



## 2019 IEEE Symposium on Product Safety Engineering

The IEEE Product Safety Engineering Society hosts a premier symposium annually on all relevant topics for workers and innovators in the product safety area. Join us in San Jose for ISPCE 2019 for three days of technical sessions and exhibits!

### Topic Areas

The IEEE Product Safety Engineering Society seeks original and unpublished formal papers, presentations (without formal papers), workshops, and tutorials on all aspects of product safety and compliance engineering including, but not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

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

# 2019 IEEE Symposium on Product Compliance Engineering - Recap

## PSES SD Chapter Meeting – Aug 13, 2019

By: Leszek M Langiewicz (ISPCE TPC Co-chair, PSES SD Chapter Co-chair)

# 2019 ISPCE Retrospectives

## IEEE Symposium on Product Compliance Engineering

- ❖ Overview
- ❖ Organizers
- ❖ Keynote Speakers
- ❖ Technical Program Summary
- ❖ Awards
- ❖ Sponsors & vendors
- ❖ Program

# 2019 ISPCE Retrospectives

## Symposium Overview

- Sixteen Annual IEEE Symposium on Product Compliance Engineering

- MAY 6-8, 2019 in San Jose, California

- Mission Statement

*The Mission of the ISPCE is to provide a forum for product safety engineers and design engineers to discuss and disseminate technical information related to product safety, to enhance personal product safety engineering skills, and to provide product safety engineering outreach to engineers, students and others with an interest in this field as well as the related fields of product safety regulatory compliance.*

# 2019 ISPCE Retrospectives

## Symposium Committee

- **General Chair**  
Murlin Marks, *PSES*
- **Treasurer**  
Lei Wang, *Amazon*
- **PSES President**  
John Allen, *Product Safety Consulting, Inc.*
- **Technical Program Co-Chairs**  
Leszek Langiewicz, *HP Inc.*  
Grant Schmidbauer, *Nemko USA*
- **Technical Program Secretary**  
Mariel Acosta-Geraldino, *IBM*
- **PSES VP Conferences**  
Wen-Chung Kao
- **Conference Management**  
Conference Catalysts, LLC

# 2019 ISPCE Retrospectives



## Symposium – Keynote Speakers (Monday May 6<sup>th</sup>)

### ❑ Bill Orner Director of Systems Engineering

- ❑ Bill Orner, has more than 25 years' experience in professional, consumer and industrial electronics specializing in systems-on-chip, system hardware design, system-on-package, low/ultra-low power electronics, electronic power management, firmware and control systems. Mr. Orner is currently the Director of Systems Engineering for a semiconductor company specializing in low power, high throughput programmable ML processors. Previously Mr. Orner worked at GoPro on the development of their GP1 custom image processing chip currently used in all their high-end battery cameras. He has also worked for MIPS, Philips, Transmeta, Portalplayer as well as several startup companies. Mr. Orner has a BSEET from Northeastern University and a MSTM from Pepperdine University, is a member of SMPTE and a senior member of the IEEE, and is currently the secretary of the IEEE Consumer Electronics Society and also serves on standards committees for JEDEC and PCI-SIG.



# 2019 ISPCE Retrospectives



## Symposium – Keynote Speakers (Tuesday May 7<sup>th</sup>)

- ❑ Don Mays Chief Safety and Quality Officer, Samsung Electronics America Don Mays is Chief Safety and Quality Officer at Samsung Electronics America where he has oversight of enterprise quality and product safety. He works to identify and mitigate product risks to Samsung, its customers, and consumers. Most recently Don was Managing Director at Deloitte where he led the firm’s product safety and quality advisory services. Don was also the former Senior Director, Product Safety and Technical Policy for Consumer Reports. He directed his organization’s product safety program in its effort to reduce the number of unsafe products in the marketplace and help educate consumers about hidden safety hazards. Don also spent much of his career developing and operating laboratories for Consumer Reports, Intertek, and the Good Housekeeping Institute. Collectively, he brings more than 40 years of technical experience leading to a deep understanding of how companies can identify and mitigate their risks.
- ❑ **Title:** Building Safety (and Security) into Your Products
- ❑ **Abstract:** To be cost-effective, safety must be built into products from the beginning. In this talk I will describe a new, more powerful approach to safety based on systems theory that can be used in the early product concept analysis. The analysis method, called STPA (System-Theoretic Process Analysis) is being used successfully on hundreds of products in most industries around the world. STPA works for hardware, software, human-automation interaction, and management/operations aspects of safety. It also applies to cyber-security.

