

See the light...

*...and learn to think outside traditional boundaries of building systems design
in an exciting two day conference offered in partnership by
ASHRAE Puget Sound Chapter, **IEEE** Seattle Section
and **IES** Puget Sound Section*



Engineering **Vision** 2030
Education and innovation that empowers engineers to build a sustainable future.



*Engineering Vision 2030 features top notch presenters from across
the US, as well as several international speakers from
Canada and the Middle East.
This includes four ASHRAE Distinguished Lecturers!*

Wednesday Morning, March 26th

7:00 - 8:00AM SNACKS AND REGISTRATION, EXHIBIT HALL

8:00 - 9:15AM MORNING PLENARY

Seattle University Sustainable Master Plan

Brodie Bain, Mithun; Karen Price, Seattle University Sustainability Manager

Engineers without Borders - Dave Cook, GeoEngineers;

Dr. Phillip Thompson, Seattle University Dept. of Civil & Environmental Engineering

9:15 - 9:30AM SNACK BREAK & EXHIBIT HALL

9:30AM - Noon SESSIONS

Track 1 Climate Change Action Plans & the Carbon Challenge

Carbon & Climate Change Science - Brian Smoliak, UW Program on Climate Change

2030 Challenge & City of Seattle Action Plan - Peter Dobrovolny, City of Seattle

Office of Sustainability; Doug Smith, Interface Engineering

King County Climate Action Plans - Richard Gelb, King County

Track 2 Code Mandated Lighting Controls - Charles Knuffke, Watt Stopper

Lighting Controls Case Study - Denise Dennis, Sparling

Track 3 Big Picture on Water Conservation - Al Dietemann, Seattle Public Utilities

Water Conservation Utility Programs and Case Studies

Phil Paschke, Seattle Public Utilities

Jim Walker, Fred Hutchinson Cancer Research Center

Non-Traditional Water Resources

Mike Broili, Living Systems Design; Ron Hardwick, Water Treatment Solutions

Track 4 Exergy 101 & 102 - Exergy vs. Energy & Exergy for a Better Environment

and Sustainable Development - Dr. Ibrahim Dincer, FWIF, University of Ontario

Rational Exergy Management in Buildings & Exergy Conscious Comfort

Concept and HVAC Controls

Dr. Birol Kilkis, DL & FASHRAE, Watts Radiant & Green Energy Systems

Exergy Analysis of Organic Rankine Power Cycles for Buildings

Dr. Samuel Sami, FASHE & FASHRAE, True Energy Inc.

Track 5 Solar Cooling Technology - Dr. Adel Khalil, DL, Cairo University

Oil Free Magnetic Bearing Compressor Technology - Jackson Ball, Smardt, Inc.

Implementing Direct/Indirect Cooling - Rand Conger, Johnson-Barrow

Noon - 1:00PM LUNCH, EXHIBIT HALL, TOURS



Adel Khalil, PhD
Cairo University
Professor
ASHRAE
Distinguished
Lecturer
Cairo, Egypt

Adel Khalil is the Vice Dean and a professor in the Mechanical Power Engineering Department at Cairo University, Egypt. He also worked as a visiting professor at the University of Wisconsin, Madison, Nuclear Research Center at Karlsruhe (Germany) and the American University in Cairo, Egypt, and was the director of the Mechanical Engineering Department at United Arab Emirates University, U.A.E. Professor Khalil's teaching and research focuses on Cryogenics, Applied Superconductivity, New Refrigerant Blends, Environmental Engineering and Solar Energy.



Birol Kilkis, PhD
Fellow ASHRAE
Watts Radiant and
Green Energy Systems
ASHRAE
Distinguished
Lecturer
Vienna, VA

Prof. Birol Kilkis is a consultant for Watts Radiant and principal of Green Way Technologies Intl, a low-exergy systems consulting firm. For over 30 years he has served internationally as a teacher, engineer, and consultant for projects that target energy and exergy efficiency through various methods including alternative and waste energy utilization, and radiant systems. He has authored over 250 technical and scientific papers. He is an editorial board member of the Intl Journal of Green Energy and the USA rep of the IEA LowEX network. Dr Kilkis is an honor graduate of the Von Karman Institute in Belgium for fluid dynamics and the Middle East Technical University in Turkey.

