





6[™] LED professional Symposium +Expo

Smart Technologies for Lighting Innovations

Sept 20th -22nd 2016 | Bregenz | Austria

www.lps2016.com













LED professional Symposium +Expo 2016

The LpS 2016 is Europe's foremost solid-state lighting technology event for experts in industry, entrepreneurs, engineers, technicians and scientific researchers in the fields of general, industrial and architectural lighting.

The event covers the building blocks for smart lighting designs of luminaires, lamps, controls, modules and components. It focuses on trends and technologies for future lighting solutions incorporating human centric lighting, Internet of Things, connected lighting and smart controls. The combination of a three-day multi-disciplinary symposium, workshops, international exhibition and networking possibilities is a perfect platform to explore sophisticated semiconductor lighting in the fields of general, automotive and special lighting applications.





International Conference on Lighting Trends & Technologies

- Latest insights from research and industry leaders
- Nobel prize laureate Prof. Shuji Nakamura
- 100+ lectures in 4 conference tracks
- 1500+ professionals from more than 50 countries

International Exhibition for Lighting Technologies & Applications

- State-of-the art showcases for R&D and design engineers
- Cutting-edge products, equipment and services
- Highly-focused B2B sourcing and collaboration platform
- 100+ international exhibitors including the top leaders

Lectures from Renowned Organizations

EU Commission, LightingEurope, Zhaga, EPIC, IBM, NXP, Infineon, Silvair, WadeLux, Bartenbach, GE, Zumtobel, UniBright, Glamox, Nichia, Lumileds, Cree, Osram, Fraunhofer, Yole, Holst Center, Joanneum, CSEM

Interactive Workshops & Forums

- Tunable lighting workshop by HI-LED
- Design-meets-technology forum by APIL
- Horticultural lighting workshop by EPIC
- ISA and Photonics cluster forums
- IoT & Al workshop by Jakajima

Innovation Platforms

- Technical innovations presented by start-up innovators
- Light-Art-Designs by lighting designers and students
- Product launches presented by industry leaders

Social Networking Opportunities

- Opening ceremony and expo reception
- Get-Together boat cruise on Lake Constance
- International press conference with more than 25 media partners

Workshops

Saal Bodensee | SEPT 21, 14.00-18.00

Hi-LED Intelligent Lighting Workshop

Spectrally and tunable LED and OLED lighting - This workshop, organized by the EU FP7 HI-LED project, aims to attract the participation of lighting professionals, photonics researchers, lighting manufacturers, end users from European museums, horticulture growers, health care centers, ICT research organizations as well as analysts and investors interested in smart lighting sector.

- Human centric lighting
- Horticultural lighting
- Art work and museum lighting

Saal Panorama | SEPT 22, 08.30-14.00

Internet of Things (IoT) & Artificial Intelligence Workshop

With Jakajima, organizer of the annual IoT event in Eindhoven and matchmaker for innovators.

- Human centric lighting
- Horticultural lighting
- Art work and museum lighting

Saal Bodensee | SEPT 22, 08.30-14.00

EPIC Horticultural Lighting Workshop

EPIC is the industry association that promotes the sustainable development of organisations working in the field of photonics in Europe.

- Market and technology overview of horticultural lighting
- Latest research, case studies and key drivers of horticultural lighting
- Practical experiences and technology outlook



Forums

Saal Bodensee | SEPT 20, 14.00-18.30

ISA Lighting Forum

Forum with the leading Chinese based SSL organization. ISA members representing 70% of the global SSL industry output.

- ISA industry report 2016 emerging markets and their developments
- Innovative application of LEDs in different fields and beyond lighting
- Introduction of ISA and its activities
- SSL development in ASIA and the cooperation model
- LEDs insure & LED performance insurance

Saal Panorama | SEPT 20, 14:00-18.30 Photonics Cluster Forum

Photonics Clusters presenting and discussing new approaches

- Overview of alternative light sources
- Technologies and market potentials
- Laser light sources

in light sources.

Design meets Technology Forum

Design forum with APIL, the leading association of Italian independent lighting designers.

