



INTERTECH



Join industry leaders as they examine business practices, market developments,
and technological advances at this important conference

CONTROLLING LIGHT



2006

Energy Efficiency, Digital Opportunities, and Regulatory Hurdles

December 4-5, 2006 – Doubletree Mission Valley – San Diego, CA USA

Contact us:

USA+207.781.9614

www.intertechusa.com/lightingcontrols.html

In Association with:

PHOTONICS
SPECTRA®

December 4-5, 2006 – Doubletree Mission Valley – San Diego, CA USA

A comprehensive update on:

- Energy code compliance
- Wireless controls systems
- Daylighting
- New technology and developments
- Integrated lighting systems
- Solid state lighting
- Digital systems
- Occupancy sensors
- Bi-level lighting fixtures
- LEDs in residential lighting
- Architecture & building design
- Market outlook



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Conference Chair:



Dr. Brian Ditchek
Vice President & General Manager
Electronic Control Systems
OSRAM Sylvania

What your colleagues said about Intertech lighting and lighting related events...

“The ideas and technologies that were presented and discussed at this conference will determine the future course of the LED industry.”

~Lawrence Lu, American Bright Optoelectronics

“Really a great gathering of perspectives and expertise - exhibitors were really valuable.”

~Rick Van Abkoude, Hewlett-Packard

“Broad coverage and all the major industry players are present.”

~Ron Bonne, Philips Lighting

“For a novice in this field, I could not have picked a better venue to get up to speed on the technology and where the industry is going.”

~Shahriar Alam, Boeing

“Outstanding conference! The presentations were very informative and I will definitely be back next year!”

~Rodney Huffman, TSEL Partners

“I learned a great deal and was inspired by lots new ideas.”

~Tom Roetker, Hewlett-Packard

Past Participants Include:

- 3M
- Cambridge Display
- Color Kinetics
- Corning Inc
- Delta Power Supply
- Dow Corning
- Durel Corp
- Fiberstars Inc
- GE Lighting
- Inifinity Lighting
- Lithonia Lighting
- Lucifer Lighting
- Lumec, Inc
- Lumileds
- Lutron Electronics
- NY Power Authority
- Oak Ridge Laboratory
- OSRAM Sylvania
- Philips
- Rogers Corp
- Sempra Energy
- Watt Stopper
- TIR Systems
- Tridonic Inc
- US DOE
- Venture Lighting
- Visteon Corp

Register by November 13th and SAVE \$100



SAN DIEGO, CA

With a comfortable climate year round, San Diego features an eclectic blend of cultural influences, a beautiful downtown with abundant shopping and dining options, fabulous beaches, and a laid back atmosphere that will put you at ease. The Doubletree Mission Valley hotel is just a trolley ride away from the historic Gaslamp Quarter and Old Town. The San Diego Zoo, Balboa Park, SeaWorld, and Seaport Village are also close by, and the Hazard Center Mall is right next door. The hotel is also conveniently located just 15 minutes north of the San Diego International Airport.

Registration Information

PAYMENT

To guarantee your place, payment is required in advance of the conference. The conference fee covers luncheons, refreshment breaks, exhibit area access, receptions, and both printed and electronic versions of conference proceedings. A registration confirmation and invoice will be sent to you upon receipt of your registration. If cancellations are made in writing by November 27 registration fees are fully refundable. After this date, a \$100 cancellation fee will be charged. Substitutions may be made at any time.

TEAM PARTICIPATION

Sign up 3 or more colleagues from your company at the same time and SAVE \$200 on each registration! This is an excellent way for your entire team to get updated, meet potential customers, and network with industry experts.

