

# ISPCE 2015

A photograph of the Chicago skyline at dusk, with various skyscrapers illuminated against a dark blue sky. The foreground shows a body of water reflecting the city lights and some trees.

IEEE SYMPOSIUM ON PRODUCT COMPLIANCE ENGINEERING  
- IEEE PRODUCT SAFETY ENGINEERING SOCIETY -

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2016 ISPCE TPC / PSES-SD Chapter Chair

2015-09-08

CHICAGO, IL, USA | MAY 18-20, 2015

# IEEE SYMPOSIUM ON PRODUCT COMPLIANCE ENGINEERING

- Background, History & Scope
- 2015 ISPCE offerings
- What's next

# IEEE SYMPOSIUM ON PRODUCT COMPLIANCE ENGINEERING

## Background, History & Scope - cont.

IEEE Product Safety Engineering Society (PSES) is a society of the IEEE created June 21, 2003. It's Mission is to serve the product safety and regulatory profession and the public, by fostering the development and facilitation of the exchange of knowledge in the disciplines of product safety and compliance engineering, as detailed in the PSES's field of interest, and promote scientific, literary, educational and professional aspects thereof, that benefit members, the profession and humanity.

While product safety has been addressed in various committees over the years, there has never been a professional society symposium solely devoted to product safety engineering, as a discipline, until 2004.

## 2004 PSES

### Santa Clara, California - 13-15 Aug 2004

First Annual IEEE Symposium on Product Safety Engineering

# IEEE SYMPOSIUM ON PRODUCT COMPLIANCE ENGINEERING

## Background, History & Scope - cont.

Annual Symposium becomes the biggest educational event of Product Compliance Engineering

Meet the World Experts!

- Presentations by Compliance Professionals from around the world
- How-To Workshops
- Technical Committee meetings
- Publish & present ideas
- New location every year – see new cities while gaining knowledge

# IEEE SYMPOSIUM ON PRODUCT COMPLIANCE ENGINEERING

## Background, History & Scope - cont.

The symposium started as a two day event and over the years grew to full three-day event offering over 50 technical session grouped by technical tracks and having over 30 exhibitors.

The symposium site is [www.PSESsymposium.org](http://www.PSESsymposium.org)

## Previous Symposia

2015 Chicago, IL

2014 San Jose, CA

2013 Austin, TX

2012 Portland, OR

2011 San Diego, CA

2010 Boston, MA

2009 Toronto, ON

2008 Austin, TX

2007 Longmont, CO

2006 Irvine, CA

2005 Schaumburg, IL

2004 Santa Clara, CA

# IEEE SYMPOSIUM ON PRODUCT COMPLIANCE ENGINEERING

2015 ISPCE – Chicago, IL – May 18-20, 2015

The 2015 IEEE Symposium on Product Compliance Engineering!  
ISPCE 2015 was held in Chicago, Illinois, on May 18-20 and offered  
58 papers, presentations in the following categories

- ❑ Compliance 101
- ❑ EMC
- ❑ Energy Storage & Batteries
- ❑ Medical Track
- ❑ Safety Science & HBSE
- ❑ Standards
- ❑ Innovation & Emerging Technologies

# IEEE SYMPOSIUM ON PRODUCT COMPLIANCE ENGINEERING

2015 ISPCE – Chicago, IL – May 18-20, 2015

First day started with Keynote Speaker

- Stephen Kirk Vice President & GM, Consumer Technology Division of UL

*“Compliance, innovation and leadership – A discussion of what the future looks like for compliance engineers in a rapidly changing World*

*We live in a world where technology development and innovation are moving faster than ever before. Many of these new technologies (such as Internet of Things, autonomous vehicles and 3D printing) are potentially disruptive in nature and pose continuing challenges to compliance engineers.*

*A key question for anyone involved in compliance is how to balance innovation and compliance. In particular, “How do we enhance user safety and satisfaction whilst embracing innovation?” Industry standardization programs and compliance are key enablers of new technology. Not only does standardization allow manufacturers to gain the benefits of scale, it also helps to underpin user confidence in the products and service that are being deployed.*

