**Below is a listing of all Society level honors and awards.
Included is a description of the award, the form of the award,
as well as a list of past recipients.**

**If you have any questions or concerns, please contact Candace Pettigrew at** **cpettigrew@ashrae.org** **or (678)539-1128.**

**To be directed to a specific honor or award, please select from the list below:**

[ASHRAE HALL OF FAME](#_Toc520791630)

[ASHRAE PIONEERS OF THE INDUSTRY](#_Toc520791631)

[F. PAUL ANDERSON AWARD](#_Toc520791632)

[LOUISE AND BILL HOLLADAY DISTINGUISHED FELLOW AWARD](#_Toc520791633)

[ASHRAE FELLOWS](#_Toc520791634)

[ANDREW T. BOGGS SERVICE AWARD](#_Toc520791635)

[ASHRAE-ALCO MEDAL FOR DISTINGUISHED PUBLIC SERVICE](#_Toc520791636)

[ASHRAE AWARD FOR DISTINGUISHED PUBLIC SERVICE](#_Toc520791637)

[E.K. CAMPBELL AWARD OF MERIT](#_Toc520791638)

[ASHRAE HONORARY MEMBERS](#_Toc520791639)

[DISTINGUISHED 50-YEAR MEMBER AWARD](#_Toc520791640)

[EXCEPTIONAL SERVICE AWARD](#_Toc520791641)

[DISTINGUISHED SERVICE AWARD](#_Toc520791642)

[LINCOLN BOUILLON MEMBERSHIP AWARD](#_Toc520791643)

[WILLIAM J. COLLINS, JR. RP AWARD](#_Toc520791644)

[HOMER ADDAMS AWARD](#_Toc520791645)

[RALPH G. NEVINS PHYSIOLOGY AND HUMAN ENVIRONMENT AWARD](#_Toc520791646)

[JOHN F. JAMES INTERNATIONAL AWARD](#_Toc520791647)

[MILTON W. GARLAND REFRIGERATION AWARD](#_Toc520791648)

[STANDARDS ACHIEVEMENT AWARD](#_Toc520791649)

[CROSBY FIELD AWARD](#_Toc520791650)

[LOU FLAGG HISTORICAL AWARD](#_Toc520791651)

[PAPER AWARD](#_Toc520791652)

[POSTER PRESENTATION AWARD](#_Toc520791653)

[WILLIS H. CARRIER AWARD](#_Toc520791654)

[JOURNAL PAPER AWARD](#_Toc520791655)

[SCIENCE AND TECHNOLOGY FOR THE BUILT ENVIRONMENT BEST PAPER AWARD](#_Toc520791656)

[TECHNOLOGY AWARDS](#_Toc520791657)

[TECHNOLOGY AWARD OF ENGINEERING EXCELLENCE](#_Toc520791658)

[STUDENT DESIGN PROJECT COMPETITION AWARD](#_Toc520791659)

[GOVERNMENT AFFAIRS AWARD](#_Toc520791660)

[STUDENT ACTIVITIES ACHIEVEMENT AWARD](#_Toc520791661)

[DAN MILLS TECHNICAL AWARD](#_Toc520791662)

[CHAPTER PROGRAM STAR AWARD](#_Toc520791663)

[DONALD A. SILLER REFRIGERATION AWARD](#_Toc520791664)

[COMFORT COOLING AWARD FOR PROJECT EXCELLENCE](#_Toc520791665)

[SERVICE TO ASHRAE RESEARCH AWARD](#_Toc520791666)

[GEORGE B. HIGHTOWER TECHNICAL ACHIEVEMENT AWARD](#_Toc520791667)

[ENVIRONMENTAL HEALTH AWARD](#_Toc520791668)

[YOUNG ENGINEERS IN ASHRAE (YEA) AWARD OF INDIVIDUAL EXCELLENCE](#_Toc520791669)

[YOUTH OUTREACH AWARD](#_Toc520791670)

[DEVELOPING LEADER AWARD](#_Toc520791671)

[LOWER-GWP REFRIGERATION AND AIR-CONDITIONING INNOVATION AWARD](#_Toc520791672)

[WOLVERINE-ASHRAE DIAMOND KEY AWARD](#_Toc520791673)

[KLIXON AWARD](#_Toc520791674)

[JOSEPH F. CUBA AWARD FOR ENERGY RESEARCH](#_Toc520791675)

**ASHRAE HONORS AND AWARDS RECIPIENTS**

## **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. The award consists of a plaque and transportation, andone night’s lodging to the meeting where the award is presented.

|  |  |  |
| --- | --- | --- |
| F. Paul Anderson |  | 1994 |
| Willis Haviland Carrier |  | 1994 |
| Francis W. Hutchinson |  | 1994 |
| Carlyle Martin Ashley |  | 1995 |
| A. Pharo Gagge |  | 1995 |
| Gianfelice Bertolini |  | 1996 |
| John Engalitcheff, Jr. |  | 1996 |
| Margaret Ingels |  | 1996 |
| George Lewis Tuve  |  | 1996 |
| Reuben N. Trane  |  | 1997 |
| Rudolf Plank  |  | 2001 |
| Charles S. Leopold |  | 2000 |
| Frank H. Fraust |  | 2003 |
| Milton W. Garland  |  | 2003 |
| No Award Given  |  | 2004 |
| Henry Galson |  | 2005 |
| Gardner Voorhees |  | 2005 |
| Jasper G. Woodroof |  | 2006 |
| Mary E. Pennington |  | 2007 |
| Frank J. Dean, Jr |  | 2008 |
| P. Ole Fanger |  | 2008 |
| No Award Given |  | 2009 |
| William J. Collins, Jr |  | 2010 |
| J. Donald Kroeker |  | 2010 |
| Roderick R. Kirkwood |  | 2012 |
| Wilbert F. Stoecker |  | 2013 |
| Fred W. Wolf, Jr. |  | 2014 |
| Rolla Carpenter |  | 2015 |
| Robert Tamblyn |  | 2015 |
| Calvin D. MacCracken |  | 2016 |
| John Edwin Starr |  | 2016 |
| No Award Given |  | 2017 |
| Lynn G. Bellenger |  | 2018 |
| Seichi “Bud” Konzo |  | 2018 |
| A. Damon Gowan  |  | 2018 |
| George Hightower |  | 2019 |

## **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. The form of the award is a permanent listing with the recipient’s accomplishments that will be on display at Society Headquarters, on the ASHRAE website, and listed in a permanent binder in the ASHRAE Library.

|  |  |  |
| --- | --- | --- |
| No Award Given  |  | 2011 |
| No Award Given |  | 2012 |
| Gillbert Carson William F. Fontaine |  | 2013 |
| John GorrieAlfred R. Wolff |  | 2014 |
| Carl Linde |  | 2015 |
| Andrew Muhl |  | 2015 |
| Daniel Livingston Holden |  | 2016 |
| Benjamin Franklin Sturtevant |  | 2016 |
| Carl Georg Munters |  | 2017 |
| Frederick Wittenmeier |  | 2017 |
| Sadi Carnot |  | 2018 |
| No Award Given |  | 2019 |

##

##

## **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. The award consists of a plaque with a medallion.

1932.................Willis H. Carrier

1936................Arthur C. Willard

1939.................Frank B. Rowley

1942.........Frederick E. Giesecke

1944............. Ferry C. Houghten

1946........... Alfred E. Stacey, Jr.

1947................ James H. Walker

1950.Chas.-Edward A. Winslow

1951.................Samuel R. Lewis

1952...................Homer Addams

1953......... Everett N. Mcdonnell

1954..........Walter I. Fleisher, Sr.

1955............. Charles S. Leopold

1956.....Robert W. Keeton, M.D.

1957.................M.F. Fahnestock

1958.............George Lewis Tuve

1959.........................C.P. Yaglou

1960.............. Peter Ben Gordon

1961...............J. Donald Kroeker

1962........................C.M. Ashley

1963.................... Arthur J. Hess

1964...................Axel B. Algren

1965. ...............Louis N. Hunter

1966..............Richard C. Jordan

1967.................Walter A. Grant

1968.......................Crosby Field

1969..........Dean W.R. Woolrich

1970.....................Glenn Muffly

1971..............Donald K. Tressler

1972...................Robert H. Tull

1973.....................Seichi Konzo

1974...........William L. Mcgrath

1975...............Neil B. Hutcheon

1976.............Paul R. Achenbach

1978............Wilbert F. Stoecker

1979...................Daniel D. Wile

1980.................Herbert L. Laube

1981............Burgess H. Jennings

1982..........John Engalircheff, Jr.

1983...........William P. Chapman

1984................ No Award Given

1985................Walter F. Spiegel

1986................. A.Pharo Gagge

1987............Everett P. Palmatier

1988..............Milton W. Garland

1989.................George O.G. Lof

1990.............. Frank H. Bridgers

1991............William Goodman

1992.................. P. Ole Fanger

1993..............Jack B. Chaddock

1994..............Hans O. Spauchus

1995...................Frank H. Faust

1996.................William J. Coad

1997..............Joseph B. Olivieri

1998........William J. Collins, Jr.

1999.........Donald R. Bahnfleth

2000...............Arthur E. Bergles

2001...............(No award given)

2002.............. (No award given)

2003……… (No award given)

2004…………Clark W. Bullard

2005……..…(No award given)

2006……..…(No award given)

2007……..…(No award given)

2008……..…(No award given)

2010……..…Gerald C. Groff

2011…………Richard P. Perry

2012………. (No award given)

2013……….Richard H. Rooley

2014..............Kent W. Peterson

2015……….A. Damon Gowan

2016………..Thomas E. Watson

2017…………(No award given)

2018…………Steven T. Taylor

2019………(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. The award consists of a plaque with a medallion.

1979 ............Carlyle M. Ashley

1980 ................. John I. Yellott

1981 ................A. Pharo Gagge

1982 ...................P. Ole Fanger

1983 ................ Daniel D. Wile 1984 .................Frank H. Faust

1985 ............Alwin B. Newton

1986 .....................John H. Fox

1987 .............. Tamami Kusuda

1988 ................Donald G. Rich

1989................William J. Coad

1990 .. Frederick H. Rohles, Jr.

1991.... Thomas B. Romine, Jr.

1992............Ralph L. Goldman

1993....... Donald R. Bahnfleth

1994............Preston E. McNall

1995...........Milton W. Garland

1996.............. Harold E. Straub

1997........... Joseph B. Olivieri

1998...... Frederick H. Kohloss

1999............Harry J. Sauer, Jr.

2000...... George B. Hightower

2001.............(No award given)

2002..........…Arthur E. Bergles

2003………..Olli A. Seppanen

2004…………No award given

2005………….…Prem C. Jain

2006………..Max H. Sherman

2007.............(No award given)

2008 …………...James E. Hill

2009……...Wilbert F. Stoecker

2010………….No award given

2011………….Byron W. Jones

2012……...Stanley A. Mumma
2013............ .(No award given)
2014………..Kent W. Peterson

2015………....Raymond Cohen

2016…………Steven T. Taylor

2017………….Zahid Ayub

2018………….William Bahnfeth

## **ASHRAE FELLOWS**

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. The award consists of a plaque and a lapel pin.

