robert—2019  
 Zanders, Robert W.—2000

### **Distinguished 75-Year Member Award**

Established in 2020, this award recognizes individuals who have been ASHRAE members for a minimum of 75 years, were a Past Society President, a Fellow, recipient of the Distinguished Service Award, or otherwise performed outstanding service for the Society.

Barrow, T., Jr.—2022  
 Falk, J.—2021  
 Hinea, R.—2023

Kheel, J.—2023  
 Menditch, B.—2021  
 Schwenker, E.—2022

Strahan, E., Jr.—2021

### **Distinguished Service Award**

Established in 1962, this award recognizes members who have served ASHRAE faithfully and with distinction on committees or otherwise giving freely of their time and talent on behalf of the Society (15 service points are required).

Abdelaziz, O.—2016  
 Abedin, A.—2012  
 Abellon, D.—2015  
 Abramson, D.S.—2013  
 Abruzzo, T.—2022  
 Abushakra, B.—2010  
 Achenbach, P.R.—1967  
 Adams, E.—2017  
 Agarabi, M.—2021  
 Agopian, N.—2017

Aguilo, R.R.—2010  
 Alber, W.F.—1993  
 Albrecht, R.—2015  
 Albright, D.C.—1972  
 Alfonso, G.—2019  
 Algie, W.L.—1988  
 Allen, D.M.—1966  
 Allen, M.W.—2000  
 Alphonso, Jason—2020  
 Alvine, R.G.—1985

Alyea, H.W.—1967  
 Amende, Kevin—2020  
 Amrane, K.—2014  
 Anderson, B.E.—2013  
 Anderson, J.R.—2013  
 Anderson, M.K.—1992  
 Andrepont, John S.—2020  
 Appleby, L.V.—1972  
 Ares, R.A.—2000  
 Arnold, C.G.—2003

Arnold, D.—2013  
 Atkinson, G.V.—2008  
 Atkisson, J.A.—2017  
 Atwood, T.—1976  
 Austin, G.W., Jr.—2013  
 Aute, V.C.—2017  
 Ayres, J.M.—1993  
 Ayub, Z.—1999  
 Baade, P.K.—1971  
 Backer, M.—1976  
 Bagheri, H. M.—2005  
 Bahnfleth, D.R.—1976  
 Bahnfleth, W.P.—1998  
 Bailey, R.B.—2013  
 Baker, M.—1971  
 Baker, R.G.—2007  
 Balaras, C.—2006  
 Balbach, C.—2021  
 Bansal, P.K.—2006  
 Barker, P.K.—1965  
 Barnaby, C.S.—2006  
 Bartel, D.—2013  
 Bartholomew, R.W.—1980  
 Batherman, R.E.—1998  
 Bauman, F. S.—1997  
 Baxter, V.D.—2002  
 Bean, R.—2017  
 Beaty, D.L.—2006  
 Becker, B.R.—1999  
 Beda, M.F.—1994  
 Behls, H.—2001  
 Bellenger, L.G.—1996  
 Bennet, A.H.—1978  
 Bergles, A.E.—1996  
 Berlin, G.—2015  
 Bernier, M.—2007  
 Betz, F.W.—2010  
 Bhandar, M.—2023  
 Bidstrup, N.—2019  
 Biehn, G.L.—1974  
 Bilderbeck, M.—2001  
 Billedeaux, B.—2018  
 Binder, E.—2010  
 Bishop, M.W.—1968  
 Bishop, W.P.—1995  
 Bisset, J.B.—1995  
 Bivens, D.B. —2010  
 Black III, A.W.—1996  
 Blalock, A.—2019  
 Blanford, M.—2018  
 Blossom, J.S.—1981  
 Bochat, J.—2016  
 Boester, C.F.—1972  
 Bogart, J.—2023  
 Bohanon, Hoy—2009  
 Boldt, J.—2015  
 Boling, C.—1983  
 Boome, A.J.—1998  
 Bootle, B.T., Jr.—1981  
 Borges, D.S.—2000  
 Bosworth, C.M., Jr.—1973  
 Boudani, N.—2019  
 Bourquin, P.A.—1973  
 Bowman, R.J.—2013  
 Boyce, D.K.—1997  
 Boyd, Nathaniel—2020  
 Brager, G.S.—2000  
 Brambley, M.R.—2008  
 Brandemuehl, M.J.—2007  
 Brandt, D.L.—2005  
 Branson, D.J.—2014  
 Braun, J.E.—2003  
 Brickman, H.—1998  
 Bridgers, F.H.—1983  
 Bridges, B.—2017  
 Briley, G.C.—1992  
 Brink, L.K., Jr.—1997  
 Britton, P.E.—1993  
 Broabent, C.—2019  
 Brown, C.R.—1989  
 Brown, F.L.—1976  
 Brown, J.S.—2015  
 Brown, L.N.—1976  
 Brown, R.W.—2002  
 Brown, S.W.—1963  
 Brueckner, T.—2017  
 Brundage, D.M.—2013  
 Bruning, S.F.—2004  
 Bryan, W.L., Jr.—1974  
 Bryant, D.C., Sr.—1996  
 Bryant, Robin—2020  
 Buck, R.J.—2002  
 Buck, W.J.—1992  
 Buckler, G.W.—1987  
 Buckley, J.B.—1990  
 Buckley, J.S.—2003  
 Buckley, N.A.—1988  
 Buckmaster, C.R.—1997  
 Bueno, O.—2017  
 Bullard, C. W.—2004  
 Bundock, J.—2014  
 Bunn, R.A.—2003  
 Burdick, R.S.—1985  
 Burgett, L.W.—1999  
 Burke, V.J.—1972  
 Burkert, J.W., Sr.—1981  
 Burkhead, R.—2019  
 Burr, R.W.—2003  
 Burroughs, H.E.—1984  
 Bushby, S.T.—2004  
 Bushnell, J.J.—2014  
 Butler, D.S., Sr.—1987  
 Butler, P.M.—1976  
 Buzzard, F.H.—1966  
 Cabot, P.W.—2013  
 Caffrey, R.J.—1976  
 Calad, M.—2022  
 Callahan, C.D.—1992  
 Callaway, C.A.—2013  
 Calm, J.—2001  
 Cane, R.L.—2017  
 Cappelletti, R.A.—1998  
 Cappellin, T.—2014  
 Carlson, G.F.—1973  
 Carlson, J.A.—2017  
 Carroll, J.R.—1973  
 Carscallen, G.F.—2002  
 Carter, D.E.—2005  
 Carter, F.Y.—1963  
 Carter, J.J.—2013  
 Case, M.E.—2013  
 Castelveccchi, J.—2007  
 Caulk, J.R., Jr.—1970  
 Cawley, R.E.—2013  
 Chaddock, J.B.—1970  
 Chakroun, W.—2011  
 Chamberlain, J.R.—1968  
 Chapman, W.P.—1969  
 Charalambopoulos, C.—2019  
 Charles, R.A.—1990  
 Charneux, R.—2018  
 Check, G.H.—1981  
 Chen, Q.—2001  
 Cherne, R.E.—1974  
 Chewning, R.C.—1965  
 Chin, J.A.—2017  
 Choksi, R.—2019  
 Ciricillo, S.F.—1979  
 Claridge, D.E.—1997  
 Clark, E.M.—1993  
 Clark, J.A.—2001  
 Clark, J.D.—2023  
 Clark, J.H.—1975  
 Clark, K.M.—2001  
 Clarke, J.—2018  
 Clavijo, F.—2015  
 Clements, W.S.—2010  
 Cloke, T.H.—1980  
 Coad, W.J.—1980  
 Cochrane, Andrew L.—2020  
 Cohen, A.P.—2015  
 Cohen, J.J.—2019  
 Cohen, R.—1999  
 Cohen, W.—1992  
 Cole, R.A.—1987  
 Collarin, Michael—2020  
 Collins, W.J., Jr.—1965  
 Colliver, D.G.—1995  
 Conlan, W.—2016  
 Conover, D.R.—2013  
 Conrad, P.R.—1991  
 Constantinide, John M.—2020  
 Coogan, C.H., Jr.—1963  
 Coogan, James—2009  
 Cook, R.E.—1987  
 Cooke, F.M.—1981  
 Cooke, W.—1967  
 Cooper, D.S.—1994  
 Cooper, Gary—2018  
 Cooper, K.W.—1984  
 Cooper, Michael P.—2020  
 Copeland, B.B.—1998

Copeland, J.E.—1981  
 Couchrane, D.—2015  
 Coughlin, R.J.—1984  
 Cowan, J.D.—2016  
 Coward, C.—2015  
 Craddock, R.—2015  
 Cramm, K.—2006  
 Crawford, J.—2019  
 Crawley, D.B.—2003  
 Cremaschi, L.—2019  
 Crider, T.G.—1968  
 Crosby, R.W.—1996  
 Cross, R.C.—1967  
 Crowe, Derek—2020  
 Crowley, B.—2023  
 Crowther, H.F.—2013  
 Culp, C.H.—2013  
 Cummings, S.D. Jr.—1992  
 Curlin, C.D., Jr.—2013  
 Dale-Derks, C.—2016  
 Damiano, L.A.—2017  
 Danks, R.—2014  
 Darby, D.F.—1997  
 Darwich, A.—2017  
 Davies, H.—2017  
 Davis, A.V.—2008  
 Davis, W.—2021  
 Dean, K.W.—2007  
 Debes, G.C.—2002  
 DeBullet, J.R.—1999  
 Decker, A.S.—1971  
 Decker, H.E.—1982  
 Degelman, L.O.—2017  
 DeGraw, J.—2022  
 Den Low, H.—2019  
 Denton, D.H., Jr.—1979  
 Dettmers, D.J.—2013  
 Deverall, C.N.—1963  
 DeWerth, D.W.—1985  
 Dharkar, P.—2022  
 Diehl, H.C.—1964  
 Dietrich, W.E.—2010  
 Dillard, W.M.—1994  
 Dillon, M.E.—1991  
 Dinse, D.R.—2007  
 Ditzler, J.L.—1970  
 Doerr, R.G.—2000  
 Dols, W.S.—2015  
 Domanski, P.—2007  
 Dong, B.—2023  
 Donley, W.L.—1986  
 Donovan, W.J.—1972  
 Dorgan, C.B.—2002  
 Dorgan, C.E.—1998  
 Dougherty, B.—2006  
 Dowless, E.C.—1985  
 Downs, J.H.—1967  
 Drake, M.—2005  
 Dube, J.E.—1983  
 Duda, Stephen—2009  
 Duffy, P.—2019  
 Dugan, J.T.—2002  
 Dugan, P.A.—1985  
 Duignan-Woods, E.—1995  
 Dunford, D.W.—2008  
 Dunlap, J.F.—2017  
 Dwyer, A.—2017  
 Dwyer, T. C.—2011  
 Earley, J.—2017  
 Eckels, S.—2014  
 Eichelberger, E.C., Jr.—2014  
 Eichhorn, R.L.—1969  
 Elleson, J.S.—2005  
 Ellis, B.—2017  
 Elmahdy, A.—2001  
 Elsea, R.—1975  
 Emerson, Keith I.—2020  
 Emmerich, S.—2009  
 Enck, H. J.—2015  
 Engalitcheff, J.—1963  
 Engdahl, R.B.—1970  
 Engen, B.W.—1984  
 Eppelheimer, D.M.—2002  
 Erbe, D.—2016  
 Ervin, D.A., Jr.—1975  
 Escamilla, J.—2013  
 Evans, B.L.—1971  
 Evans, P.E.—1988  
 Evans, R.A.—1996  
 Evans, R.J.—1975  
 Evers, D.—2023  
 Fahnestock, M.—1967  
 Fairey, P.—2019  
 Falk, D.S.—1975  
 Fallin, K.W.—2013  
 Fanger, P.O.—1985  
 Faris, E.—2019  
 Farnes, B.W.—1971  
 Faust, F.H.—1983  
 Fenton, D.L.—2013  
 Ferdelman, T.J.—1990  
 Fick, D.—2014  
 Fields, J.R.—2006  
 Filler, J.—2015  
 Firrantello, J.—2022  
 Fisher, D.S.—1996  
 Fisher, L.J.—2003  
 Fisk, W.J.—2015  
 Fitts, E.D.—2006  
 Flagg, L.F.—1967  
 Flanagan, R.W.—1972  
 Flaniken, B.—2019  
 Fleming, C.L.—1970  
 Fleming, W.S.—2005  
 Floreth, J.W.—1984  
 Fly, M.—2008  
 Fontaine, W.E.—1971  
 Foster, T.G.—1970  
 Fox, J.H.—1983  
 Fox, W.—2018  
 Francisco, P.W.—2015  
 Frazell, C.—2006  
 Freeman, G.A.—1985  
 Friberg, E.E.—1979  
 Fricke, B.—2014  
 Freidberg, Vanessa—2020  
 Friedman, G.—2014  
 Friedrich, M.—2006  
 Fulk, K.M.—2008  
 Fuller, R.—2016  
 Furman, Joseph L.—2020  
 Gage, C. L.—2011  
 Gagge, A.P.—1974  
 Gallagher, M.—2018  
 Galler, M.—2023  
 Galson, E.L.—1996  
 Gamble, C.B.—1963  
 Ganta, R.—2014  
 Garbarino, A.P.—1998  
 Gardner, C.R.—1964  
 Gardner, P.—2018  
 Garland, M.W.—1970  
 Gates, A.S., Jr.—1965  
 Gatley, D.P.—1982  
 Gatlin, J.—2012  
 Geary, David—2009  
 Gebke, K.J.—2011  
 Geistert, D.L.—1992  
 Giannini, A.A.—1965  
 Giesler, A.L.—2008  
 Gifford, E.W.—1975  
 Gilbertson, T.—2015  
 Gilbertson, T.A.—2013  
 Gilkey, H.T.—1970  
 Gill, K.E.—1995  
 Gilman, S.F.—1983  
 Gilmore, C.F.—1994  
 Glass, M.—2015  
 Glazer, J.—2022  
 Glicksman, L.R.—2008  
 Gluesenkamp, K.—2021  
 Godwin, D.S.—2011  
 Goepfert, D.C.—1984  
 Goldschmidt, V.W.—1984  
 Gonzalez, D.J.—1980  
 Gonzalez, R.A.—1963  
 Goodman, H.W.—1988  
 Goodman, K.—2021  
 Goodwin, R.R., Jr.—1981  
 Gorton, R.L.—1989  
 Gowan, D.—1988  
 Gowdy, A.C.—1970  
 Gowri, K.—2013  
 Graef, P.T.—2006  
 Gragg, H.G.—1972  
 Graham, J.B.—1969  
 Grant, W.A.—1983  
 Grant, W.I.—1984  
 Grasso, M.—2001  
 Gray, C.M.—2017  
 Green, W.M.—1983  
 Greenberg, A.—1973  
 Greenwald, R.—1972

- Groff, G.C.—2013  
 Groll, E.A.—2003  
 Grondzik, W.—2012  
 Grumman, D.L.—1990  
 Grusnick, N.—2015  
 Grzywacz, C.M.—2011  
 Gu, L.—2015  
 Gullede III, C.E.—2008  
 Gupta, V.K.—2007  
 Gupta, V.P.—2010  
 Gupton, G.W., Jr.—1981  
 Haberl, J.S.—2001  
 Haddad, K.—2017  
 Hafendorfer, B.—2019  
 Haglid, K.—2009  
 Hahn, W.G.—2010  
 Haines, R.W.—1971  
 Halel, D.—2018  
 Hall, C.L.—1964  
 Hall, J.R.—1976  
 Hall, R. L.—2004  
 Hallstrom, A.D.—1998  
 Hammack, K.—2014  
 Hamrick, B.A., Jr.—1984  
 Hanegan, T.A.—2013  
 Hanley, A.J.—1993  
 Hanley, James T.—2020  
 Hansen, C.G.—1991  
 Hanson, S.—2015  
 Hardin, D.C.—1999  
 Hargan, M.R.—2004  
 Harju, R.J.—2003  
 Harnack, J.L.—1987  
 Harris, W.S.—1967  
 Harrison, W.A.—2003  
 Harrod, J.L.—2009  
 Harrod, John L.—2008  
 Hart, Michael—2009  
 Hart, Nathan—2020  
 Haves, P.—2015  
 Haydock, P. —2017  
 Haynes, C.—2023  
 Hayter, R.B.—1993  
 Hayter, S.J.—2001  
 Healy, W.—2019  
 Hedrick, R.—2017  
 Hegberg, M.C.—2001  
 Hegberg, R.A.—2001  
 Heiden, R.—2018  
 Heiman, J.L.—1985  
 Heinemeier, Kristin—2020  
 Helander, L.—1967  
 Henck, C.E.—1998  
 Hensen, Jan—2009  
 Hermans, R.—2006  
 Hernandez, P.—2022  
 Hershman, M.P.—2010  
 Hertal, M.—2019  
 Hesselschwerdt, A.L.—1969  
 Hewett, M.J.—2003  
 Hightower, G.B.—1984  
 Hill, J.E.—1995  
 Hiller, Carl C.—2020  
 Hinge, A.—2008  
 Hitchcock, R.—2016  
 Hittle, D.C.—1995  
 Ho, N.—2021  
 Hoey, P.J.—1995  
 Hoffman, J.E.—1985  
 Hogan, J.F.—2004  
 Hogeling, J.—2019  
 Holcomb, B.—2018  
 Hole, W.G.—1965  
 Holladay, W.L.—1964  
 Holness, G.V.R.—1991  
 Holte, D.E.—1996  
 Hong, T.—2023  
 Horn, W.—2016  
 Horsburgh, B.J.—1972  
 Hosni, M.H.—2003  
 Hourahan, G.C.—2000  
 House, J.—2022  
 Houston, S.H.—1997  
 Howell, R.H.—1983  
 Hu, Y.R.—2011  
 Huber, C. F.—2016  
 Hughes, P.—2014  
 Humble, J.—2019  
 Hunn, B.—2016  
 Hunt, Trenton S.—2020  
 Hutcheon, N.B.—1967  
 Huttenlocher, D.—1994  
 Hwang, Y.—2010  
 Hydeman, M.M.—2005  
 Hyman, L.B.—2013  
 Ibison, J.L.—1976  
 Im, P.—2021  
 Immekus, P.M.—2008  
 Int-Hout III, D.—1993  
 Isenbeck, J.—2015  
 Iyengar, R.—2022  
 Ivesdal, S.W.—2001  
 Jackin, L.L.—2008  
 Jackins, G.A.—1989  
 Jackson, Mark—2020  
 Jacobi, A.M.—2003  
 James, J.K.—1972  
 Janssen, F.—1965  
 Janssen, J.E.—1995  
 Jarnagin, R.E. —2005  
 Jayaraman, N.R.—2013  
 Jenkins, L.L.—1997  
 Jensen, N. E.—2017  
 John, D.A.—2012  
 Johnson, N.W.—1995  
 Johnson, P.A.—2011  
 Johnson, V.J.—1966  
 Johnson, W.B.—1985  
 Johnson, W.R.—1975  
 Jokar, A.—2017  
 Jones R. K.—2017  
 Jones, J.W.—1980  
 Jones, R.—2016  
 Jones, R.R.—1987  
 Jones, T.R —2015  
 Judkoff, R.—2019  
 Jumper, T.—2023  
 Justince, Thomas Allen—2020  
 Kainlauri, E.O.—1995  
 Kamm, J.L.—1989  
 Kandasamy, Ganeson—2020  
 Karnaz, J.—2018  
 Katipamula, S.—2006  
 Kato, S.—2007  
 Kauffman, J.—2023  
 Kayan, C.F.—1969  
 Kazachki, G. S.—2011  
 Keen, J.A.—2010  
 Keikavousi, Firouz—2020  
 Kelso, R.M.—2000  
 Kelter, S.L.—2010  
 Kemp, F.P.—2007  
 Kempf, P.G.—2010  
 Kennedy, S.D.—2007  
 Kennoy, D.—2015  
 Kerr, C.M.—2003  
 Kershock, O.M.—1984  
 Kessner, R.J.—1997  
 Kettler, G.J.—2008  
 Khalil, E.E.—2011  
 Khankari, K.—2015  
 Kilker, R.L.—1976  
 Kilkis, B.—2008  
 Kim, Hyojin—2020  
 King, Lindsey—2020  
 Kirkwood, R.H.—1983  
 Kiselbach, D.D.—1994  
 Klassen, J.—1975  
 Klock, W.K.—2012  
 Knebel, D.E.—1995  
 Knight, Malcolm Dennis—2020  
 Knight, W.D., Jr.—2011  
 Knights, C.R.—1996  
 Knutson, G.W.—1999  
 Kohler, J.A.—2010  
 Kohloss, F.H.—1978  
 Konzo, S.—1963  
 Koperski, W.D.—1998  
 Kopocis, J.—2023  
 Koptis, C.R.—1992  
 Kramer, D.E.—1985  
 Kouma, L.—2023  
 Krause, W.O.—1986  
 Kroeker, J.D.—1967  
 Kroeschell, T.R.—1998  
 Kuehn, T.—2015  
 Kuempel, J.L., Jr.—2013  
 Kujak, S.—2017  
 Kulankara, S.—2023  
 Kunkel, Stephanie—2020  
 Kusuda, T.—1976  
 Kwellner, E.—2019  
 Kwok, A.G.—2012

Labunski, C.—2022  
 Lahmon, R.D.—1991  
 Laksanakorn, Wichai—2020  
 Laman, W.—2006  
 Landman, W.J.—1998  
 Landsbergm D.—2016  
 Lang, J.H.—1995  
 Larry, J.C. —2017  
 Lau, J.—2015  
 Laube, H.L.—1982  
 Lavitt, R.—2018  
 Lavoie, I.—2018  
 Law, W.—2019  
 Lawrence, T.M.—2010  
 Lawson, C.N.—1993  
 Lawton, W.—2006  
 Leach, J.—2017  
 Leblanc, K.—2016  
 Leck, T.J.—2017  
 Lecompte, M.—2017  
 Ledgett, F.D.—1976  
 Leitsch, S.L.—1992  
 Lemire, Nicolas—2020  
 Lentz, M.S.—2001  
 Leppard, B.A., Jr.—2008  
 Levenhagen, J.I.—1980  
 Levin, H.—2013  
 Levine, D.J.—1979  
 LeViseur, S.—2001  
 Lewis, O.K.—1991  
 Lewis, R.H.—1999  
 Liebttag, B.G.—1982  
 Lim, C.L. dL—2015  
 Lin, C.H.—2015  
 Lincoln, A.A.—1989  
 Lindahl, P.A.—2017  
 Linder, R.J.—2013  
 Linskie, G.A.—1970  
 Listvan, M.—2019  
 Littwin, D.A.—2008  
 Liu, B.—2014  
 Liu, Xiaobing—2020  
 Lizardos, E.J.—2000  
 Lloyd, R.T.—1999  
 Logsdon, R.F.—1970  
 Lorch, F.A.—2004  
 Lorsch, H.G.—1998  
 Loveley, J.D.—1969  
 Lovvorn, N.C.—2003  
 Lu, D.—2023  
 Lynch, Brian—2020  
 MacCracken, M.—2016  
 MacDonald, R.L.—1985  
 Mack, L.—1968  
 Mackey, C.O.—1963  
 Macauley, D., III—2014  
 Mages, S.—2023  
 Malphus, W.W.—2008  
 Mamayek, M.—2016  
 Manning, B.R.—1992  
 Maor, I.—2015  
 Maref, W.—2017  
 Marek, Steven A.—2020  
 Marin, A.—1967  
 Markel, L.C.—2013  
 Markel, M.L.—1982  
 Marks, P.—2014  
 Marple, K.L.—2013  
 Marschall, P.J.—1963  
 Massa, D.—1975  
 Massart, K.G.—1975  
 Maston, S.E.—2017  
 Mastro, Giustino—2009  
 Mathaudhu, S.S.—1997  
 Mathis, R.C.—2019  
 Mathur, G.D.—2004  
 Mathison, M.—2023  
 Mattison, R.M.—1996  
 Maxwell, N.—2013  
 May, J.W.—1983  
 McBride, M.F.—1999  
 McCartney, W.J.—2007  
 McDermott, M.J.—2013  
 McDonald, R.O.—1976  
 McDougall, M.—1984  
 McDowall, R.—2013  
 McDowell, C.G.—2001  
 McDowell, T.—2016  
 McGinn, T.J.—2013  
 McGowan, A.—2016  
 McGrath, J.M.—1976  
 McGrath, W.L.—1983  
 McIntyre, D.J.—1995  
 McKew, H.J.—2012  
 McLinden, M.O.—2005  
 McMillan, H.D., Jr.—1976  
 McMillan, H.D., III—2003  
 McMinn, D.N.—1990  
 McNall, P.E., Jr.—1972  
 McNeil, D.C.—1991  
 McQuade, W.F.—2012  
 McQuiston, F.C.—1984  
 Means, J.K.—2015  
 Meckler, M.—1993  
 Meeuwsen, G.—2016  
 Meffert, G.H.—1967  
 Mehboob, F.—2018  
 Mehboob, Farhan Adil—2020  
 Meisel, P.W.—2015  
 Meitz, A.K.—1994  
 Melikov, A.—2006  
 Mendez, F.J. —2008  
 Menster, P.C.—1993  
 Mentzer, J.C.—1998  
 Menzies, G.E.—1981  
 Meredith, D.—2019  
 Meredith, D.B. —2004  
 Meriwether, R.F.—1977  
 Merrick, R.H.—1972  
 Merrigan, Tim—2020  
 Mescher, Kirk—2009  
 Metzger, Corey—2020  
 Meyer, B.—2021  
 Meyer, T.—2012  
 Middlebrooks, M.—2016  
 Milesi Ferretti, N.—2023  
 Millard, G.E., Jr.—1987  
 Miller, D.K.—1992  
 Miller, P.L., Jr.—1996  
 Millies, R.L., Jr.—2014  
 Milliken, H.—2015  
 Mills, D.M.—1966  
 Mills, F.A.—2017  
 Miner, S.M.—1976  
 Minor, B.—2016  
 Mitchell, J.W.—1997  
 Mittal, R.—2019  
 Modera, M.P.—2013  
 Moffitt, R.—2017  
 Mohamed, Ahmed Alaa Edlin—2020  
 Molnar, J.—2019  
 Moninski, M.—2022  
 Monplaisir, Carrie Anne—2020  
 Montgomery, R.D.—1998  
 Morabito, B.P.—1975  
 Morasch, S.—2011  
 Morgenroth, D.E.—1984  
 Morner, S.—2018  
 Morrison, F.T.—2017  
 Morrison, W.B.—1976  
 Morse, C.L.—1998  
 Moyer, R.C.—1985  
 Mueller, W.H.—1983  
 Muldoon, K.—2021  
 Mullen, M.—2021  
 Muller, C.O.—2007  
 Mumma, S.A.—1995  
 Munger, G.R.—1970  
 Murphy, J.A.—2014  
 Murphy, W.E.—1995  
 Murray, H.G.S.—1968  
 Mutum, J.L.—1983  
 Myers, G.N.—2001  
 Myers, G.W.F.—1968  
 Nagengast, B.A —2003  
 Nall, D.H.—2012  
 Nanes, R.W.—1995  
 Naughton, P.J.—2013  
 Nawaz, K.—2018  
 Neely, R.—2017  
 Neff, F.P.—1964  
 Nelson, B.I.—2013  
 Nelson, M.—2019  
 Nettleship, L.C.—1976  
 Neuman, V.A.—2001  
 Nevins, R.G.—1972  
 New, J.—2018  
 Newcomer, Keith—2009  
 Newman, H.M.—2010  
 Newman, J.L.—2012  
 Newton, A.B.—1963  
 Nicholas, S.W.—2015  
 Nichols, D.E.—1975