- Understanding design and technology requirements
- Key and common design criteria in applications
- Practical examples, cornerstones and lessons learned



Social & Special Events

Opening Grosser Saal | SEPT 20, 10.00-10.30

Scientific Award Ceremony Grosser Saal | SEPT 20, 10.00-10.30

Keynotes Grosser Saal | SEPT 20, 10.30-12.00

Exhibition Reception Werkstattbühne | SEPT 20, 12.00-12.30

Press-Conference Parkstudio | SEPT 20, 18.30-19.00

Get-Together Boat Cruise Lake Constance | SEPT 21, 18.30-23.00



EVENT OVERVIEW

DAY 1 STRATEGY

SEPT. 20TH TUESDAY

Opening

10.00 - 10.30	Opening & Scientific Award Ceremony Grosser Saal		
10.30 - 12.00	Keynotes Grosser Saal		
12.00 - 13.00	Exhibition Reception / Opening Werktstattbühne & Seitenbühne		
Parallel Sessions			
14.00 - 18.30	Lighting Trends Seestudio		
14.00 - 18.30	Lighting Intelligence Seefoyer		
14.00 - 18.30	Lighting Design Propter Homines		
Forums			
14.00 - 18.30	ISA Forum Saal Bodensee		
14.00 - 18.30	Photonics Cluster Forum Saal Panorama		
Evening Event			
18.30 - 19.00	Press Conference Parkstudio		

DAY 2 TECHNOLOGY

SEPT. 21ST WEDNESDAY

Parallel Sessions

09.00 - 18.00	Light Sources Seestudio
08.30 - 18.00	Smart Lighting Connectivity Seefoyer
08.30 - 18.00	Engeneering Propter Homines
Forum	
08.30 - 13.00	Design meets Technology Forum Saal Bodensee
Workshop	
14.00 - 18.00	Workshop Hi-LED Saal Bodensee
Evening Even	t
18.30 - 23.00	Get-Together Evening Boat trip on Lake Constance

DAY 3 solution

SEPT. 22^{NI} THURSDAN

Parallel Sessions

09.00 - 14.00	System Quality Seestudio
08.30 - 13.00	System Qualification Seefoyer
08.30 - 14.00	Applications Propter Homines
Workshops	
08.30 - 14.00	Workshop EPIC Saal Bodensee
08.30 - 14.00	IoT Workshop Saal Panorama

STRATEGY DAY SEPT TUE 20TH

Time	Lighting Trends	Lighting Intelligence	Lighting Design	Forums
10.00	Grosser Saal Opening & Scientific Award Ceremony			
10.30	Keynote Grosser Saal Solid-State Lighting in the Framework of Horizon 2020 Dr. Ronan Burgess European Commission, Belgium			
11.00	Keynote Grosser Saal LightingEurope Roadmap 2025: The Smart Lighting Strategy Diederik de Stoppelaar LightingEurope, The Netherlands			
11.30	Keynote Grosser Saal LED and Laser-Diode Prof. Shuji Nakamura University of California, USA			
12.00	Werkstattbühne & Seitenbühne Expo Reception / Opening			
13.00	Seitenbühne Lunch			•
14.00	Seestudio Overview of the Global LED Market and Key Technologies Rahul Bammi Lumileds, USA	Seefoyer IoT Lighting Businesses and Technologies for Cloud Service Providers Niklaus Waser IBM, IoT Watson, Germany	Propter Homines High Quality Lighting Designs with SSL - Practical Examples and the New Role of Lighting Designers Ruari O'Brien, FILD, Germany	Saal Bodensee International Solid- State Lighting Alliance (ISA) Forum, China
14.30	Seestudio LED Lighting Modules - The Next Growth Opportunity in the Lighting Industry Pars Mukish Yole Développement, France	Seefoyer Scenarios and Use Cases for Smart Lighting Management Systems M.Eng. John Sayer Johnson Controls, UK	Propter Homines Light and Health - Newest Research Findings and Its Applications Mag. Wilfried Pohl Bartenbach, Austria	Saal Panorama Photonics Cluster Forum About Alternative Light Sources
15.00	Seestudio The LED-Disruption Dr. Stefan Kreidler onlog, Kreidler Mgt., Switzerland	Seefoyer Individual Resistance to the Adoption of Intelligent and Connected Lighting Products Prof. Jörg Lindenmeier University of Freiburg, Germany	Propter Homines Gender and Age Specific Preferences Regarding Lighting Conditions in Activity and Recovery Dr. Susanne Schweitzer Joanneum Research, Austria	
15.30	Expo Area Coffee			
17.00	Seestudio Zhaga: Adressing Smart Lighting and Standardized LED Components Dee Denteneer Zhaga Consortium, The Netherlands	Seefoyer IoT Architecture for Future Building Management Embedded Lighting Controls Dr. Walter Werner Werner Management Services, Austria	Propter Homines Cultural Aspects in Lighting Design with LEDs - Case Study Guzhen Town China Arch., Prof. Roberto Corradini, Marco Palandella, Roberto Corradini, Italy	Saal Bodensee International Solid- State Lighting Alliance (ISA) Forum, China
17.30	Seestudio Standards for Smart Outdoor Lighting will Futureproof Smart Cities MSc. Brian McGuigan TALQ Consortium, USA	Seefoyer Integrated Controls - Creating the Beach-head for the IoT Invasion MA Tom Griffiths ams AG, USA	Propter Homines Color Quality of LED Illumination: Metrics and Experimental Data Dr. Peter Bodrogi Technische Universität Darmstadt, Germany	Saal Panorama Photonics Cluster Forum About Alternative Light Sources
18.00	Seestudio LED Recycling for Circular Economy Dr. Jörg Zimmermann Fraunhofer, Germany	Seefoyer Enabling Smart Buildings Through the Internet of Light Dr. Christian Moormann Tridonic, Austria	Propter Homines Vertical and Horizontal Light Distribution Effects for Human Centric Lighting Volker Neu Vossloh-Schwabe, Germany	
18.30	Parkstudio Press Conference			