Abedin, A.—1998

Achenbach, P.R.—1959

Acorn, W. A. – 2006

Adams, L.—1955

Advani, A.—1996

Aguilo, R.R. — 2013

Akerman, J.R.—1981

Albern, W.F.—1992

Alderman, B., Jr.—1977

Altieri, J.L.—1986

Alvine, R.G.—1981

Amann, W.L.—1985

Amstrong, P. R.—2015

Anderson, C.M.—1982

Anderson, P.P., Jr.—1979

Angus, D.L.—1971

Appling, E.B.—1983

Armstrong, R.M.—1950

Armstrong, R.S.—1997

Arnold, D.—2001

Asker, G.C.F—1996

Athienitis, A.K. —2017

Atwood, T.—1992

Avery, G.—1997

Ayres, J.M.—1973

Ayub, Z. —2008

Azer, N.Z.—1992

Baade, P.K.—1971

Bahnfleth, D.R.—1975

Bahnfleth, W.P. —2005

Baker, R.G. —2009

Balaras, C. — 2011

Bales, E.L.—1999

Bansal, P. —2008

Barbier, W.H.—1987

Barkman, H.G.—1987

Barnaby, C. —2016

Barnard, L., Jr.—1989

Basso, P.J.—1997

Bathgate, T.A.—1992

Baum, R.T.—1977

Bauman, F.S.—2018

Baxter, V. — 2011

Bayer, C. —2016

Beaty, D.L. —2007

Becker, B. — 2004

Becker,S. —2008

Behls, H.F.—1995

Bellenger, L.G.—1998

Belt, Jr., N.W.—1998

Bendelius, A.G.—1997

Bennett, A.H.—1983

Benz, D.L.—1993

Bergles, A.E.—1992

Berglund, B.—1992

Berglund, L.G.—1991

Bernier, M. —2016

Bertrand, L.—1998

Besant, R.W.—1993

Betz, F.W. —2017

Bevirt, W.D.—1992

Bhatti, M. —2004

Biehn, G.L.—1975

Bilderbeck, M.R. —2005

Bishop, W.P.—1985

Bisset, J.B.—1995

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

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

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

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

Cleland, D.J. —2009

Clements-Croome, D.J.—1998

Cloke, T.H., Jr.—1974

Coad, W.J.—1980

Coggins, J.L.—1999

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

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

Daly, E.A.—1994

Davidson, L.A. —2007

Davis, W.J.—1984

Dean, B.W.—1983

Decker, H.E.—1983

Deltz, P.N.—1994

Depew, C.A.—1995

DesChamps, N.H.—1999

Deshpande, S.D.—2015

Dharkar, P. — 2014
Didion, D.A.—1991

DiGiacomo, W.A.—1986

Dillon, M.E.—1993

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

Driscoll, D.J.—1982

Duda, S.W. — 2013

Dunlap, J. —2016

Dunnavant, B.K. —2017

DuPernell, P.C.—1994

Durkin, T.H. —2012

Dussault, R.E.—1992

Dwyer,T. —2008

Dzelzitis, Egils — 2014
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

Fencl, F.B. —2009

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

Friedman, D. — 1982

Friedman,G. —2012

Gabrielsson, J.E.—1984

Gage, Cynthia – 2006

Galson, E.L.—1988

Ganta, Ravisankar- 2014
Garbarino, A. — 2005

Gardner, M.D.—1997

Garrett, F.T., Jr.—1992

Gates, A.S., Jr.—1966

Gatley, D.P.—1984

Gendler, G.L.—1973

Gerstler, W.D.—2015

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

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

Guntermann, A.E.—1992

Gupta, H.C.—1975

Gupta, V.P. ─ 2011

Gupta, Vijay—2003

Gupton, 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

Hansen, E.G.—1993

Hansen, III, C.—1998

Hargan, M.R.—1996

Harmon, J.J.—1995

Harriman, L.G. —2009

Harrison, W.D.—1982

Harrod, J. —2016

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

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

Hopper, R.E., Jr.—1993

Horstman, R.H. —2012

Horvay, J.B.—1977

Hosni, M.H. —2005

Hourahan, G.C. —2009

Houston, S.H.—1998

Howell, R.H.—1986

Hrnjak, P.S. —2005

Hu, Y.R. —2005

Hubard, 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

Kadaba, P.V.—1993

Kamm, J. —2018

Kampmeyer, J.E.—1997

Kanan, K. S. – 2006

Katipamula, S. —2009

Kato, S. —2007

Kavanaugh, S.2003

Kazachki, G.—2003

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

Kilkis, 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

Krafthefer, 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

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

Lesser, N.I.—1990

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

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

Magyar, Z. —2016

Manglik, R.J. —2017

Manning, B.R.—1993

Markel, L.C.—2002

Markel, M.L.—1991

Marks, P.C. —2015

Marschall, P.J.—1960

Masters, R.E.—1985

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

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

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

Missimer, D.J.—1972

Mitchell, J.W.—1994

Moakes, R.—1992

Modera, M. ─ 2011

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

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

Ng, E.H.—2001

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

Ohadi, M. —2004

Olesen, B.W.—2001

Olivieri, J.B.—1975

Olsen, E.J.—1999

Olsen, J.C.—1982

Olson, D. —2016

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

Pedersen, C.O.—1987

Penney, G.W.—1981

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, Ronald - 2014

Petras, Dusan — 2014
Pflug, I.J.—1975

Phaklides, W.J.—1982

Phillips, C.W.—1972

Phillips, G. —2018

Phillips, H.—1991

Phoenix, T.H. — 2011

Pietsch, J.A.—1977

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

Ratai, W.—1983

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

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

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

Salsburg, J.F.—1971

Sami, S.M.—2001

Sanchez, A.J.—1998

Sandelewski, A. —2017

Sandfort, J.F.—1971

Sankaran, S. — 2005

Sanvordenker, K.S.—1982

Sarda, D.R. —2017

Sauer, H.J., Jr.—1980

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

Setty, B.S.—2002

Shadpour, F. —2005

Shah, M.M.—2000

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

Simmonds, P. – 2006

Simonson, C. J. —2016

Singh, H.—1994

Singh,J. —2008

Sirjord, 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

Starner, K.E.—1998

Stefanutti, L.F. —2017

Stefanutti, U.—1992

Steimle, F.W.—1990

Stern, R.M.—1983

Stockwell, R. —2017

Stoecker, W.F.—1974

Stone, D.T.—1996

Stotz, R.B.—1985

Straub, H.E.—1972

Strong, R.H.—2002

Sud, I. —2005

Suggs, R.M., III—1993

Sullivan, E.P.—1977

Sun, T.Y.—1984

Sun, W. —2017

Sundaresan, G.—2000

Surange,A. —2008

Swenson, C.A.—1984

Swygert, H.B., Jr.—1985

Synn, I.C-O.—1996

Tabunschikov, Y.A.—2001

Tamblyn, R.T.—1975

Tan, S.C.L—2001

Tanabe, S. – 2006

Taneja, O. —2015

Tao, E.—1986

Tao, W.K.—1977

Tapias, A.—1985

Tauby, J.R. —2018

Taylor, R.E.—1993

Taylor, S. —2004

Taylor, W.—1975

Thirakomen, K. —2009

Thomle, A. —2017

Thompson, C.A.—1989

Thornton, R.C.—1991

Tilney, R.B.—1975

Timmer, C.W.—1994

Todorovic, B.B.—1987

Todorovic, M. —2009

Toub, S.G.—2002

Towell, R. —2016

Townsend, T.E.—1997

Traboulsi, S. - 2014
Trafton, P. —2016

Traugott, F.A.—1980

Tree, D. — 2005

Tse, V.K.C.—1996

Tully, R.E.—1980

Tumilty, J.E.—1983

Turaga, M.—1992

Underwood, T.D. —2007

Urban, R.A.—1980

Uselton, R.B. —2004

Utesch, A.L.—1986

Vaidyanathan,N. —2012

Vallort, J.K. — 2013

Vallort, R.P.—1997

Vechaphutti, T. —2004

Vener, A.S.—1990

Viessmann, H.—1989

Vijayakumar, R. —2016

Vineyard, E.A. — 2011

Voelz, G.R.—1977

Vogel, C.T.—1990

Waeldner, W.J.—1993

Walker, I.S. — 2011

Walkinshaw, D. —2008

Wallstrom, L.L.—1981

Walton, G. — 2005

Wang, C. — 2005

Wang, D.W.P—2002

Wang, F. —2016

Warwicker, B. — 2011

Waterfill, R.W. —1971

Watson,T. —2008

Watt, J.R.—1992

Webb, R.L.—1998

Webb, W.A.—2002

Weld, G.B.—1986

Wells, R.D.—1996

Wells, W.P.—1977

Welsh, J.W.—1990

Wen, S.M.—1986

Wentz, T.G. —2005

Wepfer, W.J.—1996

Werden, R.G.—1965

Wessel, D.J.—1998

Wheeler, A.E.—1975

White, T.J.—1981

Whitescarver, C.K., Jr.—1982

Wicks, K.W.—1985

Wildin, M.W.—1997

Williams, G.J. —2017

Williams, V.A.—1988

Willis, L.E.—1999

Wingfield, G. — 2006

Winston, Donald - 2014
Wischmeyer, W.F.—1974

Wolfberg, H.A.—1984

Wong, S.P.W.—1988

Wong, Y.W.—2002

Woodroof, J.G.—1958

Woods, J.E.—1992

Woody, A.W.—2000

Worek, W.M. — 2011

Wright, J.R.—1998

Yamamoto, G.S.—2000

Yang, K. – 2006

Yang, X. — 2011

Yoshino, H. – 2006

Young, E.H.—1984

Yousoufian, H.H.—1997

Yu, P.C.H. —2018

Yuill, G.K.—1990

Zanders, R.W.—1988

Zhang, J. — 2011

Zhang,Y. —2008

## **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. The award consists of a plaque with a medallion..

1987............Frederick J. Reed

1988............Sam P. Soling

1989............Hans O. Spauschus

1990........... Morris L. Markel

1991............Preston E. McNall, Jr.

1992........... Frank H. Faust

1993 ....... ...William J. Collins, Jr.

1994 .......... Thomas J. White

1995………Richard P. Perry

1996………Louis F. Flagg

1998………Kenneth W. Wicks

1999………Donald E. Nichols

2000............ David S. Butler, Sr.

2001........... Ross F. Meriwether

2002............ William J. Coad

2003……….George A. Jackins

2004……….(No Award given)

2005……….(No Award given)

2006……….(No Award given)

2007………( No Award given)

2008……….Donald G. Rich

2009…….…Laurance S. Staples

2010……….Donald G. Colliver

2011……….Richard Hayter

2012……….(No Award Given)

2013...............Richard A. Charles
2014………..Kenneth W. Cooper

2015……….William A. Harrison

2016………. H.E. Barney Burroughs

2017……….Steven T. Taylor

2018……….Van Baxter

## **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 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. The award consists of a plaque with a medallion.

1965.....................................Albert J. Nesbitt

1968.............................................W.L. Davis

1969................................. George A. Linskie

1970................................. Carlyle M. Ashley

1971............................... Harry E. Bovay, Jr..

1972...............................Robert W. Flanagan

1973...................................... Bruce L. Evans

1974............................George B. Hightower

1975.................................... Earle K. Wagner

1976.................................. Alwin B. Newton

1978................................Cullen E. Parmelee

1979...........................Henry J. Campbell, Jr.

1981............................ Howell E. Adams, Jr.

1982 ...................................Warren G. Moses

1983 ..............................William W. Gay, Sr.

1985 ................................... Realto E. Cherne

1986 .......................................Otto A. Tenant

1987 ..........................Joseph S. Kearney, Sr..

1988 ...................................Howard O. Ward

1989 ......................................... John F. Germ

1990 ...............................John I. Levenhagen

1991 ............................. Ellsworth F. Cassing

1992 ................................ Kenneth W. Wicks

1993 ..........................…William P. Chapman

1994 ...................................... Carl J. Opatrny

1995 ..................................... John H. Stanley

1996......................................... Harry M. Will

1997.................................. (No award given)

1998................................William S. Bodinus

1999...................................Evans J. Lizardos

2000........................................Jerry G. Bartos

2001................................….(No award given)

2002................................…Richard B. Hayter

2003..............................…….Eugene Stamper

2004……………….…..Richard F. Vermillion

2005……………………Laurance Staples, Jr.

2006…………………….…Alfred Greenberg

2007……………………….David McKenney

2008………………………. Clark W. Bullard

## **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. The award consists of a plaque with a medallion.

|  |  |  |
| --- | --- | --- |
| Kenneth M. Fulk |  | 2009 |
| No Award Given |  | 2010 |
| No Award Given |  | 2011 |
| No Award Given |  | 2012 |
| Harold Lewis |  | 2013 |
| Jeff Gatlin |  | 2014 |
| William Sigman |  | 2015 |
| Erich Binder  |  | 2016 |
| No Award Given  |  | 2017 |
| No Award Given |  | 2018 |
| Patricia Graef |  | 2019 |

## **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. The award consists of a $10,000 honorarium and a plaque.

1958....................................... Lynn Helander

1959................................... Dean Merl Baker

1960............................... Lester S. O’Bannon

1961.............................. Burgess H. Jennings

1963........................... Maurice K. Fahnstock

1964........................................ Carl F. Kayan

1965..........................................C.O. Mackey

1966.................................. Richard C. Jordan

1967.................................................S. Konzo

1968...................................Walter O. Walker

1969...................................B.H. Spurlock, Jr.

1970................................... John Everetts, Jr.

1971................................ James M. McGrath

1972.................................. Jack B. Chaddock

1973................................Wilbert F. Stoecker

1974 ................................... Ralph G. Nevins

1975 ................................Herbert B. Nottage

1976 ................................... John F. Sandfort

1977 .....................................Rodney G. Keif

1978 .................................Stanley F. Gilman

1979 ............................Donald C. Bryant, Sr.

1980 ...........................................F.C. Hooper

1981 ..................................William F. Rudoy

1982 ................................... Raymond Cohen

1983 ..................................Harry J. Sauer, Jr.

1984 ..............................Burgess H. Jennings

1985 ....................................Charles F. Sepsy

1986 ...............................Faye C. McQuiston

1987 .........................Victor W. Goldschmidt

1988 ...............................Stanley A. Mumma

1989 .................................William J. Wepfer

1990 .....................................David J. Wilson

1991 ................................... James C.S. Chou

1992 ....................................... Jan F. Kreider

1993 ........................................ J. Ben Austin

1994 ................................Gordon M. Reistad

1995 ..................................Joseph B. Olivieri

1996 ....................................David A. Didion

1997 ............................................ S.A. Sherif

1998 ..................................David E. Claridge

1999 .................................Margaret S. Drake

2000 ............................... Timothy G. Wentz

2001 ....................................... David R. Tree

2002 .............................Branislav Todorovic

2003.................................Harmohindar Singh

2004……………………..…Anthony Jacobi

2005………………………..James E. Braun

2007………………………Ronald H. Howell

2008………………………David B. Meredith

2009……………………………..Judi Steciak

2010……………………….Eckhard A. Groll

2012………………………Wayne A. Helmer

2013………………………….Michal Bernier
2014.....................................Jeffrey D. Spitler

2015…………………Charles “Charlie” Culp

2016………………………….Michael Ohadi

2017……………………...Thomas H. Kuehn

2018………………….………..Julia A. Keen

2018…………...………William P. Bahnfleth

## **ASHRAE HONORARY MEMBERS**

Honorary Members are elected by the Board of Directors and are defined as notable persons of preeminent professional distinction. The award consists of a plaque with a medallion.