Ninomura, P.T.—2015  
 Nix, J.H.—2013  
 Noble, R.E.—2001  
 Nolfo, A.P.—2003  
 Norman, J.H.—2007  
 Norris, R.W.—1982  
 Novosel, D.—2003  
 Nussbaum, O.J.—1976  
 Nutter, D.—2015  
 O'Dell, L.J.—2003  
 O'Higgins, K.B.—1999  
 O'Neal, D.L.—1997  
 O'Neill, Z.—2019  
 Oakes, A.W.—1975  
 Offermann III, F.J.—1994  
 Ohadi, M.M.—2003  
 Olert, J.—2006  
 Olesen, B.W.—1997  
 Olivieri, J.B.—1975  
 Olsen, J.C.—1981  
 Olson, D.R.—2013  
 Ow, C.S.—2013  
 Owen, K.—2019  
 Pagliasotti, R.D.—1980  
 Palmatier, E.P.—1964  
 Pannkoke, T.E.—1988  
 Papar, R.A.—2010  
 Parke, E.A.—1999  
 Parmelee, C.E.—1972  
 Pasch, R.M.—2017  
 Pate, M.—2021  
 Patel, A.—2022  
 Patenaude, R.E.—2000  
 Patterson, N.R.—1988  
 Patton, R.M.—2017  
 Payne, W.V.—2015  
 Pearson, F.J.—1990  
 Pearson, R.J.—1985  
 Peet, K.C.—2015  
 Penar, V.L.—2014  
 Pentzer, W.T.—1964  
 Perkins, C.S.—1976  
 Perreault, G.—2011  
 Perry, R.P.—1975  
 Persily, A.K.—2006  
 Pesterfield, C.H.—1972  
 Peterman, K. L.—2012  
 Petersen, R.—2016  
 Peterson, J.C.—2010  
 Peterson, K.W.—2001  
 Petrilli, P.—2023  
 Petrillo-Groh, L.—2023  
 Pettit, K.A.—1975  
 Pettway, D.C.—2007  
 Pflug, I.S.—1974  
 Phelan, C.—2022  
 Phetteplace, G.—2019  
 Phillips, B.—2009  
 Phillips, C.W.—1969  
 Phillips, D.S.—1972  
 Phillips, T.J.—1968  
 Phoenix, T.H.—1996  
 Pierce, J.D.—1981  
 Pierson, K.—2021  
 Pietsch, J.A.—1994  
 Platt, H.—2016  
 Pons, R.—2008  
 Porter, J.M.—1996  
 Poston, I.G.—2005  
 Pouchak, M. A.—2017  
 Powell, F.J.—1982  
 Prather, D.—2019  
 Price, G.—2018  
 Priestler, G.B.—1968  
 Procell, C.J.—1995  
 Radermacher, R.—2002  
 Rakheja, A.—2015  
 Ramsey, M.A.—1966  
 Randolph, C.H.—1976  
 Rasmussen, D.W.—2013  
 Reddy, A.—2008  
 Reed, F.J.—1963  
 Reedy, W.—2009  
 Reich, H.H.—1984  
 Reichert, I.—2017  
 Reid, D.W.—1996  
 Reid, J.G.—1973  
 Reig, J.A.—1994  
 Reihl, K.—2019  
 Reinarts, T.—2005  
 Reindl, D.T.—2006  
 Reistad, G.M.—1991  
 Reynolds, B.—2015  
 Riback, L.—2017  
 Rich, D.G.—1972  
 Richard, O.E.—1981  
 Richards, W.V.—1984  
 Richardson, G.—1995  
 Richardson, J.O., Jr.—2002  
 Rickelton, D.—1983  
 Rieke, J.A.—2013  
 Rishel, J.B.—1998  
 Risley, R.—2009  
 Rite, R.—2023  
 Rivers, R.D.—1992  
 Roberts, J.F., Jr.—1984  
 Robertson, E.J.—1963  
 Robinson, K.E.—1973  
 Rock, B.A.—2004  
 Rockwell, T.F.—1966  
 Rodriguez, F.R., Sr.—2012  
 Rogers, D.—2016  
 Rohles, F.H., Jr.—2000  
 Romero, R.—2019  
 Romine, T.B., Jr.—1993  
 Rooley, R.H.—1991  
 Rose, R.M.—2005  
 Rosen, S.—1980  
 Rosen, S.—2014  
 Rosenstock, S.—2016  
 Ross, J.H.—1968  
 Rottman, G.B.—1965  
 Rountree, H.E.—1989  
 Rowe, M.—2021  
 Rudoy, W.—1980  
 Ryan, H.J.—1970  
 Ryan, W.—2017  
 Sachs, H.M.—2013  
 Sainsbury, G.F.—1976  
 Sanchez, A.J.—1994  
 Sandfort, J.F.—1971  
 Sanvordenker, K.S.—1979  
 Sauer, H.J., Jr.—1981  
 Schambach, F.H.—2003  
 Schenk, J.A.—1963  
 Schlentner, K.O.—1970  
 Schmidt, W.A.—1977  
 Schoen, L.J.—2013  
 Schopplein, H.—2019  
 Schrecengost, R.C.—2013  
 Schreiner, J.R.—1969  
 Schultz, K.—2017  
 Schultz, M.—2023  
 Schumacker, E.W.—2007  
 Schwedler, M.—2008  
 Schwenker, E.H.—1993  
 Scoggins, G.—2009  
 Seelaus, J.J.—1976  
 Segal, S.C.—1963  
 Seiler, E.N.—1993  
 Sekhar, Chandra—2010  
 Sekhar, S.C.—2007  
 Sepsy, C.F.—1976  
 Sestak, G.J.—1995  
 Seth, A.K.—2016  
 Setty, B.S.—2014  
 Shadpour, F.—2016  
 Shah, M.M.—2003  
 Shapiro, L.—2017  
 Sharp, G.—2023  
 Shavit, G.—1997  
 Shea, J.E.—1982  
 Sheerin, Michael P.—2020  
 Sheffield, J.W.—1991  
 Sheinman, H.—2016  
 Sherber, M.S.—2013  
 Sherif, S.A.—2003  
 Sherman, M.H.—1997  
 Shrestha, S.—2016  
 Siller, D.A.—2013  
 Silvera, A.—1964  
 Simmonds, P.—2009  
 Simmons, R.—2019  
 Simonsen, T.—2017  
 Singh, H.—1997  
 Singh, J.B.—2006  
 Sipes, J.—2014  
 Sipes, J.M.—2007  
 Skelton, B. A.—2016  
 Slabinski, S.—1994  
 Slone, M.R.—1991  
 Smith, J.—2023  
 Smith, L.R.—1969

- Snyder, E.F.—1970  
 Sobieski, J.T.—1996  
 Soling, S.P.—1969  
 Somasundaram, S.—2006  
 Sonderegger, R.—2016  
 Sosoka, J.R.—1988  
 Soumerai, H.P.—1969  
 Spangler, A.T., Jr.—1980  
 Spanswick, I.—2023  
 Spauschus, H.D.—1971  
 Speich, C.F.—1985  
 Spence, R.A.—2014  
 Spencer, S.A.—1965  
 Spevak, F.—2008  
 Spiegel, W.F.—1983  
 Spielvogel, L.G.—1975  
 Spitler, J.D.—2000  
 Spofford, W.A.—1973  
 Spurlock, B.H.—1970  
 Srebric, J.—2007  
 Staebler, L.A.—1967  
 Stambaugh, L.P.—1994  
 Stamper, E.—1985  
 Stanke, D.—2014  
 Stanley, J.H.—2001  
 Staples, L.S.—1989  
 Starner, K.E.—1992  
 Stenger, H.G.—1982  
 Stern, R.M.—1971  
 Stethem, W.C.—1984  
 Stoecker, W.F.—1976  
 Stone, D.T.—1994  
 Stotz, R.B.—1999  
 Stover, R.S.—1969  
 Strahan, E.K.—1970  
 Straub, H.E.—1973  
 Strong, H.G.—1963  
 Strong, R.H.—1998  
 Stuber, R.J.—2017  
 Sturm, E.—2019  
 Subherwal, B.—2016  
 Sud, I.—2003  
 Sultan, Z. M.—2017  
 Sun, L.—2011  
 Sun, W.—2019  
 Sundaresan, G.—1995  
 Supple, R.G.—1987  
 Swanson, Michelle—2020  
 Swatkowski, L.—2017  
 Swenson, C.A.—1985  
 Symko, J.—2019  
 Szymurski, S.R.—2013  
 Tabares-Velasco, P.—2021  
 Talbott, J.M.—2015  
 Tamblyn, R.T.—1994  
 Tamura, G.T.—1983  
 Tapias, A.—2003  
 Tauby, J. R.—2014  
 Taylor, S.T.—2004  
 Taylor, W.—1972  
 Teske, E.R.—1974  
 Thedford, Jr., M.T.—1999  
 Thomle, A.—2015  
 Thompson, J.W.—1971  
 Thomson, Q.R.—1976  
 Thornton, J.K.—1972  
 Thornton, R.C.—1989  
 Thrasher, K.C.—2004  
 Threlkeld, J.L.—1963  
 Thuman, J.—2006  
 Tillou, M.—2021  
 Tilney, R.B.—1970  
 Timm, M.L.—1996  
 Tinkler, G.—2023  
 Tinsley, W.E.—2008  
 Tisdale, R.W.—2007  
 Todorovic, B.B.—1995  
 Todorovic, M.—2019  
 Tosh, M.—2017  
 Toub, S.G.—2011  
 Townsend, T.E.—1997  
 Traboulsi, S.R.—2008  
 Trafton, P.M.—2004  
 Tran, T.M.—2013  
 Traylor, J.L.—2014  
 Traugott, F.A.—1979  
 Tressler, D.K.—1964  
 Tronville, P.—2015  
 Troutman, M.G.—2012  
 Trueman, C.—2018  
 Tse, V.—2003  
 Tsui, E.K.C.—2015  
 Tumilty, J.E.—1975  
 Turnbull, P.G.—2012  
 Turpin, M.C.—1964  
 Tutt, R.D.—1973  
 Underwood, T.D.—2002  
 Urban, F.O.—1963  
 Urdahl, T.H.—1967  
 Utesch, A.L.—1986  
 Vaculik, F.—1997  
 Valerio, E.L.—1993  
 Vallort, J.K.—2001  
 Vallort, R.P.—1996  
 VanGeem, M.G.—2014  
 Varley, J.—2018  
 Vaughn, F.L.—1972  
 Veeck, A.C.—2013  
 Vehlow, R.—2019  
 Vener, A.S.—1989  
 Vermillion, B.J.—1992  
 Viessman, W.—1971  
 Villanueva, S.V.—2013  
 Vineyard, E.A.—1999  
 Vinther, P.N.—1964  
 Virgin, D.G.—1984  
 Virmani, A.K.—2014  
 Vucci, J.I.—2010  
 Wagner, E.K.—1968  
 Walker, I.S.—2008  
 Walker, W.O.—1968  
 Wallstrom, L.L.—1976  
 Walter, W.F.—2008  
 Walters, F.H.—2015  
 Wang, L.M.—2012  
 Wang, X.—2011  
 Wargocki, P.—2017  
 Warres Bayer, C.—2019  
 Warrick, L.K.—1968  
 Watson, R.—2015  
 Watson, T.E.—2002  
 Watz, Michael L., Jr.—2020  
 Wayland, S.—2016  
 Webb, W.A.—2015  
 Weld, G.B.—1981  
 Wellborn, J.M.—1974  
 Wellford, B.—2017  
 Wells, G.E.—2004  
 Wells, J.—2009  
 Wells, W.P.—1975  
 Wen, J.—2022  
 Wentz, T.G.—2013  
 Werden, R.G.—1971  
 Werkema, T.E., Jr.—2010  
 Werman, L.F.—2005  
 Werner, P.H.—1981  
 Wessel, D.J.—1996  
 West, S.—2023  
 Westbrook, Ronald L.—2020  
 Westcott, R.M.—1968  
 Westhoff, S.M.—1996  
 Westling, L.L.—1964  
 Weston, T.A.—2013  
 Wheeler, A.E.—1978  
 White, T.J.—1969  
 Whitesel, H.A.—1964  
 Whitmer, L.R.—2004  
 Wicks, K.W.—1973  
 Wile, D.D.—1983  
 Wilkins, C.—2016  
 Williams, B.H.—2013  
 Williams, C.—2022  
 Williams, S.J.—1963  
 Williams, T.H.—1997  
 Williams, V.A.—1994  
 Willson, J.—2008  
 Wilson, A.G.—1971  
 Wilson, D.P.—2015  
 Wingfield, G.L.—2008  
 Winters, P.—2017  
 Wischmeyer, W.F.—1963  
 Wissmiller, V.D.—1968  
 Wolf, J.E.—1991  
 Wolf, J.L.—1970  
 Wolfert, J.E.—2003  
 Wong, Y.W.—2005  
 Woodford, M.W.—1990  
 Woodroof, J.G.—1964  
 Woods, J.E.—1981  
 Woods, L.D.—2013  
 Woodworth, J.I.—1991  
 Woody, A.W.—1994  
 Woolrich, W.R.—1963

Wray, C.P.—2004  
 Wright, J.L.—2019  
 Wright, J.R.—2013  
 Wyckoff, P.W.—1965  
 Yamamoto, G.S.—1988  
 Yang, X.—2008  
 Yashar, D.—2014  
 Yuill, D.P.—2013

Yelton, K.—2019  
 Yost, Robert W.—2020  
 Young, Chariti—2020  
 Yount, F.—2019  
 Yuill, G.K.—1996  
 Zagar, R.A.—2001  
 Zanders, R.W.—1995  
 Zarour, J.H.—2013

Zbin, R.—2019  
 Zentz, D.—2015  
 Zhai, Z.—2010  
 Zhang, J.—2008  
 Zhang, Y.—2007  
 Zhivov, A.M.—2011  
 Zhou, X.—2017  
 Zuo, Z.—2017

### Donald A. Siller Refrigeration Award

Established in 2013, this award recognizes exceptional performance by a Chapter Refrigeration Chair for planning activities and providing technology transfer on the subject of refrigeration. The name of the award was changed from the Refrigeration ‘R in ASHRAE’ award in June 2015.

2014-16	(No award given)	2019	Edward P. Bricker	2023	Samir Hernandez
2017	James Paul Martin	2020	Brittney Garcia		
2018	Kevin Galbraith	2021-22	(No award given)		

### Donald Bahnfleth Environmental Health Award

Established in 2006, this award recognizes excellence in volunteer service focused on environmental health issues. The name of the award was changed from the Environmental Health Award in 2019.

2006	(No award given)	2012	Steven J. Emmerich	2018	Pawel Wargocki
2007	David Grimsrud	2013	Lawrence J. Schoen	2019	William P. Bahnfleth
2008	Hal Levin	2014	Chandra Sekhar	2020	Paul Francisco
2009	H.E. “Barney” Burroughs	2015	Jack Spengler	2021	Bjarne Olesen
2010	Andrew K. Persily	2016	Francis Offerman	2022	Yuguo Li
2011	(No award given)	2017	W. Gene Tucker	2023	Max Sherman

### E.K. Campbell Award of Merit

The E.K. Campbell Award of Merit is presented by the Life Members Club to honor outstanding service and achievement in teaching.

1958	Lynn Helander	1980	F.C. Hooper	2002	Branislav Todorovic
1959	Dean Merl Baker	1981	William F. Rudoy	2003	Harmohindar Singh
1960	Lester S. O’Bannon	1982	Raymond Cohen	2004	Anthony Jacobi
1961	Burgess H. Jennings	1983	Harry J. Sauer, Jr.	2005	James E. Braun
1962	(No award given)	1984	Burgess H. Jennings	2006	(No award given)
1963	Maurice K. Fahnstock	1985	Charles F. Sepsy	2007	Ronald H. Howell
1964	Carl F. Kayan	1986	Faye C. McQuiston	2008	David B. Meredith
1965	C.O. Mackey	1987	Victor W. Goldschmidt	2009	Judi Steciak
1966	Richard C. Jordan	1988	Stanley A. Mumma	2010	Eckhard A. Groll
1967	S. Konzo	1989	William J. Wepfer	2011	(No award given)
1968	Walter O. Walker	1990	David J. Wilson	2012	Wayne A. Helmer
1969	B.H. Spurlock, Jr.	1991	James C.S. Chou	2013	Michal Bernier
1970	John Everetts, Jr	1992	Jan F. Kreider	2014	Jeffrey D. Spitler
1971	James M. McGrath	1993	J. Ben Austin	2015	Charles “Charlie” Culp
1972	Jack B. Chaddock	1994	Gordon M. Reistad	2016	Michael Ohadi
1973	Wilbert F. Stoecker	1995	Joseph B. Olivieri	2017	Thomas H. Kuehn
1974	Ralph G. Nevins	1996	David A. Didion	2018	Julia A. Keen
1975	Herbert B. Nottage	1997	S.A. Sherif	2019	William P. Bahnfleth
1976	John F. Sandfort	1998	David E. Claridge	2020	Janice K. Means
1977	Rodney G. Keif	1999	Margaret S. Drake	2021	Chandra Sekhar
1978	Stanley F. Gilman	2000	Timothy G. Wentz	2022	Thomas M. Lawrence
1979	Donald C. Bryant, Sr.	2001	David R. Tree	2023	James Kamm

## Exceptional Service Award

Established in 1998, this award recognizes members who have served the Society faithfully and with exemplary effort, in excess of that required for the Distinguished Service Award (45 service points are required).

Abellon, Devin—2022	Ferdelman, Thomas J.—2007	Logsdon, Robert F.—1998
Aguilo, Roberto—2014	Fields, James R.—2014	Lovvorn, Nance—2014
Arnold, David—2014	Fisher, Larry—2018	Macauley, Dunstan—2022
Austin, George W.—2020	Flagg, Louis F.—1999	Markel, Lawrence—2019
Aute, Vikrant—2023	Fleming, William S.—2011	Marple, Kevin L.—2020
Ayub, Zahid H.—2013	Fly, Mark W.—2020	Mastro, Giustino—2009
Anderson, M. Kent—2019	Francisco, Paul W.—2015	Mathis, R. Christopher—2019
Bahnfleth, William P.—2008	Fricke, Brian—2016	McGinn, Tim—2020
Baker, Robert G.—2014	Fulk, Kenneth—2014	McMillan, Hugh—2009
Balaras, Contantinos—2011	Gatlin, Jeff—2020	McQuade, William—2023
Bansal, Pradeep—2016	Giesler, Arthur—2019	Mehboob, Farooq—2021
Baxter, Van—2011	Goodman, Harley W.—2008	Menzies, George E.—2013
Becker, Bryan—2014	Gowan, A. Damon—2016	Meredith, David—2021
Beda, Michael F.—2008	Graef, Patricia T.—2017	Mescher, Kirk—2014
Bellenger, Lynn B.—2006	Grasso, Maureen—2008	Millies, R. Lee, Jr.—2020
Betz, Frederick—2018	Groff, Gerald C.—2014	Montgomery, Ross D.—2006
Bilderbeck, Michael R.—2012	Groll, Eckhard A.—2014	Morasch, Spencer—2021
Binder, Erich—2017	Gulledge, Charles E.—2015	Murphy, William E.—2014
Boldt, Jeff—2023	Hallstrom, Arthur D.—2007	Myers, Garry N.—2010
Boyce, Darryl K.—2008	Harrison, William A.—2010	Nall, Daniel—2023
Brambley, Michael—2022	Harrod, John—2016	Nawaz, Kashif—2022
Brandemuehl, Michael J.—2012	Hayter, Richard B.—2002	Newman, H. Michael—2018
Brandt, Donald L.—2015	Hayter, Sheila—2011	Nichols, Donald E.—2003
Buck, William J.—2003	Hegberg, Mark—2009	Nix, John—2019
Burgett, Lee W.—2013	Henck, Charles E.—2012	Ohadi, Michael M.—2011
Burroughs, H.E. Barney—2008	Hermans, Richard D.—2011	Olesen, Bjarne W.—2006
Bushby, Steven T.—2017	Hiller, Carl C.—2020	Patenaude, Raymond E.—2010
Butler, David, Sr.—2001	Hogan, John—2015	Perry, Richard P.—1999
Calm, James M.—2002	Holness, Gordon V.R.—2006	Persily, Andy—2009
Carter, Dale E.—2013	Hosni, Mohammad, H.—2013	Peterson, Kent W.—2006
Chakroun, Walid—2019	Hourahan, Glenn C.—2006	Pettway, Daniel C.—2014
Charles, Richard A.—2000	Hughes, Patrick—2014	Petrilli, Paul—2023
Chen, Quingyan (Yan)—2006	Hunn, Bruce—2021	Phillips, Clinton W.—1999
Claridge, David—2021	Hwang, Yunho—2013	Phillips, Elbert—2017
Coad, William—2001	Hydeman, Mark—2014	Phoenix, Thomas H.—2007
Cohen, Raymond—2013	Int-Hout, Daniel, III—2007	Poston, Ira G.—2015
Colliver, Donald G.—2010	Isenbeck, Jennifer—2023	Radermacher, Reinhard—2005
Conlan, Wade H.—2020	Jackins, George—2001	Reedy, Wayne—2014
Cooper, Kenneth W.—2008	Jarnagin, Ronald E.—2010	Rich, Donald G.—2007
Cramm, Kelley—2019	Jones, T. Randall—2016	Risley, Robert B.—2014
Crawley, Drury B.—2013	Katipamula, Srinivas—2022	Rooley, Richard H.—2013
Cremaschi, Lorenzo—2021	Kelter, S. Louis—2014	Rose, Richard M.—2014
Culp, Charles, III—2021	Kessner, Ronald J.—2010	Sanchez, Alberto J.—2013
Cummings, Jr., Sam D.—2017	Khalil, Essam E.—2017	Sauer, Harry, Jr.—2001
De Bullet, Julian R.—2010	Khankari, Kishor K.—2017	Schambach, Frank—2022
Dean, William K.—2013	Kilkis, Birol—2008	Schrecengost, Randy—2022
Debes, Gary C.—2010	Klock, William—2019	Schwedler, Michael “Mick”—2015
Dillard, William M.—2010	Knebel, David E.—2012	Schwenker, Eric—2001
Domanski, Piotr—2016	Knight, Malcom Dennis—2020	Scoggins, Mary G.—2015
Donley, Wallace—2001	Kohloss, Frederick H.—1999	Scott Fisher, David—2019
Dorgan, Chad—2016	Lawrence, Thomas M.—2011	Sekhar, Sitaraman Chandra—2013
Dorgan, Charles E.—2002	Lawson, Carl N.—2012	Sharp, Gordon—2023
Dwyer, Timothy C.—2011	Leitsch, Stanley—2008	Sherif, S.A.—2010
Ellis, Blake—2021	Lemire, Nicolas—2020	Sherman, Max H.—2005
Emmerich, Steven—2015	Leppard, Ben A. Jr.—2013	Simmonds, Peter—2014
Evans, Richard A.—2006	LeViseur, Suzanne—2014	Sobieski, J. Thomas—2009

Spitler, Jeffrey—2019  
Weston, Theresa—2021

## F. Paul Anderson Award

Established in 1930 to honor the accomplishments of the late F. Paul Anderson, Past President of the Society, this award is presented annually for notable scientific achievement or outstanding services performed in the field of heating, ventilating, or air conditioning.