HOTEL

Attendees are responsible for arranging their hotel accommodations. A special room rate of \$131 per night is available at the conference hotel for attendees who make their reservations by November 13. Please contact the hotel at:

Doubletree Mission Valley Hotel
7450 Hazard Center Drive
San Diego, CA 92108
Tel: +1-619-297-5466
Fax: +1-619-297-5499
www.doubletree.com

Sponsorships and Exhibit Space

Take this opportunity to increase your visibility before a highly qualified audience of key decision-makers. Sponsorships are still available for several functions at the conference, and we also offer tabletop exhibit space. For details on these opportunities, please contact Brian Santos at (Tel) 207.781.9618, (Fax) 207.781.2150, or Email: bsantos@intertechusa.com

CONTROLLING LIGHT 2006 Registration

Please circle one: Mr. Mrs. Ms. Dr.			
First/Last Name _____			
Job Title _____			
Organization Name _____			
Address _____		Suite/Floor _____	
City _____	State/Province _____	Postal Code _____	
Country _____			
Telephone _____		Fax _____	E-Mail _____
Registration Options (162-06)			
<input type="checkbox"/> Early Bird Registration Fee (through November 13)		US \$1295	
<input type="checkbox"/> Conference Registration Fee (after November 13)		US \$1395	
<input type="checkbox"/> Preconference Seminar: Lighting & Universal Design		US \$ 395	
<input type="checkbox"/> Conference Proceedings (for those who can't attend)		US \$ 995	
<input type="checkbox"/> Tier 1 Exhibit Table (includes registration)		US \$2500	
<input type="checkbox"/> Tier 2 Exhibit Table (table only)		US \$1500	
<input type="checkbox"/> Team Discount		US \$ -200	
Payment Options		TOTAL \$ _____	
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<input type="checkbox"/> Please Bill Me (all fees must be paid in advance)			
<input type="checkbox"/> Credit Card (all major credit cards accepted)			
<input type="checkbox"/> Bank Wire Transfer (details sent upon registration)			
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5 Easy Ways to Register

1. Web www.intertechusa.com
2. Phone USA +207.781.9614
3. Email khaney@intertechusa.com
4. Fax USA +207.781.2150
5. Mail 19 Northbrook Drive
Portland, Maine 04105 USA

Industry Overview:

The days of the simple switch are fading into the past as ever more complex control systems become a permanent feature in the lighting landscape. In 2005, the lighting controls market earned approximately \$897 million in revenue. This number is anticipated to climb to \$1.5 billion by 2012. Meanwhile worldwide demand is expected to increase by 6.2% per annum through 2008. The rapid growth in energy efficient lighting systems responds directly to increased demand from end users for effective, low maintenance, long lasting, user friendly, versatile, and highly efficient lighting systems. Increased energy costs are motivating consumers in the commercial, public, and residential sectors to seek out systems for curtailing energy spending in a way that proffers the greatest product versatility and ease of use. In turn, controls manufacturers have responded by introducing sensors, timers, ballasts, drivers, and switches designed to reduce energy costs by maximizing efficiency. As the costs of energy continue to climb the market will expand as an ever greater number of consumers from every niche of the market seek out solutions that are adaptable to their needs. The increased market demand for lighting control systems that maximize energy efficiency in lighting has necessitated greater cooperation between controls, components, and lighting manufacturers to incorporate the most recent platforms into their designs while also reducing costs.

Despite recent advances made in illumination and controls technology, numerous hurdles remain. These include mitigating the costs associated with digital and electronic ballast replacement when changing to more efficient systems and reducing the costs of systems that incorporate cutting-edge technology such as HID lighting fixtures, LEDs, and fiber optic systems. Additional hurdles include developing effective, adaptable, and widely used protocols for RF controls, creating more intelligent controls to obtain a increased level of controls integration both in the office and in the home, curtailing costs so that products are not cost prohibitive for end users, and utilizing the latest advances in components such as timers, dimmers, photosensors, and occupancy sensors to maximize efficiency.

At Controlling Light 2006, participants will discuss how to address these obstacles while also learning about the most recent regulatory developments, market trends, and technological innovations. Attendees will come away from the conference having gathered the most up-to-the-minute information and established the key contacts necessary to thrive in this rapidly evolving industry.