Allen V. Astin.........................................1969

L.M.K. Boelter .......................................1966

Andrew T. Boggs ....................................1985

Milton S. Eisenhower .............................1956

Crosby Field............................................1951

A.C. Fieldner ..........................................1944

Henry V. Heuser ....................................1995

Herbert C. Hoover..................................1956

F.G. Keyes..............................................1936

W.H. McAdams .....................................1963

Albert J. Nesbitt .....................................1972

Stefano Marino ………………………...2015

Peter A.Hancock……………………….2016

Terry M. Manon………………………..2016

Stephen T. Ayers…………………….....2017

No Award Given……………………….2018

Bill Gates……………………………….2019

## **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. The award consists of a plaque and lapel pin.

Achenbach, Paul R................................1992

Adams, Ludwig.....................................1994

Akerman, Joseph R...............................1996

Algie, Wallace L...................................1999

Altieri, John L……………………...…2003

Amann, Willard L…............................ 2002

Anderson, Philip P., Jr...........................1996

Angus, Donald L...................................1996

Appleby, Loran V. ...............................2002

Arrmstrong, Richard M. .......................1983

Ashley, Carlyle M. .................. ...... .... 1981

Asker, Gunnar C.F..................................1998

Atwood, Theodore………… …………2004

Avery, Gil……………………………...2006

Ayres, J. Marx........................................1996

Azer, Naim…………………………..2018

Baade, Peter K .......................................2000

Bahnfleth, Donald R ………………..2004

Barbier, William…………………….....2007

Barker, Perley K................................ ...1996

Barnard, Lloyd…………………….…..2009

Basso, Peter J…………………………..2008

Batherman, Richard E…………………2008

Bathgate, Thomas………………………2018

Baum, Albert L........................................1967

Baum, Richard T………………………2004

Behls, Herman F……………………….2016

Bendelius, Arthur G……………………2015

Bennett, Arthur H....................................2013

Benz, Donald L. ....................................1999

Bergdoll, John G.....................................1974

Bertrand, Luc…………………………2017

Bevirt, W. David....................................1999

Bishop, Marion W. ................................1985

Bishop, Walter P......................................2013

Blackmore, Joseph C...............................1986

Blankin, Merrill.......................................1969

Blazier, Warren E………………..….…2008

Bodinus, William S. ...............................1991

Boehmer, Andrew P. ..............................1985

Boggs, Andrew ..................................... 2001

Boling, Cecil ......................................... 1986

Bottum, E.W.......................................... 1988

Bourquin, Paul A. ................................. 1999

Bovay, Harry E., Jr................................ 1996

Boyd, Robert L. .................................... 1991

Boyd, Spencer W. ................................. 1986

Braun, Robert H…………………….......2008

Bridgers, Frank H.................................. 1997

Briley, George C. ………………….…...2003

Brink, Laurence K...................................2013

Britton, Paul E………………………….2005

Brown, Floyd L.......................................2013

Brown, Leonard N ................................ 1999

Brown, Seymour W............................... 1993

Bruechert, Carl J. .................................. 2002

Bryan, William L. ................................. 1992

Buckley, Jack B..................................... 1998

Buckley, Norman A.............................. 1996

Buckmaster, C. Roger………………… 2003

Buehler, Leon .................................... 1974

Bullock, Charles E……………………..2016

Burdick, Robert S……………………...2015

Burkhardt, Robert G. ………………… 2005

Burr, Griffith C., Jr……………………. 2010

Burroughs, Barney ……………………2018

Butler, Perc M....................................... 1999

Buzzard, Francis H. .............................. 1989

Caffrey, Ronlad J.....................................2013

Campbell, George S.............................. 1986

Carroll, J. Raymond.............................. 1996

Carscallen, George F…………………...2010

Carter, Franklyn Y..................................1993

Carter, Hugh C………………………....2007

Chaddock, Jack B. .................................2002

Chapman, William P...............................1998

Charles, Richard A……………………..2012

Chato, John…………………………….2009

Chenault, Charles V……………………1999

Cherne, Realto E................................... 1979

Chewning, Ray C.................................. 1995

Christensen, Paul B. ..............................1986

Clark, Kenneth, ……………..…………2018

Clarke, John H .......................................1991

Clements, Waller S.................................2013

Cloke, Jr., Thomas H. …………………2003

Cohen, Raymond……………................2017

Cohen, Walter…………………………..2010

Colborne, William G. …………………2003

Colen, Harold R.....................................2000

Collins, Jr., William J. ...........................1999

Conley, Harry E....……………………..2004

Cooper, D.S. ..........................................1988

Cooper, William S. ................................2002

Copeland, John E………………………2005

Costantino, Mario……………………...2012

Coughlin, Robert J……………………..2007

Cox, William A., Jr................................1996

Crider, Thomas G...................................1985

Crosland, Robert B., Jr. .........................1996

Cross, Robert C. .................…….....…1986

Cumming, Robert W. .........……..……1978

Daly, Edward………………………….2009
Davidson, Lindell A…………………...2014

Davis, Williard J. ……………………...2003

Day, Vincent S........................……....…1976

Dean, Bob W...........................……...... 1999

Deltz, Paul N ………………………….2015

Dibble, S.E.................................…….…1967

Digiacomo, William A...............……... 2002

Donley, Wallace L. ……………………2003

Downing, Ralph C....................…….......2002

Drake, Margaret S…………………..…..2006

Dugan, John T…………………………..2010

Dugan, Philip A…………………………2012

Duignan-Woods, Eileen………………...2016

DuPernell, Paul C………………………2003

Engdahl, R.B. ...........................…….... 1988

Engen, Byron………………………..…2018

English, Richard A…………………….2003

Ervin, Dixon A…………………………2003

Evans, Bruce L. .............................……1986

Evans, Richard A………………………2006

Evans, Robert J…. …..………………...2006

Everetts, John, Jr.... ......................……1979

Fahnestock, Maurice K..................……1982

Falk, David S........ .......................…….1986

Faust, Frank H. .............................…….1980

Ferdelman, Thomas J………………….2012

Flagg, Louis F...............................….…1997

Fogleman, Sam R……………………..2005

Foster, Theodore G. ......................……1999

Fox, John H...............................…….....1985

Frankfurt, William W. .................……..1993

Freeman, George ...................................2001

Friberg, Emil…………………………..2017

Friedman, Dick………………………..2004

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

Gendler, Gershon L. ...................……..1995

Giannini, Albert............................…….1997

Gilbertson, Thomas A............................2013

Gilmore, Clarence F...................……...1996

Glaser, Donald L....................................2013

Goldberg, Norman.......................……..1999

Gonzales, Don J……………………….2005

Goodman, Harley W., Jr………………2012

Goodman, William .....................……..1991

Govan, Francis A. ………………….....2008

Graber, Ernst.................................……1986

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

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

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

Hertzler, John R. ...........................….1978

Hesselschwerdt, August, Jr....... ...….1986

Hiers, Charles R.............................….1977

Hightower, G.B..............................…1988

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

Humphreys, Clark M........................ 1981

Hungerford, Leo............................... 1980

Hunton, Richard……………………2018

Ibison, J.L......................................... 1988

Jackins, George……………………..2009

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

Kilker, Robert L…………………….2003

Kimball, William……………………2018

Kirkwood, Roderick R…...................1996

Knights, Charles R………………….2011

Kramer, Daniel E…………………...2004

Kroll, Morton……………………….2009

Kuenhner, Richard L………………..2004

Kwok, Ping Ki………………………2016

L’Anglais, F…………………………2007

Lang, James H………………………2015

Lee-Thorp, Vincent D………………2015

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
Mackie, Edward I…………………..2014

Logsdon, R.F……………………….2005

Lortie, Rodney…………………….2017

Lotz, W.A…………………………..2007

MacPhee, Carl W…………………..2007

McFall, James D................................2013

McMinn, David N………………….2007

McNall, Preston E………………….2003

McNeil, Daniel C. ............................2000

Meckler, Milton ……………………2008
Melton, BJ………………………….2014

Menster, Paul C…………………….2003

Menzies, George E…………………2017

Merrick, Richard H…………………2003

Miller, Clint D…………………… 2006

Missimer, Dale .................................2001

Morabito, Bruno P. ...........................2002

Morris, Denis J……………………..2016

Morse III, Charles……………….…2018

Moseley, Terrell D………………….2006

Munger, Gurdon................................2001

Nack, Donald H……………………2004

Nagengast, Bernard………………..2018

Nettleship, Louis C………………....1995

Newman, James L.............................2013

North, Forrest H……………………2003

O’Dell, Leonard J………………….2005

Olsen, Erling J…………………….2017

Ossi, Fareed………………………...2011

Ostrander, William………………….2018

Pagliasotti, Robert D………………2017

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

Shefferman, Sholom M…………….2006

Sirjord, Jr., Arthur B……………….2003

Sisti, Michael F. …………………...2008

Smith, Thomas…………………….2011

Sobieski, J. Thomas.........................2016

Soumerai, Henri P.............................2002

Speich, Carl F....................................2010

Speigel, 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

Sullivan, E.P………………………..2005

Sun, Tseng-Yao…………………….2016

Swenson, Carl A. …………………2016

Swygert, Harold B. ……………….2008

Tamblyn, Robert T…………………2007

Tan, Sunny C.L…………………….2017

Taylor, William…………………….2006

Teske, Edward R. .............................2000

Thornton, Raymond..........................2001

Tilney, Ralph....................................2001

Timmer, Chester W………………..2003

Tully, Richard E.J………………….2006

Valerio, E.L………………………..2007

Vallort, Ronald P.……………….....2015

Voelz, Robert ...................................2001

Vogel, Chester T…………………...2010

Waeldner, William J……………….2003

Wallstrom, Lloyd L. .........................2002

Weld, Gordon B…………………….2016

Wells, Robert D…………………….2007

Wells, William P. .............................2000

Welsh, John W……………………..2016

Wicks, Kenneth W………………….2003

Williams, Verle A..............................2013

Willliams, Thoma ……………………2018

Wingfield, Gary L…………………..2016

Wolf, James……………………2018

Wolfberg, Howard A……………….2006

Wolfert, John E……………………..2010

Woods, James E.................................2013

Woodworth, J.I……………………..2005

Wright, J. Richard…………………..2011

Yamamoto, George S. ……………..2018

Young, E.H…………………………2005
Yousoufian, Hrant H……………….2014

Zanders, Robert W.............................2000

## **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). The award consists of a plaque and lapel pin.

Aguilo, Roberto………………………….2014
Arnold, David…………………………....2014
Ayub, Zahid H...........................................2013

Bahnfleth, William P.……………………2008
Baker, Robert G………………………….2014

Balaras, Contantinos……………………..2011

Bansal, Pradeep………………………….2016

Baxter, Van………………………………2011
Becker, Bryan…………………………....2014
Beda, Michael F…………………………2008

Bellenger, Lynn B……………………….2006

Betz, Frederick…………………………..2018

Bilderbeck, Michael R…………………...2012

Binder, Erich……………………………2017

Boyce, Darryl K…………………………2008

Brandemuehl, Michael J…………………2012

Brandt, Donald L ………………………..2015

Buck, William J.…………………………2003

Burgett, Lee W..........................................2013

Burroughs, H.E. Barney…………………2008

Bushby, Steven T……………………….2017

Butler, David, Sr. .................................... 2001

Calm, James M. ...................................... 2002

Carter, Dale E…………………………...2013

Charles, Richard A. ................................ 2000

Chen, Quingyan (Yan)………………….2006

Coad, William......................................... 2001

Cohen, Raymond......................................2013

Colliver, Donald G……………………...2010

Cooper, Kenneth W…………………..…2008

Crawley, Drury B......................................2013

Cummings, Jr., Sam D……………….....2017

Dean, William K.......................................2013

Debes, Gary C…………………………...2010

deBullet, Julian R………………………..2010

Dillard, William M………………………2010

Domanski, Piotr…………………………2016

Donley, Wallace........................................2001

Dorgan, Chad……………………………2016

Dorgan, Charles E.....................................2002

Dwyer, Timothy C………………………2011

Emmerich, Steven……………………….2015

Evans, Richard A…………………….….2006

Ferdelman, Thomas J…………………....2007
Fields, James R………………………….2014

Fisher, Larry……………………………..2018

Flagg, Louis F. .........................................1999

Fleming, William S……………………...2011

Francisco, Paul W……………………….2015

Fricke, Brian ……………………………2016
Fulk, Kenneth…………………………....2014

Goodman, Harley W…………………….2008

Gowan, A. Damon………………………2016

Graef, Patricia T…………………………2017

Grasso, Maureen ……………………….2008
Groff, Gerald C………………………….2014
Groll, Eckhard A………………………...2014

Gulledge, Charles E……………………..2015

Hallstrom, Arthur D……………………..2007

Harrison, William A…………………….2010

Harrod, John…………………………….2016

Hayter, Richard B. ...................................2002

Hayter, Sheila……………………………2011

Hegberg, Mark…………………………..2009

Henck, Charles E………………………...2012

Hermans, Richard D……………………..2011

Hogan, John……………………………...2015

Holness, Gordon V.R…………………....2006

Hosni, Mohammad, H...............................2013

Hourahan, Glenn C……………………..2006
Hughes, Patrick…………………………2014

Hwang, Yunho..........................................2013
Hydeman, Mark…………………………2014

Int-Hout, Daniel, III…………………….2007

Jackins, George....................................... 2001

Jarnagin, Ronald E………………………2010

Jones, T. Randall………………………...2016
Kelter, S. Louis………………………….2014

Kessner, Ronald J………………………..2010

Khalil, Essam E………………………….2017

Khankari, Kishor K……………………..2017

Kilkis, Birol ………………………….…2008

Knebel, David E…………………………2012

Kohloss, Frederick H. ...............................1999

Lawrence, Thomas M…………………...2011

Lawson, Carl N………………………….2012

Leitsch, Stanley…………………………2008

Leppard, Ben A. Jr....................................2013
LeViseur, Suzanne………………………2014

Logsdon, Robert F. ...................................1998
Lovvorn, Nance…………………………2014

Mastro, Giustino………………………...2009

McMillan, Hugh…………………………2009

Menzies, George E....................................2013
Mescher, Kirk…………………………...2014

Montgomery, Ross D……………………2006
Murphy, William E……………………..2014

Myers, Garry N…………………………2010

Newman, H. Michael…………………….2018

Nichols, Donald E……………..……..…2003

Ohadi, Michael M……………………….2011

Olesen, Bjarne W……………………….2006

Patenaude, Raymond E…………………2010

Perry, Richard P. .....................................1999

Persily, Andy…………………………...2009

Peterson, Kent W……………………….2006
Pettway, Daniel C………………………2014
Phillips, Clinton W. ................................1999

Phillips, Elbert………………………….2017

Phoenix, Thomas H…………………….2007

Poston, Ira G…………………………....2015

Radermacher, Reinhard………………. .2005
Reedy, Wayne………………………….2014

Rich, Donald G…………………………2007
Risley, Robert B………………………..2014

Rooley, Richard H...................................2013
Rose, Richard M………………………..2014

Sanchez, Alberto J...................................2013

Sauer, Harry, Jr........................................2001

Schwedler, Michael “Mick”……………2015

Schwenker, Eric.......................................2001

Scoggins, Mary G………………………2015

Sekhar, Sitaraman Chandra......................2013

Sherif, S.A………………………………2010

Sherman, Max H……………………….2005
Simmonds, Peter……………………….2014

Sobieski, J. Thomas………………….. 2009

Stambaugh, Leo………………………...2004
Stanke, Dennis………………………….2014

Staples, Laurance S., Jr............................2000

Taylor, Stephen T………………………2012

Thrasher, Karen C……………………....2012

Townsend, Terry………………………..2004
Traboulsi, Samir R……………………...2014

Tse, Vincent…………………………….2015

Underwood, T. David…………………...2010

Vallort, James K.......................................2013

Vallort, Ronald.........................................2001

Vineyard, Edward………………………2007

Watson, Thomas E……………………...2010

Wentz, Timothy G……………………...2015

Werkema, Thomas……………………...2015

Wessel, Dennis………………………….2016

Westhoff, Stanley M……………………2011

White, Thomas J.......................................1999
Williams, Verle………………………….2014