1932	Willis H. Carrier	1964	Axel B. Algren	1991	William Goodman
1933-35	(No award given)	1965	Louis N. Hunter	1992	P. Ole Fanger
1936	Arthur C. Willard	1966	Richard C. Jordan	1993	Jack B. Chaddock
1937-38	(No award given)	1967	Walter A. Grant	1994	Hans O. Spauchus
1939	Frank B. Rowley	1968	Crosby Field	1995	Frank H. Faust
1940-41	(No award given)	1969	Dean W.R. Woolrich	1996	William J. Coad
1942	Frederick E. Giesecke	1970	Glenn Muffly	1997	Joseph B. Olivieri
1943	(No award given)	1971	Donald K. Tressler	1998	William J. Collins, Jr
1944	Ferry C. Houghten	1972	Robert H. Tull	1999	Donald R. Bahnfleth
1945	(No award given)	1973	Seichi Konzo	2000	Arthur E. Bergles
1946	Alfred E. Stacey, Jr.	1974	William L. Mcgrath	2001-03	(No award given)
1947	James H. Walker	1975	Neil B. Hutcheon	2004	Clark W. Bullard
1948-49	(No award given)	1976	Paul R. Achenbach	2005-09	(No award given)
1950	Chas.-Edward A. Winslow	1977	(No award given)	2010	Gerald C. Groff
1951	Samuel R. Lewis	1978	Wilbert F. Stoecker	2011	Richard P. Perry
1952	Homer Addams	1979	Daniel D. Wile	2012	(No award given)
1953	Everett N. McDonnell	1980	Herbert L. Laube	2013	Richard H. Rooley
1954	Walter I. Fleisher, Sr.	1981	Burgess H. Jennings	2014	Kent W. Peterson
1955	Charles S. Leopold	1982	John Engalirchhoff, Jr.	2015	A. Damon Gowan
1956	Robert W. Keeton, M.D.	1983	William P. Chapman	2016	Thomas E. Watson
1957	M.F. Fahnestock	1984	(No award given)	2017	(No award given)
1958	George Lewis Tuve	1985	Walter F. Spiegel	2018	Steven T. Taylor
1959	C.P. Yaglou	1986	A. Pharo Gagge	2019	(No award given)
1960	Peter Ben Gordon	1987	Everett P. Palmatier	2020	William P. Bahnfleth
1961	J. Donald Kroeker	1988	Milton W. Garland	2021	Samir Traboulsi
1962	C.M. Ashley	1989	George O.G. Lof	2022	James E. Braun
1963	Arthur J. Hess	1990	Frank H. Bridgers	2023	(No award given)

## Fellow

The grade of Fellow is conferred on Members who have attained distinction in the arts relating to the sciences of heating, refrigeration, air-conditioning, ventilation, or the allied arts and sciences.

Abedin, A.—1998	Asker, G.C.F.—1996	Bauman, F.S.—2018
Achenbach, P.R.—1959	Athienitis, A.K.—2017	Baxter, V.—2011
Acorn, W. A.—2006	Atwood, T.—1992	Bayer, C.—2016
Adams, L.—1955	Austin, G., Jr.—2023	Bean, R.—2022
Advani, A.—1996	Avery, G.—1997	Beaty, D.L.—2007
Aguilo, R.R.—2013	Ayres, J.M.—1973	Becker, B.—2004
Akerman, J.R.—1981	Ayub, Z.—2008	Becker, S.—2008
Albern, W.F.—1992	Azer, N.Z.—1992	Behls, H.F.—1995
Alderman, B., Jr.—1977	Baade, P.K.—1971	Bellenger, L.G.—1998
Altieri, J.L.—1986	Bahnfleth, D.R.—1975	Belt, Jr., N.W.—1998
Alvine, R.G.—1981	Bahnfleth, W.P.—2005	Bendelius, A.G.—1997
Amann, W.L.—1985	Baker, R.G.—2009	Bennett, A.H.—1983
Armstrong, P. R.—2015	Balaras, C.—2011	Benz, D.L.—1993
Anderson, C.M.—1982	Bales, E.L.—1999	Bergles, A.E.—1992
Anderson, P.P., Jr.—1979	Bansal, P.—2008	Berglund, B.—1992
Angus, D.L.—1971	Barbier, W.H.—1987	Berglund, L.G.—1991
Appling, E.B.—1983	Barkman, H.G.—1987	Bernier, M.—2016
Arens, E.—2022	Barnaby, C.—2016	Bertrand, L.—1998
Armstrong, R.M.—1950	Barnard, L., Jr.—1989	Besant, R.W.—1993
Armstrong, R.S.—1997	Basso, P.J.—1997	Betz, F.W.—2017
Arnold, D.—2001	Bathgate, T.A.—1992	Bevirt, W.D.—1992
Ask, A.—2019	Baum, R.T.—1977	Bhatti, M.—2004

Biehn, G.L.—1975  
 Bilderbeck, M.R.—2005  
 Bishop, W.P.—1985  
 Bisset, J.B.—1995  
 Blagojevic, B.—2019  
 Blatt, M.H.—1999  
 Blazier, W.E.—1990  
 Blossom, J.S.—1977  
 Bodinus, W.S.—1975  
 Boggs, A.T., III—1979  
 Boldt, J.G.—2017  
 Bong, T.-Y.—1990  
 Bosworth, C.M.—1971  
 Bottum, E.W.—1984  
 Bourquin, P.A.—1990  
 Bouthillette, R.—1994  
 Bovay, H.E., Jr.—1981  
 Boyce, D.K.—2009  
 Boyd, R.L.—1967  
 Bradley, T.W.—1989  
 Brager, G.S.—2002  
 Brambley, M.R.—2009  
 Brandemuehl, M.J.—2009  
 Brandt, D.—2022  
 Branson, D.J.—2013  
 Braun, J.—2005  
 Braun, R.H.—1990  
 Brickman, H.—1987  
 Bridgers, F.H.—1973  
 Briede, J.D.—1994  
 Briley, G.C.—1991  
 Broadbent, C.R.—2015  
 Brown, A.M.—1987  
 Brown, C.R.—1991  
 Brown, F.L.—1985  
 Brown, J.S.—2013  
 Brown, L.N.—1977  
 Brown, M.R.—1993  
 Brown, S.W.—1967  
 Bruechert, C.J.—1982  
 Brundrett, G.W.—1998  
 Bruning, S.F.—1996  
 Bryant, D.C., Sr.—1981  
 Buck, W.J.—1993  
 Buckley, J.B.—1981  
 Buckley, N.A.—1992  
 Bullard, C.W.—2002  
 Bullock, C.E.—1996  
 Bunn, R. A.—2006  
 Burch, R.M.—1995  
 Burdick, R.S.—1993  
 Burgett, L.W.—2000  
 Burkhardt, R.G.—2001  
 Burr, G.C., Jr.—1977  
 Burr, R.W.—1994  
 Burroughs, H.E.—1994  
 Bushby, S.—2008  
 Bushnell, J.—2016  
 Butcher, T.A.—2013  
 Butkus, A.S.—2018  
 Butler, D.S, Sr.—1992  
 Butler, J.—2022  
 Calm, J.M.—1997  
 Campbell, H.J., Jr.—1988  
 Capehart, B.L.—2012  
 Carlson, J.A.—2017  
 Carroll, J.R.—1972  
 Carter, D.E.—2012  
 Carter, H.C.—1980  
 Cavallini, A.—2007  
 Cavestri, R. C.—2006  
 Cawley, R.E.—2002  
 Chaddock, J.B.—1971  
 Chakroun, W.—2010  
 Chan, J.V., Jr.—2005  
 Chang, J.C.—2019  
 Chao, C.Y.H.—2023  
 Charles, R.A.—1992  
 Charneux, R.—2005  
 Chato, J.—2004  
 Chee, Y.P.—2004  
 Chen, Q.—2005  
 Chen, T.L.—2004  
 Chiriac, F.—2006  
 Choat, E.E.—1989  
 Chongvatana, P.—2006  
 Chou, S.K.—2005  
 Chow, T.—2008  
 Chow, W.K.—2015  
 Christensen, P.B.—1954  
 Chu, Chun-Ying—2003  
 Chuah, Yey K.—2003  
 Claridge, D.—2007  
 Clark, E.M.—1999  
 Clark, J.A.—1999  
 Clark, K.M.—1994  
 Clark, R.J.—1999  
 Clavijo, F.—2019  
 Cleland, D.J. —2009  
 Clements-Croome, D.J.—1998  
 Cloke, T.H., Jr.—1974  
 Coad, W.J.—1980  
 Coggins, J.L.—1999  
 Cogil, C.A.—2021  
 Cohen, R.—1977  
 Cohen, W.—1982  
 Colborne, W.G.—1979  
 Cole, R.A.—1991  
 Collins, W.J., Jr.—1966  
 Colliver, D.G.—1995  
 Colvin, T.—2016  
 Conley, H.E.—1983  
 Cooper, K.—2005  
 Cooper, W.S.—1997  
 Copeland, C.C.—1991  
 Corley, J.H.—1998  
 Costa, Antonio—2014  
 Costantino, M.—1985  
 Coughlin, R.J.—1997  
 Coward, C.W., Jr.—1996  
 Cox, J.E.—1993  
 Cox, W.A., Jr.—1982  
 Coyne, G.G.—1986  
 Cramm, K.—2023  
 Crawford, J.G.—2001  
 Crawley, D.B.—2009  
 Cromer, C.J.—2009  
 Crosland, R.B.—1983  
 Culp, C.— 2005  
 Cummings, J.B.—2010  
 Cummings, S.D., Jr.—1994  
 Dale, K.W.—1984  
 Dalugoda, C—2019  
 Daly, E.A.—1994  
 Davidson, L.A.—2007  
 Davis, W.J.—1984  
 De Wilde, P.—2022  
 Dean, B.W.—1983  
 Decker, H.E.—1983  
 Deltz, P.N.—1994  
 Depew, C.A.—1995  
 DeSaram, J.A.—2019  
 DesChamps, N.H.—1999  
 Deshpande, S.D.—2015  
 Dharkar, P.—2014  
 Didion, D.A.—1991  
 Dieryckx, M.—2021  
 DiGiacomo, W.A.—1986  
 Dillon, M.E.—1993  
 Dobbosi, J.S.—2019  
 Doctor, T.—2022  
 Dols, W.—2022  
 Domanski, P.A.—2007  
 Donley, W.L.—1977  
 Donoso, J.E.—2010  
 Dorgan, C.B.—2010  
 Dorgan, C.E.—1985  
 Downing, L.—1991  
 Downing, R.C.—1968  
 Doyle, D.—2019  
 Driscoll, D.J.—1982  
 Duda, S.W.—2013  
 Dunlap, J.—2016  
 Dunnivant, B.K.—2017  
 DuPernell, P.C.—1994  
 Durkin, T.H.—2012  
 Dussault, R.E.—1992  
 Dwyer, T.—2008  
 Dzelzitis, Egils—2014  
 Eichelberger, E.C, Jr.—2021  
 Ellis, B.E.—2021  
 Elmahdy, A.H.—2009  
 Eley, C.N.—2018  
 Elovitz, D.M.—1996  
 Elovitz, K.—2018  
 Emery, A.F.—2007  
 Emmerich, S.—2016  
 Ensor, David—2003  
 Ervin, D.A., Jr.—1975  
 Evans, G.F.—1987  
 Evans, L.D.—1995  
 Evans, R.A.—1993  
 Evans, R.J.—1979

Fanger, P.O.—1980  
 Farina, D.—1990  
 Fencel, F.B.—2009  
 Fenton, D.L.—2021  
 Ferdelman, T.J.—1998  
 Fernandes, E.O.—1997  
 Ferreira, F.—1993  
 Field, J.—2008  
 Fiorino, D.P.—2001  
 Fischer, H.C.—1979  
 Fisher, D.—2009  
 Fisk, W.—2005  
 Fitzner, K.—1999  
 Flaniken, Bruce—2014  
 Fleming, W.S.—1991  
 Fly, M.W.—2012  
 Fogelman, S.R.—1981  
 Fox, J.H.—1965  
 Francisco, P.—2018  
 Frankfurt, W.W.—1977  
 Freeman, G.A.—1983  
 Friberg, E.E.—1983  
 Fricke, B.—2022  
 Friedman, D.—1982  
 Friedman, G.—2012  
 Gabrielsson, J.E.—1984  
 Gage, Cynthia—2006  
 Gallagher, M.—2019  
 Galson, E.L.—1988  
 Ganta, Ravisanka—2014  
 Garbarino, A.—2005  
 Gardner, M.D.—1997  
 Garimella, S.—2023  
 Garrett, F.T., Jr.—1992  
 Gates, A.S., Jr.—1966  
 Gatley, D.P.—1984  
 Gendler, G.L.—1973  
 Gerstler, W.D.—2015  
 Ghaddar, N.—2019  
 Ghosh, D.—2017  
 Gilbertson, T.A.—1991  
 Gilbo, C.F.—1991  
 Gilmore, C.F.—1996  
 Gilson, P.D.—1991  
 Gipson, D.W.—1990  
 Gladstone, J.—1989  
 Glaser, D.L.—1995  
 Glicksman, L.—2008  
 Goldberg, N.—1988  
 Goldman, R.F.—1983  
 Goldschmidt, V.W.—1985  
 Gong, Y.E.—2019  
 Gonzalez, D.J.—1977  
 Gonzalez, R.R.—1994  
 Goodman, H.D.—1989  
 Goodman, H.W., Jr.—1988  
 Gorton, R.L.—1990  
 Goswami, D.Y.—2013  
 Govan, F.A.—1983  
 Gowan, D.—2010  
 Gowri, K.—2016  
 Graber, E.—1982  
 Graef, P.T.—2007  
 Graham, J.B.—1969  
 Graham, Lois—1984  
 Grant, W.I.—1979  
 Grasso, M.—2007  
 Graves, J.R.—1983  
 Green, W.M.—1999  
 Greenberg, A.—1981  
 Greenwald, R.—1988  
 Grimsrud, D.—2005  
 Groff, G.C.—2004  
 Groll, E. A.—2006  
 Grondzik, W.T.—2007  
 Grossman, G.—2010  
 Grumman, D.L.—1991  
 Guimaraes, E.T.—2013  
 Guinn, G.R.—1993  
 Gulledege, C.—2019  
 Guntermann, A.E.—1992  
 Gupta, H.C.—1975  
 Gupta, V.P.—2011  
 Gupta, Vijay—2003  
 Guppton, G.W., Jr.—1981  
 Gusler, D.L.—1972  
 Guttman, K.—1981  
 Haag, W.L.—1999  
 Haberl, J. S.—2006  
 Hadley, L.G.—1984  
 Haghighat, F.—2007  
 Hague, J.T.—1998  
 Hahn, W.—2008  
 Haines, R.W.—1974  
 Hallstrom, A.D.—2000  
 Halyard, P.J.—2000  
 Hammack, K.G.—2017  
 Hamrick, B.A., Jr.—1995  
 Han, H.—2018  
 Handegord, G.O.P.—1984  
 Hanegan, T.A.—2017  
 Hanley, A.J.—1990  
 Hanley, J.—2023  
 Hansen, E.G.—1993  
 Hansen, III, C.—1998  
 Hargan, M.R.—1996  
 Harmon, J.J.—1995  
 Harriman, L.G.—2009  
 Harrison, W.—2019  
 Harrison, W.D.—1982  
 Harrod, J.—2016  
 Hassan, I.—2021  
 Haves, Philip—2003  
 Hay, Donald J.—2014  
 Hayakawa, T.G.—1982  
 Hayes, H.P.—1962  
 Hayter, R.B.—1991  
 Hayter, S.—2008  
 Heffron, D.B.—1977  
 Hegberg, R.A.—1999  
 Heiman, J.L.—1990  
 Heinemeier, K.—2015  
 Hellman, A.A.—1986  
 Henck, C.E.—1997  
 Hens, H.S.L.C.—2007  
 Hensen, J.L.M.—2007  
 Herbert, M.B.—1999  
 Herrmann, D.C.—2021  
 Hickman, K.—2023  
 Hightower, G.B.—1977  
 Hill, J.E.—1992  
 Hiller, C.—2005  
 Hinge, A.W.—2017  
 Hirsch, S.R.—1951  
 Hittle, D.C.—1991  
 Hng, H.C.—1995  
 Hogeling, J.J.—2010  
 Holness, G.V.R.—1990  
 Holste, F.R.—1983  
 Hong, T.—2021  
 Hopper, R.E., Jr.—1993  
 Horstman, R.H.—2012  
 Horvay, J.B.—1977  
 Hosni, M.H.—2005  
 Hourahan, G.C.—2009  
 House, J.M.—2021  
 Houston, S.H.—1998  
 Howell, R.H.—1986  
 Hrnjak, P.S.—2005  
 Hu, S.C.—2022  
 Hu, Y.R.—2005  
 Huang, Y.J.—2022  
 Hubbard, B.—1988  
 Huergo, E.—2016  
 Hughes, D.—2008  
 Hunn, B.D.—1994  
 Hunt, E.—1994  
 Hunton, R.O.—1993  
 Hwang, H.—2018  
 Hydeman, M.—2006  
 Ibison, J.L.—1973  
 Int-Hout, D.—2007  
 Irwin, A.A.—2018  
 Jackins, G.A.—1993  
 Jacobi, A.M.—2009  
 Jain, P.C.—1995  
 Jang, J. Y.—2006  
 Jarik, G.J.—1977  
 Jarnagin, R.—2017  
 Jensen, R.E.—1993  
 Jensen, R.N.—1981  
 Jia, S.—2017  
 Jimenez-Segovia, M.—2015  
 Johnson, G.E.—1991  
 Johnson, R.M.—1996  
 Jones, B.W.—2000  
 Jones, J.W.—1989  
 Jones, R.R.—1977  
 Jordan, C.H.—1984  
 Jordan, R.C.—1959  
 Jorgensen, R.—1977  
 Judkoff, R.—2021  
 Kadaba, P.V.—1993



Kamm, J.—2018  
 Kampmeyer, J.E.—1997  
 Kanan, K. S.—2006  
 Katipamula, S.—2009  
 Kato, S.—2007  
 Kauffeld, M.—2023  
 Kavanaugh, S.—2003  
 Kazachki, G.—2003  
 Kazmi, S.S.R.—2023  
 Keeler, R.M.—2010  
 Keen, J.—2016  
 Keller, G.M.—1987  
 Kelley, W.—2000  
 Kelly, E.E.—1981  
 Kelly, G.E.—1991  
 Kelso, R.M.—1992  
 Kelter, S.L.—1995  
 Kennedy, E.C.—1985  
 Kennedy, J.M.—1979  
 Kenny, E.—1987  
 Kerschbaumer, H.G.—1989  
 Khalifa, H.E.—2009  
 Khalil, E.E.—2009  
 Khankari, K.—2015  
 Khattar, M.K.—2009  
 Kilgis, B.—2004  
 Kim, K.W.—2015  
 Kimball, W.R.—1994  
 Kimura, K.I.—1987  
 Kingsbury, H.F.—1982  
 Kirkwood, R.R.—1967  
 Kittler, R.—2001  
 Klassen, J.—1982  
 Klein, S.A.—1998  
 Klote, J.H.—1993  
 Knebel, D.E.—1995  
 Knight, M.D.—2013  
 Knutson, G.W.—2013  
 Koch, P.H.—1977  
 Kohlenberger, C.R.—1996  
 Kohler, J.A.—2017  
 Kohloss, F.H.—1973  
 Koptis, C.R.—1994  
 Korsgaard, V.—1987  
 Krafftfefer, B.—2004  
 Kramer, D.E.—1979  
 Krapek, A.—1975  
 Kreisman, H.—1975  
 Kroll, M.N.—1996  
 Kruse, H.H.—1997  
 Kuehn, T.—2004  
 Kuehner, R.L.—1971  
 Kulkarni, R.S.—2010  
 Kurtz, N.D.—1987  
 Kusuda, T.—1976  
 Kwok Ping-Ki, A.—1991  
 L'Anglais, F.—2001  
 Lagomarsino, W. Luis—2014  
 Laksanakorn, W.—2008  
 Landman, W.J.—1989  
 Landsberg, D.R.—2015  
 Lang, J.T.—1996  
 Langebartel, E. J.—2017  
 Lawrence, T.—2016  
 Lawrie, L.—2019  
 Lawson, C.N.—2009  
 Lebrun, J.—2001  
 Lee, C.H.—1985  
 Lee, E.C.—2004  
 Lee-Thorp, V.D.—1995  
 Lehr, V.A.—1988  
 Leitsch, S.L.—1998  
 Lemire, N.—2019  
 Lesser, N.I.—1990  
 Leung, L.C.H.—2022  
 Levin, Hal—2003  
 Lewis, O.K.—1984  
 Lewis, R.H.—1996  
 Li, Y.—2006  
 Lim, C.L.—2010  
 Lin, C.H.—2013  
 Lindvall, T.—1995  
 Linstromberg, W.J.—1980  
 Lipshultz, M.—1989  
 Listijono, J.B.—2009  
 Liu, B.—2019  
 Lizardos, E.J.—1989  
 Lloyd, A.S.—1995  
 Lodge, R.H.—2004  
 Loewer, H.E.—1990  
 Logsdon, R.F.—1970  
 Lord, R.—2013  
 Lorf, G.O.G.—1988  
 Lorsch, H.G.—1986  
 Lortie, R.P.—1993  
 Lotz, W.A.—1992  
 Lovvorn, N.C.—2005  
 Lsitburek, J.—2005  
 Lu, Q.—2017  
 Lum, F.Y.S.—1991  
 Lumlertpongpana, A.—2010  
 Mackie, E.I.—1990  
 MacPhee, C.W.—1979  
 Madison, R.D.—1960  
 Madsen, T.L.—1996  
 Maevski, I.—2022  
 Magande, H.—2022  
 Magyar, Z.—2016  
 Manglik, R.J.—2017  
 Manning, B.R.—1993  
 Mariani, A.L.C.—2019  
 Markel, L.C.—2002  
 Markel, M.L.—1991  
 Marks, P.C.—2015  
 Marschall, P.J.—1960  
 Masters, R.E.—1985  
 Mathis, R.C.—2021  
 Mathur, G.D.—2005  
 May, J.W.—1968  
 McCarry, B.T.—2002  
 McCloskey, W.D.—1997  
 McConahey, Erin—2014  
 McCoy, J.D.—2002  
 McDonald, T.W.—1996  
 McFall, J.D.—1992  
 McGinn, T.—2022  
 McGuire, A.B.—2000  
 McKew, H.J.—2007  
 McLinden, M.O.—2017  
 McMillan, H.D.—2010  
 McNall, P.E., Jr.—1975  
 McNamara, T.—2008  
 McQuade, W.F.—2012  
 McQuiston, F.C.—1986  
 Means, J.—2022  
 Meckler, M.—1986  
 Mehboob, F.—2010  
 Meitz, A.K.—1999  
 Melikov, Arsen—2003  
 Melton, B.J.—2012  
 Mendez, F.J.—1995  
 Mentzer, J.C.—2000  
 Meriwether, R.F.—1983  
 Mescher, Kirk—2014  
 Miclea, P.C.—2013  
 Miller, P.L.—1984  
 Miller, R.D.—1998  
 Millies, Jr., R.L.—2017  
 Mills, F.—2023  
 Missimer, D.J.—1972  
 Mitchell, J.W.—1994  
 Moakes, R.—1992  
 Modera, M.—2011  
 Modgil, G.C.—2019  
 Monier, K.A.J.—1995  
 Montgomery, R.—2012  
 Morabito, B.P.—1979  
 Morris, D.J.—1991  
 Morrison, W.B.—1980  
 Morse, F.B.—1984  
 Moseley, T.D.—1981  
 Moses, W.G.—1983  
 Mumma, S.A.—1992  
 Munger, G.R.—1979  
 Murakami, S.—2001  
 Murphy, J.A.—2015  
 Murphy, W.E.—2004  
 Murray, H.G.S.—1979  
 Murray, W.A.—1998  
 Murthy, S.—2019  
 Musser, A.—2022  
 Nack, D.H.—1980  
 Nall, Daniel H.—2014  
 Naman, I.A.—1977  
 Nellis, G.F.—2013  
 Nesher, A.G.—1999  
 Nettleship, L.C.—1987  
 Newman, H.M.—2000  
 Newman, J.L.—2021  
 Ng, E.H.—2001  
 Ngan, P.L.—2019  
 Nichols, D.E.—1975