Wednesday Afternoon, March 26th

1:00 - 1:30PM LUNCH PLENARY

Sustainable Developments in the Middle East

Dr. Adel Khalil, DL, Cairo University

1:30 - 1:45PM BREAK AND EXHIBIT HALL

1:45 - 4:15PM SESSIONS

Track 1 Carbon Measurement and Reduction

Survey of Carbon Measurement Programs & ASHRAE Carbon

Measurement Whitepaper - Doug Smith, Interface Engineering

Carbon Measurement Challenge, City of Seattle SEPA Checklist

& Other Resources - Peter Dobrovolny, City of Seattle Office of Sustainability

King County SEPA Checklist - Matt Kuharic, King County

Embodied Carbon Tool - Sean Cryan, Mithun

The Business of Carbon Reduction - Doug Moore, McKinstry

Track 2 GreenSpeak: Introduction to the Language & Culture of Green

Tom Meyer, Green Mechanical Council

Track 3 Performance and Applications of Low-Flow Fixtures

Roger Van Gelder, Seattle Public Utilities

Cooling Tower Water Savings - Rand Conger, Johnson-Barrow

Comparison of Non-Chemical Water Treatment Methods

Leon Shapiro, VRTX Technologies; Gordon Guthrie, WCTI Silica Based Chemistry;

Rand Conger, Johnson Barrow

Track 4 Building Envelopes and HVAC Design Impacts - Geoff McDonell, Omicron

Radiant Heating and Cooling Slab Systems - Geoff McDonell, Omicron

4:15 - 4:30PM SNACK BREAK & EXHIBIT HALL

4:30 - 5:30PM AFTERNOON PLENARY

Design Inspired by Nature - Curt McNamara, Biomimicry Guild

& Logic Product Development

5:30 - 7:00PM SOCIAL AND EXHIBIT HALL

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Curt McNamara, PE
Biomimicry Guild
& Logic Product
Development
Principal
Minneapolis, MN

Curt McNamara is an electrical engineer with over 20 years experience in product design and development. He created the innovation and systems classes for the Minneapolis College of Art and Design's Sustainability certificate and is a scholar of Buckminster Fuller. Curt has worked with biomimicry for many years, teaches it to design students, and has a research group that studies how to apply it to engineering. Biomimicry is the application of biological patterns and solutions to engineering problems. In 2000 he received the IEEE Millennium medal for his work in education.

FEATURED
PRESENTERS...
AND
MANY MORE!!

Thursday Morning, March 27th

7:00 - 8:00AM

8:00 - 11:30AM

SNACKS AND REGISTRATION, EXHIBIT HALL

WORKSHOPS

- Track 1 **Opportunities for Green Design in Health Care**
Walt Vernon, Mazzetti & Associates
Design Considerations for the High Performance Hospital
Duncan Griffin, NBBJ; Dick Moeller, CDi Engineers
Owner and Designer Perspective Discussion Panel
Walt Vernon, Mazzetti & Associates; Duncan Griffin, NBBJ;
Kim Shinn, TLC Engineering for Architecture;
Dick Moeller, CDi Engineers;
Richard Beam, Providence Health & Services
- Track 2 **Communicating Technical Information Discussion Panel**
Mark Frankel, New Buildings Institute; Tom Marseille, Stantec;
Philip Riedel, NAC Architecture; Marcie Lohr, Notkin Engineers;
Rae Anne Rushing, The Rushing Company;
Brenda Nunes, Associated Earth Sciences
Building the Business Case for Energy Efficiency
Cynthia Putnam, Putnam Price; Raymond Crerand, FACHE
- Track 3 **Dark Skies Initiative** - Jim Benya, Benya Lighting Design
ASHRAE Four Zone Approach - Michael Lane, Lighting Design Lab
LEED Sites Credit 8 - Denise Fong, Candela
- Track 4 **BIM Overview** - Greg Routh, Coffman; Brian Emtman, Coffman;
Andrea Frisque, RWDI Engineers
Early Modeling with BIM - Tom Nelson, Mithun;
Andrea Frisque, RWDI Engineers
Construction Efficiency with BIM - Greg Smith, Skanska;
Mike Sweeney, Turner Construction;
Graham Condit, Sellen; Dace Campbell, BN Builders
- Track 5 **Green Mechanical System Selection Workshop**
Tim McGinn, DL, Cohos Evamy



Kim Shinn, PE
LEED AP
TLC Engineering
for Architecture
Principal &
Director of
Sustainability
Nashville, TN

Kim Shinn is a mechanical engineer and an ACG Certified Commissioning Authority. He was the first Chair of the USGBC Chapters' SE Region Council, member of the national Chapter Steering Committee and is currently the SE Regional Delegate to the national USGBC Board of Directors through 2009. Kim has been actively involved in the design or commissioning of over 80 LEED registered and certified projects, including higher education, hospital, and laboratory projects utilizing multiple LEED rating systems. This list even includes the LEED-H Gold certification of Vice-President and Mrs. Al Gore, Jr's home. Kim has helped create the Green Guide for Health Care and is on LEED committees to draft guides for laboratories, healthcare and campus combined heat/cooling/power systems.