# 2019 ISPCCE Retrospectives

## Symposium - Technical Program Summary

- Eleven Technical Tracks:
  - ❑ Global Market Access Track - Kimberly Adams, 7 Layers, USA
  - ❑ Compliance 101 Track - John Allen, Product Safety Consulting, Inc, USA
  - ❑ EMC and Wireless Track - Jim Bacher, IEEE, USA
  - ❑ Medical Track - Rich Gardner, CSA Group, USA
  - ❑ Global Hazardous Locations Track - Paul Kelly, UL, LLC, USA
  - ❑ Emerging Technologies Track - Ted Eckert, Microsoft Corporation, USA
  - ❑ HBSE/Safety Science Track - Tom Lanzisero, UL, LLC, USA
  - ❑ Legal Track - Susanne Wende, Noerr LLP, Germany, Ted Dorenkamp, Bowman and Brooke LLP, USA
  - ❑ Forensics Track - Daren Slee, Exponent, USA
  - ❑ Environmental/Energy Track - Bansi Patel, PSES, USA
  - ❑ Battery Track - Jan Swart, Exponent, USA, Rich Byczek, Intertek, USA
- ❑ In total 76 presentations in 4 rooms simultaneously over 3 days

# 2019 ISPCE Retrospectives

## 2019 IEEE Product Safety Engineering Society Awards

### 32 Appreciation Awards

- ✓ **Grant Schmidbauer** - For Leadership in the IEEE PSES Board of Governors
- ✓ **Bansi Patel** – For Support in the IEEE PSES ISPCE 2018 Conference as Co-Chair
- ✓ **Grant Schmidbauer, Leszek M Langiewicz** - For Leadership on the ISPCE Technical Committee
- ✓ For Leadership in the IEEE PSES San Diego Chapter and kick-off of the inaugural IEEE PSES San Diego Chapter 2018 Safety Summit San Diego (SSSD)
  - Gabriel Alcala, Andrew Bera, Bansi Patel, Fabio Furlan, Grant Schmidbauer, Leszek M Langiewicz
- ✓ **IEEE PSES San Diego Chapter - IEEE PSES Chapter-of-the-Year Award**

This award recognizes the most outstanding IEEE Product Safety Engineering Society "Chapter" in recognition of their contributions to and promotion of the PSES through its meetings, programs, and member services from 2018.



# 2019 ISPCCE Retrospectives

## Patrons

- Platinum Patron



- Gold Patrons



- Reception Patron



- Speaker Gift Patron



## Vendors

- Advanced Test Equipment Rentals
- AMETEK Compliance Testing Solutions
- Bureau Veritas Consumer Products Services
- Compliance Dynamics
- Compliance West
- CSA Group
- ED&D
- Element
- EMC Society
- Energy Assurance
- Eurofins | MET Labs
- Haefely Hipotronics
- HV Technologies Inc.
- Ikonix USA
- In Compliance Magazine
- Intertek
- iPoint
- Nemko
- OnRule
- Orbis Compliance
- SGS
- TUV Rheinland
- TUV SUD America
- UL
- Vitrek

# 2019 ISPC Retrospectives Program

The Overlooked Critical Factor - 5 questions to ask when designing your battery-operated product - Rodney Grimes (SGS North America, USA)

Testing Tools and Methodologies for Lithium-ion Cell Qualification - Keith Beers (Exponent, Inc., USA)

The Heated Needle Penetration Method for Li-ion Thermal Runaway Initiation - Dustin Summy (Exponent, Inc., USA)

UN 38.3 Lithium Battery Transport Testing - Overview & Updates - John Copeland (Energy Assurance LLC, USA)

Applying Functional Safety in the Battery System for Electric and Autonomous Vehicles - Yike Hu (Exponent, USA)

Touch-current / Electric shock tutorial Compliance 101 - Peter Perkins (P. E. Perkins PE, USA)

Risk Assessment for LVD and EMC Directives - Patty Knudsen (Teradata Corporation, USA)

My experience of Product Compliance - Heart to change IEC standards - Hiroshi Sasaki (IS-INOTEK, Japan)

Product Markings and Labels - Richard Nute (IEEE Product Safety Engineering Society & Richard Nute Product Safety Consultant, USA)

Navigating the Product Safety Certification Cycle: Using Early Engagement and Best Practices to minimize Project Risk - Christopher Kincaid (CSA Group, USA)