- Nichols, L.—2005  
Nielsen, P.V.—2004  
Niess, R.C.—1992  
Nishi, Y.—1994  
Niu, J.—2013  
Norman, J.H.—2007  
Norris, R.W.—1979  
North, F.H.—1985  
Nottage, H.B.—1960  
Novak, P.—1999  
Novakovic, V.—2005  
Nutter, D.W.—2011  
Nye, G.—2008  
O'Dell, L.J.—1991  
O'Neal, D.L.—1999  
O'Neill, Z.—2022  
Ohadi, M.—2004  
Olesen, B.W.—2001  
Olivieri, J.B.—1975  
Olsen, E.J.—1999  
Olsen, J.C.—1982  
Olson, D.—2016  
Ooka, R.—2022  
Opatrny, C.J.—1993  
Ossi, Fareed—2000  
Ostrander, W.S.—1983  
Ow, C.S.—2002  
Owen, K.—2018  
Phetteplace, G.—2018  
Pahwa, D.—2005  
Palmizi, F.—1990  
Pande, M.M.—1997  
Panlener, R.J.—1954  
Papar, R.A.—2015  
Paranjpey, R.—2005  
Parker, A.J., Jr.—1987  
Patterson, N.R.—1984  
Pavlak, R.—2016  
Pearson, A.B.—2015  
Pearson, F.J.—1987  
Pearson, R.J.—1984  
Peasce, F.—2019  
Pedersen, C.O.—1987  
Penney, G.W.—1981  
Perea, C.W.K.—2019  
Perisic, Z.B.—1999  
Perkins, C.S.—1968  
Perlman, M.—1992  
Perry, R.P.—1979  
Persily, A.K.—2004  
Peterson, H.J.—1985  
Petersen, K.—2006  
Peterson, Ronal—2014  
Petras, Dusan—2014  
Pflug, I.J.—1975  
Phaklides, W.J.—1982  
Phatak, S.—2019  
Phillips, C.W.—1972  
Phillips, G.—2018  
Phillips, H.—1991  
Phoenix, T.H.—2011  
Piao, C.C.—2022  
Pietsch, J.A.—1977  
Platt, D.M.—2021  
Pouchak, M.—2018  
Powell, F.J.—1982  
Powell, J.V., Jr.—1985  
Procell, C.J.—1992  
Punsalan, L.—2006  
Punwani, D.—2018  
Queer, E.R.—1960  
Rademacher, K.—2006  
Rákóczy, T.—1997  
Ram, D.N.—2007  
Ranade, M.S.—2015  
Rands, G.F.—1988  
Rane, M.V.—2023  
Ratai, W.—1983  
Rawal, R.—2021  
Reddy, A.—2007  
Reedy, W.R.—2005  
Reig, J.A.—1996  
Reindl, D.—2008  
Reistad, G.M.—1992  
Rengholt, U.N.—1993  
Rhea, H.H.—1991  
Riback, L.—2022  
Rich, D.G.—1979  
Richard, O.E.—1980  
Richards, W.V.—1985  
Richardson, G.—2002  
Ridenour, S.M.—1992  
Rishel, J.B.—1991  
Rivers, R.D.—1993  
Roberts, J.F., Sr.—1983  
Robinson, K.E.—1972  
Rock, B.—2005  
Rodriquez, J.T.—1994  
Rogers, B.T.—1988  
Rohles, F.H., Jr.—1984  
Romine, T.B., Jr.—1977  
Rooley, R.H.—1986  
Roos, C.—2022  
Root, G.W., Sr.—1994  
Rose, W.B.—2012  
Rosen, S.—1991  
Rosenberg, M.—2016  
Ross, D.E.—1984  
Roubal, J.P.—1996  
Rountree, H.E.—1984  
Rumsey, P.—2008  
Ryan, W.—2022  
Salsburg, J.F.—1971  
Sami, S.M.—2001  
Sanchez, A.J.—1998  
Sandlewski, A.—2017  
Sandfort, J.F.—1971  
Sankaran, S.—2005  
Sanvordenker, K.S.—1982  
Sarda, D.R.—2017  
Sauer, H.J., Jr.—1980  
Schmidt, R.—2022  
Schmidt, W.A.—1982  
Schoen, L.—2005  
Schreiner, J.R.—1975  
Schuchart, O.W.—1994  
Schulze, J.L.—1999  
Schumacher, E.W.—1995  
Schuyler, G.—2005  
Schwedler, M.—2015  
Schwenker, E.H.—1998  
Scofield, C.M.—2002  
Scoggins, M.G.—2018  
Scott, N.R.—1997  
Scriven, J.A.—1989  
Seiler, E.N.—1990  
Sekhar, S.C.—2007  
Seppänen, O.A.—1996  
Sepsy, C.F.—1975  
Sestak, G.J.—2001  
Seth, A.—2023  
Setty, B.S.—2002  
Shadpour, F.—2005  
Shah, M.M.—2000  
Shanker, U.—2019  
Sharp, G.—2023  
Shavit, G.—1991  
Shedd, T.A.—2016  
Shefferman, S.M.—1994  
Sheikh, A.S.—2011  
Shelton, R.L.—2005  
Shelton, S.V.—1988  
Sherif, S.A.—2002  
Sherman, M.H.—1995  
Shitzer, A.—2005  
Shiver, W.D.—1987  
Siegel, J.A.—2017  
Siganto, J.J.W.—1984  
Simha, R.V.—1997  
Simoes Alexandre, C.C.—2022  
Simmonds, P.—2006  
Simonson, C. J.—2016  
Simpson, C.D.—2019  
Singh, H.—1994  
Singh, J.—2008  
Sirjod, A.B., Jr.—1996  
Sisti, M.F.—1988  
Slayton, C.—2008  
Smith, C.D.—2001  
Smith, G.W.—1997  
Smith, L.R.—1971  
Smith, T.—1986  
Somasundaram, S.—2006  
Sosoka, J.R.—1989  
Soumerai, H.P.—1969  
Sowell, E.F.—1990  
Spauschus, H.O.—1971  
Speich, C.F.—1993  
Spiegel, W.F.—1975  
Spielvogel, L.G.—2000  
Spitler, J.D.—2005  
Stamper, E.—1977  
Stanke, D.A.—2007

Stanzani, F.—1992	Toub, S.G.—2002	Webb, W.A.—2002
Starner, K.E.—1998	Towell, R.—2016	Weld, G.B.—1986
Stefanutti, L.F.—2017	Townsend, T.E.—1997	Wells, R.D.—1996
Stefanutti, U.—1992	Traboulsi, S.—2014	Wells, W.P.—1977
Steimle, F.W.—1990	Trafton, P.—2016	Welsh, J.W.—1990
Stern, R.M.—1983	Traugott, F.A.—1980	Wen, S.M.—1986
Stockwell, R.—2017	Tredinnick, S.—2021	Wentz, T.G.—2005
Stoecker, W.F.—1974	Tree, D.—2005	Wepfer, W.J.—1996
Stone, D.T.—1996	Tronville, P.—2019	Werden, R.G.—1965
Stotz, R.B.—1985	Tse, V.K.C.—1996	Wessel, D.J.—1998
Straub, H.E.—1972	Tsongas, G.—2023	Wheeler, A.E.—1975
Strong, R.H.—2002	Tully, R.E.—1980	White, T.J.—1981
Sud, I.—2005	Tumilty, J.E.—1983	Whitescarver, C.K., Jr.—1982
Suggs, R.M., III—1993	Turaga, M.—1992	Wicks, K.W.—1985
Sullivan, E.P.—1977	Underwood, T.D.—2007	Wildin, M.W.—1997
Sun, T.Y.—1984	Urban, R.A.—1980	Williams, G.J.—2017
Sun, W.—2017	Uselton, R.B.—2004	Williams, V.A.—1988
Sundaresan, G.—2000	Utesch, A.L.—1986	Willis, L.E.—1999
Surange, A.—2008	Vaidyanathan, N.—2012	Wingfield, G.—2006
Swenson, C.A.—1984	Vallort, J.K.—2013	Winston, Donald—2014
Swygert, H.B., Jr.—1985	Vallort, R.P.—1997	Wischmeyer, W.F.—1974
Synn, I.C-O.—1996	Varley, J.—2021	Wolfberg, H.A.—1984
Tabunschikov, Y.A.—2001	Vechaphutti, T.—2004	Wong, S.P.W.—1988
Talbot, M.—2019	Vener, A.S.—1990	Wong, Y.W.—2002
Tamblyn, R.T.—1975	Viessmann, H.—1989	Woodford, M.—2019
Tan, S.C.L.—2001	Vijayakumar, R.—2016	Woodroof, J.G.—1958
Tanabe, S.—2006	Vineyard, E.A.—2011	Woods, J.E.—1992
Taneja, O.—2015	Voelz, G.R.—1977	Woody, A.W.—2000
Tao, E.—1986	Vogel, C.T.—1990	Worek, W.M.—2011
Tao, W.K.—1977	Waeldner, W.J.—1993	Wright, J.R.—1998
Tapias, A.—1985	Walker, I.S.—2011	Yamamoto, G.S.—2000
Tauby, J.R.—2018	Walkinshaw, D.—2008	Yang, K.—2006
Taylor, R.E.—1993	Wallstrom, L.L.—1981	Yang, X.—2011
Taylor, S.—2004	Walters, F.—2022	Yoshino, H.—2006
Taylor, W.—1975	Walton, G.—2005	Young, E.H.—1984
Thirakomen, K.—2009	Wang, C.—2005	Yousoufian, H.H.—1997
Thomle, A.—2017	Wang, D.W.P.—2002	Yu, P.C.H.—2018
Thompson, C.A.—1989	Wang, F.—2016	Yuill, G.K.—1990
Thornton, R.C.—1991	Wang, X.—2019	Zanders, R.W.—1988
Tilney, R.B.—1975	Warwicker, B.—2011	Zha, S.—2019
Timmer, C.W.—1994	Waterfill, R.W.—1971	Zhai, Z.—2019
Todorovic, B.B.—1987	Watson, T.—2008	Zhang, J.—2011
Todorovic, M.—2009	Watt, J.R.—1992	Zhang, Y.—2008
Torcellini, P.—2019	Webb, R.L.—1998	Zhivov, A.—2019

### George B. Hightower Technical Achievement Award

Established in 2006, this award recognizes an individual for excellence in volunteer service in the area of TC/TG/TRG technical leadership and contribution.

2006	George C. Briley	2013	Lucas B. Hyman	2019	David Moss
2007-08	(No award given)	2014	Gursaran D. Mathur	2020	Devin Abellon
2009	Paul Miclea	2015	John J. Carter	2021	Carolyn “Gemma” Kerr
2010	Dharam V. Punwani	2016	Stephen W. Duda	2022	Elizabeth Thomlinson
2011	Gary Phetteplace	2017	Paul A. Lindahl, Jr.	2023	John Constantine
2012	Donald L. Beaty	2018	Arthur Hallstrom		

## Government Affairs Award

Established in 1988, this award recognizes an individual for outstanding effort and achievement in state, provincial, and local government activities in connection with technical issues important to the Society. Prior to January 2014, this award recognized the activities of an ASHRAE Chapter. In June 2015 the award name was changed to the Government Activities Award and in June 2018 it was changed to the Government Affairs Award.

1990	Orange Empire Chapter	2002	Northern Nevada Chapter	2015	Ross Montgomery & Robert Craddock
1991	St. Louis Chapter	2003	Puget Sound Chapter	2016	Arthur Hallstrom
1992	Orange Empire Chapter	2004	Central Indiana Chapter	2017	Sam C.M. Hui
1993	Arkansas Chapter	2005	Cleveland Chapter	2018	Roger Chang
1994	Rocky Mountain & Minnesota Chapters	2006	Detroit Chapter	2019	Meghan K. McNulty
1995	Pittsburgh Chapter	2007	Puerto Rico Chapter	2020	Elizabeth K. Tomlinson
1996	Spacecoast Chapter	2008	(No award given)	2021	Brendan Hall
1997	Rochester Chapter	2009	Puerto Rico Chapter	2022	Sonya M. Pouncy
1998-99	(No award given)	2010	Mississippi Chapter	2023	Eleazar Rivera-Mata
2000	Spacecoast Chapter	2011	Hong Kong Chapter		
2001	(No award given)	2012-14	(No award given)		

## Homer Addams Award

Established in 1956 to perpetuate the memory of Homer Addams, Charter Member and Past President of ASHVE, this award recognizes a graduate student who has been engaged in an ASHRAE research project.

1957	Paul M. Chung; University of Minnesota	1991	S. Imam Haider; Pennsylvania State University
1958	W.E. Springer; University of Illinois	1992	Ernesto Embriz-Santander; University of Florida
1959	John Y. Payton; University of California	1993	Zhenhai Li; University of Illinois
1960	Frank D. Farrington; University of Arizona	1994	Brian A. Fricke; University of Missouri
1961	Alan B. Wagner; Case Institute of Technology	1995	Marianna Luoma; University of Michigan
1962	Albert C. Kent; Kansas State University	1996	Donald J. Wolfe; University of Kansas
1963	John M. Craig; University of Florida	1997	Jeanne M. De Greef; Kansas State University
1964	Joseph R. Gartner; University of Wisconsin	1998	James E. Bryan; Texas A&M University
1965	Isaiah Kopelman; Michigan State University	1999	Jafar Darabi; University of Maryland
1966	Eugene R. Michaud; Purdue University	2000	William D. Gerstler; University of Minnesota
1967	Norman G. Ziesse; Carnegie Institute of Technology	2001	Jelena Srebric; MIT
1968	Jon M. Rueck; Kansas State University	2002	Marija Radosevic; Danish Technological Institute
1969	James E. Shahan; University of Illinois	2003	(No award given)
1970	Raymond E. Knotts; Ohio State University	2004	Shehab Ahmad; Texas A&M University
1971	Donald R. Witt; Pennsylvania State University	2005	Dongyi Xiao; Oklahoma State University
1972	Thomas E. Bursey; University of Saskatoon	2006	Pankaj Hande; University of Missouri-Rolla
1973	Edward C. Skuchas; Duke University	2007	(No award given)
1974	Fernando Duran; University of Pittsburgh	2008	Bereket Nigusse; Oklahoma State University
1975	Douglas C. Hamilton; Purdue University	2009	(No award given)
1976	Kevin F. O'Brien; Oklahoma State University	2010	Nathan Kotey; University of Waterloo
1977	Douglas R. Bryant; University of Manitoba	2011	Sebastian Herrman; University of Rostock
1978	Sriram Somasundaram; Case Western Reserve University	2012	Harrison M. Skye; University of Wisconsin-Madison
1979	Gary L. Reynolds; Iowa State University	2013	Ricardo J. Da Silva Lima; École Polytechnique Fédérale de Lausanne
1980	Joseph P. Olivieri; Lawrence Institute of Technology	2014	Ryan Tanner; University of Colorado – Boulder
1981	Charles F. Rhein; University of Missouri-Rolla	2015	Limin Zhou; University of Kentucky
1982	Shimao Ni; Concordia University	2016	(No award given)
1983	Mean Shang Chen; Kansas State University	2017	Parham Azimi; University of Illinois
1984	Michael S. Sherber; Georgia Institute of Technology	2018	Alireza Behfar; University of Nebraska-Lincoln
1985	Steven M. Harris; Oklahoma State University	2019	Omer Sarfraz; Oklahoma State University
1986	Polyvious Eleftheriou; Tenn. Technological University	2020	Gabrielle McMorrow; University of Wyoming
1987	James J. Baustian; Iowa State University	2021	Tabeel Jacob; Oregon State University
1988	John S. Schliesing; Texas A&M University	2022	Yunyang Ye; University of Colorado Boulder
1989	Marc E. Fountain; University of California-Berkeley	2023	Khaled I. Alghamdi; Oklahoma State University
1990	Ralph M. Diguilio; Georgia Institute of Technology		

## Honorary Member

Honorary Members are elected by the Board of Directors and are defined as notable persons of preeminent professional distinction.

1936	F.G. Keyes	1969	Allen V. Astin	2017	Stephen T. Ayers
1944	A.C. Fieldner	1972	Albert J. Nesbitt	2019	Bill Gates
1951	Crosby Field	1985	Andrew T. Boggs	2020	James Earl Carter, Jr
1956	Herbert C. Hoover	1995	Henry V. Heuser	2021	(No award given)
1956	Milton S. Eisenhower	2015	Stefano Marino	2022	William “Bill” Nye
1963	W.H. McAdams	2016	Peter A. Hancock	2023	(No award given)
1966	L.M.K. Boelter	2016	Terry M. Manon		

## John F. James International Award

Established in 1983, this award recognizes ASHRAE members who have done the most to enhance the international presence of the Society.

1983	P. Ole Fanger	1997-99	(No award given)	2012	Edward Ka Cheung Tsui
1984	(No award given)	2000	Sukhdev S. Mathaudhu	2013	Robert R. Aguilo
1985	Wilbert F. Stoecker	2001	Richard B. Hayter	2014	(No award given)
1986	Raymond Cohen	2002	(No award given)	2015	Kent Peterson
1987	Richard Rooley	2003	Ashok K. Virmani	2016	Florentino Roson Rodriguez
1988	Mario Costantino	2003	Samir R. Traboulsi	2017	Gerald C. Groff
1989	David Rickelton	2004	David Arnold	2018	Timothy C. Dwyer
1990	Alvaro Tapias	2005	Moustafa M. Elsayed	2019	Stephen C. Gill
1991	Murray G. Thurston	2006	Constantinos A. Balaras	2020	Farooq Mehboob
1992	Branislav B. Todorovic	2007	Ross D. Montgomery	2021	Peter Simmonds
1993	John F. James	2008	Walid Chakroun	2022	Karine Leblanc
1994	Victor W. Goldschmidt	2009	Prem C. Jain	2023	Mahroo Eftekhari
1995	Gunther M. Keller	2010	Leo P. Stambaugh		
1996	Horst H. Kruse	2011	Yua-Wei Wu		

## Lincoln Bouillon Membership Award

Established in 1967 to commemorate the late Presidential Member Lincoln Bouillon’s effort in recruiting new members, this award is presented to the individual who performs the most outstanding work in increasing Society membership during the course of the year.

1968	Wayne H. Allen	1986	Ross D. Montgomery	2005	Matthew J. Armey
1969	(No award given)	1987	William C. Bissmeyer II	2006	Holly Townes
1970	Thomas H. Toler	1988	Louis E. Soltys	2007	(No award given)
1971	Clint D. Miller	1989	John P. Gratiot	2008	Alan Neely
1972	Sam R. Fogleman	1990	Dean S. Borges	2009	Michelle Swanson
1973	John F. Collins	1991	Francis D. Frudd	2010	Rajnish Joshi
1974	John R. Pate	1992	James E. Harrison	2011	G. Ramesh Kumar
1975	Robert C. Mackay	1993	Robert B. Stotz	2012	David B. Farala
1976	Jay N. Nelson	1994	Edwin L. Dalpiaz	2013	George M. Waters, Sr
1977	Edward M. Naretto	1995	Lisa Ann Duritsch	2014	Ezekiel A. Bakare
1978	Oliver K. Lewis	1996	James M. Poole	2015	Gregory A. Schnable
1979	Lewis E. Seagraves	1997	Wayne M. Hydeman	2016	Jessica Mangler
1980	Gerald F. Morrow	1998	Dan P. Cason	2017	Jason Urso
1981	Frederick E. Stone	1999	Paul T. Novak	2018	Oscar Eduardo Ricaño
1982	G. Allan Gaboric	2000	Chad L. Edmondson	2019	Carlos Arguijo
1983	Lynn G. Bellenger	2001	David R. Dinse	2020	Ryan Pinckard
1984	Thomas A. Gorman III	2002	Raymond J. Forsthoefel	2021	Usman Abdulrahman
1985	Craig M. Goodenow	2003	Brian M. Tanner	2022	Josh Bourbonniere
1985	Kevin Y.F. Chong	2004	Madan M. Pande	2023	Dan Moresi

### **Lou Flagg Historical Award**

This award recognizes a Chapter Gold Ribbon Award winner for compiling information on outstanding historical projects or persons related to HVAC&R industry.

2002	John Gladstone	2009	Roderic S. Potter	2016	Faye C. McQuiston
2003	James M. Ritter	2010	J. Blaine Walker, Jr	2017	Charles Stoabs
2004	Morgan Jones	2011	Robert Bean, Bjarne Olesen, & Kwang Woo Kim	2018	Bruce Flaniken
2005	James M. Ritter	2012	Philip C.H. Yu	2019	Randy Schrecengost
2006	Michael Meteyer	2013	Alexander Weiss	2020	Bruce L Flaniken
2007	(No award given)	2014	Bruce L. Flaniken	2021-23	(No award given)
2008	Oswaldo Bueno	2015	(No award given)		

### **Louise and Bill Holladay Distinguished Fellow Award**

Established in 1979, this award honors a Fellow of the Society for continuing preeminence in engineering or research work.

1979	Carlyle M. Ashley	1994	Preston E. McNall	2009	Wilbert F. Stoecker
1980	John I. Yellott	1995	Milton W. Garland	2010	(No award given)
1981	A. Pharo Gagge	1996	Harold E. Straub	2011	Byron W. Jones
1982	P. Ole Fanger	1997	Joseph B. Olivieri	2012	Stanley A. Mumma
1983	Daniel D. Wile	1998	Frederick H. Kohloss	2013	(No award given)
1984	Frank H. Faust	1999	Harry J. Sauer, Jr.	2014	Kent W. Peterson
1985	Alwin B. Newton	2000	George B. Hightower	2015	Raymond Cohen
1986	John H. Fox	2001	(No award given)	2016	Steven T. Taylor
1987	Tamami Kusuda	2002	Arthur E. Bergles	2017	Zahid Ayub
1988	Donald G. Rich	2003	Olli A. Seppanen	2018	William Bahnfeth
1989	William J. Coad	2004	(No award given)	2019	Predrag S. Hrnjak
1990	Frederick H. Rohles, Jr.	2005	Prem C. Jain	2020	Charles C. Copeland
1991	Thomas B. Romine, Jr.	2006	Max H. Sherman	2021	Yuguo Li
1992	Ralph L. Goldman	2007	(No award given)	2022	David Claridge
1993	Donald R. Bahnfleth	2008	James E. Hill	2023	Kishor Khankari

### **Lower-GWP Refrigeration and Air-Conditioning Innovation Award**

Established in 2018, this award recognizes individuals who have developed or practiced innovative technological concepts applied in developing countries to minimize global warming potential (GWP) through refrigeration and air-conditioning management.

2019	Rajesh Kumar, Kean Wu, Samir Hamed Al Fetiany, Warot Lam, Rogerio Marson Rodrigues, Laura Beron
2020-22	(No award given)
2023	Project 1: Rodrigo Serpa, Fernando Del Castillo, Omarly Acevedo & Ana Correa Project 2: Enio Pedone Bandarra Filho, Eduardo Arjona Esteves, Lucas Cavalin, David Fernando Marcucci Pico, Davi Telles & Roberto Cavalin Project 3: Harshal Surange & Arvind Surange Project 4: Fernando Sayols Marchioro, Éder Paluch & Elielton Polityto

### **Milton W. Garland Commemorative Comfort – Process – Cold Chain Award for Project Excellence**

Established in 1990, this award recognizes a non-comfort cooling refrigeration application which highlights innovation and/or new technologies. In 2021, the Milton W. Garland Commemorative Refrigeration Award for Project Excellence was combined with the Refrigeration Comfort Cooling Award for Project Excellence and renamed.

1991	Arthur P. Garbarino, Gulfstream Chapter	2003	(No award given)
1992	Howard M. Webb, Hampton Roads Chapter	2004	William Weinaug & Wade Conlan, Central Florida Chapter
1993	Eric C. Davis, Northeast Chapter	2005-08	(No award given)
1994	Gary W. James, Central Oklahoma Chapter	2009	Cesar Luis dL. Lim, Philippines Chapter
1995	Jason Grabowski, Southwest Florida Chapter	2010	Tom Dosch
1996	Eric Prive, North Piedmont Chapter	2011	John Bittner, Atlanta Chapter
1997	James L. Carver, Hampton Roads Chapter	2012	(No award given)
1998	Teddy S. Hansen, Florida West Coast Chapter	2013	Cameron E. Lowry, British Columbia Chapter
1999	Teddy S. Hansen, Florida West Coast Chapter	2014-15	(No award given)

2000 Teddy S. Hansen, Florida West Coast Chapter  
 2001 Glenn Friedman, Golden Gate Chapter  
 2002 John Sanchez, Jr., Illinois Chapter

2016 Claude Dumas, Montreal Chapter  
 2017-23 (No award given)

### Paper Awards

This award (Best Paper, Symposium Paper, Technical/Symposium Paper, Transactions Paper, and Technical Paper) recognizes the best papers presented at a Society conference for the year.