Wolf, James E……………………….…..2003

Woodford, Michael W…………………..2008

Wray, Craig………………………………2016

Yang, Xudong…………………………...2018

Zhivov, Alexander M……………...…….2011

## **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). The award consists of a plaque and lapel pin.

Abdelaziz, O. — 2016

Abedin, A. — 2012

Abellon, D. ― 2015

Abramson, D.S. ― 2013

Abushakra, Bass—2010

Achenbach, P.R.—1967

Adams, E. —2017

Agopian, N. —2017

Aguilo, R.R. —2010

Albern, W.F.—1993

Albrecht, R. ― 2015

Albright, D.C.—1972

Algie, W.L.—1988

Allen, D.M.—1966

Allen, M.W—2000

Alvine, R.G.—1985

Alyea, H.W.—1967
Amrane, K. — 2014

Anderson, B.E. ― 2013

Anderson, J.R. ― 2013

Anderson, M.K.—1992

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

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

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

Blanford, M. – 2018

Blossom, J.S.—1981

Bochat, J. — 2016

Boester, C.F.—1972

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

Bourquin, P.A.—1973

Bowman, R.J. ― 2013

Boyce, D.K.—1997

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

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

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

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

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

Castelvecchi, 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

Charles, R.A.—1990

Charneux, R. – 2018

Cheek, G.H.—1981

Chen, Q.—2001

Cherne, R.E.—1974

Chewning, R.C.—1965

Chin, J.A. —2017

Ciricillo, S.F.—1979

Claridge, D.E.—1997

Clark, E.M.—1993

Clark, J.A.—2001

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

Cohen, A.P. — 2015

Cohen, R.—1999

Cohen, W.—1992

Cole, R.A.—1987

Collins, W.J., Jr.—1965

Colliver, D.G.—1995

Conlan, W. —2016

Conover, D.R. ― 2013

Conrad, P.R.—1991

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

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

Crawley, D.B. —2003

Crider, T.G.—1968

Crosby, R.W.—1996

Cross, R.C.—1967

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

Dean, K.W. —2007

Debes, G.C.—2002

DeBullet, J.R.—1999

Decker, A.S.—1971

Decker, H.E.—1982

Degelman, L.O. —2017

Denton, D.H., Jr.—1979

Dettmers, D.J. ― 2013

Deverall, C.N.—1963

DeWerth, D.W.—1985

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

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

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

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

Fahnestock, M.—1967

Falk, D.S.—1975

Fallin, K.W. ― 2013

Fanger, P.O.—1985

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

Fisher, D.S.—1996

Fisher, L.J. —2003

Fisk, W.J. —2015

Fitts, E.D. —2006

Flagg, L.F.—1967

Flanagan, R.W.—1972

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
Friedman, G. — 2014

Friedrich, M. —2006

Fulk, K.M. —2008

Fuller, R. — 2016

Gage, C. L. —2011

Gagge, A.P.—1974

Gallagher, M.– 2018

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

Glicksman, L.R. —2008

Godwin, D.S. —2011

Goepfert, D.C.—1984

Goldschmidt, V.W.—1984

Gonzalez, D.J.—1980

Gonzalez, R.A.—1963

Goodman, H.W.—1988

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

Gulledge III, C.E. —2008

Gupta, V.K. —2007

Gupta, V.P. —2010

Gupton, G.W., Jr.—1981

Haberl, J.S.—2001

Haddad, K. —2017

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

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

Haves, P.—2015

Haydock, P. —2017

Hayter, R.B.—1993

Hayter, S.J.—2001

Hedrick, R. —2017

Hegberg, M.C.—2001

Hegberg, R.A.—2001

Heiden, R.– 2018

Heiman, J.L.—1985

Helander, L.—1967

Henck, C.E.—1998

Hensen, Jan – 2009

Hermans, R.—2006

Hershman, M.P. —2010

Hesselschwerdt, A.L.—1969

Hewett, M.J. —2003

Hightower, G.B.—1984

Hill, J.E.—1995

Hinge, A. —2008

Hitchcock, R. — 2016

Hittle, D.C.—1995

Hoey, P.J.—1995

Hoffman, J.E.—1985

Hogan, J.F. —2004

Holcomb, B.– 2018

Hole, W.G.—1965

Holladay, W.L.—1964

Holness, G.V.R.—1991

Holte, D.E.—1996

Horn, W. — 2016

Horsburgh, B.J.—1972

Hosni, M.H. —2003

Hourahan, G.C.—2000

Houston, S.H.—1997

Howell, R.H.—1983

Hu, Y.R. —2011

Huber, C. F. — 2016
Hughes, P. — 2014

Hunn, B.— 2016

Hutcheon, N.B.—1967

Huttenlocher, D.—1994

Hwang, Y. —2010

Hydeman, M.M. —2005

Hyman, L.B. ― 2013

Ibison, J.L.—1976

Immekus, P.M. —2008

Int-Hout III, D.—1993

Isenbeck, J.—2015

Ivesdal, S.W.—2001

Jackin, L.L. —2008

Jackins, G.A.—1989

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

Kainlauri, E.O.—1995

Kamm, J.L.—1989

Karnaz, J.– 2018

Katipamula, S. —2006

Kato, S. —2007

Kayan, C.F.—1969

Kazachki, G. S. —2011

Keen, J.A. —2010

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

Kirkwood, R.H.—1983

Kiselbach, D.D.—1994

Klassen, J.—1975

Klock, W.K.—2012

Knebel, D.E.—1995

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

Koptis, C.R.—1992

Kramer, D.E.—1985

Krause, W.O.—1986

Kroeker, J.D.—1967

Kroeschell, T.R.—1998

Kuehn, T.—2015

Kuempel, J.L., Jr. ― 2013

Kujak, S. —2017

Kusuda, T.—1976

Kwok, A.G. —2012

Lahmon, R.D.—1991

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

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

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

Liebtag, 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

Littwin, D.A. —2008
Liu, B. — 2014

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

MacCracken, M. — 2016

MacDonald, R.L.—1985

Mack, L.—1968

Mackey, C.O.—1963
Macauley, D., III — 2014

Malphus, W.W. —2008

Mamayek, M. — 2016

Manning, B.R.—1992

Maor, I.—2015

Maref, W. —2017

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

Mathur, G.D. —2004

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

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.B. —2004

Meriwether, R.F.—1977

Merrick, R.H.—1972

Mescher, Kirk – 2009

Meyer, T. —2012

Middlebrooks, M. —2016

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

Modera, M.P. ― 2013

Moffitt, R. —2017

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

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

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

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

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

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

Pettit, K.A.—1975

Pettway, D.C.-2007

Pflug, I.S.—1974

Phillips, B. – 2009

Phillips, C.W.—1969

Phillips, D.S.—1972

Phillips, T.J.—1968

Phoenix, T.H.—1996

Pierce, J.D.—1981

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

Price, G.– 2018

Priester, 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

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

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

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

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

Schrecengost, R.C. ― 2013

Schreiner, J.R.—1969

Schultz, K. —2017

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

Shavit, G.—1997

Shea, J.E.—1982

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

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, 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

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

Subherwal, B. —2016

Sud, I. —2003

Sultan, Z. M. —2017

Sun, L.—2011

Sundaresan, G.—1995

Supple, R.G.—1987

Swatkowski, L. —2017

Swenson, C.A.—1985

Szymurski, S.R. ― 2013

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

Tilney, R.B.—1970

Timm, M.L.—1996

Tinsley, W.E. —2008

Tisdale, R.W. —2007

Todorovic, B.B.—1995

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

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

Warrick, L.K.—1968

Watson, R.—2015

Watson, T.E.—2002

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

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

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, 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.R. ― 2013

Wyckoff, P.W.—1965

Yamamoto, G.S.—1988

Yang, X. —2008
Yashar, D. — 2014
Yuill, D.P. ― 2013

Yuill, G.K.—1996

Zagar, R.A.—2001

Zanders, R.W.—1995

Zarour, J.H. ― 2013

Zentz, D.—2015

Zhai, Z. —2010

Zhang, J. —2008

Zhang, Y. —2007

Zhivov, A.M.—2011

Zhou, X. —2017

Zuo, Z. —2017

## **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 annually to the individual who performs the most outstanding work in increasing the membership of the Society during the course of the year. The award consists of a plaque and lapel pin.

1968.....................................Wayne H. Allen

1970....................................Thomas H. Toler

1971........................................Clint D. Miller

1972.................................. Sam R. Fogleman

1973...................................... John F. Collins

1974.......................................... John R. Pate

1975..................................Robert C. Mackay

1976.........................................Jay N. Nelson

1977............................... Edward M. Naretto

1978................................... Oliver K. Lewis

1979..............................Lewis E. Seagraves

1980................................ Gerald F. Morrow

1981............................... Frederick E. Stone

1982...................................G. Allan Gaboric

1983.................................Lynn G. Bellenger

1984.........................Thomas A. Gorman III

1985..............................Craig M. Goodenow

1985................................ Kevin Y.F. Chong

1986........................... Ross D. Montgomery

1987.......................William C. Bissmeyer II

1988......................................Louis E. Soltys

1989......................................John P. Gratiot

1990..................................... Dean S. Borges

1991....................................Francis D. Frudd

1992.................................James E. Harrison

1993......................................Robert B. Stotz

1994...................................Edwin L. Dalpiaz

1995................................ Lisa Ann Duritsch

1996.....................................James M. Poole

1997.............................Wayne M. Hydeman

1998.........................................Dan P. Cason

1999...................................... Paul T. Novak

2000..............................Chad L. Edmondson

2001...................................... David R. Dinse

2002........................ Raymond J. Forsthoefel

2003……………………….Brian M. Tanner

2004………………………..Madan M. Pande

2005….…………………….Matthew J. Armey

2006…………………………Holly Townes

2007…………………………No Award Given

2008………………………….….Alan Neely

2009……………………….Michelle Swanson

2010……………………….Rajnish Joshi

2011………………………G. Ramesh Kumar

2012……………………….David B. Farala

2013.....................................George M. Waters, Sr.
2014……………………….Ezekiel A. Bakare

2015……………………….Gregory A. Schnable

2016……………………….Jessica Mangler

2017………………………Jason Urso

2018………………………Oscar Eduardo Ricaño

## **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. The award consists of a plaque with a medallion and a lapel pin.

1985 ............................... Ralph M. Mattison

1986 ..................................Bob A. McAlister

1987 .............................. Herbert L. Bregman

1988 .................................Robert P. Barschel

1989 ...................................Ronald W. Keller

1990 .................................Robert J. Meredith

1991............................. Jeffrey D. Brouillette

1992................................ A. Timothy Waugh

1993..................................... James M. Porter

1994.........................................Tom A. Willis

1995............................................Tony Moore

1996...........................Roger W. Dieffenbach

1997.................................... T. Randall Jones

1998.................................... Jitendra T. Shah

1999.......................... Spencer N. McDonald

2000.............................................Allan Bruns

2001........................................ Eric T. Jenison

2002...................................Timothy B. Boyles

2003…………….……….…Michael B. Balko

2004…………………………Mike Middleton

2005……………………T. David Underwood

2006…………………….………..Rick Sellers

2007………………………….Brian Hamilton

2008……………………………….John Sealy

2009…………………………...Rob Craddock

2010………………………...Bobby Vermillion

2011………..………George “Billy” Austin, Jr.

2012……………………………Nicolas Lemire

2013............................Christopher M. Donovan
2014………………………………Ken Stoppel

2015……………………………Robert Kunkel

2016……………………….Kimberly Thompson

2017……………………….Patrick Huang

2018……………………….Adam Graham

## **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. The award consists of a $5,000 honorarium, a plaque, and lapel pin.

1957 Paul M. Chung; University of Minnesota

1958 W.E. Springer; University of Illinois

1959 John Y. Payton; University of California

1960 Frank D. Farrington; University of Arizona

1961 Alan B. Wagner; Case Institute of Technology

1962 Albert C. Kent; Kansas State University

1963 John M. Craig; University of Florida

1964 Joseph R. Gartner; University of Wisconsin

1965 Isaiah Kopelman; Michigan State University

1966 Eugene R. Michaud; Purdue University

1967 Norman G. Ziesse; Carnegie Institute of Technology

1968 Jon M. Rueck; Kansas State University

1969 James E. Shahan; University of Illinois

1970 Raymond E. Knotts; Ohio State University

1971 Donald R. Witt; Pennsylvania State University -

1972 Thomas E. Bursey; University of Saskatoon

1973 Edward C. Skuchas; Duke University

1974 Fernando Duran; University of Pittsburgh

1975 Douglas C. Hamilton; Purdue University

1976 Kevin F. O’Brien; Oklahoma State University

1977 Douglas R. Bryant; University of Manitoba

1978 Sriram Somasundaram; Case Western Reserve University

1979 Gary L. Reynolds; Iowa State University

1980 Joseph P. Olivieri; Lawrence Institute of Technology

1981 Charles F. Rhein; University of Missouri-Rolla

1982 Shimao Ni; Concordia University

1983 Mean Shang Chen; Kansas State University

1984 Michael S. Sherber; Georgia Institute of Technology

1985 Steven M. Harris; Oklahoma State University

1986 Polyvious Eleftheriou; Tenn. Technological University

1987 James J. Baustian; Iowa State University

1988 John S. Schliesing; Texas A&M University

1989 Marc E. Fountain; University of California-Berkeley

1990 Ralph M. Diguilio; Georgia Institute of Technology

1991 S. Imam Haider; Pennsylvania State University

1992 Ernesto Embriz-Santander; University of Florida

1993 Zhenhai Li; University of Illinois

1994 Brian A. Fricke; University of Missouri

1995 Marianna Luoma; University of Michigan

1996 Donald J. Wolfe; University of Kansas

1997 Jeanne M. De Greef; Kansas State University

1998 James E. Bryan; Texas A&M University

1999 Jafar Darabi; University of Maryland

2000 William D. Gerstler; University of Minnesota

2001 Jelena Srebric; MIT

2002 Marija Radosevic; Danish Technological Institute

2003 No award given

2004 Shehab Ahmad; Texas A&M University

2005 Dongyi Xiao; Oklahoma State University

2006 Pankaj Hande; University of Missouri-Rolla

2007 No award given

2008 Bereket Nigusse; Oklahoma State University

2009 No award given

2010 Nathan Kotey; University of Waterloo

2011 Sebastian Herrman; University of Rostock

2012 Harrisn M. Skye; University of Wisconsin-Madison

2013 Ricardo J. Da Silva Lima; École Polytechnique Fédérale de Lausanne
2014 Ryan Tanner; University of Colorado – Boulder

2015 Limin Zhou; University of Kentucky

2016 No Award Given

2017 Parham Azimi; University of Illinois

2018 Alireza Behfar; University of Nebraska-Lincoln

## **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. The award consists of a plaque and lapel pin.

1978.....................................James E. Woods

1979..................................Larry G. Berglund

1980.......................................Yasunobi Nishi

1981.............................. Donald A. McIntyre

1982...................................Bjarne W. Olesen

1983 ............................. Richard R. Gonzalez

1984 ...............................Deanna M. Munson

1985 .......................... Elizabeth McCullough

1986.........................................Lars Molhave

1987..................................Richard B. Hayter

1988......................................Byron W. Jones

1989................................. Gail Ellen Schiller

1990.................................... Shin-ichi Tanabe

1991.............................. Geo Henrik Clausen

1992............................... Kenneth C. Parsons

1993................................ Richard J. De Dear

1994.................................. Amanda K. Meitz

1995 ...................................Marc E. Fountain

1996.......................................William J. Fisk

1997 ............................Clifford C. Federspiel

1999............................................Jorn Toftum

2000................................................. Lei Fang

2001........................................ Jerry M. Sipes

2002 .....................................Pawel Wargocki

2003…………………………Yanzheng Guan

2004………………………………Zhang Hui

2005…………………….…Christopher Chao

2006………………………….no award given

2007……………………….Charlie Huizenga

2008……………………….Henry C. Willem

2009……………………...…No award given

2010…………………………Gwelen Paliaga

2011……………………….Jan Kaczmarczyk

2012…………………………...Lily M. Wang

2013.....................................Stefano Schiavon

2014……………………..Benjamin Yan Bing

2015…………………….....Zhecho Bolashikov

2016……………………………Jovan Pantelic

2017…………………………No Award Given

2018…………………………..Dusan Licina

## **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. The award consists of a plaque and lapel pin.

1983......................................... P. Ole Fanger

1985................................Wilbert F. Stoecker

1986....................................Raymond Cohen

1987......................................Richard Rooley

1988...................................Mario Costantino

1989.................................... David Rickelton

1990........................................ Alvaro Tapias

1991 .............................. Murray G. Thurston

1992 .........................Branislav B. Todorovic

1993 ........................................ John F. James

1994 .........................Victor W. Goldschmidt

1995 .................................Gunther M. Keller

1996 ...................................... Horst H. Kruse

1997............................. .(No award given)

1998........................... (No award given)

1999........................... (No award given)

2000......................... Sukhdev S. Mathaudhu

2001.........................................Richard B. Hayter

2002..........................................(No award given)

2003………………………….Ashok K. Virmani

2003…………………………Samir R. Traboulsi

2004………………………………David Arnold

2005………………………Moustafa M. Elsayed

2006……………………Constantinos A. Balaras

2007………………………Ross D. Montgomery

2008……………………..…….Walid Chakroun

2009……………………. …………Prem C. Jain

2010……………………..…..Leo P. Stambaugh

2011……………………..………..Yua-Wei Wu

2012…………………..Edward Ka Cheung Tsui

2013…………………………..Robert R. Aguilo

2014…………………………..(No award given)

2015……………………………...Kent Peterson

2016………………Florentino Roson Rodriguez

2017……………………………Gerald C. Groff

2018………………………....Timothy C. Dwyer

2019………………………….Stephen C. Gill

## **MILTON W. GARLAND REFRIGERATION AWARD**

Established in 1990, this award recognizes a non-comfort cooling refrigeration application which highlights innovation and/or new technologies. The award consists of a plaque with a medallion and a lapel pin.

