

ASHRAE

Meeting of the
Members Plenary
Session

2011 Annual Conference
Saturday, June 25, 2011



PLENARY SESSION AGENDA

- Call to Order and Opening Remarks..... Lynn G. Bellenger, ASHRAE President
- Welcoming Remarks.Guy Perrault, Director and Chair, Region II
- Secretary's Report Jeff Littleton
ASHRAE Executive Vice President and Secretary
- Awards Presentation..... Lee Burgett, Chair, Honors and Awards Committee
- Keynote Speaker Rob Waldman
- Adjournment Lynn G. Bellenger

2011 Annual Meeting Honors and Awards Recipients

- Lincoln Bouillon Award Ramesh G Kumar
- Dan Mills Technical Award Keith H. Reihl, P.E.,
ASHRAE Certified High Performance Building Design Professional
- Chapter Programs Star Award Keith H. Reihl, P.E.,
ASHRAE Certified High Performance Building Design Professional
- William J. Collins Jr. Research Promotion Award George "Billy" Austin Jr., P.E
- Lou Flagg Award Robert Bean, R.E.T.P.L.(Eng.), Kwang Woo Kim
Bjarne Olesen, Ph.D., Fellow
- Government Activities Award Hong Kong Chapter
- Standards Achievement Award..... Michael Schwedler, P.E.
- Student Activities Achievement Award Clayton A. Lampman, P.E., Life Member
Harmohindar Singh, Ph.D., P.E., Fellow
- Milton W. Garland Commemorative Refrigeration Award for Project Excellence.....
John D. Bittner, P.E.
- Ralph G. Nevins Physiology and Human Environment Award Jan Kaczmarczyk
- Homer Addams Award Sebastian Herrmann

ASHRAE Paper Awards

Jeffrey D. Spitler, Ph.D., P.E., Fellow
Bereket A. Nigusse, Ph.D.
Michael S. Waring, Ph.D.
Jeffrey A. Siegel, Ph.D.
Christian A. Gueymard, Ph.D.

Keisuke Sekiguchi, Dr.Eng.
Shisei Waragai, Dr.Eng.
Tsuneo Uekusa, Dr.Eng.
Kenji Yamasaki
Didier Thevenard, Ph.D., P.Eng.

Willis H. Carrier Award Micahel S. Waring, Ph.D.

ASHRAE Poster Presentation Awards Frank Lu, Ph.D., P.E.
Matthew Sitzmann, P.E.
Steve R. Smith, P.E.

Crosby Field Award Jeffrey D. Spitler, Ph.D., P.E., Fellow
Bereket A. Nigusse, Ph.D.

Journal Paper Award Steven T. Taylor, P.E., Fellow
C. Hwakong Cheng

Distinguished 50-Year Member Award

Richard J. Harju, P.E., Life Member
Frederick R. Holste, P.E. Fellow, Life Member
Charles R. Knights, Life Member
Oliver K. Lewis, P.E., Fellow, Life Member
Fareed Ossi, P.E., Fellow, Life Member
Thomas Smith, F.R.Eng, C.Eng., Fellow, Life Member

Distinguished Service Award

Walid Chakroun, Ph.D., Fellow
Timothy C. Dwyer, C.Eng., Fellow
Cynthia Gage, Ph.D., Fellow
Kevin Gebke
David Godwin, P.E.
Cecily M. Grzywacz
Robert Hu, Ph.D., Fellow
Phillip Johnson, P.E.
Georgi Kazachki, Ph.D., Fellow

Essam E. Khalil, Ph.D., Fellow
William D. Knight Jr., P.E.
Spencer Morasch
Guy Perrault, ing.
Larry Sun, P.E.
Sam Toub, P.E., Fellow, Life Member
Xinlei Wang, Ph.D.
Alexander Zhivov, Ph.D.

Exceptional Service Award

Constantinos Balaras, Ph.D., P.E.

Van Baxter, P.E.

Timothy C. Dwyer, C.Eng., Fellow

William S. Fleming, Fellow, Life Member

Sheila Hayter, P.E., Fellow

Richard D. Hermans, P.E., ASHRAE Certified Healthcare Facility Design Professional

Thomas M. Lawrence, Ph.D., P.E.