#### 1973 Best Paper Award

- Best Applications Technical Paper: S. G. Talbert, L. J. Flanigan, & J. I. Eibling, *"An Experimental Study of Ventilation Requirements of Commercial Electric Kitchens"*
- Best Research Technical Paper: Donald G. Rich, *"The Effect of Fin Spacing on the Heat Transfer and Friction Performance of Multi-Row, Smooth-Plate, Fin-and Tube Heat Exchangers"*
- Best State-of-the-Art Paper: C. A. Pennington, C. A. Morrison, & R. Pena, Jr., *"Effect of Inner Surface Air Velocity and Temperatures Upon Heat Loss and Gain Through Insulating Glass"*
- Best Symposium Paper: P. R. DeCicco & R. J. Cresci, *"Smoke and Fire Control in High-Rise Office Buildings"*

#### 1974 Best Paper Award

- Best Applications Technical Paper: Dean E. McFeron, Donald F. Owens, & John Ramsay, *"Cooling Load Increases for Windows Adjacent to Large Water Surfaces"*
- Best Research Technical Paper: Ronald L. Dougherty & Harry J. Sauer, Jr., *"Nucleate Pool Boiling of Refrigerant-Oil Mixtures from Tubes"*
- Best State-of-the-Art Paper: Gerald S. Leighton, James L. Oplinger, Anthony J. Pennington, & Lawrence G. Spielvogel, *"Economic Guidelines for Total Energy Systems"*
- Best Symposium Paper: James F. Hamilton & Malcolm J. Crocker, *"Noise Reduction by Vibration Isolation"*

#### 1975 Best Paper Award

- Best Applications Technical Paper: J. E. Hill & T. Kusuda, *"Dynamic Characteristics of Air Infiltration"*
- Best Research Technical Paper: Hoy R. Bohanon, *"Fan-Test Chamber Nozzle Coefficients"*
- Best State-of-the-Art Paper: V. S. Manian & A. Juchymenko, *"Energy Usage and Relative Utilization Efficiencies of Oil, Gas & Electric Heated Single Family Homes"*
- Best Symposium Paper: Bayliss J. Erdelyi, *"Test Results of a Ducted Stairwell Pressurization System in a High-Rise Building"*

#### 1976 Best Paper Award

- Best Technical Papers:
  - Professor Clayton A. Morrison, James M. Wheeler, Jr., & Dr. Erich A. Farber, *"An Experimental Determination of Shading Coefficients for Selected Insulating Reflective Glasses and Draperies"*
  - Theodore H. Benzinger, B. W. Mangum, & Dr. James E. Hill, *"The Design, Construction and Operation of a Scanning Radiometer for Measurement of Plane Radiant Temperature in Buildings"*
- Best Symposium Papers:
  - Robert A. Macriss, *"Selecting Refrigerant-Absorbent Fluid Systems for Solar Energy Utilization"*
  - Carl D. Baird & Jerome J. Gaffney, *"A Numerical Procedure for Calculating Heat Transfer in Bulk Loads of Fruits or Vegetables"*

#### 1977 Best Paper Award

- Best Technical Papers:
  - Professor William Rudoy & L. M. Robins, *"Comparison of Cooling Load Calculations"*
  - Professor William Rudoy & L. M. Robins, *"Pull-down, Load Calculations and Thermal Storage During Temperature Drifts"*
  - Professor Wilbert F. Stoecker, *"Methodology of Simulating the Performance of a Central Chilled-Water System"*
- Best Symposium Papers:
  - Bela G. Liptak, *"Reducing the Operating Costs of Buildings by Use of Computers"*
  - Durvasula V. Sriramamurty, *"Application and Control of Commercial and Industrial Humidifiers"*

#### 1978 Best Paper Award

- Best Technical Papers:
  - George T. Tamura & Chia-Yu Shaw, *"Experimental Studies of Mechanical Venting for Smoke Control in Tall Office Buildings"*
  - Istvan L. Ver, *"A Review of the Attenuation of Sound in Straight Lined and Unlined Ductwork of Rectangular Cross Section"*
  - Professor Faye C. McQuiston, *"Correlation of Heat, Mass and Momentum Transport Coefficients for Plate-Fin-Tube Heat Transfer Surfaces with Staggered Tubes"*

- Best Symposium Paper: Alwin B. Newton, *"Using Controls to Reduce Component Size and Energy Needs for Solar HVAC"*

#### 1979 Best Paper Award

- David J. Wilson, *"Flow Patterns Over Flat-Roofed Buildings and Application to Exhaust Stack Design"*
- Terrell D. Moseley, *"Cost and Performance of Five Solar Heating Systems Utilizing Wet Heat Pumps"*
- George T. Tamura, *"The Calculation of House Infiltration Rates"*
- David T. Harje, Gautam S. Dutt, & Jan E. Beyea, *"Locating and Eliminating Obscure but Major Losses in Residential Housing"*

#### 1980 Best Paper Award

- Paul Mehta & James E. Woods, *"An Experimental Validation of a Radiant Model for Dynamic Responses of Buildings"*
- Donald J. Mosshart, Jr., *"A Contractor's View of HVAC Noise and Vibration Problems"*
- Lewis S. Goodfriend *"Indoor Sound Rating Criteria"*
- Edward F. Sowell & George N. Walton, *"Efficient Computation of Zone Loads"*

#### 1981 Best Paper Award

- Best Technical Paper: Warren E. Blazier, Jr., *"Noise Rating of Variable Air-Volume Terminal Devices"*
- Best Symposium Papers:
  - Deanna M. Munson, *"The Effectiveness of Selecting Clothing for Comfort in the 18.3°C (65°F) Environment"*
  - Francesco Pompei, *"Air in Hydronic Systems: How Henry's Law Tells Us What Happens"*

#### 1982 Best Paper Award

- Best Symposium Papers:
  - David W. Low & Edward F. Sowell, *"A Plan for Establishing Algorithms as ASHRAE Literature"*
  - Craig D. Hollowell, Robert A. Young, James V. Berk, & Stephen R. Brown, *"Energy Conserving Retrofits and Indoor Air Quality in Residential Housing"*
  - John E. Janssen, *"Application of Building Thermal Resistance Measurement Techniques"*

#### 1983 Best Paper Awards

- Best Symposium Papers:
  - Martin W. Liddament, *"The Air Infiltration Center's Program of Model Validation"*
  - George T. Tamura, *"Review of the DBR/NRC Studies on Control of Smoke from a Fire in High Buildings"*
- Best Technical Paper: Richard B. Stewart, Richard T. Jacobsen, & John H. Becker, *"Formulations for Thermodynamic Properties of Moist Air at Low Pressures as Used for Construction of New ASHRAE SI Unit Psychrometric Charts"*

#### 1984 Best Paper Award

- Best Symposium Papers:
  - R. E. Hough, A.L. Schuyler, & C. L. Reed, *"Field Monitoring Results for Natural-Draft and Induced-Draft Gas-Fired Residential Furnaces"*
  - L. J. O'Dell & S. V. Sheppard, *"System Design Guide for Air Pollution Control Equipment"*
  - Branislav B. Todorovic & D. Curcija, *"Calculative Procedure for Estimating Cooling Loads Influenced by Window Shading, Using Negative Cooling Load Method"*

#### 1985 Best Paper Award

- Best Symposium Paper: M. Ikeuchi, E. Ozaki, G. Yamanaka, & T. Yumikura, *"Design and Performance of a High Temperature-Boost Absorption Heat Pump"*
- Best Technical Papers:
  - Daniel L. Ewert, *"The Development, Design and Performance Testing of a Single-Unit Dual-Source (SUDS) Heat Pump Evaporator"*
  - Frederick H. Rohles, Jr., Joseph E. Laviana, Richard A. Wruck, & Wei Runbai, *"The Human Response to Temperature Drifts in a Simulated Office Environment"*

#### 1986 Best Paper Award

- Best Technical Papers:
  - Ronald H. Howell, Harry J. Sauer, Jr., & Ralph D. Lahmon, *"Influence of Upstream Disturbances on Correlation Coefficient for Vane Anemometers at Coil Faces"*
  - Nicholas Galanis & Richard Chatigny, *"A Critical Review of the ASHRAE Solar Radiation Model"*
- Best Symposium Papers:
  - Reino T. Huovilainen, *"Study of the Application of Fluidized Bed Combustion"*
  - Will K. Brown, Jr. & Charles A. Lynn, *"Fundamental Clean Room Concepts"*



#### 1988 Best Paper Award

- Best Symposium Papers:
  - James E. Braun, John W. Mitchell, Sanford A. Klein, & William A. Beckman, “*Models for Variable-Speed Centrifugal Chillers*”
  - Ronald M. Heck, Michael Durilla, Alan G. Bouney, & James M. Chen, “Commercial Regeneration Experience for Catalysts in Air Pollution Control Applications”
  - Carl B. Fliermans & John A. Nygren, “Maintaining Industrial Cooling Systems Free of Legionella Pneumophila”
  - John P. Kettler, “Efficient Design and Control of Dual-Duct Variable-Volume Systems”

#### 1989 Best Paper Award

- Edward A. Vineyard, James R. Sand, & Terry G. Statt, “*Selection for Ozone-Safe Nonazeotropic Refrigerant Mixtures for Capacity Modulation in Residential Heat Pumps*”
- Frederick J. Pearson, “*Ice Storage can Reduce the Construction Cost of Office Buildings*”
- George T. Tamura, “*Stair Pressurization Systems for Smoke Control: Design Considerations*”

#### 1990 Best Paper Award

- John H. Klote, “*Fire Experiments of Zoned Smoke Control at the Plaza Hotel in Washington, DC*”
- Dr. Edward A. Kush, “*Detailed Field Study of a Water-Loop Heat Pump System*”
- James R. Sand, Edward A. Vineyard, & Richard J. Nowak, “*Experimental Performance of Ozone-Safe Alternative Refrigerants*”
- Margaret Law, “*Fire and Smoke Models - Their Use in the Design of Some Large Buildings*”

#### 1991 Best Paper Award

- Charles J. Weschler & Helen C. Shields, “*The Impact of Ventilation and Indoor Air Quality in Electronic Equipment*”
- Robert G. Harold, “*Sound and Vibration Considerations in Rooftop Installations*”
- Mark S. Lentz, “*Adiabatic Saturation and VAV: A Prescription for Economy and Close Environmental Control*”
- John H. Klote & George T. Tamura, “*Design of Elevator Smoke Control Systems for Fire Evacuation*”

#### 1992 Best Paper Award

- Dr. Abdelhakim Elmahdy, “*Heat Transmission and R-Value of Fenestration Systems Using IRC Hot Box: Procedure and Uncertainty Analysis*”
- Fred S. Bauman & Lucy P. Johnston, “*Air Movement, Ventilation and Comfort in a Partitioned Office Space*”
- Dr. Edwin I. Griggs & F. Khodabakhsh-Sharifabad, “*Flow Characteristics in Rectangular Ducts*”
- Nancy B. M. Stefanuk, Professor J. Dwight Aplevich, & Associate Professor Metin Renksizbulut, “*Modeling and Simulation of a Superheat-Controlled Water-to-Water Heat Pump*”

#### 1993 Best Paper Award

- Best Symposium Papers:
  - Eric C. Rogers & Barbara A. Stefl, “*Ethylene Glycol: Its Use in Thermal Storage and Its Impact on the Environment*”
  - James R. Sand, Edward A. Vineyard, & Van D. Baxter, “*Laboratory Evaluation of an Ozone-Safe Nonazeotropic Refrigerant Mixture in a Lorenz-Meutzner Refrigerator Freezer Design*”
  - Fred S. Bauman, Dr. Edward A. Arens, Charles C. Benton, & Zhang Hui, “*Localized Comfort Control with a Desktop Task Conditioning System: Laboratory and Field Measurements*”
  - John H. Klote, “*Design of Smoke Control Systems for Areas of Refuge*”

#### 1994 Best Paper Award

- Best Symposium Papers:
  - Dr. Arsen K. Melikov, Razmik S. Arakelian, Laila Halkjaer, & Dr. P. Ole Fanger, “*Spot Cooling - Part 2: Recommendations for Design of Spot-Cooling Systems*”
  - Fredric S. Goldner, “DHW System Sizing Criteria for Multifamily Buildings”
- Best Technical Papers:
  - John E. Lovatt & A. Grant Wilson, “*Stack Effect in Tall Buildings*”
  - Kazuo Watanabe, “*Field Tests for Minimizing Legionella in Cooling Water in Japan*”

#### 1995 Best Paper Award

- Best Symposium Papers:
  - Blair T. McCarry, “*Underfloor Air Distribution Systems: Benefits and When to Use the System in Building Design*”
  - John P. Kettler, “*Minimum Ventilation Control for VAV Systems: Fan Tracking vs. Workable Solutions*”
- Best Technical Papers:
  - David S. Ensor, James T. Hanley, & Daryl D. Smith, “*A Fractional Aerosol Filtration Efficiency Test Method for Ventilation Air Cleaners*”

- William K. Snelson, Jeffrey W. Linton, Andrew R. Triebe, & Patrick F. Hearty, “*System Drop-In Tests of Refrigerant Blend R-125/R-143a/R-134a (44%/52%/4%) Compared to R-502*”

#### 1996 Best Paper Award

- Best Symposium Papers:
  - Pedro F. de Abreu, Roydon A. Fraser, Harry F. Sullivan, & John L. Wright, “*A Study of Insulated Glazing Unit Surface Temperature Profiles Using Two-Dimensional Computer Simulation*”
  - Shane A. Moeykens & Dr. Michael B. Pate, “*Effect of Lubricant on Spray Evaporation Heat Transfer Performance of R-134a and R-22 in Tube Bundles (RP-668)*”
  - Anne V. Baughman & Dr. Edward A. Arens, “*Indoor Humidity and Human Health - Part I: Literature Review of Health Effects of Humidity-Influenced Indoor Pollutants*”
  - Robert R. Bittle & Dr. Michael B. Pate, “*A Theoretical Model for Predicting Adiabatic Capillary Tube Performance with Alternative Refrigerants*”

#### 1997 Best Paper Award

- Best Symposium Papers:
  - Steve P. Rottmayer, Dr. William Beckman, & Dr. John W. Mitchell, “*Simulation of a Single Vertical U-Tube Ground Heat Exchanger in an Infinite Medium*”
  - Dr. Gary D. Lougheed & Dr. George V. Hadjisophocleous, “*Investigation of Atrium Smoke Exhaust Effectiveness*”
- Best Technical Papers:
  - Dr. Ming-C. Chyu, Dr. Xin Zeng, & Liang Ye, “*The Effect of Moisture Content on the Performance of Polyurethane Insulation Used on a District Heating and Cooling Pipe*”
  - Dr. Francis A. L. Dullien, Will Kwan, Ann Collins, & Gerard W. Regier, “*Removal of Suspended Fine Particles from Gases by Turbulent Deposition*”

#### 1998 Symposium Paper Award

- Dr. Mohammad H. Hosni, Dr. Byron W. Jones, Jerry M. Sipes, & Yue Xu, “*Total Heat Gain and the Split Between Radiant and Convective Heat Gain from Office and Laboratory Equipment in Buildings*”
- Danny S. Parker, John R. Sherwin, Yu Joe Huang, Steven J. Konoacki, Lisa M. Gartland, & Lixing Gu, “*Measured and Simulated Performance of Reflective Roofing Systems in Residential Buildings*”
- Drury B. Crawley, “*Which Weather Data Should You Use for Energy Simulations of Commercial Buildings?*”
- Richard J. de Dear, “*A Global Database of Thermal Comfort Field Experiments*”

#### 1999 Technical/Symposium Paper Award

- Dr. Krzysztof Cena & Dr. Richard de Dear, “*Field Study of Occupant Comfort and Office Thermal Environments in a Hot, Arid Climate*”
- Dr. Melvin W. First, Dr. Edward A. Nardell, William Chaisson, & Dr. Richard Riley, “*Guidelines for the Application of Upper-Room Ultraviolet Germicidal Irradiation for Preventing Transmission of Airborne Contagion - Part II: Design and Operation Guidance*”
- Dr. Xiaoxiong Yuan, Dr. Leon R. Glicksman, & Dr. Qingyuan Chen, “*Performance Evaluation and Design Guidelines for Displacement Ventilation*”
- Dr. Carey J. Simonson, Dustin L. Ciepliski, & Robert W. Besant, “*Determining the Performance of Energy Wheels: Part I - Experimental and Numerical Methods*”

#### 2000 Technical/Symposium Paper Award

- Jeanne M. Palmer & Kirby S. Chapman, “*Direct Calculation of Mean Radiant Temperature Using Radiant Intensities*”
- Gerald Riskowski & Farhad Memarzadeh, “*Investigation of Static Microisolators in Wind Tunnel Tests and Validation of CFD Cage Model*”
- Gerald Riskowski, Farhad Memarzadeh, & Andrew P. Manning, “*Analysis of Air Supply Type and Exhaust Location in Laboratory Animal Research Facilities Using CFD*”
- Alexandra Dragan, “*Comparative Analysis of HVAC Systems That Minimize the Risk of Airborne Infectious Disease Transmission*”

#### 2001 Technical/Symposium Paper Award

- H. Fred Nelson, Harry J. Sauer, & Xianghong Huang, “*High Temperature Properties of Moist Air*”
- Robert R. Zarr, “*A History of Testing Heat Insulators at the National Institute of Standards and Technology*”
- Dr. David A. Didion, “*The History of NIST’s Refrigerants Program: Part I - Zeotropic Mixture Cycles and Heat Transfer*”
- Xinlei Wang, Steve E. Ford, L. L. Christianson, Gerald Riskowski, & Yuanhui Zhang, “*Particle Separation Efficiency of a Uniflow Deduster with Different Types of Dust*”

#### 2002 Technical/Symposium Paper Award

- Steven T. Taylor, “*Degrading Chilled Water Plant Delta-T: Causes and Mitigation*”

- Simon J. Rees & Jeffrey D. Spitler, *"An Analytical Verification Test Suite for Building Fabric Models in Whole Building Energy Simulation Programs"*
- Sanford A. Klein, Douglas T. Reindl, & David Yu, *"Investigation of Solid Absorbents for Humidity Control in Display Cases"*

#### 2003 Technical/Symposium Paper Award

- William J. Rahmeyer, *"Pressure Loss Data for PVC Pipe Elbows, Reducers, and Expansions"*
- Guan (Don) Yanzheng, Mohammad H. Hosni, Byron W. Jones, & Thomas Gielda, *"Literature Review of the Advances in Thermal Comfort Modeling"*
- Ali A. Jalazadeh-Azar, *"A Parametric Analysis of a Grid-Independent BCHP System-Focusing on Impact of Technological Advancements"*
- Edward A. Vineyard, Randall L. Linkous, & Evelyn Baskin, *"Measured Performance of Conventional and High-Velocity Distribution Systems in Attic and Space Locations"*

#### 2004 Technical/Symposium Paper Award

- Yaw Asiedu, Ph.D., Robert W. Besant, P.Eng., & Carey J. Simonson, Ph.D., P.Eng., *"Wheel Selection for Heat and Energy Recovery in Simple HVAC Ventilation Design Problems"*
- Roger R. Schmidt, Ph.D., Christian Belady, Alan Classen, Tom Davidson, Magnus Herrlin, Shlomo Novotny, & Rebecca Perry, *"Evolution of Data Center Environmental Guidelines"*
- Arno Laesecke, Dr.-Ing., *"Viscosity Measurements and Model Comparisons for the Refrigerant Blends R-410A and R-507A"*
- Karl Peterman, P.E. & Emanuel Mouratidis, P.Eng., *"Pressure Drop and Acoustical Application Guidelines for HVAC Plenums"*

#### 2005 Technical/Symposium Paper Award

- Charles S. Barnaby, Jeffrey D. Spitler, Ph.D., P.E., & Dongyi Xiao, *"The Residential Heat Balance Method for Heating and Cooling Load Calculations"*
- Didier J. Thevenard, Ph.D., P. Eng., & Robert G. Humphries, Ph.D., *"The Calculation of Climatic Design Conditions in the 2005 ASHRAE Handbook – Fundamentals"*
- Charles S. Barnaby & Jeffrey D. Spitler, Ph.D., P.E., *"Development of the Residential Load Factor Method for Heating and Cooling Load Calculations"*
- David A. Springer, Leo I. Rainer, & Willard L. Dakin, P.E., *"Development and Testing of an Integrated Residential Night Ventilation Cooling System"*

#### 2006 Technical/Symposium Paper Award

- Donald Fisher, P.Eng., Richard Swierczyna, & Paul Sobiski, *"Effects of Appliance Diversity and Position on Commercial Kitchen Hood Performance"*
- Paul Sobiski, Richard Swierczyna, & Donald Fisher, P.Eng., *"Effects of Range Top Diversity, Range Accessories, and Hood Dimensions on Commercial Kitchen Hood Performance"*
- Oyeto O. Abe, Carey J. Simonson, Ph.D., P.Eng., Robert W. Besant, P.Eng., & Wei Shang, Ph.D., *"Relationship Between Energy Wheel Speed and Effectiveness and its Transient Response, Part I: Mathematical Development of the Characteristic Time Constants and Their Relationship with Effectiveness"*
- Gregory T. Linteris, Ph.D., *"Burning Velocity of 1, 1-Difluoroethane (R-152a)"*

#### 2007 Transactions Paper Award

- James E. Braun, Ph.D., P.E., *"Impact of Control on Operating Costs for Cool Storage Systems with Dynamic Electric Rates"*
- Joseph Firrantello, William P. Bahnfleth, Ph.D., P.E., Amy Musser, Ph.D., P.E., James D. Freihaut, Ph.D., & Joe-Weon Jeong, Ph.D., *"Use of Factorial Sensitivity Analysis in Multizone Airflow Model Turning"*
- Vladimir Vukovic & Jelena Srebric, Ph.D., *"Applications of Neutral Networks Trained with Multi-Zone Models for Fast Detection of Contaminant Source Position in Buildings"*
- William Tschudi, P.E. & Stephen Fok, *"Best Practices for Energy Efficient Data Centers Identified Through Case Studies and Demonstration Projects"*

#### 2008 Transactions Paper Award

- John L. Wright, *"Calculating Center-Glass Performance Indices of Glazing Systems with Shading Devices"*
- Iain S. Walker, Ph.D. & Darryl J. Dickerhoff, *"Field and Laboratory Evaluation of a New Ramping Technique for Duct Leakage Testing"*
- Saeed Fathali Ph.D., P.E., & Andre Filiatrault, Ph.D., *"Experimental Seismic Performance Evaluation of Integrated Isolation/Restraint Systems for Heavy HVAC Equipment"*
- Kevin Rafferty, P.E., *"Design Issues in Commercial Open-Loop Heat Pump Systems"*

#### 2009 Transactions Paper Award

- James A. Mathias, Ph.D., P.E. & Duane Mathias, *"Energy Efficient, Cost Effective, Passive Solar House"*

- Emilio C. Piesciorovsky & Warren M. White, Ph.D., *"Building Heat Load Contributions from Medium and Low Voltage Switchgear, Part 2: Component and Overall Switchgear Heat Gains"*
- Thomas Kuehn, Ph.D., P.E., Bernard A. Olson, Ph.D., James W. Ramsey, Ph.D., & Joshua M. Rocklage, *"Grease Particle Emission Characterization from Seven Commercial Kitchen Cooking Appliances and Representative Food Products"*
- Timothy C. Wagner, Ph.D., Neil P. Leslie, P.E., Richard S. Sweetser, & Therese K. Stovall, P.E., *"Combined Heating and Power Using Microturbines in a Major Urban Hotel"*

#### 2010 Transactions Paper Award

- Jeffrey D. Spitler, Ph.D., P.E. & Bereket A. Nigusse, Ph.D., *"Refinements and Improvements to the Radiant Time Series Method"*
- Michael S. Waring, Ph.D. & Jeffrey A. Siegel, Ph.D., *"The Influence of HVAC Systems on Indoor Secondary Organic Aerosol Formation"*
- Keisuke Sekiguchi, Shisei Waragai, Tsuneo Uekusa, & Kenji Yamasaki, *"Development of a High-Efficiency Air Cooled Packaged Air Conditioner for Data Centers"*

#### 2010 Technical Paper Award

- Christian A. Gueymard, Ph.D. & Didier Thevenard, Ph.D., P.Eng., *"Updating the ASHRAE Climatic Data for Design and Standards"*

#### 2011 Technical Paper Award

- Jacob L. Edmondson, Dennis L. O'Neal, Ph.D., P.E., John A. Bryant, Ph.D., P.E., & Michael A. Davis, Ph.D., *"Performance of Series Fan-Powered Terminal Units with Electronically Commutated Motors"*
- Jacob L. Edmondson, Dennis L. O'Neal, Ph.D., P.E., John A. Bryant, Ph.D., P.E., & Michael A. Davis, Ph.D., *"Performance of Parallel Fan-Powered Terminal Units with Electronically Commutated Motors"*
- Kris Subbarao, Ph.D., Yafeng Lei, Ph.D., & T. Agami Reddy, Ph.D., P.E., *"The Nearest Neighborhood Method to Improve Uncertainty Estimates in Statistical Building Energy Models"*
- William M. Healy, Ph.D., Tania Ullah, & John Roller, *"Input-Output Approach to Predicting the Energy Efficiency of Residential Water Heaters-Testing of Gas Tankless and Electric Storage Water Heaters"*

#### 2012 Technical Paper Award

- John A. Bryant, Ph.D., P.E., Michael A. Davis, Ph.D., & Dennis L. O'Neal, Ph.D., P.E., *"Modeling the Performance of ECM and SCR Parallel Fan-Powered Terminal Units in Single-Duct VAV Systems"*
- John A. Bryant, Ph.D., P.E., Michael A. Davis, Ph.D., & Dennis L. O'Neal, Ph.D., P.E., *"Modeling the Performance of ECM and SCR Series Fan-Powered Terminal Units in Single-Duct VAV Systems"*
- Ananth N. Nalla & Stephen A. Idem, Ph.D., *"Laboratory Testing of Saddle-Top Tees to Determine Loss Coefficients"*
- Farhad Memarzadeh, Ph.D., P.E., *"Literature Review of the Effect of Temperature and Humidity Viruses"*

#### 2013 Technical Paper Award

- Parham Eslami-nejad, Ph.D., & Michel Bernier, Ph.D., P.E., *"A Preliminary Assessment on the Use of Phase Change Materials around Geothermal Boreholes"*
- Warren Long & Darin W. Nutter, Ph.D., P.E., *"Distribution Map of Multi-Walled Carbon Nanotubes in a Refrigerant and Oil Mixture within a 2.5 ton (8.8 Kw) Unitary Air-Conditioner"*
- Iain S. Walker, Ph.D., David Faulkner, Darryl Dickerhoff, & Will Turner, Ph.D., *"Energy Implications of In-Line Filtration in California Homes"*
- L. Zhou, D.W. Herrin, P.E., Ph.D., & T. Li, Ph.D., *"Measurement and Simulation of Acoustic Load Impedance for Boilers"*

#### 2014 Technical Paper Award

- Limin Zho, David W. Herrin, PE, Ph.D., & Tianxiang Li, Ph.D., *"A Design Approach for Preventing and Solving Combustion Oscillation Problems"*
- Tami M. Brown-Brandl, Morgan D. Hayes, Hongwei Xin, John A. Nienaber, Hong Li, Roger A. Eigenberg, John P. Smith, & Timothy Shepherd, *"Heat and Moisture Production of Modern Swine"*
- Scott Bucking, Andreas Athienitis, PE, Ph.D., & Radu Zmeureanu, PE, Ph.D., *"Multi-Objective Optimal Design of a Near Net Zero Energy Solar House"*
- Yang Zou, Hanfei Tuo, & Pega S. Hrnjak, Ph.D., *"R410A Maldistribution Impact on the Performance of Microchannel Evaporator"*

#### 2015 Technical Paper Award

- James VanGilder, Zachary M. Pardey, Dustin W. Demetriou, Ph.D., H. Ezzat Khalifa, Ph.D., Hamza Salih Erden, Ph.D., & Roger R. Schmidt, Ph.D., P.E., *"Proposal for Standard Compact Server Model for Transient Data Center Simulations"*
- David Pommerenke, Ph.D., Xu Gao; Atieh Talebzadeh, David E. Swenson, Mahdi Moradian, Ph.D., & Yunan Han, Ph.D., *"Dependence of ESD Charge Voltage on Humidity in Data Centers: Estimation of ESD Related Risk in Data Centers Using Voltage Level Extrapolation and Chebyshev's Inequality"*
- Michael Case, Ph.D., Justine Yu, Richard Liesen, Ph.D., Alexander Zhivov, Ph.D., & Matthew Swanson, Ph.D., *"Integration of Master Planning and Energy Planning: From Detailed to Conceptual Analysis"*

- Dennis O’Neal, Ph.D., P.E., Douglas D. Ingram, & Carl L. Reid, “*Modeling Fan-Powered Terminal Unit Fan/Motor Combinations Controlled by Silicon-Controlled Rectifiers*”