1991....... Arthur P. Garbarino, Gulfstream Chapter

1992....Howard M. Webb, Hampton Roads Chapter

1993..................... Eric C. Davis, Northeast Chapter

1994......Gary W. James, Central Oklahoma Chapter

1995...Jason Grabowski, Southwest Florida Chapter

1996................. Eric Prive, North Piedmont Chapter

1997 ...... James L. Carver, Hampton Roads Chapter

1998 Teddy S. Hansen, Florida West Coast Chapter

1999 Teddy S. Hansen, Florida West Coast Chapter

2000 Teddy S. Hansen, Florida West Coast Chapter

2001 .............Glenn Friedman, Golden Gate Chapter

2002 ....................John Sanchez, Jr., Illinois Chapter

2003 …………………………… (No award given)

2004 ……….…William Weinaug and Wade Conlan, Central Florida Chapter

2005……………………………… (No award given)

2006……………………………… (No award given)

2007……………………………… (No award given)

2008…………………………… (No award given)

2009…… Cesar Luis dL. Lim, Philippines Chapter

2010 ……………………………………Tom Dosch

2011…………………John Bittner, Atlanta Chapter

2012……………………………… (No award given)
2013....Cameron E. Lowry, British Columbia Chapter

2014……………………………… (No award given)

2015……………………………….(No award given)

2016…...................Claude Dumas, Montreal Chapter

2017……………………………….(No award given)

2018……………………………….(No award given)

## **STANDARDS ACHIEVEMENT AWARD**

Established in 1995, this award recognizes excellence in volunteer service for developing ASHRAE standards/guidelines~~.~~ The award consists of a plaque and lapel pin.

1995.......................................Michael Martin

1996.......John I. Woodworth/Robert E. Cook

1997............................ George S. Yamamoto

1998.................................Jim L. Heldenbrand

1999 ............................... Robert H. Bushnell

2000 ..................................(No award given.)

2001 ..................................(No award given.)

2002 ...................................Martha J. Hewett

2003………………….…… (No award given)

2004…..Andrew Persily and Thomas Watson

2005……………………H. Michael Newman

2006……………….……… (No award given)

2007……………………..……P. Ole Fanger

2008…………………………….Byron Jones

2009…………………………Charles Dorgan

2010………………………….Dennis Stanke

2011……………………...Michael Schwedler

2012……………………......Steven T. Taylor

2013................................Martha G. VanGeem
2014………………………..Max H. Sherman

2015………………………..(No award given)

2016………………………………Jerry Sipes

2017……………………………Steven Bushby

2018……………………………Gearld Kettler

## **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. The award consists of a $750 honorarium and plaque.

1974 Paul R. DeCicco and 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 and T. Kusuda

 “Dynamic Characteristics of Air Infiltration”

1977 Clayton A. Morrison, James M. Wheeler, Jr., and Erich A. Farber

 “An Experimental Determination of Shading Coefficients for Selected Insulating Reflective Glasses and Draperies”

1978 William Rudoy and 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, and Daniel A. Jaffee

 “Degree Days Method for Simplified Energy Analysis”

1984 Brian P. Leaderer and William S. Cain

 “Air Quality in Buildings During Smoking and Nonsmoking Occupancy”

1985 D.W. DeWerth, S.G. Talbert, S.M. Sobieski, and 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 and 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 and 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 and Richard S. Shull

 “Measuring and Calculating Laboratory Exhaust Diversity—Three Case Studies”

1995 Frederic B. Morris, James E. Braun, and Stephen J. Treado

 “Experimental and Simulated Performance of Optimal Control of Building Thermal Storage”

1996 Paul C. Tseng, Robert Krout, Dale Stanton-Hoyle, and Steve Kimsey

“Energy Program of Requirements for a New Detention Center—Energy Design Criteria for Prisons”

1997 Robert H. Green and Linda Roberts

 “The Effect of Air-Coil Design on the Performance of Heat Pumps and Air Conditioners”

1998 Shuzo Murakami, Shinsuke Kato, and Jie Zeng

“Flow and Temperature Fields Around Human Body with Various Room Distribution, Part 1—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, and Richard Riley

“Guidelines for the Application of Upper-Room Ultraviolet Germicidal Irradiation for Preventing Transmission of Airborne Contagion—Part I”

2001 Steve Kavanaugh and 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, and 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 and 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., and 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, and Michael J. Morgan

 “Development ad Performance of a Retrofittable, High-Efficiency, Grease Filter System for Kitchen Hoods”

2008 Kee-Chiang Chung, Ph.D., Tsai Kuo-Pao, and You-Hsuan Wang

 “Performance of Local Ventilated Hood 1: A General Ventilation Working Environment”

2009 Jelena Srebric, Ph.D. and 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. and 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, and 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, and 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, and 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 Nasseri

 “Achieving Deeper Energy Savings in Federal Energy Performance Contracts”

2016 Stephen Kujak and 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”

## **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. The award consists of a plaque and lapel pin.

2002 John Gladstone

2003 James M. Ritter

2004 Morgan Jones

2005 James M. Ritter

2006 Michael Meteyer

2007 No Award Given

2008 Oswaldo Bueno

2009 Roderic S. Potter

2010 J. Blaine Walker, Jr.

2011 Robert Bean, Bjarne Olesen,

and Kwang Woo Kim

2012 Philip C.H. Yu

 2013 Alexander Weiss
 2014 Bruce L. Flaniken

 2015 No Award Given

 2016 Faye C. McQuiston

2017 Charles Stoabs

2018 Bruce Flaniken

## **PAPER AWARD**

This award (Best Paper, Symposium Paper, Technical/Symposium Paper, Transactions Paper, and Technical Paper) recognizes the best papers presented at a Society meeting for the year. The award consists of a $500 honorarium and a plaque.

1973 Best Paper Award

Best Applications Technical Paper: S. G. Talbert, L. J. Flanigan, and J. I. Eibling for *“An Experimental Study of Ventilation Requirements of Commercial Electric Kitchens”*

Best Research Technical Paper: Donald G. Rich for *“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, and R. Pena, Jr. for *“Effect of Inner Surface Air Velocity and Temperatures Upon Heat Loss and Gain Through Insulating Glass”*

Best Symposium Paper: P. R. DeCicco and 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, and John Ramsay for *“Cooling Load Increases for Windows Adjacent to Large Water Surfaces”*

Best Research Technical Paper: Ronald L. Dougherty and Harry J. Sauer, Jr. for *“Nucleate Pool Boiling of Refrigerant-Oil Mixtures from Tubes”*

Best State-of-the-Art Paper: Gerald S. Leighton, James L. Oplinger, Anthony J. Pennington, and Lawrence G. Spielvogel for *“Economic Guidelines for Total Energy Systems”*

Best Symposium Paper: James F. Hamilton and Malcolm J. Crocker for *“Noise Reduction by Vibration Isolation”*

1975 Best Paper Award

Best Applications Technical Paper: J. E. Hill and T. Kusuda for *“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 and A. Juchymenko for “Energy Usage and Relative Utilization Efficiencies of Oil, Gas & Electric Heated Single Family Homes”

Best Symposium Paper: Bayliss J. Erdelyi for “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., and Dr. Erich A. Farber for *“An Experimental Determination of Shading Coefficients for Selected Insulating Reflective Glasses and Draperies”*

Theodore H. Benzinger, B. W. Mangum, and Dr. James E. Hill for *“The Design, Construction and Operation of a Scanning Radiometer for Measurement of Plane Radiant Temperature in Buildings”*

Best Symposium Papers: Robert A. Macriss for *“Selecting Refrigerant-Absorbent Fluid Systems for Solar Energy Utilization”*

Carl D. Baird and Jerome J. Gaffney for *“A Numerical Procedure for Calculating Heat Transfer in Bulk Loads of Fruits or Vegetables”*

1977 Best Paper Award

Best Technical Papers: Professor William Rudoy and L. M. Robins for *“Comparison of Cooling Load Calculations”*

Professor William Rudoy and L. M. Robins for *“Pulldown, Load Calculations and Thermal Storage During Temperature Drifts”*

Professor Wilbert F. Stoecker for *“Methodology of Simulating the Performance of a Central Chilled-Water System”*

Best Symposium Papers: Bela G. Liptak for *“Reducing the Operating Costs of Buildings by Use of Computers”*

Durvasula V. Sriramamurty for *“Application and Control of Commercial and Industrial Humidifiers”*

1978 Best Paper Award

Best Technical Papers: George T. Tamura and Chia-Yu Shaw for *“Experimental Studies of Mechanical Venting for Smoke Control in Tall Office Buildings”*

Istvan L. Ver for *“A Review of the Attenuation of Sound in Straight Lined and Unlined Ductwork of Rectangular Cross Section”*

Professor Faye C. McQuiston for *“Correlation of Heat, Mass and Momentum Transport Coefficients for Plate-Fin-Tube Heat Transfer Surfaces with Staggered Tubes”*

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

1979 Best Paper Award

David J. Wilson for *“Flow Patterns Over Flat-Roofed Buildings and Application to Exhaust Stack Design”*

Terrell D. Moseley for *“Cost and Performance of Five Soalr Heating Systems Utilizing Wet Heat Pumps”*

George T. Tamura for *“The Calculation of House Infiltration Rates”*

David T. Harrje, Gautam S. Dutt, and Jan E. Beyea for *“Locating and Eliminating Obscure but Major Losses in Residential Housing”*

1980 Best Paper Award

D. Paul Mehta and James E. Woods for *“An Experimental Validation of a Radiant Model for Dynamic Responses of Buildings”*

Donald J. Mosshart, Jr. for *“A Contractor’s View of HVAC Noise and Vibration Problems”*

Lewis S. Goodfriend for *“Indoor Sound Rating Criteria”*

Edward F. Sowell and George N. Walton for *“Efficient Computation of Zone Loads”*

1981 Best Paper Award

Best Technical Paper: Warren E. Blazier, Jr. for *“Noise Rating of Variable Air-Volume Terminal Devices”*

Best Symposium Papers: Deanna M. Munson for *“The Effectiveness of Selecting Clothing for Comfort in the 18.3ºC (65ºF) Environment”*

Fracesco Pompei for *“Air in Hydronic Systems: How Henry’s Law Tells Us What Happens”*

1982 Best Paper Award

Best Symposium Papers: David W. Low and Edward F. Sowell for *“A Plan for Establishing Algorithms as ASHRAE Literature”*

Craig D. Hollowell, Robert A. Young, James V. Berk, and Stephen R. Brown for *“Energy Conserving Retrofits and Indoor Air Quality in Residential Housing”*

John E. Janssen for *“Application of Building Thermal Resistance Measurement Techniques”*

1983 Best Paper Awards

Best Symposium Papers: Martin W. Liddament for *“The Air Infiltration Center’s Program of Model Validation”*

George T. Tamura for *“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, and John H. Becker for *“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, and C. L. Reed for *“Field Monitoring Results for Natural-Draft and Induced-Draft Gas-Fired Residential Furnaces”*

L. J. O’Dell and S. V. Sheppard for *“System Design Guide for Air Pollution Control Equipment”*

Branislav B. Todorovic and D. Curcija for *“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, and T. Yumikura for *“Design and Performance of a High Temperature-Boost Absorption Heat Pump”*

Best Technical Papers: Daniel L. Ewert for *“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, and Wei Runbai for *“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., and Ralph D. Lahmon for *“Influence of Upstream Disturbances on Correlation Coefficient for Vane Anemoters at Coil Faces*”

Nicholas Galanis and Richard Chatigny for *“A Critical Review of the ASHRAE Solar Radiation Model”*

Best Symposium Papers: Reino T. Huovilainen for *“Study of the Application of Fluidized Bed Combustion”*

Will K. Brown, Jr. and Charles A. Lynn for *“Fundamental Clean Room Concepts”*

1988 Best Paper Award

Best Symposium Papers: James E. Braun, John W. Mitchell, Sanford A. Klein, and William A. Beckman for *“Models for Variable-Speed Centrifugal Chillers*”,

Ronald M. Heck, Michael Durilla, Alan G. Bouney, and James M. Chen for “Commercial Regeneration Experience for Catalysts in Air Pollution Control Applications”

Carl B. Fliermans and John A. Nygren for “Maintaining Industrial Cooling Ststems Free of Legionella Pneumophilia”

John P. Kettler for “Efficient Design and Control of Dual-Duct Variable-Volume Systems”

1989 Best Paper Award

Edward A. Vineyard, James R. Sand, and Terry G. Statt, for *“Selection for Ozone-Safe Nonazeotropic Refrigerant Mixtures for Capacity Modulation in Residential Heat Pumps”*

Frederick J. Pearson, for “*Ice Storage can Reduce the Construction Cost of Office Buildings”*

George T. Tamura, for *“Stair Pressurization Systems for Smoke Control: Design Considerations*”

1990 Best Paper Award

John H. Klote, for “*Fire Experiments of Zoned Smoke Control at the Plaza Hotel in Washington, DC* ”

Dr. Edward A, Kush, for *“Detailed Field Study of a Water-Loop Heat Pump System”*

James R. Sand, Edward A. Vineyard, and Richard J. Nowak for *“Experimental Performance of Ozone-Safe Alternative Refrigerants”*

Margaret Law for *“Fire and Smoke Models - Their Use in the Design of Some Large Buildings* ”

1991 Best Paper Award

Charles J. Weschler, and Helen C. Shields for *“The Impact of Ventilation and Indoor Air Quality in Electronic Equipment”*

Robert G. Harold for *“Sound and Vibration Considerations in Rooftop Installations”*

Mark S. Lentz for *“Adiabatic Saturation and VAV: A Prescription for Economy and Close Environmental Control”*

John H. Klote, and George T. Tamura for *“Design of Elevator Smoke Control Systems for Fire Evacuation”*

1992 Best Paper Award

Dr. Abdelhakim Elmahdy, for *“Heat Transmission and R-Value of Fenestration Systems Using IRC Hot Box: Procedure and Uncertainty Analysis”*

Fred S. Bauman, and Lucy P. Johnston for *“Air Movement, Ventilation and Comfort in a Partitioned Office Space”*

Dr. Edwin I. Griggs, F. Khodabakhsh-Sharifabad for *“Flow Characteristics in Rectangular Ducts”*

Nancy B. M. Stefanuk, Professor J. Dwight Aplevich, and Associate Professor Metin Renksizbulut for *“Modeling and Simulation of a Superheat-Controlled Water-to-Water Heat Pump”*

1993 Best Paper Award

Best Symposium Papers: Eric C. Rogers, and Barbara A. Stefl for *“Ethylene Glycol: Its Use in Thermal Storage and Its Impact on the Environment”*