Applying Toy Safety Standards To Your Consumer Electronics Product - Dan Roman (Colgate-Palmolive Company, USA)

Consumer Electronics - Basic Product Safety - Julio Posse (Sony Electronics Inc., USA)

Safe Design of Laser Consumer Products - Erwin K Lau (Exponent, Inc., USA)

Managing Product Safety Knowledge - Mike Sherman (Graco Inc., USA)

Compliance 101: Origins and Basics of Electrical Fire and Shock Protection - Mike Sherman (Graco Inc., USA)

Assessment of a product to determine safe Electromagnetic Field (EMF) Exposure levels - Tom Tidwell (Nemko USA, Canada)

Bluetooth Certification - Tom Tidwell (Nemko USA, Canada)

Citizen's Broadband Radio Services and OnGo Certification - Tom Tidwell (Nemko USA, Canada)

Overview of RF Exposure Requirements - Grace Lin (Intertek, USA)

How To Get a Product To Pass On The First Trip To The EMC Lab - James A Bacher (JB Consulting, USA)

Basics of Lightning Protection For Communications Towers - James A Bacher (JB Consulting, USA)

Introduction to EMC Compliance - Printed Circuit Board and System Design - Mark Montrose (Montrose Compliance Services, Inc., USA)

South American Wireless & Telecom Product Compliance - Mark W. Maynard (American Certification Body, Inc. & Washington Laboratories, Ltd., USA)

BRIC Product Compliance (Brazil, Russia, India, & China) - Mark W. Maynard (American Certification Body, Inc. & Washington Laboratories, Ltd., USA)

Middle East Countries Electronic Product Compliance - Mark W. Maynard (American Certification Body, Inc. & Washington Laboratories, Ltd., USA)

Security Risk Management for IoT Devices - Standards, Methods, and Insights - Laura Elan (CSA, USA)

EU REACH Update - Michael Kirschner (Design Chain Associates, LLC, USA)

Alternate Low Power Modes - Ted Eckert (Microsoft Corporation, USA)

Product Designing for a Circular Economy - David Linder (SGS North America, USA)

Material and Substance Requirements for EEE, Conventions, Treaties, Surveillance, REACH and, of course, RoHS - David Linder (SGS North America, USA)

EU RoHS 3: Are You Ready? - Kenneth Stanvick (Intertek, USA)

International Standards - used for EV supply equipment for charging electric road vehicles - Tina Ding (TUV SUD)

Topological Vocabulary for Supporting Conformity Assessment of Interoperable Medical Products - John Hatcliff (Kansas State University, USA)

(Im)Perfectly Safe - Dan Roman (Colgate-Palmolive Company, USA)

Regulatory Updates E-Waste and Take Back Laws in Latin America - Elizabeth Perrier (Product Regulatory Compliance- Latin America & Orbis Compliance LLC, USA)

Arson Under The Christmas Tree - a forensic evidence case study - Louis Bilancia (Engineering Systems, Inc., USA)

Illumination Caused Permanent Bodily Injury, Photons Not Taken Lightly - Louis Bilancia (Engineering Systems, Inc., USA)

69 kV Sub-Transmission Line, a Careless Painter and a Scissor Lift - A Potential Electrical Hazard - Nosh Medora (IEEE & Exponent, USA)

Understanding and Investigating Burn Injury - Kenneth Lee (Exponent, USA)

Creating HazLoc Product and Compliance Guidelines for the Marijuana Industry - Linn Havelick (5902 McIntyre Street & HAL Extraction Technology Ltd., USA)

An Introduction to Hazardous Locations - Basics and Protection Concepts - William Fiske (Intertek Testing Services NA Inc., USA)

The Evolving Landscape for Global Hazardous Locations - Considerations for Equipment Certification - Christopher Kincaid (CSA Group, USA)

Training on the Oil & Gas Industry - Overview of Upstream/Midstream/Downstream - John Chambers (UL LLC, USA)

Unmanned Robots and Drones in Global Hazardous Locations - Paul T. Kelly (UL LLC, USA)

OSHA's Nationally Recognized Testing Laboratory Program - On the Verge of Change - Kevin Robinson (Department of Defence, USA)

Self Declaration of Conformity For CCC in China - Paul Wang (G&M Compliance & G&M Compliance, P.R. China)

Market access for wireless products in Europe and South America - Polux Sanchez Reyes (CSA Group, USA)