#### 2016 Technical Paper Award

- Dennis L. O’Neal, Ph.D., P.E., Carl L. Reid, & Peng Yin, “*Characterizing the Performance of Fixed-Airflow Series Fan-Powered Terminal Units Using a Mass and Energy Balance Approach*”
- James A. Milke, Ph.D., P.E., Christine Pongratz, & Arnaud Trouve, Ph.D., “*A CFD Study to Identify Methods to Increase Maximum Velocity of Makeup Air for Atrium Smoke Control*”
- Nicholas T. Gayeski, Stephen Samouhos, Ph.D., Sian Kleindienst, Ph.D., Ryan Cruz, Jaime Gagne, Ph.D., & Bradley Werntz, “*Data and Interfaces for Advanced Building Operations and Maintenance*”
- Kathleen Sturtevant, Alexandra Brogan, Zachary Valigosky, Vijay Gopalakrishnan, & Kelly Kissock, Ph.D., P.E., “*Improving Variable-Speed Pumping Control to Maximize Savings*”

#### 2017 Technical Paper Award

- Omar Abdelaziz, Ph.D. & Som S. Shrestha, Ph.D., “*Evaluation of Alternative Refrigerants for Mini-Split Air Conditioners*”
- Mohammad Rafati Nasr, Ph.D., & Carey Simonson, Ph.D., P.Eng., “*Experimental Measurement of Frosting Limits in Cross-Flow Air-to-Air Energy Exchangers*”
- Alejandro Rivas Prieto, Li Song, Ph.D., P.E., Wesley M. Thomas, & Gang Wang, Ph.D., P.E., “*In-Situ Fan Curve Calibration for Virtual Airflow Sensor Implementation in VAV Systems*”
- Bryan P. Rasmussen, Ph.D., P.E., Chao Wang, & Kyaw Wynn, “*Experimental Comparison of Energy-Optimal Coordinated Control Strategies for Heat Pump Systems*”

#### 2018 Technical Paper Award

- Peng Yin, Ph.D. & Carl Reid, Dennis L. O’Neal, Ph.D., P.E., “*Modeling Variable-Airflow Series Fan-Powered Terminal Units with a Mass and Energy Balance Approach*”
- Peng Yin, Ph.D., Dennis L. O’Neal, Ph.D., P.E., & Di Lu, “*Annual Energy Performance Evaluation of Series and Parallel Fixed-Airflow Fan-Powered Terminal Units*”
- Peng Yin, Ph.D. & Dennis L. O’Neal, Ph.D., P.E., “*Modeling Variable-Airflow Parallel Fan-Powered Terminal Units with a Mass and Energy Balance Approach*”
- Shima Shahahmadi, & Li Song, Ph.D., P.E., “*Valve Flowmeter Enhancement through Computing Valve Dynamic Behaviors*”

#### 2019 Technical Paper Award

- Di Lu, Dennis O’Neal, Ph.D., P.E., & Peng Yin, Ph.D., “*A Comparison of the Annual Energy Use of Fixed and Variable Airflow Parallel Fan-Powered Terminal Units in a Small Office Building*”
- Ngoc Dung (Rosine) Rohatgi, Ph.D., “*Effects of System Materials towards the Breakdown of Lubricants and Low GWP Refrigerants*”
- Douglas Reynolds, Ph.D. & Michael Schwob, P.E., “*The Effect of Length on the Insertion Loss of Fiberglass Lined Sheet Metal Ducts, Part I: Rectangular Duct*”
- Lisa Meline, P.E. & Steve Kavanaugh, Ph.D., “*Geothermal Heat Pumps: Simply Efficient*”

#### 2020 Technical Paper Award

- Dennis O’Neal, Ph.D., PE, & Peng Yin, Ph.D., “*A Simple Airflow and Power Model of Fan Coil Units with Permanent Split Capacitor Motors*”
- Michael Roth, Ph.D., P.Eng., “*The Use of Reanalysis in ASHRAE Applications (RP-1745)*”
- Peng Yin, Ph.D., Beau Derouen, Albert McBride & Dennis O’Neal, Ph.D., PE, “*Laboratory Performance Measurement of Blowers with Electronically Commutated Motors in Horizontal Low-Profile Fan Coil Units (RP-1741)*”
- Chidambaram Narayanan, Ph.D., Siju Thomas, Ph.D., & Djamel Lakehal, Ph.D., “*CFD Study of Hydraulic Shock in Two-Phase Anhydrous Ammonia: RP-1569*”

#### 2021 Technical Paper Award

- Dennis L. O’Neal, Ph.D., PE, Jessica Cramer & Peng Yin, Ph.D., “*Part-Load Airflow and Power Model of Multi-Speed Fan-Coil Units with Electronically Commutated Motors*”
- C. Kodali, S. Idem, Ph.D., “*Sizing Ducts Based on a Prescribed Friction Rate*”
- James W. Smallcombe, Ph.D., Magdalena Młynarczyk, Ph.D., Jakob Petersson, Simon Hodder, Ph.D., Amitava Halder, Kalev Kuklane, Ph.D., Dennis Loveday, Ph.D., & George Havenith, Ph.D., “*Updated Database of Clothing Thermal Insulation and Vapor Permeability Values of Western Ensembles for Use in ASHRAE Standard 55, ISO 7730 and ISO 9920; Results of ASHRAE RP*”
- Dennis L. O’Neal, Ph.D., PE, Jessica Cramer & Peng Ying, Ph.D., “*A Simple Airflow and Power Analysis of Fan-Coil Units with Electronically Commutated Motors*”

#### 2022 Technical Paper Award

- Brandon Gill, PE, Reece Kiriu & Steven T. Taylor, “*Waterside Economizer Control in ASHRAE RP-1711*”
- Matthew Swanson, Brianna Morton, Jill Schueckler, Victor Medina, Damarys Acevedo-Mackey, Michael Case, Richard Liesen & Susan Wolters, “*Installation Energy and Water Resilience Planning: Approach and Results*”
- Ahmed Morsy, Walter H. Williams, III, & David E. Claridge, “*The Impact of Existing Building Commissioning on Electric Peak Demand*”
- Insung Kang, Alvaro Diego Maristany, Edoarda Corradi Dell’Acqua, Brent Stephens & Mohammad Heidarinejad, “*Assessing the Impacts of Natural Ventilation on Building Energy Use: A Case Study of a Mid-Rise Residential Building in Chicago, IL*”

### Poster Presentation Award

This award is for the best Poster Session Paper from each Annual and Winter Conference.

- 1998 – Mr. A.D. Machin, Mr. D. Naylor, Dr. Stephen Harrison, & Dr. P.H. Oosthuizen, “*Experimental Study of Free Convection at an Indoor Glazing Surface with a Venetian Blind*”
- 1998 – Mr. Chad B. Dorgan, P.E., Dr. Charles E. Dorgan, P.E., Dr. Marty S. Kanarek, & Mr. Alexander J. Willman, P.E., “*Health and Productivity Benefits of Improved Indoor Air Quality*”
- 1999 – Mr. Francis R. Delafield, Ms. Angelita S. Ng, Mr. Krich Ratanaphruks, Mr. Michael Tufts, & Mr. James Jetter, “*Composition Changes in Refrigerant Blends for Automotive Air Conditioning*”
- 1999 – Dr. Jelena Srebric, Dr. Qingyan Chen, & Dr. Leon R. Glickman, “*Validation of a Zero-Equation Turbulence Model for Complex Indoor Airflow Simulation*”
- 2000 – Pirawas Chuangchid, Ph.D. & Moncef Krarti, Ph.D., P.E., “*Parametric Analysis and Development of a Design Tool for Foundation Heat Gain for Coolers*”
- 2000 – Dr. Steve P. Kavanaugh & Dr. Marita Allen, “*Thermal Conductivity of Cementitious Grouts and Impact on Heat Exchanger Length for Ground Source Heat Pumps*”
- 2001 – Jelena Srebric, Ph.D. & Qingyan Chen, Ph.D., “*A Method of Test to Obtain Diffuser Data for CFD Modeling for Room Airflow*”
- 2001 – Dr. Janet E. Stout, Ms. Yang Gao, Mr. Ping Zhou, Mr. Y. E. Lin, Ph.D., MBA, & Mr. Radisav Vidic, Ph.D., “*Efficacy of DBNPA Against Legionella Pneumophila: Experimental Results in a Model Water System*”
- 2002 – William Rahmeyer, Ph.D., P.E., “*Pressure Loss Coefficients for Close-Coupled Pipe Ells*”
- 2002 – John Mitchell, Ph.D., P.E., William A. Beckman, Ph.D., P.E., & Paul Riemer, “*The Use of Time Series Analysis in Fault Detection and Diagnosis Methodologies*”
- 2003 – Stephen C. Carpenter, P. Eng. & Christopher Schumacher, “*Characterization of Framing Factors for Wood-Framed Low-Rise Residential Buildings*”
- 2003 – Ronald D. MacDonald, P. Eng., Mark E. Armstrong, P. Eng., & K.G. Boyd, P. Eng., “*Evaluation of an Infrared Two-Stage Heating System in a Commercial Application*”
- 2004 – Ali A. Jalalzadeh-Azar, Ph.D., P.E., “*A Comparison of Electrical and Thermal-Load Following CHP Systems*”
- 2004 – Paul A. Torcellini, Ph.D., P.E., Nicolas Long, & Ronald D. Judkoff, “*Consumptive Water Use for U.S. Power Production*”
- 2005 – Wei Shang, Ph.D., & Robert W. Besant, P.E., “*Determining Flow Channel Size Variations Using a Pressure Probe for a Typical Regenerative Wheel*”
- 2005 – Sang-Min Lee & Jin-Won Lee, “*A New Local Ventilation System Using a Vortex Flow Generated with a Finned Rotating Annular Disk*”
- 2006 – Barbara H. McCrary, Stephen P. Kavanaugh, Ph.D., & Derek G. Williamson, Ph.D., “*Environmental Impacts of Surface Water Heat Pump Systems*”
- 2006 – Vasile Minea, “*Improved Supermarket Refrigeration and Heat Recovery Systems*”
- 2007 – Francis M. Farrell, Thomas M. Fitch, & Michael J. Morgan, “*Development and Performance of a Retrofittable, High-Efficiency, Grease Filter System for Kitchen Hoods*”
- 2007 – Sherwood G. Talbert, P.E., Stephen Ricci, Ph.D., Matthew E. Goshe, Laura L. Aume, & Rodney L. Osborne, “*Reentrainment of Building Exhaust Air by Packaged HVAC Units*”
- 2008 – Kee-Chiang Chung, Ph.D., Tsai Kuo-Pao, & You-Hsuan Wang, “*Performance of Local Ventilated Hood 1: A General Ventilation Working Environment*”
- 2008 – Nesreen Ghaddar, Ph.D., Kamel Ghali, Ph.D., Ralph Saadeh, & Amer Keblawi, “*Design for Combined Chilled Ceiling Displacement Ventilation System*”
- 2009 – Jelena Srebric, Ph.D. & Paulo Cesar Taberes Velasco, Ph.D., “*The Role of Plants in the Reduction of Heat Flux Through Green Roofs: Laboratory Experiments*”
- 2009 – James A. Mathias, Ph.D., P.E. & Duane M. Mathias, “*Energy Efficient, Cost Effective, Passive Solar House*”
- 2010 – Frank Lu, P.E., Matthew Sitzmann, P.E., & Steve R. Smith, P.E., “*Effects of Dents in Condenser Fins on Air Conditioner Performance*”
- 2011 – Kimberly Goodrich, Charles Eley, P.E., John Arent, P.E., Randall Higa, P.E., & Devin Rauss, P.E., “*Rethinking Percent Savings – The Problem with Percent Savings and zEPI: The New Scale for a Zero Net-Energy Future*”

- 2012 – Jasmin Raymond, Alexandre Leger, P.E., Rene Therrien, Ph.D., Marc Frenette, P.E., & Eric Magnis, “*Numerical Modeling of Thermally Enhanced Pipe Performances in Vertical Ground Heat Exchangers*”
- 2013 – Lorenzo Cremaschi, Ph.D., Shanshan Cai, Kasey Worthington, & Afshin J. Ghajar, Ph.D., P.E., “*Measurements of Pipe Insulation Thermal Conductivity at Below Ambient Temperature Part 1: Experimental Methodology and Dry Tests*”
- 2014 – A poster session was not conducted at the 2013 Winter (Dallas) and Annual (Denver) Conferences
- 2015 – Limin Zhou, David W. Herrin, PE, Ph.D., & Tianxiang Li, Ph.D., “*A Design Approach for Preventing and Solving Combustion Oscillation Problems*”
- 2016 – A Poster session was not conducted at the 2015 Winter (Chicago) or 2015 Annual (Atlanta) Conferences
- 2017 – Robert Hitchcock, Ph.D., John Butterfield, P.E., Elizabeth Ford Wilkins, P.E., & Francisco Forns-Samso, “*BIM-Enabled Operations and Maintenance Work Processes*”
- 2018-2022 – (No award given)

### **Ralph G. Nevins Physiology and Human Environment Award**

Established in 1978, this award is presented annually to a promising investigator for significant accomplishment in the general area of man’s response to the environment, which may include thermal, moisture, visual, acoustical, toxic, allergic, olfactory, vibrational, and microbiological effects on man’s health, comfort, and well-being.

1978	James E. Woods	1994	Amanda K. Meitz	2010	Gwelen Paliaga
1979	Larry G. Berglund	1995	Marc E. Fountain	2011	Jan Kaczmarczyk
1980	Yasunobi Nishi	1996	William J. Fisk	2012	Lily M. Wang
1981	Donald A. McIntyre	1997	Clifford C. Federspiel	2013	Stefano Schiavon
1982	Bjarne W. Olesen	1998	(No award given)	2014	Benjamin Yan Bing
1983	Richard R. Gonzalez	1999	Jorn Toftum	2015	Zhecho Bolashikov
1984	Deanna M. Munson	2000	Lei Fang	2016	Jovan Pantelic
1985	Elizabeth McCullough	2001	Jerry M. Sipes	2017	(No award given)
1986	Lars Molhave	2002	Pawel Wargocki	2018	Dusan Licina
1987	Richard B. Hayter	2003	Yanzheng Guan	2019	Bin Cao
1988	Byron W. Jones	2004	Zhang Hui	2020	Shichao Liu
1989	Gail Ellen Schiller	2005	Christopher Chao	2021	Yongchao Zhai
1990	Shin-ichi Tanabe	2006	(No award given)	2022	Thomas Parkinson
1991	Geo Henrik Clausen	2007	Charlie Huizenga	2023	Li Lan
1992	Kenneth C. Parsons	2008	Henry C. Willem		
1993	Richard J. De Dear	2009	(No award given)		

### **Science and Technology for the Built Environment Best Paper Award**

Established in 2013, this award recognizes the best referred paper published in the volume year of Science and Technology for the Built Environment, the ASHRAE Journal, preceding the ASHRAE Winter Conference. The name of the award was changed from the HVAC&R Research Best Paper Award in June 2015.

2012	Bryan Rassmussen
2013	Arsen Melikov, Barbora Krejcirvova, Jan Kaczmarczyk, Marcin Duszyk, & Tomonori Sakoi
2014	David Yashar, Piotr Domanski, & Hong Cho
2015	Sorin Benghea, Pengfei Li, Soumik Sarkar, Sergey Vichik, Veronica Adetola, Keunmo Kang, Teems Lovett, & Francesco Leonardi
2016	Nesreen Ghaddar, Bachir El Fil, & Kamel Ghali
2017	Daniel Bacellar, Vikrant Aute, Zhiwei Huang, & Reinhard Radermacher
2018	H. Burak Gunay, Weiming Shen, & Chunhseng Yang
2019	Mehdi Mehrabi & David P. Yuill
2020	YangYang Zou, Matthew Young, Morgan Wickey, Andrew May & Jordan Clark
2021	David A. Rothamer, Scott Sanders, Douglas Reindl & Timothy H. Bertram
2022	Erfan Rasouli, Emily Fricke & Vinod Narayanan

### **Service to ASHRAE Research Award**

Established in 2006, this award recognizes an individual for excellence in volunteer service to the area of Society research.

2006	John W. Mitchell	2011	Steven T. Taylor	2016	(No award given)
2007	Zahib Ayub	2012	Drury B. Crawley	2017	Joseph B. Huber
2008	John W. Andrews	2013	Herman Behls	2018	Brian Silvetti
2009	Christopher K. Wilkins	2014	(No award given)	2019	Jianshun Zhang

2010 John A. Murphy

2015 Iain S. Walker

2020-23 (No award given)

### Standards Achievement Award

Established in 1995, this award recognizes excellence in volunteer service for developing ASHRAE standards/guidelines.

1995	Michael Martin	2006	(No award given)	2016	Jerry Sipes
1996	John I. Woodworth & Robert E. Cook	2007	P. Ole Fanger	2017	Steven Bushby
1997	George S. Yamamoto	2008	Byron Jones	2018	Gearld Kettler
1998	Jim L. Heldenbrand	2009	Charles Dorgan	2019	Richard Hall
1999	Robert H. Bushnell	2010	Dennis Stanke	2020	Paul A. Lindahl, Jr.
2000-01	(No award given)	2011	Michael Schwedler	2021	Gwelen Paliaga
2002	Martha J. Hewett	2012	Steven T. Taylor	2022	Drury Crawley & Roger Hedrick
2003	(No award given)	2013	Martha G. VanGeem	2023	(No award given)
2004	Andrew Persily & Thomas Watson	2014	Max H. Sherman		
2005	H. Michael Newman	2015	(No award given)		

### Student Activities Achievement Award

Established in 1988, this award recognizes a Chapter Student Activities Chair for service related to the goals and growth of student activities at all levels.

2000	Charles D. Curlin, Jr., Southern Piedmont Chapter	2012	(No award given)
2001	(No award given)	2013	Ather N. Siddiqui, I, Northern Pakistan Chapter
2002	Paul Dreater, Anthracite Chapter	2014	Jared Larson, Regina Chapter
2003	Michel Bernier, Montréal Chapter	2015	Adam Parker, Southern Piedmont Chapter
2004	Thomas McNamara, Illinois Chapter	2016	Ather Siddiqui, Northern Pakistan Chapter
2005	Samir Traboulsi, Lebanese Chapter	2017	(No award given)
2006	Carl McGartlin, Charleston Chapter	2018	Yumei Mata Hi, Monterrey Chapter
2007	Jim Toda, Tri-County Chapter	2019	Michel Hayek, Lebanese Chapter
2008	Manuel Belino, Philippines Chapter	2020	N. Kapilan, ASHRAE Bangalore Chapter
2009	Ashish Kadam, Western India Chapter	2021	Sargon Ishaya, San Jose Chapter
2010	Nicolas Lemire, Montreal Chapter	2022	Muhammad Uzair, Pakistan Chapter
2011	Clayton A. Lampman, Southern California Chapter & Harmohindar Singh, North Piedmont Chapter	2023	(No award given)

### Student Design Competition Award

Established in 1987, this award recognizes outstanding student projects, encourages students to become involved in the profession, promotes teamwork, and allows students to apply their knowledge of practical design.

#### HVAC Design Calculations

- 2012: John Bisacquino, John Dennis, Travis Westover, Temple University
- 2013: Jayson Bursill, Natasha Palmer, Angela Walton, Gavin Wong, University of British Columbia
- 2014: Christopher Erickson, Ian Faulkner, Danny Marshall, Richard Suarez, Kristian Szmanski, Ju Yong Yu, University of Central Florida
- 2015: Kristin Hanna, Garrett Johnson, Mark Wilder, University of Nebraska
- 2016: Alexander Brosky, Samarth Joshi, Aubrey McNeill, Silvia Odaya, Cheng Yang, Ziran Yu, University of British Columbia
- 2017: Wilton Chang, Matthew Le, Aditya Mairal, Austin Stevenson, Suraj Thapa, San Jose State University
- 2018: Jack Buckley, Madeline Sampsel, Austin Seagren, Christopher Wozney, University of Nebraska – Lincoln
- 2019: Beshoy Badr, George Mounir, John Victor, Kerollos Samir, Paula Wanis, Samaa Khaled, Ain Shams University
- 2020: Eslam Mohamed Ali, Ahmed Mohamed Soltan, Amr Gamal Fawzy, Moustafa Ahmed El-Saeid, Mark Magdy Fouad, Cairo University
- 2021: Brandon Jung, Arin Lee, Lukengo Miguel, Kyle Vanderhorst, Jeff Yoon, University of British Columbia
- 2022: Cheung Wan Ki, Chow Sze Wah, Sum Ho Yin, Yung Ho Lam, The University of Hong Kong

#### HVAC System Selection

- 2002: Coury Revan, Jonathan Niksich, Rodney Cook, Scott Breuker, Bruce Calkins, Ferris State University
- 2003: Zachary Brown, Camien Chambers, Scott Houghton, Jason Izbicki, Scott Kaplan, Tom Tacey, Dean Weber, Ferris State University
- 2004: Larry Good, Scott Huber, Rebecca Mittel, Pennsylvania State University



- 2005: Nick Maffeo, III, Jason Kramer, Dave Peterson, Pennsylvania State University
- 2007: Justin Bern, Jon Gridley, Kevin Kaufman, Jessica Lucas, David Melfi and Yulien Wong, The Pennsylvania State University
- 2008: Kevin Chow, Brandon Damas, Jeremy Fowler, Brandon Frey, Brendon Gleason, Ben Willey, Kansas State University
- 2009: Chaowanaphan Leekham, Pakorn Nontiwatwanich, Wiroj Ekwongmunkong, Supayos Suveepattananont, Patarapol Puangkum, Chulalongkorn University
- 2010: Kelly Griffith, James Newman, Phillip Podlasek, Darren Rottinghaus, Kansas State University
- 2011: Lynn Gualtieri, Evan Oda, Kristin Porter, Navid Saiidnia, Jeffrey Wong, Cameron Young, California Polytechnic State University
- 2012: Adam Buck, Jami Harper, John May, Patrick MacBride, Alaina Williams, University of Nebraska
- 2013: Garrett Elder, Nathan Love, Nick Theimer, Kansas State University
- 2014: John Gaito, Katie Helmer, Lexie Oliver, Alex Pint, Megan Walkowiak, Gordon Zimmerman, Kansas State University
- 2015: Brianna Brass, Matthew Easlon, Mary Kleinsasser, Ben MacKenszie, Rachel Obenland, University of Nebraska
- 2016: Christian Garcia, Sevan Hovsepien, Asped Khachatoorian, Tade Mirzakhanyan, Miro Zaroukian, California State Polytechnic University
- 2017: Dagmara Cwiek, Tomasz Kolsicki, Karolina Kowal, Barttomiej Tokarzewski, Warsaw University of Technology
- 2018: Kevin Clark, Madison Hopfinger, Evan Reese, Whitney Luck, Andres Saldivar, Kansas State University
- 2019: Mitch Mallett-Hiatt, Colin Miller, Samuel Underwood, University of Nebraska
- 2020: Ashley Everitt, John Kramer, Jessica Lee, Mitchael Sieh, University of Nebraska
- 2021: Cole Quinlan, Nicholas Schramski, Brian Van Schepen, Cole Weber, Evan Eldred, Jordanny Williams, Ferris State University
- 2022: Donald Black, Jr., , Mason Blank, Sarah Halstead, Isabella Zuccaro, Weston Kimmey, Pennsylvania State University

#### Integrated Sustainable Building Design

- 2010: Troy White, Edward Wood, Jaime Gonsalves, Ivan Fernandes, Seneca College
- 2011: Zhang Qiqi, Qi Te, Chen Yuanyi, Tianjin University
- 2012: Dustin Altschul, Prathamesh Chakradeo, Ravik Chandra, Saikrishna Ganesan, Timothy Hertel, Varun Krishnan, Charles Tratten, University of Cincinnati
- 2013: Jiayi Qiu, Dalin Si, Yakai Wu, Zhongzhe Wu, Ruijun Zhang, Zhiang Zhang, Xuyang Zhong, The University of Nottingham UK
- 2014: Elyse Casper, Theresa Lindenau, Terra Moran, Mary Peterson, Martin Reaves, Montana State University
- 2015: Krestina Aziz, Adam Buchholz, Lee Han, Joel Joiner, Osman Kucuk, Blake Reynolds, Natalie Sherwood, Huy Tran, Alex Wilson, Portland State University
- 2016: Austin Christianson, Logan Harrell, Gerald Hornik, Travis Kalikapersaud, Jeremy Palavecino, University of Central Florida
- 2017: Itza Beltran, Matthew Coalson, Karena Edminister, Toby Miles, Samad Syed, Woranart Timsuwan, University of Central Florida
- 2018: Vasilerios Filis, Myrto Ananida, Alexandre Hugo Matthieu, Technical University of Denmark
- 2018: William McCann, Salvador Ordorica, Ashutosh Ojiha, Marie Rottschaefer, Siddharth Swaminathan, Gbadebo Tobi, The Pennsylvania State University
- 2019: Greeshma Bindu-Nandakumar, Vijay Chithambaram, Hope Tique Organista, Joshua Vasudevan, Loughborough University
- 2020: Alekhya Yalamanchili, Amr Suliman, Jacob George, Mohamad Abdul Gaffoor Seyad, Loughborough University
- 2021: Andre Cosini, Xinyan Liu, Christopher Maitiski, Andrew McGrail, Roumany Phan, Christopher Unis, Pennsylvania State University
- 2022: Bagus Rangin, Edward Joshua, Harrys Argaditya, Nadhira Izzatur, Rizki Ramadhan, Sutan Azhari, Universitas Indonesia