TECHNOLOGY & DESIGN DAY SEPT WED 21ST

Time	Light Sources	Smart Lighting Connectivity	Engineering	Forum Workshop
08.30		Seefoyer Lighting Fixtures as IoT Devices Justin Jiang UniBrite Technology, Taiwan	Propter Homines Beyond Distribution: Application Marketing, Engineering and Value-Added Services Sebastian Hülck, EBV Elektronik, Germany	Saal Bodensee Design Forum with the Leading Association of Italian Independent Lighting Designers,
09.00	Seestudio Monocrystalline Garnet Based Lumino- phores in High Power Light Sources Tomáš Fidler Crytur, Czech Republic	Seefoyer Intelligent Control System for Tuneable Light Spectra and Study of the Impact on Humans Prof. Blas Garrido, University of Barcelona, Spain	Propter Homines Maskless Laser Lithography Based Manufacturing and Replication of Freeform Micro-optical Elements Dr. Ladislav Kuna, Joanneum Research, Austria	Italy. APIL
09.30	Seestudio New Glass-Based Phosphors for White LEDs Dr. Franziska Steudel, Fraunhofer, Germany	Seefoyer Overview and Trends in Wireless Communication Technologies for SSL Luco Lo Coco, NXP, Italy	Propter Homines Ultrathin Direct-lit LED Module with Beam Shaping Thin-film Optics Dr. Oscar Fernandez, CSEM, Switzerland	
10.00	Expo Area Coffee	<u> </u>	<u> </u>	
11.30	Seestudio Direct Mountable Chip, Chip-Scale- Packaging Daniel Doxsee, Nichia, Germany	Seefoyer DALI 2 - Smart Lighting and Color Control Dr. Scott Wade DALI, UK	Propter Homines Highly Reflective Diffuse and Specular Coatings for Lamps and Luminaires Dr. Francois de Buyl, Dow Corning, Belgium	
12.00	Seestudio Efficiencies and Color Quality of Latest LED Technologies M.Sc.Eng Mauro Ceresa Cree, Italy	Seefoyer Bluetooth Mesh and the Role of Standards in Widespread Adoption of Commercial Smart Lighting Systems MSc.Eng. Szymon Slupik, Silvair, Poland	Propter Homines Glass Optics with Micro Structures Dr. Ulf Geyer Auer Lighting, Germany	
12.30	Seestudio Lifetime and Reliability: Design Parameters of Mid-Power LEDs DiplIng. Ingolf Sischka, Lumileds, Germany	Seefoyer Security for Lighting in IoT - Group Communication Dr. Abhinav Somaraju, Tridonic, Austria	Propter Homines Enhancing Freeform Optics with Tailored Materials Dr. Angelika Hofmann, kdg Opticomp, Germany	
13.00	Seitenbühne Lunch			
14.00	Seestudio A New Binning Approach for White LEDs and Color Space Considerations Dipl-Ing. (FH) Alexander Wilm Osram Opto Semiconductors, Germany	Seefoyer Enhanced Visible Light Communications Dr. Majid Safari University of Edinburgh, UK	Propter Homines Customized LED and Optical Device Packaging Dr.Ir. MBA Marco Koelink APC, The Netherlands	Saal Bodensee Spectrally and Tunable LED and OLED Lighting. EU FP7 Project Workshop.
14.30	Seestudio Achieving Next Generation LED Lighting with Quantum Dots Steve Reinhard Nanoco Group, UK	Seefoyer Digital Power, a Shortcut to Intelligent & Efficient Lighting DiplIng Kurt Marquardt Infineon Technologies, Germany	Propter Homines Thermal Challenges In SSL Automotive Lighting Applications Prof. Mehmet Arik Ozyegin University, Turkey	Hi-LED
15.00	Seestudio Bio-Inspired White Hybrid Light-Emitting Diodes Dr. Ruben D. Costa Friedrich-Alexander-Universität Erlangen, Germany	Seefoyer Near-zero Flicker, High Power Factor and Deep-Dimming - Eliminating the Supposed Conflict M.Sc. Dave Bannister, AccurlC, UK	Propter Homines Thermoelectrically Cooled High Power LEDs for Automotive Applications Dr. Roman Dekhtiaruk SmarTThermoelectrics, Russia	
15.30	Expo Area Coffee			
17.00	Seestudio OLED Lighting: Technology Status and Manufacturing Capacity Dr. James Norman Bardsley Bardsley Consulting, USA	Seefoyer Advantages and Concepts of SSL Applications Utilizing Advanced Digital LED Drivers Mikael Pettersson SwitchTech AB, Sweden	Propter Homines State of the Art of Thermal Management M.Sc. Claudi Bachs Aismallbar, Spain	
17.30	Seestudio Latest Innovations and Breakthroughs in OLED Lighting Prof. W.A. Groen (Pim) Holst Centre, TNO, The Netherlands	Seefoyer LED-Retrofit based on AlGaN/GaN-on-Si Field-Effect Transistor Drivers M.Sc. Andreas Zibold Fraunhofer, Germany	Propter Homines AL Oxide Technology for Device Cooling Dr. Michael Naish RUSALOX, Russia	
18.00				
18.30 23.00	Boat trip on Lake Constance Get Together Evening			