*But existing standardization and compliance processes may be inadequate in a world where security threats and user requirements are evolving at an ever fast pace. If we are to maintain user confidence and safety, we need to ensure that our also compliance activities evolve and become increasingly agile – this will require leadership from everyone involved.*

# IEEE SYMPOSIUM ON PRODUCT COMPLIANCE ENGINEERING

2015 ISPCE – Monday PROGRAM

EMC Track	Compliance 101 Track	Medical Track	Global Regulations & Compliance Management Track	Innovation & Emerging Technologies Track	Energy Storage & Batteries Track	Safety Science & HBSE Track	Miscellaneous Standards Track
Opening Plenary, Keynote: Stephen Kirk (UL), Exhibits and Networking							
Break & Exhibits							
The basic requirements of a product going from the plug through the enclosure and components - John Allen		The Premortem - Ted Eckert		Medical Device IEC 60601-1 Preliminary Evaluations - Brian Biersach		EMC Fundamentals - Grounding, Shielding, Filtering Design and Layout - Elya Joffe	
Transition/Networking							
Dielectric Strength Testing Transient Overvoltage Withstand Testing - Richard Nute		Compliance Challenges for Smart Grid and Emerging Smart Systems and Devices - Rudi Schubert		Amendment 1 of IEC 60601-1, 3rd Ed. - What are the changes? - James Benscoter		EMC Fundamentals - Grounding, Shielding, Filtering Design and Layout (Continued) - Elya Joffe	
Lunch, Exhibits and Networking							
Touch Current and Electric Shock Tutorial - Peter Perkins		Electronic Cigarettes, the past, present, and future - Richard Pruen		Medical Safety testing requirements for 60601 safety testing - Jorel Townsend		EMC Fundamentals - Grounding, Shielding, Filtering Design and Layout (Continued) - Elya Joffe	
Transition/Networking							
Introduction to IEC 60335 - Household and similar electrical appliances - Safety - Dan Roman		Requirements, Challenges and Opportunities of Microsensors for Wearable Devices - Kai-Hsiang Yen		IEC 60601-1-2 4th Edition EMC - Nicholas Abbondante		Printed Circuit Board Design for EMC Compliance- Mark Montrose	
Afternoon Break, Exhibits and Networking							
Electrical Safety Testing in a Production Environment - Dwayne Davis		62368-1 Discussion Panel - Tom Burke		ISO 14971 Risk Management standard and EU MDD - Steli Loznen		Printed Circuit Board Design for EMC Compliance (Continued) - Mark Montrose	
Transition/Networking							
Navigating The Product Certification Maze - Valerie Madarasz		62368-1 Discussion Panel - Continued if necessary		Human Factors Engineering in Medical Devices - Cindy Miller		Printed Circuit Board Design for EMC Compliance (Continued) - Mark Montrose	
Exhibitor Reception							