#### The Setty Family Foundation Applied Engineering Challenge (known as The Applied Engineering Challenge from 2013-16)

- 2013: Brian Kaufman, Nick Leeburg, Tony Lin, Micah Reich, San Jose State University
- 2014: Juan Silva, Nelson Echeverry, California Polytechnic State University
- 2015: Miren Aizpitarte, Cinthya Mendez, Julia Stone, Willis Tang, California Polytechnic State University
- 2016: Bradley Lulik, Eva Rennie, Brent Yeske, University of Regina
- 2017: Sunghoon Chung, Austin Hochstetler, Sean Bybee, Antonio De Jesus Aguayo, California Polytechnic State University
- 2018: Iik Wahyu Anggara, Katon Vembriarto Widayaswara, Yoga Hutomo Putra, Mohammad Ilham Akbar, Fahmi Rizaldi, Bandung Institute of Technology
- 2019: Samuel Bean, Alexander Sparks, Jacob Scarpino, Sarah Mayer, University of New Hampshire
- 2020: R Muhammad Nadhir Nasrudin Tanujiwa, Alpinus Raditya Dewangga, Kamilita Hening Musono, Reza Dzikri Khusaini, Hilman Prakoso, Selvia Diwanti, Bandung Institute of Technology – Weton
- 2021: Adam Bessey, Ryan Salazar, Matthew Malonzo, California Polytechnic State University
- 2022: Axel Dawne, Farhan Afdhalul Ihsan, Febricetta Zahraketzia Sarwono, I Made Wiratathya Putramas, Joel Fredericko Sumbowo, Kanita Prameswari, Bandung Institute of Technology

## Previous categories

### Architectural Design

- 2001: Andrew Herland, Troy Jacoby, University of Wisconsin
- 2003: Jacobi Gastile, Angelica Gordon, Ronnie Pride, Jr., North Carolina A&T State University
- 2005: Michael Oranchak and Keith W. Bryan, Lawrence Technological University
- 2006: Scott Poloney and Dan Guith, Lawrence Technology University
- 2007: Sonia Carias and Alissa Ogen, Savannah College of Art & Design
- 2008: Stuart Johnson and Grant Helmkamp, Lawrence Technology University
- 2009: Alexandra Gibson, Bazigha Tufail, Justina Jones, University of Kansas

### HVAC System Design

- 2001: John Damoth, Leon Greiner, Brian Holton, Sam Lampe, Martin McDonough, John Quilitzsch, Glenn Remington, Steve Turnbull, Ferris State University
- 2001: Leye Adegbite, Jason Cooper, Kevin Dettling, Ken Frieling, Bill Hoch, Troy Milan, Jeff Oosting, Adrian Subryan, Jeremy Tell, Christopher Weaver, Adam Wilson, Ferris State University
- 2002: James R. Mallory, Joseph Laws, Michael J. Hahn, Michael J. Laws, Nathaniel Mielke, Ferris State University
- 2003: David Begin, Wayne Belka, Tim Eller, Bill Kangas, Mary Kladder, Troy Milks, Matthew Pedler, Brian Reneker, Ferris State University Applied Technology Center
- 2004: Jesse Bigelow, Andy Geem, Gerard Harris, Bob Krieg, Nathon Klein, Mike Sweeney, Ferris State University
- 2005: Brad Green, Bhushan Joshi, John Lindman, Trevor Fink, Ray Wrobel, Joseph Borders, Ferris State University
- 2006: Jesse Fisher and Amy Pastor, The Pennsylvania State University
- 2007: Justin Bern, Jon Gridley, Kevin Kaufman, Jessica Lucas, David Melfi and Yulien Wong, The Pennsylvania State University
- 2008: Gary Schrader, Jeremy Saddison, Ryan Larson, Chad Gydesen, Ferris State University
- 2009: Alyssa Adams, Calvin Douglas, James Gawthrop, Jr., Justin Herzing, Amy Leventry, Michael Smith, The Pennsylvania State University
- 2010: Elyse Widin, William Raschfsky, Chan Kim, Brian Sybesma, Craig Allen, California Polytechnic State University
- 2011: Holly Brink, Michael Crabb, James Dougherty, Andrew Gilliam, Gina Halbom, University of Nebraska – Lincoln

### Refrigeration System Design

- 2006: Thammarat Wittayakerkkrai, Chaiwat Puttanuntadech, and Kittipong Sookchai, Chulalongkorn University

## **Technology Awards**

The Award of Engineering Excellence was created in 1989 to recognize a first place winner of the Society-level Technology Award Competition for an outstanding application of innovative design and effective energy utilization. It is awarded at the judges' discretion.

### Award of Engineering Excellence

- 2000: Byron H. Bakenhus for Lincoln Electric System, Rokeby Ice Storage Project, Lincoln, Nebraska
- 2005: Frederic Genest for the Mountain Equipment Co-op, Montreal, Canada
- 2013: Joe Tai for Research Support Facility, NREL, San Francisco, California
- 2014: Peter Rumsey for the Packard Foundation Net Zero Energy Headquarters, Oakland, California
- 2018: Johnathan Rumohr and Jesse Hendershot for Heritage Hall Alumni Center, Kalamazoo, Michigan
- 2020: Susumu Horikawa, Kosuke Sato, & Eri Kataoka for Shogakukan Building, Tokyo, Japan
- 2021: Ned Greene for OHSU Knight Cancer Research Building, Portland, Oregon
- 2022: Shiro Tsukami, Kitaro Mizuide & Hirotaka Kubo for DaiyaGate Ikebukuro, Tokyo, Japan
- 2023: Lianne Cockerton & Martin Roy for Local 144, Pointe-aux-Trembles, Quebec, Canada

Established in 1981, the Technology Awards recognize successful applications of innovative design, which incorporate ASHRAE standards for effective energy management, indoor air quality, and mechanical design management technology.

### Commercial Buildings – New

- 1999: Sukhdev S. Mathaudhu for the City of Riverside Public Utilities Operations Center, Riverside, California
- 2005: Frederic Genest for the Mountain Equipment Co-op, Montreal, Canada
- 2005: Jeffrey P. Blaevoet for the Big Rock Ranch, Lucas Films, Nicasio, California
- 2005: Steven T. Taylor & Jeffrey R. Stein for the Electronic Arts II, Redwood City, California
- 2008: Albert R. Barifeld for Springhill Suites, Pensacola Florida
- 2008: Steven Jones for the Kern Schools Federal Credit Union Administration Building, Bakersfield, California

- 2010: Michael J. Hedrick, Thomas J. Marseille, & Long Lam for The Terry Thomas, Seattle, Washington
- 2010: Stephan L. Weidner for 100 Howe Building, Covington, Kentucky
- 2011: Peter H. Rumsey for The David Brower Center, Oakland, California
- 2011: David Grassl for Johnson Controls Corporate Headquarters, Milwaukee, Wisconsin
- 2012: Roland Charneau for Mountain Equipment Coop, Montreal, Quebec, Canada
- 2012: Jonathan Heller for Northwest Maritime Center, Seattle, Washington
- 2012: Olivier Brodeur for Cartierville Y Centre, Longueuil, Quebec, Canada
- 2012: Daniel P. Robert for Bell Campus, Phases 1 & 2, Laval, Quebec, Canada
- 2012: Prem Mehrotra for Evelyn Pease Tyner Interpretive Center, Oak Park, Illinois
- 2013: Joe Tai for Research Support Facility, NREL, San Francisco, California
- 2013: Peter French Alspach for Bill & Melinda Gates Foundation Headquarters, Seattle, Washington
- 2013: Thiam Leong Chen for The Energy Commission HQ (Diamond Building), Petaling Jaya, Selangor, Malaysia
- 2013: Prem Jain for Eco Commercial Building – Greater Noida, Noida, India
- 2013: Stephen Carpenter for A Grandeur View, Kitchener, Ontario, Canada
- 2013: Nuno Duarte for Walmart Burlington – Geo-Exchange, Toronto, Ontario, Canada
- 2014: Peter Rumsey for the Packard Foundation Net Zero Energy Headquarters, Oakland, California
- 2014: Scott Bowman for the Iowa Utilities Board, Office of Consumer Advocate Office Building, Des Moines, Iowa
- 2014: Shengwei Wang for the International Commerce Center, Hong Kong, China
- 2014: Pierre Levesque for the Jonxion – 4905 Lapiniere, Longueuil, Quebec, Canada
- 2014: Jacques Lagacé for La Maison du Développement Durable, Montreal, Quebec, Canada
- 2015: Benjamin Frank Gozart, Charles Chaloeicheep, Tom J. Marseille, & Tom C. Boysen for Federal Center South – Building 12021, Seattle, Washington
- 2015: Aaron Robert Smith for 100 Venture Run, Halifax, Nova Scotia
- 2015: Jacques Lagacé for Commission de la Construction du Quebec, Montreal, Quebec
- 2016: Benjamin A. Skelton for the Walgreens Net Zero Store (Store #15364), Chicago, Illinois
- 2017: Kitaro Mizuide for YKK80 Building, Osaka, Japan
- 2017: Brian Rose & Tracy Steward for Cincinnati District 3 Police HQ - NZE Building, Cincinnati, Ohio
- 2017: Brian Coffield for Chesapeake Bay Foundation - Brock Environmental Center, Washington, D.C.
- 2018: Roland Charneau for Mountain Equipment Co-Op Head Office, Vancouver, BC, Canada
- 2018: Devin G. Cheek & Jeremy Smith for CMTA Lexington Office, Lexington, Kentucky
- 2018: Hiromasa Tanaka, Susumu Horikawa, & Kouji Sugihara for Daikin Technology and Innovation Center, Settsu, Osaka, Japan
- 2019: Dwight Schumm & Timothy Lentz for Indian Creek Nature Center Amazing Space, Cedar Rapids, Iowa
- 2019: Steve Gross, Hormoz Janssens, & Shawn Wilson for Marine Way (Building 20), Mountainview, California
- 2020: Susumu Horikawa, Kosuke Sato, & Eri Kataoka for Shogakukan Building, Tokyo, Japan
- 2020: Matthew Longsine, Tom Marseille, Charles Chaloeicheep, & Zach Stevens for Department of Enterprise Services, Facility Professional Services, Seattle, Washington
- 2021: Shana Scheiber & Roger Lautz for American Family Insurance “The Spark”, Madison, Wisconsin
- 2023: Nobuhiro Hirasuga, Shun Kato, Takashi Akimoto & Yu Sakamoto FOR Shinryo Shinjo Building, Tokyo, Japan

#### Commercial Buildings – Existing

- 1999: Bruce T. Votta for the Admiral Fell Inn, Baltimore, Maryland
- 2001: Sukhdev S. Mathaudhu for County Administrative Center, Riverside, California
- 2003: David M. Schaefer & Gerry Noorts, Gruman/Butkus Associates, Evanston, Illinois
- 2004: Jeffrey Blaevoet for Hamilton Landing Hanger 3, 4, 5, and 6, Novato, California
- 2008: Pierre Roussel for the Complexe les Ailes, Montreal, Quebec, Canada
- 2009: Kenneth Sonmor for 4200 St. Laurent Office Tower, Montreal, Quebec, Canada
- 2010: Caroline Paquet for National Bank Tower, Montreal, Quebec, Canada
- 2010: Peter H. Rumsey for IDEAs Design Facility, San Jose, California
- 2010: Roland Charneau for Place Desjardins, Inc. – Office Towers Energy Retrofit, Montreal, Quebec, Canada
- 2011: Roland Charneau for 1801 McGill College, Montreal, Quebec, Canada
- 2011: Peter Bailey, Walter Joneas, & Gregory Dodge for Hybrid Refrigeration Chiller, Huntington, Vermont, Cazenovia, New York, Billerica, Massachusetts
- 2011: Alexander Butkus & Gerry Noorts for Grand Hyatt Kauai Resort and Spa, Evanston, Illinois
- 2011: Micheal Sotura for Boeing 18-26, Seattle, Washington
- 2012: Ken Sonmor for IKEA Brossard Distribution Center, Montreal, Quebec, Canada
- 2012: Murdoch MacPherson for AODBT Office Space Renovation, Regina, Saskatchewan, Canada
- 2012: Bruce Davis for Deere and Company Retrofit-East Office, Moline, Illinois
- 2012: Barry Jim On & Min Zhong for SSFM Office Solar Cooling System, Honolulu, Hawaii

- 2013: Shawn Oram for Rice Fergus Miller Office & Studio, Seattle, Washington
- 2013: Youming Chen for Fault Detection and Diagnosis for VAV in Cambridge House, Changsha, Hunan, China
- 2013: Peter Rumsey for Integral Group Deep Green Office, Oakland, California
- 2013: Mehrdad Alipour for Marvell Building 4, Data Center Economizer, San Jose, California
- 2014: David Budd for the SIERR Building at McKinstry Station, Seattle, Washington
- 2014: Shanti (Shawn) Oran for the King County Housing Authority, Seattle, Washington
- 2015: Roger (Jui-Chen) Chang for the Wayne N. Aspinall Federal Building & US Courthouse, Washington DC
- 2015: Perry Hausman for Corporation Hall, Kalamazoo, Michigan
- 2015: Stanley Katz for Complex Southwest One, Laval Quebec, Canada
- 2015: Donald J. McLaughlan for the Sun Life Assurance Company 29 North Wacker Renovation Project, Hillside, Illinois
- 2016: Dylan T. Connelly for DPR Construction's San Francisco Net Positive Energy Office, San Francisco, California
- 2017: Shannon M. Allison for 435 Indio Way, Oakland, California
- 2017: Russell Charles Pratt for CSHQA Office Building, Boise, Idaho
- 2017: Seck Pong Chan for MGM Macau, NAPE Macau
- 2018: Mark C. Hersch & Holly Stevens for Market One, Des Moines, Iowa
- 2018: Hsu-Cheng Chiang & Ming-Shan Jeng for IEK Center Building, Chutung, Hsinchu, R.O.C.
- 2018: Abdul Razaak Syed Mubarak & Paul Mikii Abuel for Sands China Ltd. (COTAI Strip), Taipa, Macau
- 2019: Hiroki Kawakami, Hiroaki Takai, Kazuki Wada, & Koji Tanaka for TaAKENAKA Corporation Higashikanto Branch Office Renovation, Koutou-ku, Tokyo, Japan
- 2019: Daniel Robert & Stanley Katz for Complex de Gaspé, Montreal, Quebec, Canada
- 2019: John Andary & Josh Brincks for LinkedIn – Zero Net Energy Office Retrofit, Sunnyvale, California
- 2021: Tomoaki Ushio, Harunori Yoshida & Shigemi Mori for Kyoto Station, Osaka, Japan
- 2021: Dave Chan, Kenneth Lee, Pan Lee & Franco Mok for 28 Hennessy Road, Hong Kong
- 2022: Hermes Silva for Hotel Mandarin Oriental, Santiago, Chile
- 2023: Tyler Larkin, Tracy Steward & Thomas Anderson for Ingalls Building, Cincinnati, Ohio

#### Commercial Buildings - EBCx

- 2019: John Tsingas & David Eldridge for 801 Grand, Des Moines, Iowa
- 2020: Kelley Whalen, Jason Brooks, & Tony Horton for Adtran's East Tower Chilled Water System Optimization, Huntsville, Alabama
- 2021: Kwai Ping Lau & Raymond Yau for Two Pacific Place, Hong Kong
- 2023: Raymond Man-Hung Yau & Kwai Ping Lau for Retro-Commissioning and Digital Transformation of Cityplaza Mall, Hong Kong

#### Institutional Buildings – New

- 1999: Stephen W. Tweedie for the Nova Institution, Truro, Nova Scotia, Canada
- 2001: Roland Charneux for the President Kennedy Building, Université du Québec à Montréal, Montreal, Quebec, Canada
- 2001: Peter A. Potvin for Saint John's University Science Building, Minneapolis, Minnesota
- 2001: Jonathan P. Friedan for Henry P. Rowan Hall, Rowan University School of Engineering, Philadelphia, Pennsylvania
- 2002: A. Boyd Morgenthaler & David F. Shumway for Fish and Game Hunter Education Building, Fairbanks, Alaska
- 2004: David C. Inghram for Des Moines Area Community College-West Campus, Des Moines, Iowa
- 2005: Nicolas Lemire for the Concordia University Science Complex, Montreal, Canada
- 2005: Wayne E. Kerbelis for the Allegan High School New Natatorium & Theater Additions, Allegan, Michigan
- 2005: Antonio Costa for the Race Hall at Santa Rosa Junior College, Santa Rosa, California
- 2008: Craig A. Watts for the Fossil Ridge High School, Fort Collins, Colorado
- 2008: Stephane Sirard for the Centre de Formation Professionnelle l'Horizon, Mont-Tremblant, Quebec, Canada
- 2009: Jacques de Grace for Normand Maurice Building, Montreal, Quebec, Canada
- 2009: Eric Kirkland for NREL ST&F, Golden Colorado
- 2009: David Williams for Two Harbors High School, Two Harbors, Minnesota
- 2009: Stephane Sirard for CEROM, St. Mathieu-de-Beloeill, Quebec, Canada
- 2010: Surrender Naganathan for Deer Ridge Correctional Institution, Madras, Oregon
- 2010: Stephen C. Roberts for Kirsch Center for Environmental Studies, Cupertino, California
- 2010: Donald J. McLaughlan, Steven D. Maze, & David Lavan for Richard J. Klarchek Information Commons Building, Chicago, Illinois
- 2010: Robert N. Roop for New Whitmore Lake High School, Whitmore Lake, Michigan
- 2010: Rejean Blais for Post de Police de la Surete a Vaudreuil – Dorion, Vaudreuil – Dorion, Quebec, Canada
- 2010: Nicolas Lemire for Kahnawake Survival School, Kahnawake, Quebec, Canada
- 2011: Amit Khanna for Jerry Yang and Akiko Yamazaki Environment and Energy Building, San Francisco, California
- 2011: Jean Molina & Laurier Nichols for Saint-Johns High School, Montreal, Quebec, Canada
- 2011: Derek Crowe for Ann Arbor New Skyline High School, Troy, Michigan

- 2011: Antonia Costa for College of Siskiyous Emergency Services Training Center, Napa, California
- 2011: Robert Thompson for Mesa Community College Physical Sciences Building, Gilbert, Arizona
- 2011: Jeffrey Blaevoet for Valley Hi North Laguna Library, San Francisco, California
- 2011: Heric Holmes for Regina Provincial Corrections Centre, Regina, Saskatchewan, Canada
- 2012: Wayne E. Kerbelis for SVSU Health and Human Services Building, Troy, Michigan

#### Institutional Buildings - Existing

- 2001: Jeffrey Celuch for Capital University Hybrid Chilled-Water Plant, Columbus, Ohio
- 2001: James C. Paul for Energy Loop, Saginaw Valley State University, University Center, Michigan
- 2005: Gilles Desmarais for the Jean-de-Brebeuf College, Montreal, Canada
- 2006: Lev H. Zvenyach for Chicago Center for Green Technology, Chicago
- 2009: Thomas Durkin for HVAC Renovations – G.W. Carver Elementary School, Indianapolis, Indiana
- 2010: Brett J. Kelley & Charles T. Meagher for cGMP Cell Therapy Facility, Chicago, Illinois
- 2010: Mark M. Hydeman & Molly E. McGuire for Stanford University Stauffer Building I Laboratory VAV Conversion, Stanford, California
- 2010: Genevieve Lussier for Pavilion Envirotron, Quebec City, Quebec, Canada
- 2011: David Porter & Branden Farnsworth-Weinblatt for Campus Wide Satellite Boilers, Rochester, New York
- 2011: Marco Freitas & Simon Pelletier for Cowansville Courthouse, Montreal, Quebec, Canada
- 2013: Sean Abbott for Seattle Fire Station #2, Lynwood, Washington
- 2019: Eric Solrain & Kathryn Lee for San Francisco Art Institute at Fort Mason Center Pier 2, San Francisco, California

#### Educational Facilities – New

- 2012: René Dansereau for Université de Sherbrooke-Campus de Longueuil, Longueuil, Quebec, Canada
- 2012: Jeffrey Blaevoet for the Tanimura & Antle Family Memorial Library, San Francisco, California
- 2013: Mark Owen Koller for Portland State University Academic & Student Recreation Center, Portland, Oregon
- 2013: Louise Grace Smith for Vancouver Island University – Cowichan Campus, Victoria, British Columbia, Canada
- 2013: Hormoz Janssens for City College of San Francisco – Ocean Campus Academic Multi-Use Building, San Francisco, California
- 2013: Brian Haugk for Machias Elementary School, Seattle, Washington
- 2014: Stephen Hamstra for the 300 Davis Street Building, Zeeland, Michigan
- 2014: Timothy McGinn for the University of Calgary, EEEL Project, Calgary, Alberta, Canada
- 2014: Glenn Friedmann & Brent Eubanks for the Oakland Unified School District, La Escuelita Education Center, Alameda, California
- 2014: Stephanie Febles for Locust Trace AgriScience Farm, Lexington, Kentucky
- 2015: Brian A. Haugk & Brian B. Cannon for Valley View Middle School, Seattle, Washington
- 2016: Nicolas Lemire for Anne-Marie Edward Science Building – John Abbott College, Sainte-Anne-de-Bellevue, Quebec, Canada
- 2016: Steve Daley for Sandy Grove Middle School, Lumber Bridge, North Carolina
- 2017: Bradford Crowley for Johns Hopkins University, Undergraduate Teaching Laboratories, Philadelphia, Pennsylvania
- 2017: Nate Eppley for Millikan Laboratory and Andrew Science Hall, Oakland, California
- 2017: George P. Karidis for Oakland University Engineering Center, Detroit, Michigan
- 2018: Raymond L. Beaufait for Discovery Elementary School, Arlington, Virginia
- 2018: Regan T. Moffat for Taylor Institute for Teaching & Learning – University of Calgary, Calgary, Alberta, Canada
- 2018: Stet Allen Sanborn & Tyler Bradshaw for University of California – Santa Cruz Cowell Ranch Historic Haybarn, Santa Cruz, California
- 2018: Brian L. Coffield for American University – Washington College of Law, Washington, District of Columbia
- 2019: Michael P. Sherren for Wilde Lake Middle School, Columbia, Maryland
- 2020: Henry Johnstone for Environmental and Natural Resources II, Tucson, Arizona
- 2020: Benjamin Hobbs for Fayette County Public Schools, Lexington, Kentucky
- 2020: David Shumway, Bart Semmler, & Matt Olson for University of Alaska Fairbanks (UAF) Engineering Learning & Innovation Facility, Anchorage, Alaska
- 2020: Alec Carnes, Rick Pavlak, & John O'Brien for Cope Environmental Center, Dayton, Ohio
- 2020: Benjamin Hobbs for BTC Newtwn Campus Science Education Center, Lexington, Kentucky
- 2021: Aaron Smith, Denis Morris, & Andrew Bartlett for Dalhousie IDEA and Design Buildings, Halifax, Nova Scotia, Canada
- 2021: Bryan Harrelson, Brice Watson, Brian Turner, & Ray Beaufait for Alice West Fleet Elementary, Arlington, Virginia
- 2022: Donald Hartdegen, Asfandiyar Khan & Sudesh Saraf for Adlai E. Stevenson High School East Building Addition, Darien, Illinois
- 2023: Drew Roberts & Benjamin Hobbs for BCPS Holabird and Graceland Schools, Baltimore, Maryland

#### Educational Facilities - Existing

- 2012: Wayne E. Kerbelis for SC4-North Building HVAC Renovation, Troy, Michigan

- 2012: Ryan Thorson for Northwestern High School, Duluth, Minnesota
- 2013: Thomas Durkin for Hamilton Heights Elementary School - HVAC, Indianapolis, Indiana
- 2013: Laurier Nichols for McGill University – McIntyre Pavillion, Montreal, Quebec, Canada
- 2014: Nicolas Lemire for the McGill University, Otto Maass Building, Montreal Quebec, Canada
- 2016: Eric Yang for Strawbridge Elementary School, Virginia Beach, Virginia
- 2017: Adam M. Pierce for Cox’s Creek Elementary School, Prospect, Kentucky
- 2018: Jonathan Rumohr & Jesse Hendershot for Heritage Hall Alumni Center, Kalamazoo, Michigan
- 2019: Morgan Heater for Westside School, Seattle, Washington
- 2020: Chad Luning, Michael McDermott, Eric Huber, & David Nelson for University of Illinois at Urbana-Champaign, Frederick Seitz Materials Research Laboratory, Renovation, Evanston, Illinois
- 2020: André-Benoit Allard for Université du Québec à Trois-Rivières (UQTR), Québec City, Québec City, Canada
- 2021: Brian Rose for Historic Mercy High School Renovation / CPS Gamble Montessori, Cincinnati, Ohio
- 2021: Teresa Laurence & Jess Farber for Harvard University Massachusetts Hall, Framingham, Massachusetts
- 2022: Lincoln Pearce for Marston Hall Renovation, Des Moines, Iowa

#### Educational Facilities – EBCx

- 2022: Jason Volz, Matt Branham, Brian Duvall & Braydi McPherson-Hathaway for Kentucky Community and Technical College System, Louisville, Kentucky

#### Other Institutional – New

- 2012: Matthew Longsine for Battelle Biological Sciences Facility, Seattle, Washington
- 2012: Michael J. Lawless for Stout-Jarvis Hall Science Wing Renovation & Addition, Madison, Wisconsin
- 2013: Jonathan Heller for Eastside Fire & Rescue Station 72, Seattle, Washington
- 2013: Abdel Darwich for Segundo Services Center, San Francisco, California
- 2014: David Shumway for the Alaska Scientific Crime Detection Laboratory, Anchorage, Alaska
- 2014: Hajime Yoshida for the Green Technology Training and Enterprise Center, Madison, Wisconsin
- 2015: Matthew William Longsine & Henry Di Gregorio for the Tacoma Center for Urban Waters, Seattle, Washington
- 2015: Eric William Shaw for the Upper Thames River Conservation Authority, London, Ontario, Canada
- 2016: Frank Shadpour for Miramar College Police Substation and Parking Structure, San Diego, California
- 2017: John Patrick McDonald for J. Craig Venter Institute, Oakland, California
- 2017: Martin Roy for Bibliothèque Ville de Mont-Royal, Deux-Montagnes, Quebec, Canada
- 2017: Caroline R. Kely for Deep Green Residence Hall, Lexington, Kentucky
- 2018: Steven T. Taylor, Todd Gottshall, David Heinzerling, & Allan Daly for San Francisco Museum of Modern Art, San Francisco, California
- 2018: Martin Roy for Bibliothèque Raymond-Lévesque, Longueuil, Quebec, Canada
- 2018: Robert Harold Thompson, Eric L. Kirkland & Fletcher J. Clarq for NREL Energy Systems Integration Facility (ESIF), Golden, Colorado
- 2019: David Meyer, Jaimee Wilson, Eric LePore, & Alfred Rodgers for Koffman Southern Tier Incubator, Binghamton, New York
- 2020: Ryan Idema & Jesse Hendershot for Gerald R Ford International Airport Consolidated Checkpoint and Marketplace, Grand Rapids, Michigan