Tim McGinn, PEng
LEED AP
Cohos Evamy
Integrated Design
Partner
ASHRAE
Distinbished
Lecturer
Calgary, AL
Canada

With engineering degrees in both electrical and mechanical, Tim McGinn brings a unique perspective to the complex projects he designs. He specializes in the design of low impact/low energy mechanical and electrical systems. Tim leads project teams utilizing the integratedesign™ approach and is a frequent lecturer on Green Buildings throughout North America. His design expertise includes passive evaporative cooling, indirect evaporative cooling, displacement and underfloor air system, natural and mixed mode ventilation, solar chimneys, solar air preheating, grey water reuse and passive solar heating

Thursday Afternoon, March 27th

11:30 - 12:30PM LUNCH, EXHIBIT HALL

12:30 - 1:30PM TECHNICAL PLENARY

Global Climate Change: Science, Regulatory Developments & Implications to Refrigeration & Air Conditioning

Dr. Mack McFarland, Environmental Fellow, Dupont

1:30 - 5:00PM WORKSHOPS

Track 1 **LEED for Healthcare Workshop**

Kim Shinn, TLC Engineering for Architecture

Track 2 **Setting Fees for Profitable Green Building Projects**

Tim McGinn, DL, Cohos Evamy

Understanding the Legal Liabilities of Green Building Projects

Mitchell Swann, DL, MDC Systems

Track 3 **Light Control in Sustainable Building Design** - Tom Myers, Lutron

Advanced Energy Design Guide for Lighting

Michael Lane, Lighting Design Lab

Track 4 **Design for Operations: Design Process**

Stephen Schrag, City of Santa Clara

Transition to Operation - Mike Porter, McKinstry

Operating for Efficiency - Ray Congdon, CB Richard Ellis

5:10 - 5:30PM CLOSING STATEMENTS

ASHRAE Society Video

5:30 - 7:00PM SOCIAL AND EXHIBIT HALL

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Mack McFarland, PhD
Atmospheric Scientist and EPA Environmental Fellow, Dupont

Early in his career while at the NOAA Aeronomy Laboratory, Mack McFarland planned, conducted and interpreted field experiments designed to probe the cycles that control atmospheric ozone concentrations. These studies included measurements of gases and processes important to the global climate change issue. Mack has worked with the Atmosphere Unit of the United Nations Environment Programme and the Intergovernmental Panel on Climate Change (IPCC). In 1999 Mack was awarded an individual Climate Protection Award by the US Environmental Protection Agency for his contributions in providing understandable, reliable information to decision makers.



Mitchell Swann, PE
MDC Systems Principal & Partner
ASHRAE Distinguished Lecturer Philadelphia, PA

Mitchell Swann is well-versed in dispute resolution, consultation, and forensic analysis, along with his experience in engineering design, construction, commissioning, validation and troubleshooting of complex systems for high-tech facilities. He has authored several articles on issues in professional practice including the "Standard of Care and Consequential Damages" and is a co-author of the "ASHRAE Survival Guide to Design\Build." He is also a member of ISPE and the ABA where he is vice-chair of the Alternative Dispute Resolution Section Committee on Construction.

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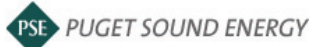
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SESSION TOPICS

- Track 1 The Carbon Challenge
- Track 2 AM - Lighting & Daylighting Control Strategies
PM - Business of Green
- Track 3 Water Efficiency
- Track 4 Exergy Efficient Design
- Track 5 Industry Innovation

WORKSHOP TOPICS

- Track 1 Green Healthcare
- Track 2 The Business of Green
- Track 3 Optimizing Exterior and Interior Lighting Systems
- Track 4 Sustainable Full Circle - Design, Construction & Operation
- Track 5 Design Integration

LOCATION

- Pigott Hall - Seattle University, click [here](#) for directions

COST

- ASHRAE/IEEE/IES Members - \$300 for both days, \$195 for one day
- Non-Members - \$350 for both days, \$230 for one day
- Registration fee includes on-site parking, continental breakfast, lunch and snacks & beverages throughout the day.
- click [here](#) to register