Michael M. Ohadi, H.D., Fellow

Stanley M. Westhoff, Life Member

Alexander Zhivov, Ph.D.

Andrew T. Boggs Distinguished Service Award

Presidential Life Member Richard Hayter, Ph.D., P.E., Fellow

Louise and Bill Holladay Distinguished Fellow Award

Byron W. Jones, Ph.D., P.E. Fellow

SOCIETY AWARDS

Lincoln Bouillon Award

G. Ramesh Kumar of the South India Chapter is the recipient of the Lincoln Bouillon Award. The award recognizes a member who performs the most outstanding work in increasing the membership of the Society during the course of the year. The award commemorates the late Presidential Member Bouillon's efforts in recruiting new members. Three nights dedicated to membership netted Kumar and the chapter 44 new members, who were reached through invitation letters and phone calls. Members also visited prospective members at their offices; used their contacts to create a database of members of other local building industry associations; held weekly meetings to share thoughts on how to recruit new members; and used existing tools highlighting membership in ASHRAE. Their efforts focused on all three areas of membership: recruitment, advancements and retention. Kumar is manager, products division, ETA Engineering, Bangalore, India.

Dan Mills Technical Award

Keith H. Reihl, P.E., ASHRAE-Certified High Performance Building Design Professional, of the Houston Chapter is the recipient of the Dan Mills Technical Award. The award, named in memory of ASHRAE member Dan Mills, recognizes a Chapter Technology Transfer Committee (CTTC) chair who excels in meeting CTTC goals in technical, energy and government activities. Reihl's focus as CTTC chair was to provide superior programs for membership and increase attendance at meetings. The chapter's attendance for the year was 181 percent of the previous year's, and many members commented on the improved programs. The chapter held an all day seminar to review the City of Houston's energy and mechanical codes. Reihl also presented testimony on Standard 90.1, the Society's energy standard with the Illuminating Engineering Society, to the city council regarding the city's energy code. As a result of the chapter's efforts, the city adopted the Society's 2004 standard as its energy code. Reihl is president, Reihl Engineering LLC, Houston, Texas.

Chapter Programs Star Award

Keith H. Reihl, P.E., ASHRAE-Certified High Performance Building Design Professional, of the Houston Chapter is the recipient of ASHRAE's Chapter Programs Star Award, which recognizes excellence in chapter program endeavors. Reihl said the key to successful chapter programs is bringing timely, interesting topics to the table. He encourages uses of Society resources, such as the Distinguished Lecturers program. Two Lecturers presented programs on building operations and maintenance and Standard 189.1 on high-performance buildings. In addition, the chapter held two professional development sessions: one on the City of Houston energy code drew 60 attendees, while one on the city's mechanical code drew 128. He also recommends reaching out to other associations and cross-promoting events. Reihl is president, Reihl Engineering LLC, Cypress, Texas.

Milton W. Garland Commemorative Refrigeration Award for Project Excellence

John Bittner, P.E., receives the Milton W. Garland Commemorative Refrigeration Award for Project Excellence. The award recognizes the designer and owner of a non-comfort cooling refrigeration application that highlights innovation and/or new technologies in a unique manner. It is named in recognition of ASHRAE Fellow Milton Garland, known as "Mr. Refrigeration" for his work with refrigeration systems. Price Chopper Supermarket, Colonie, N.Y., is a full-service, 24-hour operation. Bittner lead a renovation to address significant energy usage of the 69,000-square-foot store. To reduce energy, a 400 Kw fuel cell that would produce electricity to operate mechanical and lighting systems and generate hot water was installed. The electricity generated by the fuel cell powers the secondary refrigeration system for medium temperature glycol and the lower temperature carbon dioxide environmentally friendly equipment, ventilation, exhaust and outside air make-up, grease management disposal and waterless urinal system. On a typical design day, the cell generates 392 Kw compared to the utility delivered 87 Kw. The expected energy savings is approximately \$45,000 annually. Due to the success in the design criteria, Price Chopper plans to renovate and build stores using these and other energy savings technologies. Bittner is a research engineer, Research and Development, Hill Phoenix Inc., Conyers, Ga.