James R. Sand, Edward A. Vineyard, and Van D. Baxter for *“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, and Zhang Hui for *“Localized Comfort Control with a Desktop Task Conditioning System: Laboratory and Field Measurements”*

John H. Klote for *“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, and Dr. P. Ole Fanger for *“Spot Cooling - Part 2: Recommendations for Design of Spot-Cooling Systems”*

Fredric S. Goldner for “DHW System Sizing Criteria for Multifamily Buildings”

Best Technical Papers: John E. Lovatt, and A. Grant Wilson for *“Stack Effect in Tall Buildings”*

Kazuo Watanabe for *“Field Tests for Minimizing Legionella in Cooling Water in Japan”*

1995 Best Paper Award

Best Symposium Papers: Blair T. McCarry for *“Underfloor Air Distribution Systems: Benefits and When to Use the System in Building Design”*

John P. Kettler for *“Minimum Ventilation Control for VAV Systems: Fan Tracking vs. Workable Solutions”*

Best Technical Papers: David S. Ensor, James T. Hanley, and Daryl D. Smith for *“A Fractional Aerosol Filtration Efficiency Test Method for Ventilation Air Cleaners”*

William K. Snelson, Jeffrey W. Linton, Andrew R. Triebe, and Patrick F. Hearty for *“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, and John L. Wright for *“A Study of Insulated Glazing Unit Surface Temperature Profiles Using Two-Dimensional Computer Simulation”*

Shane A. Moeykens, and Dr. Michael B. Pate for *“Effect of Lubricant on Spray Evaporation Heat Transfer Performance of R-134a and R-22 in Tube Bundles (RP-668)”*

Anne V. Baughman, and Dr. Edward A. Arens for *“Indoor Humidity and Human Health - Part I: Literature Review of Health Effects of Humidity-Influenced Indoor Pollutants”*

Robert R. Bittle, and Dr. Michael B. Pate for *“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, and Dr. John W. Mitchell for *“Simulation of a Single Vertical U-Tube Ground Heat Exchanger in an Infinite Medium”*

Dr. Gary D. Lougheed, and Dr. George V. Hadjisophocleous for “Investigation of Atrium Smoke Exhaust Effectiveness”

Best Technical Papers: Dr. Ming-C. Chyu, Dr. Xin Zeng, and Liang Ye for *“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 for *“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, and Yue Xu for *“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. Kono[acki, Lisa M. Gartland, and Lixing Gu for *“Measured and Simulated Performance of Reflective Roofing Systems in Residential Buildings”*

Drury B. Crawley for *“Which Weather Data Should You Use for Energy Simulations of Commercial Buildings?”*

Richard J. de Dear for *“A Global Database of Thermal Comfort Field Experiments”*

1999 Technical/Symposium Paper Award

Dr. Krzysztof Cena, and Dr. Richard de Dear for *“Field Study of Occupant Comfort and Office Thermal Environments in a Hot, Arid Climate”*

Dr. Melvin W. First, Dr. Edward A. Nardell, William Chaisson, and Dr. Richard Riley for *“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, and Dr. Qingyuan Chen for “*Performance Evaluation and Design Guidelines for Displacement Ventilation”*

Dr. Carey J. Simonson, Dustin L. Ciepliski, and Robert W. Besant for *“Determining the Performance of Energy Wheels: Part I - Experimental and Numerical Methods”*

2000 Technical/Symposium Paper Award

Jeanne M. Palmer, and Kirby S. Chapman for *“Direct Calculation of Mean Radiant Temperature Using Radiant Intensities”*

Gerald Riskowski, and Farhad Memarzadeh for *“Investigation of Static Microisolators in Wind Tunnel Tests and Validation of CFD Cage Model”*

Gerald Riskowski, Farhad Memarzadeh, and Andrew P. Manning for *“Analysis of Air Supply Type and Exhaust Location in Laboratory Animal Research Facilities Using CFD”*

Alexandra Dragan for *“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, and Xianghong Huang for *“High Temperature Properties of Moist Air”*

Robert R. Zarr for *“A History of Testing Heat Insulators at the National Institute of Standards and Technology”*

Dr. David A. Didion for *“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, and Yuanhui Zhang for *“Particle Separation Efficiency of a Uniflow Deduster with Different Types of Dust”*

2002 Technical/Symposium Paper Award

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

Simon J. Rees, and Jeffrey D. Spitler for *“An Analytical Verification Test Suite for Building Fabric Models in Whole Building Energy Simulation Programs”*

Sanford A. Klein, Douglas T. Reindl, and David Yu for *“Investigation of Solid Absorbents for Humidity Control in Display Cases”*

2003 Technical/Symposium Paper Award

William J. Rahmeyer for *“Pressure Loss Data for PVC Pipe Elbows, Reducers, and Expansions”*

Guan (Don) Yanzheng, Mohammad H. Hosni, Byron W. Jones, and Thomas Gielda for *“Literature Review of the Advances in Thermal Comfort Modeling”*

Ali A. Jalazadeh-Azar for *“A Parametric Analysis of a Grid-Independent BCHP System-Focusing on Impact of Technological Advancements”*

Edward A. Vineyard, Randall L. Linkous, and Evelyn Baskin for *“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., and Carey J. Simonson, Ph.D., P.Eng. for *“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, and Rebecca Perry for *“Evolution of Data Center Environmental Guidelines”*

Arno Laesecke, Dr.-Ing. For *“Viscosity Measurements and Model Comparisons for the Refrigerant Blends R-410A and R-507A”*

Karl Peterman, P.E. and Emanuel Mouratidis, P.Eng. for *“Pressure Drop and Acoustical Application Guidelines for HVAC Plenums”*

2005 Technical/Symposium Paper Award

Charles S. Barnaby, Jeffrey D. Spitler, Ph.D., P.E., and Dongyi Xiao for *“The Residential Heat Balance Method for Heating and Cooling Load Calculations”*

Didier J. Thevenard, Ph.D., P. Eng., and Robert G. Humphries, Ph.D. for “*The Calculation of Climatic Design Conditions in the 2005 ASHRAE Handbook – Fundamentals”*

Charles S. Barnaby, Jeffrey D. Spitler, Ph.D., P.E. for “*Development of the Residential Load Factor Method for Heating and Cooling Load Calculations”*

David A. Springer, Leo I. Rainer, and Willard L. Dakin, P.E. for “*Development and Testing of an Integrated Residential Night Ventilation Cooling System*”

2006 Technical/Symposium Paper Award

Donald Fisher, P.Eng., Richard Swierczyna, and Paul Sobiski for “*Effects of Appliance Diversity and Position on Commercial Kitchen Hood Performance*”

Paul Sobiski, Richard Swierczyna, and Donald Fisher, P.Eng. for “*Effects of Range Top Diversity, Range Accessories, and Hood Dimensions on Commercial Kitchen Hood Performance”*

Oyetope O. Abe, Carey J. Simonson, Ph.D., P.Eng., Robert W. Besant, P.Eng., and Wei Shang, Ph.D. for “*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. for “*Burning Velocity of 1, 1-Diflurorethane (R-152a)*”

2007 Transactions Paper Award

James E. Braun, Ph.D., P.E. for *“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., and Joe-Weon Jeong, Ph.D. for *“Use of Factorial Sensitivity Analysis in Multizone Airflow Model Turning”*

Vladimir Vukovic and Jelena Srebric, Ph.D. for *“Applications of Neutral Networks Trained with Multi-Zone Models for Fast Detection of Contaminant Source Position in Buildings”*

William Tschudi, P.E. and Stephen Fok for *“Best Practices for Energy Efficient Data Centers Identified Through Case Studies and Demonstration Projects”*

2008 Transactions Paper Award

John L. Wright for *“Calculating Center-Glass Performance Indices of Glazing Systems with Shading Devices”*

Iain S. Walker, Ph.D. and Darryl J. Dickerhoff for *“Field and Laboratory Evaluation of a New Ramping Technique for Duct Leakage Testing”*

Saeed Fathali Ph.D., P.E., and Andre Filiatrault, Ph.D. for “*Experimental Seismic Performance Evaluation of Integrated Isolation/Restraint Systems for Heavy HVAC Equipment”*

Kevin Rafferty, P.E. for *“Design Issues in Commercial Open-Loop Heat Pump Systems”*

2009 Transactions Paper Award

James A. Mathias, Ph.D., P.E. and Duane Mathias for *“Energy Efficient, Cost Effective, Passive Solar House”*

Emilio C. Piesciorovsky and Warren M. White, Ph.D. for *“Building Heat Load Contributions from Medium and Low Voltage Switchgear, Part 2: Component and Overal Switchgear Heat Gains”*

Thomas Kuehn, Ph.D., P.E., Bernard A. Olson, Ph.D., James W. Ramsey, Ph.D., and Joshua M. Rocklage for *“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, and Therese K. Stovall, P.E. for *“Combined Heating and Power Using Microturbines in a Major Urban Hotel”*

2010 Transactions Paper Award

Jeffrey D. Spitler, Ph.D., P.E. and Bereket A. Nigusse, Ph.D.

*“Refinements and Improvements to the Radiant Time Series Method”*

Michael S. Waring, Ph.D. and Jeffrey A. Siegel, Ph.D.

*“The Influence of HVAC Systems on Indoor Secondary Organic Aerosol Formation”*

Keisuke Sekiguchi, Shisei Waragai, Tsuneo Uekusa, and Kenji Yamasaki

*“Development of a High-Efficiency Air Cooled Packaged Air Conditioner for Data Centers”*

2010 Technical Paper Award

Christian A. Gueymard, Ph.D. and 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., and 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., and Michael A. Davis, Ph.D.

*“Performance of Parallel Fan-Powered Terminal Units with Electronically Commutated Motors”*

Kris Subbarao, Ph.D., Yafeng Lei, Ph.D., and 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, and 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, and 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, and 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 and 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 Virsues”*

2013 Technical Paper Award
Parham Eslami-nejad, Ph.D., and Michel Bernier, Ph.D., P.E.
“*A Preliminary Assessment on the Use of Phase Change Materials around Geothermal Boreholes”*

Warren Long, and 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, and Will Turner, Ph.D.
“*Energy Implications of In-Line Filtration in California Homes”*

L. Zhou, D.W. Herrin, P.E., Ph.D., and T. Li, Ph.D.
“*Measurement and Simulation of Acoustic Load Impedance for Boilers”*

2014 Technical Paper Award
Limin Zhou; 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” by*

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”*

## **POSTER PRESENTATION AWARD**

This award is for the best Poster Session Paper from each Annual and Winter Meeting. The award consists of a $250 honorarium and a plaque.

Poster Presentation Winners

2017 - Robert Hitchcock, Ph.D., John Butterfield, P.E., Elizabeth Ford Wilkins, P.E., Francisco Forns-Samso

*“BIM-Enabled Operations and Maintenance Work Processes”*

2016- A Poster session was not conducted at the 2015 Winter (Chicago) or 2015 Annual (Atlanta) Conferences

2015 – Limin Zhou; David W. Herrin, PE, Ph.D.; Tianxiang Li, Ph.D. for *“A Design Approach for Preventing and Solving Combustion Oscillation Problems”*

2014 – A poster session was not conducted at the 2013 Winter (Dallas) and Annual (Denver) Conferences

2013 – Lorenzo Cremaschi, Ph.D, Shanshan Cai, Kasey Worthington, and Afshin J. Ghajar, Ph.D, P.E. for *“Measurements of Pipe Insulation Thermal Conductivity at Below Ambient Temperature Part 1: Experimental Methodology and Dry Tests”*

2012 – Jasmin Raymond, Alexandre Leger, P.E., Rene Therrien, Ph.D., Marc Frenette, P.E., and Eric Magnis for *“Numerical Modeling of Thermally Enhanced Pipe Performances in Vertical Ground Heat Exchangers”*

2011 – Kimberly Goodrich, Charles Eley, P.E., John Arent, P.E., Randall Higa, P.E., and Devin Rauss, P.E. for *“Rethinking Percent Savings – The Problem with Percent Savings and zEPI: The New Scale for a Zero Net-Energy Future”*

2010 – Frank Lu, P.E., Matthew Sitzmann, P.E., and Steve R. Smith, P.E. for *“Effects of Dents in Condenser Fins on Air Conditioner Performance”*

2009 – Jelena Srebric, Ph.D. and Paulo Cesar Taberes Velasco, Ph.D. for “*The Role of Plants in the Reduction of Heat Flux Through Green Roofs: Laboratory Experiments”*

2009 – James A. Mathias, Ph.D., P.E. and Duane M. Mathias for *“Energy Efficient, Cost Effective, Passive Solar House”*

2008 – Kee-Chiang Chung, Ph.D., Tsai Kuo-Pao, and You-Hsuan Wang for *“Performance of Local Ventilated Hood 1: A General Ventilation Working Environment”*

2008 – Nesreen Ghaddar, Ph. D, Kamel Ghali, Ph.D., Ralph Saadeh, and Amer Keblawi for *“Design for Combined Chilled Ceiling Displacement Ventilation System”*

2007 – Francis M. Farrell, Thomas M. Fitch, and Michael J. Morgan for *“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, and Rodney L. Osborne for *“Reentrainment of Building Exhaust Air by Packaged HVAC Units”*

2006 – Barbara H. McCrary, Stephen P. Kavanaugh, Ph.D., and Derek G. Williamson, Ph.D. for “*Environmental Impacts of Surface Water Heat Pump Systems”*

2006 - Vasile Minea for “*Improved Supermarket Refrigeration and Heat Recovery Systems”*

2005 - Wei Shang, Ph.D., and Robert W. Besant, P.E. *for “Determining Flow Channel Size Variations Using a Pressure Probe for a Typical Regenerative Wheel”*

2005 - Sang-Min Lee and Jin-Won Lee for “*A New Local Ventilation System Using a Vortex Flow Generated with a Finned Rotating Annular Disk”*

2004 - Ali A. Jalalzadeh-Azar, Ph.D., P.E., for “*A Comparison of Electrical and Thermal-Load Following CHP Systems”*

2004 - Paul A. Torcellini, Ph.D., P.E., Nicolas Long, and Ronald D. Judkoff for *“Consumptive Water Use for U.S. Power Production”*

2003 - Stephen C. Carpenter, P. Eng. and Christopher Schumacher for *“Characterization of Framing Factors for Wood-Framed Low-Rise Residential Buildings”*

2003 - Ronald D. MacDonald, P. Eng., Mark E. Armstrong, P. Eng., and K.G. Boyd, P. Eng. for *“Evaluation of an Infrared Two-Stage Heating System in a Commercial Application”*

2002 - William Rahmeyer, Ph.D., P.E. for “*Pressure Loss Coefficients for Close- Coupled Pipe Ells”*

2002 - John Mitchell, Ph.D., P.E., William A. Beckman, Ph.D., P.E., and Paul Riemer for *“The Use of Time Series Analysis in Fault Detection and Diagnosis Methodologies”*

2001 - Jelena Srebric, Ph.D. and, Quingyan Chen, Ph.D. for “*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, and Mr. Radisav Vidic, Ph.D. for *“Efficacy of DBNPA Against Legionella Pneumophilia: Experimental Results in a Model Water System”*

2000 - Pirawas Chuangchid, Ph.D. and Moncef Krarti, Ph.D., P.E. for *“Parametric Analysis and Development of a Design Tool for Foundation Heat Gain for Coolers*

2000 - Dr. Steve P. Kavanaugh and Dr. Marita Allen for *“Thermal Conductivity of Cementitious Grouts and Impact on Heat Exchanger Length for Ground Source Heat Pumps”*

1999 - Mr.Francis R. Delafield, Ms. Angelita S. Ng, Mr. Krich Ratanaphruks, Mr. Michael Tufts, and Mr. James Jetter for *“Composition Changes in Refrigerant Blends for Automotive Air Conditioning”*

1999 - Dr. Jelena Srebric, Dr. Qingyan Chen, and Dr. Leon R. Glickman for *“Validation of a Zero-Equation Turbulence Model for Complex Indoor Airflow Simulation”*

1998 - Mr. A.D. Machin, Mr. D. Naylor, Dr. Stephen Harrison, and Dr. P.H. Oosthuizen for *“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, and Mr. Alexander J. Willman, P.E. for *“Health and Productivity Benefits of Improved Indoor Air Quality”*

## **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 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 plaque.

1959-60................................ Aaron L. Brody

1960-61...................................Carl F. Speich

1961.................................. J. Richard Wright

1967................................ Charles E. Bullock

1968...............................George D. Huffman

1969..................................Richard E. Barrett

1970.....................................Yosunobu Nishi

1971...................... Douglas E. McDuffie, Jr.