Who should attend

Controlling Light 2006:

This conference is aimed at executives and engineers involved with the manufacture, research, design and end-use of energy efficient lighting systems, such as:

- HID/MH, CFL and FL and EL company executives
- Electric utility and government energy efficiency program planners
- Fiber optic lighting and LED industry leaders
- Electronic ballast and controls manufacturers
- Leading lighting component suppliers and distributors
- Corporate, government and university R&D staff
- Venture capitalists and investment bankers

Also, mark your calendars for our other lighting related events:

Phosphors

March 5-7, 2007
Grand Hilton Seoul
Seoul, South Korea

LED Packaging

March 26-28, 2007
Hilton Shanghai
Shanghai, PR China

OLEDs ASIA

April 23-25, 2007
Shangri-La's Far Eastern
Plaza Hotel
Taipei, Taiwan

Flexible Displays

Spring, 2007
Hyatt Fisherman's Wharf
San Francisco, CA USA

LEDs

October 24-26, 2007
Sheraton San Diego
Hotel and Marina
San Diego, CA USA

OLEDs

November 5-7, 2007
Hilton La Jolla
Torrey Pines
San Diego, CA USA

Preconference Seminar

Monday, December 4th 9:00am

December 4-5, 2006 - Doubletree Mission

Energy-Efficient Lighting, The Aging Eye, and Universal Design

This presentation will discuss how energy-efficient lighting, if designed with the older adults' needs in mind, can help mitigate visual problems associated with these visual changes, making the visual environment of older adults safer and more comfortable. It can help them see better and maintain their independence at home; improve their sleep quality, and be good for everyone, including young adults.

This seminar will demonstrate:

- The optical and neurological changes our visual systems undergo after age 40
- How lighting technology and controls can provide: more light, less glare, balanced light levels and more contrast
- The benefits of energy-efficient lighting when illuminating interior spaces with regard to these changes in our visual environment (aging eye) and living environments (universal design)

Instructor: Patricia Rizzo
Rensselaer Polytechnic Institute
Residential Applications Specialist,
Lighting Research Center

Patricia manages the residential lighting program at the Lighting Research Center (LRC) of Rensselaer Polytechnic Institute, where she received a Master of Science in Lighting degree. She conducts research, organizes seminars for building professionals on application techniques, and coordinates education and demonstration projects ranging from the lighting design of showcase homes to interactive lighting laboratories in retail showrooms, to living laboratories that address lighting for universal design. She has worked on lighting projects ranging from the interior of automobiles to retail spaces, from historic buildings to the interior and exterior of residences and has participated in the curriculum design of a series of seminars organized by state energy and building associations. Patricia continues to work on projects that explore the role of lighting in universal design, designing lighting that can accommodate the needs of homeowners as their lifestyles and visual systems change, with a constant eye toward energy-efficiency.



Conference Agenda

Monday, December 4th

- 8:00 **Seminar Registration and Coffee**
Enjoy a continental breakfast and informal discussion with your colleagues. Conference registration materials will also be available.
- 9:00 **Preconference Seminar:** (additional fee required)
Energy-Efficient Lighting, The Aging Eye, and Universal Design
PATRICIA RIZZO, Residential Applications Specialist, Lighting Research Center, Rensselaer Polytechnic Institute
- 12:15 **Conference Registration**
- 12:45 **Welcome and Chair Introduction**
JOSHUA VERMETTE, Intertech-Pira
DR. BRIAN DITCHEK, OSRAM Sylvania

Session 1: Market & Regulatory Developments

- 1:00 **Standards & Regulations Affecting the Lighting Controls Industry**
HOWARD WOLFMAN, Sr. Manager, Regulatory Affairs, OSRAM Sylvania
- 1:30 **Energy Code Compliance**
CHARLES KNUFFKE, Western Region Technical Manager, BAS Integration Manager Watt Stopper/Legrand
- 2:00 **Refreshment Break**
- 2:30 **Industry Overview & Market Outlook**
SANJIV BHASKAR
Frost & Sullivan