Ralph G. Nevins Physiology and Human Environment Award

Jan Kaczmarczyk is the recipient of the Ralph G. Nevins Physiology and Human Environment Award, which is given to a researcher under the age of 40 for significant accomplishments in the study of bioenvironmental engineering and its effect on human comfort and health. Kaczmarczyk has contributed significantly to the development of HVAC engineering, thermal comfort and indoor air quality and its effect on humans. Through his research, he has documented intelligent design and planning of both physical and human subject experiments, as well as proper analysis, discussion and communication of results. Kaczmarczyk is assistant professor and vice chair of the Department of Heating, Ventilation and Dust Removal Team, Silesian University of Technology, Gliwice, Poland.

Homer Addams Award

Sebastian Herrmann is the recipient of the Homer Addams Award, which honors a graduate student who has been engaged in an ASHRAE research project. The Homer Addams Award is intended to encourage graduate student research and to perpetuate the memory of its namesake, who was president of the American Society of Heating and Air-Conditioning Engineers, an ASHRAE predecessor society. Herrmann is recognized for his contributions to ASHRAE Research Project 1485, "Thermodynamic Properties of Real Moist Air, Dry Air, Steam, Water and Ice," and for the extra effort he made during the first month of the project to program the saturated moist air properties below freezing to produce the saturated moist air tables to meet the production schedule for the 2009 ASHRAE Handbook – Fundamentals. The project utilized improved virial coefficients, included properties for moist air over ice and extended the range in both pressure and temperature of previous research. Through the project, for the first time, ASHRAE provided the means for others to eas-

ily compute real moist air psychrometric and transport properties for a wide range of temperatures and pressures. Herrmann is a doctoral student at the University of Rostock, Germany.

ASHRAE Best Paper Awards

The following papers are receiving ASHRAE Paper Awards, which recognize the authors of the best papers presented at Society meetings.

Keisuke Sekiguchi, Dr. Eng., Shisei Waragai, Dr. Eng., Tsuneo Uekusa, Dr. Eng., and Kenji Yamasaki receive an award for "Development of a High-Efficiency Air Cooled Packaged Air Conditioner for Data Centers." The authors are developing constituent technologies that will contribute to saving energy in air cooled packaged air-conditioners in order to reduce energy consumption in air-conditioned facilities used in data centers. They have developed an air conditioner for data centers that incorporates these technologies. The authors increased the efficiency of compressors in outdoor conditions at medium and low temperatures, and expanded the scope of low pressure ratio operations. The authors also developed energy-saving technologies that take into account air conditioner operating conditions and installation conditions. Air conditioners that incorporate these energy-saving technologies reduce annual power consumption by about 40 percent under Tokyo meteorological conditions compared to conventional computer room air conditioners. Sekiguchi is a research engineer, NTT Facilities Inc., Tokyo Japan. Waragai is executive manager, Environment and Energy Systems Development Division, Research and Development Headquarters, NTT Facilities Inc., Tokyo, Japan. Uekusa is executive manager, NIPPON Telegraph and Telephone West Corp., Osaka, Japan. Yamasaki is a senior engineer, Hitachi Appliances Inc., Shizuoka-shi, Japan.

Christian A. Gueymard, Ph.D., and Didier Thevenard, Ph.D., P.Eng., receive an award for "Updating the ASHRAE Climatic Data for Design and Standards." The paper, based on findings resulting from ASHRAE Research Project RP-1453, summarizes the preparation of climatic design conditions for the 2009 *ASHRAE Handbook—Fundamentals*. The project redefined new percentiles of monthly dry bulb and wet bulb temperatures to represent "less extreme" conditions than those used in the past; added new monthly dry bulb and wet bulb coincident temperature ranges that can be used for the derivation of daily temperature profiles; calculated heating and cooling degree-days base 50F (10C) and 65F (18.3C) in support of various standards and added parameters to accurately evaluate degree-days to any other base; and developed a new clear sky solar irradiance model. The most recent 25 years of climatic data were used to calculate the revised tables of climatic design conditions. This provides a balance between accounting for long-term trends and the sampling variation owing to year-to-year variation. Processing led to the calculation of climatic design conditions for a total of 5,564 locations worldwide. Gueymard is president, Solar Consulting Services, Colebrook, N.H. Thevenard is principal, Numerical Logics Inc., Waterloo, Ontario, Canada.