SOLUTION DAY SEPT THU 22ND

Time	System Quality	System Qualification	Applications	Workshops
08.30		Seefoyer Photobiological Safety of SSL: Refining the New Approach Leslie Lyons Bentham Instruments, UK	Propter Homines The Light Pen - LED Direct Write Photolithography Dr. Nick Shepherd LEDesign, Austria	Saal Bodensee SSL Technologies for Horticultural Applications Workshop. EPIC
09.00	Seestudio Flicker of LED Light Sources DiplIng. Margret Hedrich-Goeppert Neumüller Elektronik, Germany	Seefoyer Measurement of Spectral Rayfiles with Conventional Nearfield Gonio- photometers M.Sc. Ingo Rotscholl Karlsruhe Institute of Technology, Germany	Propter Homines An Innovative Lighting Control System to Allow Parametric Relation with the Natural Environment Dr. Nicola Trivellin LightCube & Artemide, Italy	Saal Panorama Internet of Things (IoT) and Artificial Intelligence (AI) Lighting Workshop. Jakajima
09.30	Seestudio Electrical Overstress Robustness of Latest Generation LEDs for General Lighting Dr. Matteo Buffolo, University of Padova, Italy	Seefoyer Advanced Measurement Technology of SPD & Luminance for the Comfor- table and Healthy Lighting Dr. Rui Xu, Everline, China	Propter Homines Software Architecture Implementation for Street Lighting Management DI Juan José González Méndez ELT, Spain	
10.00	Seestudio Life-time Calculation of White HP- LEDs from 16,000 Hours Aging Data DiplPhys. Max Wagner Technische Universität Darmstadt, Germany	Seefoyer A Photometric Test System for LED Luminaires Based on Solar Panels Dr. Efi Rotem Ophir Photonics, Israel	Propter Homines Comparison of Reflective and Refractive Optics for LED Light Sources in Outdoor Lighting Applications Peter Almosdi, GE, Hungary	
10.30	Expo Area Coffee			
11.30	Seitenbühne Lunch			
12.30	Seestudio Exact Control of Spatial Light Distribution in High Power LED Applications by Silicone Lenses DiplIng. Christoph Baum Polyscale & Fraunhofer, Germany	Seefoyer Practical Guidelines for Sphere and Goniometer Measurements in View of CIE S 025/E:2015 MA Mikolaj Przybyła GL Optic, Germany	Propter Homines Optimization of Roadway Lighting Optics for Environment Adaptive Spatial Light Distribution with Two Channel Independent Dimming Control Capability Viktor Zsellér, Budapest University & Arrow Electronics, Hungary	
13.00	Seestudio Material Selection for LED Modules in Harsh Environments, Outdoor and Industry Dr. Martin Pfeiler-Deutschmann Tridonic Jennersdorf, Austria	Seefoyer WORKSHOP Solid-State Lighting Measurements - From Basics to Recent Developments Dr. Denan Konjhodzic Instrument Systems, TÜV, Germany	Propter Homines Beam Shaping System for Outdoor Applications Dr. Oon Chin Hin Temasek Polytechnic, Taiwan	
13.30	Seestudio Comparison of Luminaire Ageing with LED Lifetime Test Data Dr. Wolfgang Scheuerpflug Diehl Aerospace, Germany		Propter Homines Compact & Cost Effective Luminaire Designs with On-Board Driver Modules Dave van Amelsfoort Viapaq Lighting, The Netherlands	
14.00	Closing			





Registration

■ Event information: www.lps2016.com

■ Registration: www.lps2016.com/registration



Venue

Festspielhaus Bregenz

Platz der Wiener Symphoniker 1 6900 Bregenz | AUSTRIA

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Organizer

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