# IEEE SYMPOSIUM ON PRODUCT COMPLIANCE ENGINEERING

2015 ISPCE – Tuesday PROGRAM

Failure Mode & Effects Analysis (FMEA) Methods and Accelerated Testing Concepts - Daren Slee	Update on Regulatory Labeling - Gary Schrempp; Daniece Carpenter	Levels of Conceptual Interoperability Model for Healthcare - Michael Robkin; Sandy Weinger; Benjamin Preciado	New European EMCD, LVD and RED – What's new? - Michael Loerzer
Seawater Immersion Abuse Testing of Electric and Hybrid Vehicles - Erik Spek	Photobiological Safety of LED Lamps and Lamp Systems: IEC/EN 62471 - David Ellis	Hazard Analysis to support Hazard-based Safety Engineering for Systems Built Using Medical Application Platforms – Anura Fernando	Product Compliance under European Law - System, sanctions, current issues - Susanne Wende
Awards Ceremony, Coffee Break and Networking			
Lesson Learned from Battery Failures - Alvin Wu	Laser Illuminated Projectors: Science, Safety and Regulations - Casey Stack	Safety of Medical Robots - Steve Deibele	Consumer Product Safety Compliance - The Current State of CPSC Safety Programs - Charles Joern
Lunch, Exhibits and Networking			
Risk Assessment as a Design Tool for Safety Compliance - Stefan Mozar	Computational Analysis of Electrical Shock Hazard and Safety Evaluation using Human Body Models - Hai Jiang	Risk Evaluation – Safe Enough for Society - Steve Deibele	Regulatory Changes in Environmental Compliance - Geoffrey Bock
Transition/Networking			
A New Structure for the EU LVD Directive - Mark Maynard	HBSE and Insulation Coordination - Richard Nute	A cybersecurity risk assessment methodology for medical devices - Srinivasan Jagannathan; Adam Sorini	The General Motors Ignition Switch Recall - Gary Tornquist
Afternoon Social/Exhibits			
China New CCC Regulations for 2015 - Thomas Ha	HBSE AND INTERLOCK SCHEMES The interlock model and its parameters - Richard Nute	Towards a Logic-Based Extension of a Relational Software Tool for Coherent Technical Documentation of Medical Devices - Tobias Lueddemann; Jonas Schieb; Daniel Roppenecker; Franziska Klein, Tim Lueh	ProductDNA: Traceability for Compliance & Market Access - Rakesh Vazirani
General Session - Chapter and Technical Committee Updates			

# IEEE SYMPOSIUM ON PRODUCT COMPLIANCE ENGINEERING

## 2015 ISPCE – Wednesday PROGRAM

<p>EOL Test: Friend or Foe? Challenges with Testing Lithium Ion Batteries in a Manufacturing Environment - Bradley Willard</p>	<p>A Critical Review on China Toys Safety Standards: GB6675- 2014 - Shu Lun Mak; Hing Keung Lau</p>	<p>USB Port and Power Delivery - Fan He</p>	<p>Product Safety Program Planning - From Prescriptive to Hazard-Based Safety - Oscar Overton</p>
<p>Transition/Networking</p>			
<p>Child Safety - Button or Coin Batteries - Paul Robinson</p>	<p>UL 61800-5-1 Drive Safety Standard - Seth Carlton; Matt Mollen</p>	<p>Application of HBSE to the fire risk of clothes dryers - Suzanne Smyth; Delmar Morrison; Brenton Cox</p>	<p>Product Compliance Management – A Tool Box to Comply with Legal Obligations - Michael Loerzer</p>
<p>Coffee Break and Networking</p>			
<p>New Approaches to Safe Ventilation of Equipment Containing Lead Acid and NiCd Batteries - Don Gies</p>	<p>NFPA 70E Standard for Electrical Safety in the Workplace - 2015 Edition - David Dini</p>	<p>Programmable Logic Controller Software Hazard Analysis Using Fault Tree Analysis - Dae-Won Chung</p>	<p>Team Engagement in the Product Compliance Process – Which Teams Should Be Engaged and Why? - Dennis Bartelt; Peter Merguerian</p>
<p>Lunch and Networking</p>			
<p>Battery Certification For Large Format Applications - Stephen McVay</p>	<p>Assessing Hazards of Systems vs. Products: Case Study of Roof- Mounted Photovoltaic Panels and Fire Testing to ANSI/UL 1703 - Gregory Allen</p>	<p>Functional Safety: An Introduction to Theories, Standards &amp; Applications - Erik Reynolds</p>	<p>When do wearable electronics become medical devices? - Ted Eckert</p>
<p>Transition/Networking</p>			
<p>Global Certification Requirements for Grid Connectivity: Renewables, Backup Power, and Energy Storage - Howard Liu</p>			<p>When do wearable electronics become medical devices? - Overflow</p>
<p>Transition/Networking</p>			
<p>Closing Session and Wrap-Up</p>			