1973...............................Stanley A. Mumma

1975.................................Douglas M. Burch

1976..................................Merle F. McBride

1977................................Stephen M. Sessler

1978..............................................A.F.M. Ali

1979 ................................... Sudhir K. Sastry

1980 ............................Stephen E. Selkowitz

1981 ........................................Amir L. Ecker

1982 .................................Francesco Pompei

1983 ........................................Van D. Baxter

1984 .................Nancy J. MacDonald Banks

1985 .......................................Frank E. Jakob

1986 ............................. Joseph E. Laviana

1987 ...........................Robert W. Rasmussen

1988 ....................................Alain P. Fobelets

1989 .........................................Joseph H. Eto

1990 .......................................Anil K. Trehan

1991 ........................... Andreas K. Athienitis

 Jiangang Shou

1992 .......................................Lars J. Nilsson

1993 ......................................Nancy J. Banks

1994 .....................................Barbara A. Stefl

1995 .................................Frederic B. Morris

1996 .....................................Chad B. Dorgan

1997 ..............................Shane A. Moeykens

1998 ................................Steve P. Rottmayer

1999 ......................................... Brian W. Lee

2000 ................................ Carey J. Simonson

Dustin L. Ciepliski

2001 .................................. Andrew Manning

2002 ..................................Xianghong Huang

2003………………….…....…..Dongyi Xiao

2004………………..….…...Guan Yanzheng

2005……………………….…..Nicolas Long

2006………………… ……No Award Given

2007…………….….…..Barbara H. McCrary

2008…Joseph Firrantello & Alexander P. Michaud

2009……… .Paulo Cesar Taberes Velasco, Ph.D.

2010………………………Michael S. Waring

2011…………………….Jacob L. Edmondson

2012.........................................Daniel C. Gibbs

2013…………….Paul Glanville, P.E., Douglas

Kosar, and Jason Stair

2014.........................................Morgan D. Hayes

2015………………………Dustin W. Demetriou

 Hamza Salih Erden

2016……………………………….Carl L. Reid

 Peng Yin

2017……………………….Mohammad Rafati

## **JOURNAL PAPER AWARD**

This award is presented to the author of the best article published in the ASHRAE Journal during the Society year. The award consists of a plaque and an honorarium in the amount of $500.

1983 Bruce J. Novell

1984 Francis J. McCabe

1985 R.L. Webb and A. Villacres

1986 Carl H. Jordan and Makio Goto

1987 Clifford M. Scofield and James R. Taylor

1988 Mark O. McLinden and David A. Didion

1989 Carl H. Jordan

1990 Gershon Meckler

1991 William J. Coad

1992 Thomas B. Romine, Jr.

1993 F. Sherwood Rowland

1994 Marhta J. Hewett, Mary Sue Lobenstein, and

 Susan K. Nathan

1995 Bernard A. Nagengast

1996 Steven T. Taylor

1997 Lewis G. Harriman, III

1998 Gurvinder Singh and John Mitchell

1999 Lewis G. Harriman, III, Donald G. Colliver,

 and K.Quinn Hart

2000 Rudolph Stegmann

2001 Thomas B. Hartman

2002 John Frederick Straube

2003 Gordon V. R. Holness

2004 Joseph W. Lstiburek

2005 Dennis Stanke

2006 Michel Bernier

2007 Fredrick Rohles

2008 James Cummings and Charles Withers, Jr.

2009 James Steven Brown

2010 No Award Given

2011 Steven T. Taylor and C. Hwakong Cheng

2012 John A. Murphy
2013 Daniel Nall and Robert Sedlack

2014 Paul Lindahl

2015 Philip Bartholomew

2016 Hugh Crowther and Yi Teng Ma

2017 Omar Hawit and Trevor Jaffe

## **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 form of the award is a plaque.

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 Kaczmarcyzk, Marcin Duszyk, and Tomonori Sakoi

2014 David Yashar, Piotr Domanski, Hong Cho

2015 Sorin Bengea, 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

## **TECHNOLOGY AWARDS**

Established in 1981, this award recognizes successful applications of innovative design, which incorporate ASHRAE standards for effective energy management, indoor air quality, and mechanical design management technology. The award consists of a plaque.

**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 Guttmann 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

**HEALTH CARE FACILITIES—EXISTING**

1999……….Laurier Nichols for Sacre-Coeur Hospital, Montreal, Quebec, Canada

2001……….Arthur G. Veneklase 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 and 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

**HEALTH CARE FACILITIES—EBCx**

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

**ALTERNATIVE AND/OR RENEWABLE ENERGY USE**

1999………Paul A. Torcellini for National Renewable Energy Laboratory Thermal Test Facility, Golden, Colorado

2001………Paul A. Torcellini and 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. and Shirish Maniar, Gruman/Butkus Associates, Evanston, Illinois

2006............Laurier Nichols for Ecole Du Tournant, Saint-Constant, Québec

**INSTITUTIONAL BUILDINGS—NEW**

1999……..Stephen W. Tweedie for the Nova Institution, Truro, Nova Scotia, Canada

2001……..Roland Charneux for the President Kennedy Building, Universite du Quebec a Montreal, 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 and 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……..Surrander Naganathan for Deer Ridge Correctional Institution, Madras, Oregon

2010……..Stephen C. Roberts for Kirsch Center for Environmental Studies, Cupertino, California

2010……..Donald J. McLauchlan, Steven D. Maze, and 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 and 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, Saskatchenwan, 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 and Charles T. Meagher for cGMP Cell Therapy Facility, Chicago, Illinois

2010………Mark M. Hydeman and 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 and Branden Farnsworth-Weinblatt for Campus Wide Satellite Boilers, Rochester, NY

2011………Marco Freitas and Simon Pelletier for Cowansville Courthouse, Montreal, Quebec, Canada

2013………Sean Abbott for Seattle Fire Station #2, Lynwood, Washington

**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 and 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 Bibliothéque Ville de Mont-Royal, Deux-Montagnes, Quebec, Canada

2017……....Caroline R. Kelty for Deep Green Residence Hall, Lexington, Kentucky

2018………Steven T. Taylor, Todd Gottshall, David Heinzerling, and Allan Daly for San Francisco Musuem of Modern Art, San Francisco, California

2018………Martin Roy for Bibliothèque Raymond-Lévesque, Longeuil, Quebec, Canada

2018………Robert Harold Thompson, Eric L. Kirkland and Fletcher J. Clarcq for NREL Energy Systems Integration Facility (ESIF), Golden, Colorado

**OTHER INSTITUTIONAL – EXISTING**

2015……….Kateri Héon and 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

**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 and Jesse Hendershot for Heriatge Hall Alumni Center, Kalamazoo, Michigan

**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 and 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 and 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 and 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

**INDUSTRIAL FACILITIES OR PROCESSES—NEW**

2000………J. Howard Van Boerum for Salt Lake Organizing Committee, Utah Winter Sports Park - Bobsled/Luge Track,

 in Bear Hollow (Park City), Utah

2005 …….. Jeffey D. Celuch for the LaFarge Gypsum Drywall Plant, Cincinnati, Ohio

2007………Pierre Roussel and Jacques Lagace for the Pierre-Elliott Trudeau Airport – Thermal Plant, Montreal, Quebec,

 Canada

2008 …….. Apichit Lumlertpongpana and Wichai Rungruangprug for Charoen Pokphan 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 and 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. Gulledge, III for the Caterpillar Axle Manufacturing Plant, Greensboro, North Carolina

2015……....Charles E. Gulledge, 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

**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, and Damon Lynn for Antarctica: Empire of the Penguin, Maitland, FL

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, Tanpa, Florida

**PUBLIC ASSEMBLY—NEW**

2005 ……...Jeffrey L. Ewens and 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 Mistissini, Montreal, Quebec, Canada

2011………Yury Lui and 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

**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, and Jess Farber for Kentucky Exposition Center, Louisville, Kentucky

**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 and 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, and 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 Charneux 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 Grander 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, Longueil, Quebec, Canada
2014………Jacques Lagacé for La Maison du Developpement Durable, Montreal, Quebec, Canada

2015………Benjamin Frank Gozart, Charles Chaloeicheep, Tom J. Marseille, and Tom C. Boysen for Federal Center South – Building 12021, Seattle, Washington

2015……... Aaron Robert Smith for 100 Venture Run, Halifax, Nova Scotia

2015………Jacques Lagaće 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 Charneux for Moutain Equipment Co-Op Head Office, Vancouver, BC, Canada

2018……...Devin G. Cheek and Jeremy Smith for CMTA Lexington Office, Lexington, Kentucky

2018………Hiromasa Tanaka, Susumu Horikawa, and Kouji Sugihara for Daikin Technology and Innovation Center, Settsu, Osaka, 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 and 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 Charneux for Place Desjardins, Inc. – Office Towers Energy Retrofit, Montreal, Quebec, Canada

2011………Roland Charneux for 1801 McGill College, Montreal, Quebec, Canada

2011………Peter Bailey, Walter Joneas, and Gregory Dodge for Hybrid Refridgeration Chiller, Huntington, Vermont,

 Cazenovia, New York, Billerica, Massachusetts

2011………Alexander Butkus and 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, Saskatchenwan, Canada

2012………Bruce Davis for Deere and Company Retrofit-East Office, Moline, Illinois

2012………Barry Jim On and 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 District of Columbia

2015……....Perry Hausman for Corporation Hall, Kalamazoo, Michigan

2015………Stanley Katz for Complex Southwest One, Laval Quebec, Canada

2015………Donald J. McLauchlan 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 and Holly Stevens for Market One, Des Moines, Iowa

2018……… Hsu-Cheng Chiang and Ming-Shan Jeng for IEK Center Building, Chutung, Hsinchu, R.O.C.

2018……… Abdul Razaak Syed Mubarak and Paul Mikii Abuel for Sands China Ltd. (COTAI Strip), Taipa, Macau

**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 Verriéres 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

## **TECHNOLOGY AWARD OF ENGINEERING EXCELLENCE**

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.

1989 -1999……………No award given

2000…………………...Byron H. Bakenhus for Lincoln Electric System, Rokeby Ice Storage Project, Lincoln, NE

2001-2004……………..(No Award given)

 2005…………………...Frederic Genest for the Mountain Equipment Co-op, Montreal, Canada

2006-2012……………..(No Award given)

2013………………….. Joe Tai for Research Support Facility, NREL, San Francisco, CA

2014…………………...Peter Rumsey for the Packard Foundation Net Zero Energy Headquarters, Oakland, CA

2015…………………...(No Award Given)

2016…………………...(No Award Given)

2017…………………...(No Award Given)

2018………………….. Johnathan Rumohr and Jesse Hendershot for Heritage Hall Alumni Center, Kalamazoo, MI

## **STUDENT DESIGN PROJECT 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 knowledged of practical design.. The first place award consists of a plaque and $2,000 honorarium plus transportation and two nights’ lodging at the meeting where the award is presented.

**THE APPLIED ENGINEERING CHALLENGE CATEGORY**

2013 Brian Kaufman, Nick Leeburg, Tony Lin, Micah Reich, San Jose State University

2014 Juan Silva, Nelson Echeverry, California Polytechnic State Univeristy, San Luis Obispo

2015 Miren Aizpitarte, Cinthya Mendez, Julia Stone, Willis Tang, California Polytechnic State Univeristy,

 San Luis Obispo

2016 Bradley Lulik, Eva Rennie, Brent Yeske, University of Regina

**THE SETTY FAMILY FOUNDATION APPLIED ENGINEERING CHALLENGE CATEGORY**

2017 Sunghoon Chung, Austin Hochstetler, Sean Bybee, Antonio De Jesus Aguayo, California Polytechnic State University, San Luis Obispo

2018 Iik Wahyu Anggara, Katon Vembriarto Widayaswara, Yoga Hutomo Putra, Mohammad Ilham Akbar,

Fahmi Rizaldi, Bandung Institute of Technology

**INTEGRATED SUSTAINABLE BUILDING DESIGN CATEGORY**

2010 Troy White, Edward Wood, Jaime Gonsalves, Ivan Fernandes

 Seneca College, Toronto, Canada

2011 Zhang Qiqi, Qi Te, Chen Yuanyi

 Tianjin University, Tianjin China

2012 Dustin Altschul, Prathamesh Chakradeo, Ravik Chandra, Saikrishna Ganesan, Timothy Hertel, Varun Krishnan, Charles Tratton, University of Cincinnati, Cincinnati, Ohio

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

 William McCann, Salvador Ordorica, Ashutosh Ojiha, Marie Rottschaefer, Siddharth Swaminathan

 Gbadebo Tobi, The Pennsylvania State University

**ARCHITECHTURAL DESIGN CATEGORY**

2001 Andrew Herland, Troy Jacoby, University of Wisconsin, Milwaukee, Wisconsin

2003 Jacobi Gastile, Angelica Gordon, Ronnie Pride, Jr., North Carolina A&T State University, Greensboro,

 North Carolina

2005 Michael Oranchak and Keith W. Bryan

 Lawrence Technological University, Southfield, Michigan

2006 Scott Poloney and Dan Guith

 Lawrence Technology University, Southfield, Michigan

2007 Sonia Carias and Alissa Ogen

 Savannah College of Art & Design

2008 Stuart Johnson and Grant Helmkamp

Lawrence Technology University, Southfield, Michigan

2009 Alexandra Gibson, Bazigha Tufail, Justina Jones

 University of Kansas, Manhattan, Kansas

**HVAC DESIGN CALCULATIONS CATEGORY**

2012 John Bisacquino, John Dennis, Travis Westover, Temple University, Philadelphia, Pennsylvannia

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, Univeristy 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