Session 2: Advances in Lighting Controls & Lighting Control Systems

- 3:00 **A Case Study: Automated Lighting Controls**
-Commercial project designed to meet Title 24 2005 lighting requirements
-Lighting & control system details
-Power monitoring during normal system use
-Value of lighting controls in providing quality office environments while meeting Title 24
JAMES M. YORGEY PE, LC
Technical Applications Manager
Lutron Electronics

Visit our website: www.intertechusa.com/lighting



- 3:30 **Advanced Innovations in Lighting Controls**
-Integration of all control systems in your facility
-Touchscreen Interfaces - the most user friendly controls available
-Energy Smart Design
-Putting it to work for you
RICK HURST, Director of Sales and Marketing
Crestron Lighting Controls
- 4:30 **Developments at Philips**
TBA
Philips
- 5:00 **Energy Efficient Motion Controlled Bi-Level Stairwell Lighting**
-Occu-Smart Fixtures
JOHN ANDREWS, Sales Manager
LaMar Lighting
- 5:30 **Conference Adjourns for the Day**
- 6:00 **Cocktail Reception**
Meet with speakers and fellow attendees over cocktails and hors d'oeuvres during this two-hour reception.

10:30 **Refreshment Break**

Session 3: Integration & Application of Lighting Control Systems

- 11:00 **Daylighting Controls: Challenges & Opportunities**
DOUG PATON
Lighting Controls Consultant
- 11:30 **Daylighting: The Other Half of the Controls Equation**
GEORGE LOISOS, Principal
Loisos & Ubbelohde Associates
- 12:00 **Roundtable Luncheon**
An excellent networking opportunity...
Enjoy lively discussion and great food with fellow delegates.
- 1:00 **A Bright Idea: Opportunities & Challenges in Solid State Lighting**
JED DORSHEIMER, Vice President, Sr. Analyst
Canaccord Adams
- 1:30 **Evolution of Sports Lighting Luminaires**
BRADLEY D. SCHLESSELMAN, LC
Lighting Specialist
Musco Lighting
- 2:00 **Lighting Classrooms for the Way Teachers Teach**
-Integrated Classroom Lighting System
-Standard and Relocatable Classroom Lighting
-Lighting and Daylighting Controls
RICHARD FLOOD, Program Manager
Pacific Gas & Electric Co
- 2:30 **Refreshment Break**
- 3:00 **Installation of Energy-Efficient Lighting Sources in Residential Lighting**
MY TON
Ecos Consulting
- 3:30 **LEDs in Residential Lighting**
PAUL VRABEL, LC
Project Manager
ICF International
- 4:00 **Conference Summary and Closing Remarks**
JOSHUA VERMETTE, Intertech-Pira
DR. BRIAN DITCHEK, OSRAM Sylvania
- 4:15 **Conference Adjourns**

Tuesday, December 5th

- 8:00 **Continental Breakfast**
Enjoy a light breakfast & informal discussion with your colleagues.
- 8:45 **Mid-Conference Announcements**
- 9:00 **LED Lighting Control and Interface**
-Touchpad Virtual Dimmer Interface
-TCP/IP Network Interface
-Use of Color in LED Light Clusters
ALEXANDER HAUBOLD, PhD Candidate,
Computer Science, Columbia University
Independent Development Project
- 9:30 **Completely Digital**
-From Design to Operations
-Integrated Workflow
-Building Automation System (BAS) Integration
-User-centered Lighting in a Regulated World
WAYNE MORROW, President
Starfield Controls
- 10:00 **Wireless Lighting Controls**
FRANCIS RUBINSTEIN, Scientist,
Lighting Research Group,
Lawrence Berkley National Laboratory