# IEEE SYMPOSIUM ON PRODUCT COMPLIANCE ENGINEERING

2015 ISPCE – Program



2014 Web-program\_v14.pdf

# IEEE SYMPOSIUM ON PRODUCT COMPLIANCE ENGINEERING

What's next, visit the symposium site @ [www.PSESsymposium.org](http://www.PSESsymposium.org)



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## Symposium

May 16-18 | Orange County, USA

### 2016 Symposium

May 16-18, 2016 | Orange County, CA, USA

Details are coming soon

Download Call For Submissions

#### Future Symposia

The 2016 Symposium will be held in Anaheim, Orange County, CA.  
A contact for 2016 Symposium is Bansil Patel.

# IEEE SYMPOSIUM ON PRODUCT COMPLIANCE ENGINEERING

What's next, visit the symposium site @ [www.PSESymposium.org](http://www.PSESymposium.org)

The IEEE Product Safety Engineering Society is pleased to announce that the thirteenth annual IEEE Symposium on Product Compliance Engineering 2016 will be held in Anaheim, California, May 16-18, 2016.



## Call for Submissions

### Submission Information

ISPCE 2016 is now accepting formal paper and reviewable presentation submissions. Topics of solicited submissions can be found on the Call for Submissions. The full submission instructions can be found here.

# IEEE SYMPOSIUM ON PRODUCT COMPLIANCE ENGINEERING

What's next, visit the symposium site @ [www.PSEsymposium.org](http://www.PSEsymposium.org)

ISPCE 2016 is now seeking original and unpublished formal papers, presentations (without formal papers), workshops, and tutorials on all aspects of product safety and compliance engineering, including but not limited to:

- ✓ Compliance 101
- ✓ EMC & Wireless Compliance
- ✓ Batteries & Energy Storage Regulations
- ✓ Forensics, Failure & Risk Analysis, Assessment & Management
- ✓ Hazard-based Safety Engineering & Safety Science
- ✓ Emerging Technologies & Innovations
- ✓ Medical Devices
- ✓ Legal, Regulations, Directives & Consumer Protection
- ✓ Environmental & Energy Regulations

Important Dates:

Initial Formal Paper/Presentation Deadline – December 6, 2015

Notification of Acceptance – February 1, 2016

Final Camera-ready Paper/Presentation Submission

& Author Registration Deadline – April 1, 2016



**ISPCE 2016** Orange County, CA, USA  
May 16-18, 2016  
IEEE Symposium on Product Compliance Engineering  
**CALL FOR SUBMISSIONS** - <http://pse Symposium.org>

The IEEE Product Safety Engineering Society seeks original and unpublished formal papers, presentations (without formal papers), workshops, & tutorials on all aspects of product safety and compliance engineering including, but not limited to:

- Global Market Access & Regulations, Compliance Management
- EMC & Wireless Compliance
- Environmental & Energy Regulations
- Batteries & Energy Storage Systems
- Medical Devices
- Compliance 101
- Hazard Based Safety Engineering & Safety Science
- Forensics, Failure & Risk Analysis, Assessment & Management
- Legal, Regulations, Directives & Consumer Protection
- Emerging Technologies & Innovations

Please go to the Submission page on the ISPCE website for details & comprehensive submission instructions, including separate formal paper and presentation templates: [www.pse Symposium.org](http://www.pse Symposium.org). Formal papers & presentations not submitted per submission instructions by the initial deadline may need to be held over until next year depending on the number of submissions.

**Submission Schedule (preliminary)**

Indicated deadlines require that the associated documents be loaded into the submission portal, EDAS, (<http://edas.info>) by the due date:

- December 6, 2015**  
Formal Paper/Reviewable Presentation Submission
- February 1, 2016**  
Acceptance Notification
- April 1, 2016**  
Final Camera-ready Paper/Presentation Submission

Please note, when serving as an educational presenter during ISPCE 2016, speakers are permitted to introduce themselves and make reference to the company they represent, or their company activities, as is necessary for context within the course of their presentation. Company sales or other promotional activities should be reserved for other times.



Q&A