**HVAC SYSTEM DESIGN CATEGORY**

2001 John Damoth, Leon Greiner, Brian Holton, Sam Lampe, Martin McDonough, John Quilitzsch, Glenn Remington, Steve Turnbull, Ferris State University, Big Rapids, Michigan

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, Big Rapids, Michigan

2002 James R. Mallory, Joseph Laws, Michael J. Hahn, Michael J. Laws, Nathaniel Mielke

 Ferris State University, Big Rapids, Michigan

2003 David Begin, Wayne Belka, Tim Eller, Bill Kangas, Mary Kladder, Troy Milks, Matthew Pedler, Brian

 Reneker, Ferris State University Applied Technology Center, Grand Rapids, Michigan

2004 Jesse Bigelow, Andy Geem, Gerard Harris, Bob Krieg, Nathon Klein, Mike Sweeney

 Ferris State University, Big Rapids, Michigan

2005 Brad Green, Bhushan Joshi, John Lindman, Trevor Fink, Ray Wrobel, Joseph Borders

 Ferris State University, Big Rapids, Michigan

2006 Jesse Fisher and Amy Pastor

 The Pennsylvania State University, University Park, Pennsylvania

2007 Justin Bern, Jon Gridley, Kevin Kaufman, Jessica Lucas, David Melfi and Yulien Wong

 The Pennsylvania State University, University Park, Pennsylvania

2008 Gary Schrader, Jeremy Saddison, Ryan Larson, Chad Gydesen

 Ferris State University, Big Rapids, Michigan

2009 Alyssa Adams, Calvin Douglas, James Gawthrop, Jr., Justin Herzing, Amy Leventry, Michael Smith

 The Pennsylvania State University, University Park, Pennsylvania

2010 Elyse Widin, William Raschefsky, Chan Kim, Brian Sybesma, Craig Allen

 California Polytechnic State University, San Luis Obispo, California

2011 Holly Brink, Michael Crabb, James Dougherty, Andrew Gilliam, Gina Halbom

 University of Nebraska Lincoln, Lincoln Nebraska

**HVAC SYSTEM SELECTION CATEGORY**

2002 Coury Revan, Jonathan Niksich, Rodney Cook, Scott Breuker, Bruce Calkins

 Ferris State University, Big Rapids, Michigan

2003 Zachary Brown, Camien Chambers, Scott Houghton, Jason Izbicki, Scott Kaplan, Tom Tacey, Dean

Weber, Ferris State University, Big Rapids, Michigan

2004 Larry Good, Scott Huber, Rebecca Mittel

 Pennsylvania State University, University Park, Pennsylvania

2005 Nick Maffeo, III, Jason Kramer, Dave Peterson

 Pennsylvania State University, University Park, Pennsylvania

2007 Justin Bern, Jon Gridley, Kevin Kaufman, Jessica Lucas, David Melfi and Yulien Wong

 The Pennsylvania State University, University Park, Pennsylvania

2008 Kevin Chow, Brandon Damas, Jeremy Fowler, Brandon Frey, Brendon Gleason, Ben Willey

 Kansas State University, Manhattan, Kansas

2009 Chaowanaphan Leekham, Pakorn Nontiwatwanich, Wiroj Ekwongmunkong, Supayos Suveepattananont,

 Patarapol Puangkum

 Chulalongkorn University, Bangkok, Thailand

2010 Kelly Griffith, James Newman, Phillip Podlasek, Darren Rottinghaus

 Kansas State University, Manhattan, Kansas

2011 Lynn Gualtieri, Evan Oda, Kristin Porter, Navid Saiidnia, Jeffrey Wong, Cameron Young

 California Polytechnic State University, San Luis Obispo, Califoria

2012 Adam Buck, Jami Harper, John May, Patrick MacBride, Alaina Williams, University of Nebraska, Lincoln,

 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 Hovsepian, Asped Khachatoorian, Tade Mirzakhanyan, Miro Zaroukian, California State Polytechnic University, Ponoma

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

**REFRIGERATION SYSTEM DESIGN CATEGORY**

2006 Thammarat Wittayakerkkrai, Chaiwat Puttanuntadech, and Kittipong Sookchai

 Chulalongkorn University, Bangkok, Thailand

## **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. The name of the award was changed from the Government Activities Award in June 2015. In June 2018, the name of the award was changed to the Government Affairs Award. The award consists of a plaque for first place winners and transportation reimbursement to attend the meeting, if the award recipient is not otherwise reimbursed by the Society.

1990 Orange Empire Chapter

1991....................................................St. Louis Chapter

1992..........................................Orange Empire Chapter

1993................................................... Arkansas Chapter

1994.......................................Rocky Mountain Chapter

 Minnesota Chapter (tie)

1995...................................................Pittsburgh Chapter

1996 ..................................................Spacecoast Chapter

1997 ....................................................Rochester Chapter

1998 ………………………………… No award given

1999 …………………………………. No award given

2000 .................................................Spacecoast Chapter

2001 ……………………………….… No award given

2002 .........................................Northern Nevada Chapter

2003………..…….……….………Puget Sound Chapter

2004 ………..………………….Central Indiana Chapter

2005 ………..……………………. Cleveland Chapter

2006…………………………………….. Detroit Chapter

2007………………………………… Puerto Rico Chapter

2008............................................No award given

2009………………………………… Puerto Rico Chapter

2010…………………………………..Mississippi Chapter

2011…………………………………..Hong Kong Chapter

2012......................................... No award given
 2013…………………………………… No award given
 2014…………………………………… No award given

2015………………………………………Ross Montgomery

 Robert Craddock

2016………………………………………Arthur Hallstrom

2017…………………………………………Sam C.M. Hui

2018………………………………………...Roger Chang

## **STUDENT ACTIVITIES ACHIEVEMENT AWARD**

Established in 1988, this award recognizes a Chapter Student Activities Chairman for service related to the goals and growth of student activities at all levels. The award consists of a plaque and lapel pin.

2000…..................Charles D. Curlin, Jr., Southern Piedmont Chapter

2001.......................................................................... No award given

2002 ..................................................Paul Dreater, Anthracite Chapter

2003…………………….………….Michel Bernier, Montréal Chapter

2004……………………………..Thomas McNamara, Illinois Chapter

2005……………………………….Samir Traboulsi, Lebanese Chapter

2006…………………………........Carl McGartlin, Charleston Chapter

2007……………………………….........Jim Toda, Tri-County Chapter

2008……………………….…….. Manuel Belino, Philippines Chapter

2009……………………………Ashish Kadam, Western India Chapter

2010 ………………….....……… Nicolas Lemire, Montreal Chapter

2011…………....…Clayton A. Lampman, Southern California Chapter

 Harmohindar Singh, North Piedmont Chapter

2012............................................................No award given

2013……..……………Ather N. Siddiqui, I, Northern Pakistan Chapter
 2014……………………………..……….Jared Larson, Regina Chapter

2015…………………...........Adam Parker, Southern Piedmont Chapter

2016………………………..Ather Siddiqui, Northern Pakistan Chapter

2017………………………………………………………..No award given

2018……………………………………………………….Yumei Mata Hi

## **DAN MILLS TECHNICAL 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. Prior to 2014, this award recognized a Chapter TEGA Chair who excelled in meeting TEGA goals in technical, energy, and government activities. The award consists of a plaque and lapel pin.

2000........................ Charles E. Gulledge III, North Piedmont Chapter

2001....................... Christopher Winfree, Southern Piedmont Chapter

2002....................... Christopher Winfree, Southern Piedmont Chapter

2003………….………… .Meredith T. Krieg, North Piedmont Chapter

2004………….……..…………….Henry Manczyk, Rochester Chapter

2005……………………..……….……Rajean Blais, Montreal Chapter

2006………………………………………… Wei Sun, Detroit Chapter

2007……..…………..…….. Bryan Lampley, North Piedmont Chapter

2008…………………………….. Thomas Kroeschell, Illinois Chapter

2009……………………………………. Oscar Cobb, Detroit Chapter

2010………………….…….Jean-Gabriel Joannette, Montreal Chapter

2011……………………………….....Keith H. Reihl, Houston Chapter

2012........................................................................ ..... No award given

2013……………………………....Eric M. Fullerton, Arkansas Chapter
 2014…………………………....Lee Huffines, North Piedmont Chapter

2015…………………………………………………….No award given

2016…………………………………………………….No award given

2017……………………………………………………No award given

## **CHAPTER PROGRAM STAR AWARD**

Established in 2004, this award recognizes 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. The award consists of a plaque and lapel pin.

 2005……………………… Frank Heine, Twin Tiers Chapter

 2006..……………Dave Shugars, Western Michigan Chapter

 2007………………………….Tom Lewis, Nebraska Chapter

 2008 …………………………..Don Hay, Monterrey Chapter

 2009 ……………..………Robert Laneve, Cleveland Chapter

 2010……………………Christopher Ahne, Arkansas Chapter

 2011………………………..Keith H. Reihl, Houston Chapter

 2012……………………….Marco Ottavino, Toronto Chapter

 2013.................................Eric M. Fullerton, Arkansas Chapter
 2014………………...Heather Schopplein, San Diego Chapter

 2015…………………………William P. Lee, Hawaii Chapter

 2016…………………………………………No Award Given

 2017………………………………………..Chun-Sing Wong

 2018……………………………………....Abhishek Khurana

## **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 form of the award is a plaque.

The name of the award was changed from the Refrigeration ‘R in ASHRAE’ award in June 2015.

2014 ………………………...No award given

2015…………………………No award given

2016………………………….No award given

2017………………………….James Paul Martin

2018………………………….Kevin Galbraith

## **COMFORT COOLING AWARD FOR PROJECT EXCELLENCE**

Established in 2004, this award recognizes the designer and the owner of a comfort cooling application which highlights innovation and/or new technologies. The form of the award is a plaque.

The name of the award was changed from the Refrigeration Comfort Cooling Award for Project Excellence in January 2016.

2006…………………….…..Mark Blazis, Kevin Dolder, and Karl Miller

2007………………………...No Award Given

2008……………….………..No Award Given

2009………………………...Russell L. Heiken

2010………………………...No award given

 2011………………………...No award given

 2012………………………...Eric M. Fullerton

 2013………………………...No award given

 2014………………………...No award given

 2015………………………...No award given

 2016………………………...Andrew B. Pearson

 2017…………………………No award given

 2018…………………………No award given

## **SERVICE TO ASHRAE RESEARCH AWARD**

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

2006………………………….John W. Mitchell

2007………………………….Zahib Ayub

2008………………………….John W. Andrews

2009………………………….Christopher K. Wilkins

2010………………………… John A. Murphy

2011…………………………Steven T. Taylor

2012…………………………Drury B. Crawley

2013…………………………Herman Behls
 2014…………………………No Award Given

2015………………………….Iain S. Walker

2016………………………….No Award Given

2017………………………….Joseph B. Huber

2018………………………….Brian Silvetti

## **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. The form of the award is a plaque.

2006…………………………………..George C. Briley

 2007…………………………………..No Award Given

 2008…………………………………..No Award Given

 2009………………………………………....Paul Miclea

 2010…………………………………Dharam V. Punwani

 2011…………………………………Gary Phetteplace

 2012. …………………………………Donald L. Beaty

2013…………………………………..Lucas B. Hyman
 2014…………………………………..Gursaran D. Mathur

2015…………………………………..John J. Carter

2016…………………………………..Stephen W. Duda

2017…………………………………Paul A. Lindahl, Jr.

2018…………………………………Arthur Hallstrom

## **ENVIRONMENTAL HEALTH AWARD**

Established in 2006, this award recognizes excellence in volunteer service focused on environmental health issues. The form of the award is a plaque.

2006………………..…………...No Award Given

2007…………………………….David Grimsrud

2008 ……………………………Hal Levin

2009…………………………….H.E. “Barney” Burroughs

2010…………………………….Andrew K. Persily

2011…………………………….No Award Given

2012…………………………….Steven J. Emmerich

2013.............................................Lawrence J. Schoen
2014…………………………….Chandra Sekhar

2015…………………………….Jack Spengler

2016…………………………….Francis Offerman

2017……………………………..W. Gene Tucker

2018……………………………..Pawel Wargocki

## **YOUNG ENGINEERS IN ASHRAE (YEA) AWARD OF INDIVIDUAL EXCELLENCE**

Established in 2013, this award recognizes the YEA member(s) annually for superior efforts during the preceding Society year in the promotion of the YEA Institute and representation of the 35 and under demographic of ASHRAE. The form of the award is a plaque.

2014…………………………..Stephanie Kunkel, Rupesh Iyengar, and Jake Kopocis

2015…………………………..Nathaniel Boyd, John Constantinide, Eric Sturm

2016…………………………..Hao Luo, Kris Tan, Rachel Romero

2017………………………….Erica Moser, Alyse Falconer, Mitesh Kumar

2018………………………….Wesley Stanfill, Pun Mun Wai, Bryce Buchanan

## **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

2015…………………………….Eric Heinrich

2016…………………………….Eric Heinrich

2017…………………………….James Paul Martin

2018……………………………Heather Schopplein

## **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

## **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. The form of the award is a certificate.

 2019………………………………………No Award Given

## **WOLVERINE-ASHRAE DIAMOND KEY AWARD**

Presented annually 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

1941...............................................................Paul F. McDermott

1942...............................................................Charles N. Deverall

1943.............................................................John G. Bergdoll, Jr.

1944......................................................................David L. Fiske

1945.....................................................................Daniel D. Wile

1946................................................................Clarence E. Lund

1947.................................................................Richard H. Swart

1948................................................................Lloyd A. Staebler

1949..................................Milo M. Bolst and Richard C. Jordan

1950...........................................................William L. Holladay

1951.....................................................................Daniel D. Wile

1952............................................................Daniel C. Schiavone

1953....................................Neil E. Hopkins and John J. Seelaus

1954..................................................................Ferruccio Rasori

1955............................................................................No Award

1956..................................................................Dale J. Missimer

1957...........................James L. Threlkeld and Tamami Kusuda

1958...............................................................Jack B. Chaddock

1959.....................................................Harold M. Henddrickson

1960.......................................Perry H. Ziel and John S. Blossom

1961...................................................................Bruno Morabito

1962................................................................William L. Bryan

1963........................................................Charles A. Whitehurst

1964................................................................William F. Kerka

1965........................................T.J. Csermely and C.M. Bosworth

1966........................................................................G.P. Mitalas

1967...........................Dr. Hans O. Spauschus and G.C. Doderer

1968....................................................................Peter K. Baade

1969....................................................................Colin G. Gordon

1970....................................Frank R. Biancardi and D.P. Darrow

## **KLIXON AWARD**

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

1957-58...........................................................Raymond T. Divers

1958-59.........................................H.O. Spauschus and R.S. Olsen

1959-60.......................................C.B. Sonnino and John F. Harris

1960-61..............................................................C.V. Downing, Jr.

1961-62.........................................................................No Award

1962-63.........................................................................No Award

1963-64........................................................................No Award

1964-65..........................................................................J. Mowry

1965-66....................................................................G.L. Rodgers

1968 .................................David B. Dibble and Russell E. Wood

## **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