#### Other Institutional – Existing

- 2015: Kateri Héon & Pietro Guerra for the Centre Civique de Dollard-des-Ormeaux, Montreal, Quebec, Canada
- 2016: Lisa J. Sombart for the St. Louis Public Library-Central Branch Renovation, St. Louis, Missouri

#### Other Institutional - EBCx

- 2017: Adam C.S. Wheeler for UCSF PSSRB MBCx, San Francisco, California

#### Health Care Facilities – New

- 2000: Michael K. Larson for Quality Living Inc. – East Campus Development, Omaha, Nebraska
- 2002: Warren L. Lloyd for Great River Medical Center – New Medical Campus, West Burlington, Iowa
- 2005: Jeffrey P. Blaevoet for the Kaiser Geary Medical Office Building, San Francisco, California
- 2007: Matt Younger for the Washington Department of Veterans Affairs, Retsil, Washington
- 2010: Paul B. Switenki for Kaiser Permanente Template Hospitals. Oakland, California
- 2010: Don M. Iverson for Harborview Medical Center – New Norm Maleng Building, Seattle, Washington
- 2010: Michael T. Stark for Northwestern Memorial Hospital – New Prentice Women’s Hospital, Chicago, Illinois
- 2011: Matt Volgyi for Kaiser Downey Medical Center, Garden Grove, California
- 2012: Paul Marmion for Abbotsford Regional Hospital and Cancer Centre, West Vancouver, British Columbia, Canada

- 2012: Olivier Brodeur for CLSC Chateauguay, Longueuil, Quebec, Canada
- 2012: Steve Guttman for Health & Wellness center, UC-Davis, San Francisco, California
- 2013: Jeremy McClanathan for Swedish Issaquah Hospital, Lynnwood, Washington
- 2013: Michael Lawless for Aurora Medical Center – Grafton Wisconsin, Madison, Wisconsin
- 2014: Pascal Michaud for the Expansion of Notre Dame of St. Rosary Convent, Rimouski, Quebec, Canada
- 2015: Mark Stavig for Peace Island Medical Center, Lynnwood, Washington
- 2017: Kurt Monteiro for Humber River Hospital, Toronto, Ontario, Canada
- 2019: Daniel Robert & Stanley Katz for Ullivik Health Centre, Montreal, Quebec, Canada
- 2020: Kurt Monteiro & Kevin Sharples for Peel Memorial Centre, Toronto, Ontario, Canada
- 2020: John Pappas & Eric Dupuis for Lucile Packard Children's Hospital Stanford, San Francisco, California
- 2022: Nicholas Rogers, Tracy Steward & David Mayer for Norton Novak Center for Children's Health, Prospect, Kentucky
- 2023: John Andary for Santa Rosa Medical Office Building 6, Santa Rosa, California

#### Health Care Facilities – Existing

- 1999: Laurier Nichols for Sacre-Coeur Hospital, Montreal, Quebec, Canada
- 2001: Arthur G. Veneklasen for Blodgett Memorial Medical Center Chiller Replacement, East Grand Rapids, Michigan
- 2008: Laurier Nichols, Rejean Blais, Simon Pelletier, Oanh Nguyen, Jean Molina, & Marco Freitas for Rehabilitation of Honore-Mercier Hospital, Saint-Hyacinthe, Quebec, Canada
- 2011: Gilles Demarais for Rehabilitation Pierre-Boucher Hospital, Montreal, Quebec, Canada
- 2011: Jack Kafesdjian for Louis H-Lafontaine-Hospital, Laval, Quebec, Canada
- 2011: Michael Murphy & Greg Noorts for Advocate Lutheran General Hospital, Evanston, Illinois
- 2011: Jeffrey Blaevoet for Marin Health & Wellness Center, San Francisco, California
- 2013: Bruce L. Flaniken for Methodist Hospital Central Utility Plant, Houston, Texas
- 2013: Eric Fullerton for TMC Phase 2 Cooling, Little Rock, Arkansas
- 2015: Jean-Philippe Morin for CSSS Pointe-de-l'île – Energy Conservation Project, Longueuil, Quebec, Canada
- 2018: Pierre-André Tremblay for CHU de Quebec Integrated Energy Efficiency Project, Quebec City, Canada
- 2021: Reece Kiriu & Jeff Stein for Kaiser Vallejo Medical Offices, Alameda, California

#### Health Care Facilities – EBCx

- 2018: Eric M. Fullerton, Alam McElderry, & Andrew Jester for Pineville Enterprise Energy Management System Phase 1, Charlotte, North Carolina

#### Industrial Facilities or Processes – New

- 2000: J. Howard Van Boerum for Salt Lake Organizing Committee, Utah Winter Sports Park - Bobsled/Luge Track, Bear Hollow (Park City), Utah
- 2005: Jeffrey D. Celuch for the LaFarge Gypsum Drywall Plant, Cincinnati, Ohio
- 2007: Pierre Roussel & Jacques Lagace for the Pierre-Elliott Trudeau Airport – Thermal Plant, Montreal, Quebec, Canada
- 2008: Apichit Lumlerpongpana & Wichai Rungruangprug for Charoen Pokpham Foods Public Company Ltd.
- 2008: Christopher Rauch for the Aramark Chicago Industrial Laundry, Chicago, Illinois
- 2010: Jonathan M. Mesik for Oak Park Public Works Center, Oak Park, Illinois
- 2010: Ronald Gagnon & Louis Racicot for Logistik Unicorp, St-Jean sur Richelieu, Quebec, Canada
- 2010: Martin Roy for Sobey's Warehouse, Trois-Rivieres, Quebec, Canada
- 2012: Blake E. Ellis for Thermal Energy Corporation-Thermal Energy Storage, Kansas City, Missouri
- 2012: Curtis Cady for Watsonville Water Resources Center, San Leandro, California
- 2013: Blake Ellis for Thermal Energy Corporation – East Chilled Water Building, Kansas City, Missouri
- 2013: Patrick Klanac for Verizon Wireless – Twinsburg Data Center, Akron, Ohio
- 2014: Mukesh Khattar for the Breakthrough Innovation for Data Center Cooling Efficiency, Redwood City, California
- 2014: Charles E. Gullledge, III for the Caterpillar Axle Manufacturing Plant, Greensboro, North Carolina
- 2015: Charles E. Gullledge, III for the Caterpillar MHE-STTT Assembly Plant, Greensboro, North Carolina
- 2015: Brett Mason Griffin for Digital Realty Data Campus, Chicago, Illinois
- 2015: Terry G. Autry for the NCAR – Wyoming Supercomputing Center, Lakewood, Colorado
- 2016: Mike Smith for Sea-Tac Airport Pre-Conditioned Air, Seattle, Washington
- 2016: Abdel K. Darwich for the Jess Jackson Sustainable Winery Building, Davis, California
- 2017: Julien Allard for STM - Construction du Centre de transport de Stinson, Montreal, Quebec, Canada
- 2020: Paul Finch for Kao Data Campus, Harlow, Essex, United Kingdom
- 2022: Shana Scheiber & Rick Flock for Exact Sciences Lab, Madison, Wisconsin

#### Industrial Facilities or Processes – Existing

- 1999: Donald P. Fiorino for Texas Instruments Central Steam Boiler Plant Replacement, Dallas, Texas
- 2000: Byron H. Bakenhus for Lincoln Electric System, Rokeby Ice Storage Project, Lincoln, Nebraska
- 2002: Arthur Wesley Adler for the Alpha Gary Central Chilled Water Plant, Leominster, Massachusetts
- 2005: Evans J. Lizardos for the Port Authority of New York and New Jersey, New York, New York
- 2007: Daniel Pare for IBM, Bromont, Quebec, Canada
- 2010: Mukesh K. Khattar for High Density Data Center Cooling/Heat Containment, Austin, Texas
- 2011: Yan Ferron for Buanderie Central de Montreal, Montreal, Quebec, Canada
- 2011: Philip Spagnolo for Scot Forge Compressed Air System, Park Ridge, Illinois
- 2012: Luc Simard for Arena Marcel Dutil, Les Coteaux, Quebec, Canada
- 2013: Robert Sloan for TCS Data Center, Seattle, Washington
- 2013: Robert Turner for High Purity Standards Renovation, Charleston, South Carolina
- 2014: Gheorghe Mihalache for Fromagerie des Basques, Montreal, Quebec, Canada
- 2015: William C. Weinaug, Jr., Wade H. Conlan, & Damon Lynn for Antarctica: Empire of the Penguin, Maitland, Florida
- 2016: Eric K. Miller for the Erie County Medical Center-Chilled Water Plant Improvements, Buffalo, New York
- 2017: Dominic J. Cacolici for Tampa International Airport-Passenger Boarding Bridge Cooling, Tampa, Florida
- 2020: Chun Kei Ng, Colin Chung, Michael Sung, & Mark KK Lam for Implementation of District Cooling System for Stables Compound and Adjacent Buildings, Sha Tin Racecourse, Hong Kong
- 2022: Dennis McKale, Bradley Herbeck & Ryan Cowan for Stellantis – Sterling Heights Assembly Plant, Southfield, Michigan
- 2023: Simon Kattoura for Hood Packaging Corporation, Montreal, Quebec, Canada

#### Public Assembly – New

- 2005: Jeffrey L. Ewens & Blake E. Ellis for the SBC Center, San Antonio, Texas
- 2006: Martin Roy for TOHU's Capiteau Des Arts, Montreal
- 2008: Rick L. Grove for Firstenburg Community Center, Vancouver, Washington
- 2008: David Kistler for Environmental Discovery Center, Springfield Township, Michigan
- 2008: Martin Roy for Canadian Amateur Musician Musiciens Amateurs Canadien, Harrington, Quebec, Canada
- 2009: Laurier Nichols for Centre Communautaire de Mississini, Montreal, Quebec, Canada
- 2011: Yury Lui & Charles Eggert for Jewish Reconstructionist Congregation, Chicago, Illinois
- 2013: Caroline Paquet for Biodiversity Pavillion, Montreal, Quebec, Canada
- 2015: Arthur Gilbert Sutherland for the Westhills Recreation Centre, Victoria, British Columbia
- 2018: Samuel Paradis for Amphithéâtre Multifonctionnel de Québec (Centre Videotron), Quebec, Quebec, Canada
- 2019: Sarah Bersteh & Scott Lichy for Ramsey County Library – Shoreview, Shoreview, Minnesota
- 2019: Martin Roy for Résidences funéraires Goyer, Ste-Thérèse, Quebec, Canada
- 2020: Leighton Deer & Kevin Kaufman for Tennessee State Museum, Minneapolis, Minnesota
- 2020: Seck Pong Chan for MGM Cotai, Macau
- 2021: Lawrin Ellis, Cory Duggin, Carmine Rende & Alyssa Faircloth for Southwest Florida Community Foundation, Fort Myers, Florida
- 2022: Leighton Deer & Brad Grubb for Westwood Hills Nature Center, Minneapolis, Minnesota
- 2023: Adrienne Mitani for 70 Gloucester, Ottawa, Ontario, Canada

#### Public Assembly – Existing

- 1999: Claude Dumas for City of Montreal Skating Rinks, Montreal, Quebec, Canada
- 2002: Peter H. Rumsey for The Oakland Museum, Oakland, California
- 2012: Timothy Gasper for The North Carolina Museum of Art, Raleigh, North Carolina
- 2013: Andre-Benoit Allard for Montreal Biodome, Quebec City, Quebec, Canada
- 2013: Olivier Paquette St-Jean for Olympia Arena, Montreal, Quebec, Canada
- 2015: Jason Troy LaRosh for the Janesville Ice Arena Addition and Renovation, Janesville, Wisconsin
- 2018: Matt Branham, Adam Pierce, & Jess Farber for Kentucky Exposition Center, Louisville, Kentucky
- 2019: Dominic Desjardins, Maurice Landry, & André-Benoît Allard for Montreal Olympic Park's Integrated Performance Contracting Project, Montreal, Quebec, Canada
- 2020: Mary On for Audain Art Museum, Vancouver, British Columbia, Canada

#### Residential – New

- 2000: Marc Rosenbaum for Hanover House, Hanover, New Hampshire
- 2010: University of California Merced – Sierra Dormitory Buildings I & II, Merced, California
- 2013: Tom (Shimin) Ren for Whistler Athlete's Village, New Westminster, British Columbia, Canada



- 2013: Scott Koehn for Brentwood Net Zero Affordable Housing Project, Edmonton, Alberta, Canada
- 2013: Goran Ostojic for The Village on False Creek, Vancouver, British Columbia, Canada
- 2014: Darren Dageforde for the Dageforde Residence, Blair, Nebraska
- 2014: Ariel Levy for the Ramona Apartments, Portland, Oregon

#### Residential – Existing

- 2012: Steven D. Maze for 525 W. Hawthorne Mechanical Upgrade Project, Chicago, Illinois
- 2012: Pierre Lévesque for Condominium “Les Verrières sur le Fleuve,” La Prairie, Quebec, Canada

#### Residential

- 2016: Jonathan M. Heller for the Stack House Apartments, Seattle, Washington
- 2016: Tom J. Marseille for the Greenfire Campus, Seattle, Washington
- 2016: Sarah Elizabeth Berseth for the Bishop Henry Whipple Building, Fort Snelling, Minnesota
- 2016: Daniel Robert for the Altoria/Aimia Tower, Montreal, Quebec, Canada
- 2022: Dustin Langille & Donald McLauchlan for 3833 North Broadway, Hillside, Illinois

#### Alternative and/or Renewable Energy Use

- 1999: Paul A. Torcellini for National Renewable Energy Laboratory Thermal Test Facility, Golden, Colorado
- 2001: Paul A. Torcellini & Otto Van Geet, for Otto Van Geet Residence, Idaho Springs, Colorado
- 2002: William (Lanny) Severn Joyce for Lake Source Cooling, Cornell University Utilities Department, Ithaca, New York
- 2003: Alexander S. Butkus, Jr. & Shirish Maniar, Gruman/Butkus Associates, Evanston, Illinois
- 2006: Laurier Nichols for Ecole Du Tournant, Saint-Constant, Québec

### **William J. Collins, Jr. RP Award**

Established in 1985, this award honors the Chapter RP Chair who excels in raising funds for ASHRAE’s RP Campaign.

1985	Ralph M. Mattison	1998	Jitendra T. Shah	2011	George “Billy” Austin, Jr.
1986	Bob A. McAlister	1999	Spencer N. McDonald	2012	Nicolas Lemire
1987	Herbert L. Bregman	2000	Allan Bruns	2013	Christopher M. Donovan
1988	Robert P. Barschel	2001	Eric T. Jenison	2014	Ken Stoppel
1989	Ronald W. Keller	2002	Timothy B. Boyles	2015	Robert Kunkel
1990	Robert J. Meredith	2003	Michael B. Balko	2016	Kimberly Thompson
1991	Jeffrey D. Brouillette	2004	Mike Middleton	2017	Patrick Huang
1992	A. Timothy Waugh	2005	T. David Underwood	2018	Adam Graham
1993	James M. Porter	2006	Rick Sellers	2019	Daniel Redmond
1994	Tom A. Willis	2007	Brian Hamilton	2020	Reed Coggins
1995	Tony Moore	2008	John Sealy	2021	Nathan Cook
1996	Roger W. Dieffenbach	2009	Rob Craddock	2022	Nathan Zeigler
1997	T. Randall Jones	2010	Bobby Vermillion	2023	David J. Anderson

### **Willis H. Carrier Award**

Established in 1960, the Willis H. Carrier Award, sponsored by the Carrier Corporation, is awarded for the best published paper of outstanding quality presented at a Society conference by a member of any grade who was 32 years of age or less at the time of presentation of the paper.

1959-60	Aaron L. Brody	1993	Nancy J. Banks
1960-61	Carl F. Speich	1994	Barbara A. Stefl
1961	J. Richard Wright	1995	Frederic B. Morris
1962-66	(No award given)	1996	Chad B. Dorgan
1967	Charles E. Bullock	1997	Shane A. Moeykens
1968	George D. Huffman	1998	Steve P. Rottmayer
1969	Richard E. Barrett	1999	Brian W. Lee
1970	Yosunobu Nishi	2000	Carey J. Simonson & Dustin L. Ciepliski
1971	Douglas E. McDuffie, Jr.	2001	Andrew Manning
1972	(No award given)	2002	Xianghong Huang
1973	Stanley A. Mumma	2003	Dongyi Xiao
1974	(No award given)	2004	Guan Yanzheng
1975	Douglas M. Burch	2005	Nicolas Long

1976	Merle F. McBride	2006	(No award given)
1977	Stephen M. Sessler	2007	Barbara H. McCrary
1978	A.F.M. Ali	2008	Joseph Firrantello & Alexander P. Michaud
1979	Sudhir K. Sastry	2009	Paulo Cesar Taberes Velasco, Ph.D.
1980	Stephen E. Selkowitz	2010	Michael S. Waring
1981	Amir L. Ecker	2011	Jacob L. Edmondson
1982	Francesco Pompei	2012	Daniel C. Gibbs
1983	Van D. Baxter	2013	Paul Glanville, P.E., Douglas Kosar, & Jason Stair
1984	Nancy J. MacDonald Banks	2014	Morgan D. Hayes
1985	Frank E. Jakob	2015	Dustin W. Demetriou & Hamza Salih Erden
1986	Joseph E. Laviana	2016	Carl L. Reid & Peng Yin
1987	Robert W. Rasmussen	2017	Mohammad Rafati
1988	Alain P. Fobelets	2018	Carl L. Reid & Peng Yin
1989	Joseph H. Eto	2019	Emily Oldham
1990	Anil K. Trehan	2020	Justin Berquist
1991	Andreas K. Athienitis & Jiangang Shou	2021	Li Ding
1992	Lars J. Nilsson	2022	Reece Kiriū

### **YEA Award of Individual Excellence**

Established in 2013, this award recognizes YEA members for superior efforts during the preceding Society year in the promotion of YEA and representation of the 35 and under demographic of ASHRAE.

2014	Stephanie Kunkel, Rupesh Iyengar, Jake Kopocis	2019	Anuj Gupta, Emma Wildeman
2015	Nathaniel Boyd, John Constantinide, Eric Sturm	2020	Abhishek Kurana, Badri Patel, Sarah Toy
2016	Hao Luo, Kris Tan, Rachel Romero	2021	Luiz Antonio Piccoli, Jr., Marie VanderVliet, Nissun Feiner
2017	Erica Moser, Alyse Falconer, Mitesh Kumar	2022	Eleazar Rivera, Kajen Ethirveerasingham
2018	Wesley Stanfill, Pun Mun Wai, Bryce Buchanan	2023	Jeanette Hay, Christine Smith, Elise Backstrom

### **YEA Inspirational Leader Award**

Established in 2020, this award recognizes a Young Engineer in ASHRAE (YEA) member who has gone above and beyond to make contributions to the industry and community.

2021	Vanessa Freidberg	2022	Badri Patel	2023	Jake Kopocis
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### **Youth Outreach Award**

Established in 2013, this award recognizes the outstanding effort of a member who actively engages a youth audience in their country, region, or local community through science, technology, engineering and mathematics (STEM) activities.

2014	(No award given)	2017	James Paul Martin	2020	Elise Kiland
2015	Eric Heinrich	2018	Heather Schopplein	2021-23	(No award given)
2016	Eric Heinrich	2019	Cinthya Cecilia Carillo Mendez		

### **Previous Awards**

#### **ASHRAE-ALCO Medal for Distinguished Public Service**

Established in 1965 by Presidential Member John E. Dube and sponsored by the Alco Valve Company, this award recognized a member of the Society who performed outstanding public service in their community, and in doing so, helped to improve the public image of the engineer.

1965	Albert J. Nesbitt	1981	Howell E. Adams, Jr.	1995	John H. Stanley
1966	(No award given)	1982	Warren G. Moses	1996	Harry M. Will
1967	(No award given)	1983	William W. Gay, Sr.	1997	(No award given)
1968	W.L. Davis	1984	(No award given)	1998	William S. Bodinus
1969	George A. Linskie	1985	Realto E. Cherne	1999	Evans J. Lizardos
1970	Carlyle M. Ashley	1986	Otto A. Tenant	2000	Jerry G. Bartos
1971	Harry E. Bovay, Jr.	1987	Joseph S. Kearney, Sr.	2001	(No award given)
1972	Robert W. Flanagan	1988	Howard O. Ward	2002	Richard B. Hayter

1973	Bruce L. Evans	1989	John F. Germ	2003	Eugene Stamper
1974	George B. Hightower	1990	John I. Levenhagen	2004	Richard F. Vermillion
1975	Earle K. Wagner	1991	Ellsworth F. Cassing	2005	Laurance Staples, Jr.
1976	Alwin B. Newton	1992	Kenneth W. Wicks	2006	Alfred Greenberg
1977	(No award given)	1993	William P. Chapman	2007	David McKenney
1978	Cullen E. Parmelee	1994	Carl J. Opatrny	2008	Clark W. Bullard
1979	Henry J. Campbell, Jr.	1995	John H. Stanley		
1980	(No award given)	1994	Carl J. Opatrny		

### **Chapter Program Star Award**

Established in 2004, this award recognized the outstanding performance of an individual in the planning and programming of meeting programs at the chapter level which resulted in a significant improvement in the local meeting attendance. In January 2019 this award was discontinued and incorporated into the Dan Mills Programs Star Award.

2005	Frank Heine, Twin Tiers Chapter	2013	Eric M. Fullerton, Arkansas Chapter
2006	Dave Shugars, Western Michigan Chapter	2014	Heather Schopplein, San Diego Chapter
2007	Tom Lewis, Nebraska Chapter	2015	William P. Lee, Hawaii Chapter
2008	Don Hay, Monterrey Chapter	2016	(No award given)
2009	Robert Laneve, Cleveland Chapter	2017	Chun-Sing Wong, Hong Kong Chapter
2010	Christopher Ahne, Arkansas Chapter	2018	Abhishek Khurana, Toronto Chapter
2011	Keith H. Reihl, Houston Chapter	2019	Joe Chow, Hong Kong Chapter
2012	Marco Ottavino, Toronto Chapter		

### **Comfort Cooling Award for Project Excellence**

Established in 2004, this award recognized the designer and the owner of a comfort cooling application which highlights innovation and/or new technologies. In January 2016, the name of the award was changed from the Refrigeration Comfort Cooling Award for Project Excellence. In 2021 this award was discontinued and incorporated into the Milton W. Garland Commemorative Refrigeration Award for Project Excellence.

2006	Mark Blazis, Kevin Dolder, & Karl Miller	2012	Eric M. Fullerton
2007-08	(No award given)	2013-15	(No award given)
2009	Russell L. Heiken	2016	Andrew B. Pearson
2010-11	(No award given)	2017-20	(No award given)

### **Joseph F. Cuba Award for Energy Research**

The Joseph F. Cuba Award for Energy Research was presented by the ASHRAE Research and Technical Committee to honor significant accomplishment by a graduate student in energy conservation or renewable energy research.

1985	Meinrad Machler & Daniel L. Ewert	1987	Larry W. Kostiuk	1989	James E. Braun
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### **Klixon Award**

The Klixon Award was presented from 1957-1968 to the author of the best paper published by the Society during a calendar year on a subject relating to electric motors or controls. The award was sponsored by the Metals and Controls Division, Texas Instruments, Inc.

1958	Raymond T. Divers	1961	C.V. Downing, Jr.	1966	G.L. Rodgers
1959	H.O. Spauschus & R.S. Olsen	1962-64	(No award given)	1967	(No award given)
1960	C.B. Sonnino & John F. Harris	1965	J. Mowry	1968	David B. Dibble & Russell E. Wood

### **Wolverine-ASHRAE Diamond Key Award**

Presented from 1940 to 1970 by the Wolverine Tube Division, Calumet & Hecla, Inc., this award was given to the author of the best paper published by the Society during the previous calendar year.

1940	Henry P. Pownall	1951	Daniel D. Wile	1962	William L. Bryan
1941	Paul F. McDermott	1952	Daniel C. Schiavone	1963	Charles A. Whitehurst
1942	Charles N. Deverall	1953	Neil E. Hopkins & John J. Seelaus	1964	William F. Kerka
1943	John G. Bergdoll, Jr.	1954	Ferruccio Rasori	1965	T.J. Csermely & C.M. Bosworth

1944	David L. Fiske	1955	(No award given)	1966	G.P. Mitalas
1945	Daniel D. Wile	1956	Dale J. Missimer	1967	Dr. Hans O. Spauschus & G.C. Doderer
1946	Clarence E. Lund	1957	James Threlkeld & Tamami Kusuda	1968	Peter K. Baade
1947	Richard H. Swart	1958	Jack B. Chaddock	1969	Colin G. Gordon
1948	Lloyd A. Staebler	1959	Harold M. Henddrickson	1970	Frank R. Biancardi & D.P. Darrow
1949	Milo M. Bolst & Richard C. Jordan	1960	Perry H. Ziel & John S. Blossom		
1950	William L. Holladay	1961	Bruno Morabito		