New regulations of China CCC, SRRC and NAL - Paul Wang (G&M Compliance & G&M Compliance, P.R. China)

Optimizing supply chain communication with respect to requirements under RoHS, REACH - Eva S. Hink (iPoint-systems GmbH, Germany)

Realization and maintenance of a regulatory compliance; the devils in the details, yet the details are overwhelming! What to do? - Roger Martin (Compliance Dynamics, LLC, USA)

Don't Let Global Regulatory Compliance Negatively Impact Your Product's Reach - Catherine Wong (SGS North America, USA)

Global Market Access Regulatory Changes in China - 2018 - Vanessa Wen (CSA Group, Canada)

Application of Blockchain Technology to Laboratory Operations - Leslie Bai (Bureau Veritas)

Global Regulatory Updates for Small Format Lithium-Ion Batteries and Power Banks - John Copeland (Energy Assurance LLC, USA)

Latest Country Regulatory Update - Tina Ding (TUV SUD)

India TEC (Telecommunication Engineering Center) - Lars Mellander (Testing-Compliance & Nemko USA, USA)

Beyond the basics: Save the trauma for when it really counts - Lars Mellander (Testing-Compliance & Nemko USA, USA)

What in the World? A update on the latest international requirements (EMC/Safety) - Lars Mellander (Testing-Compliance & Nemko USA, USA)

Tin whiskers and automotive electronics - Michelle L Kuykendal (Exponent, Inc., USA)

Korea Market Access for Electrical and Electronic Equipment - Michael Chang (Eurofins MET Labs, USA)

Brazil Spotlight - INMETRO Safety for ITE, HOUS, MED and Ex, Anatel for Wireless and Energy Efficiency - Theresa Glenna (TUV SUD America Inc., USA)

Going Global: Wireless Handbook for helping manufacturers bring wireless devices to the global market - Theresa Glenna (TUV SUD America Inc., USA)

Power Supply Safety - Gary Tornquist (Microsoft Corp., USA)

Telecom Regulatory Updates Affecting 2019 Approvals in Latin America - Elizabeth Perrier (Product Regulatory Compliance- Latin America & Orbis Compliance LLC, USA)

Practical Methods for Establishing a Product Safety Program

EU: Legal requirements for distributing products online; current market surveillance programs; environmental product law (WEEE) - Susanne Wende (Noerr LLP, Germany)

Legal Implications for Product Distribution after Brexit - Susanne Wende (Noerr LLP, Germany)

Using Product Testing in Litigation

Post-Sale Duties and Defending Post-Recall Lawsuits

Current Trends in Electromedical Equipment Standards - Naysahn Saeed (CSA Group, USA)

IEC 60601-1-12 Emergency Medical Services Standard (EMS) and Essential Performance - Richard Gardner (Baxter & University of Illinois at Chicago, USA)

EU MDR Hazardous Substances in Medical Devices - Geoffrey Bock (TUV Rheinland of North America, Inc., USA)

Challenges and Directions for Life-Cycle Processes Supporting Conformity Assessment of Interoperable Medical Systems - John Hatcliff (Kansas State University, USA)

Dalziel revisited; Electric shock analysis of mixed bipolar and monopolar waveforms - Peter Perkins (P. E. Perkins PE, USA)

Experiments of DC Human Body Resistance II: Test Results and Analysis of Data from Fifty-Two People - Hai Jiang (Underwriters Laboratories (UL), USA)

The Need for a New (or Redefined) Discipline: Product Health and Environmental Safety Engineering - Michael Kirschner (Design Chain Associates, LLC, USA)

Safety of Free-Space Optical Communication Systems - Don Gies (DDG Compliance, LLC)

Key Considerations and Challenges with IEC 62368-1 - Leszek M Langiewicz (HP Inc., USA)

# 2019 ISPCE Retrospectives Q&A

# FYI; 2019 SSSD (SAFETY SUMMIT SAN DIEGO)

<https://www.safetysummitsandiego.org/>

The screenshot shows the website for the 2019 Safety Summit San Diego. The header includes navigation links for Home, Program, Accommodations, and Vendors & Sponsors, along with a Register Now button and logos for PSES and IEEE. The main heading reads "IEEE PRODUCT SAFETY ENGINEERING SOCIETY SAN DIEGO CHAPTER INVITES YOU TO Safety Summit San Diego".

**WHEN**  
October 8, 2019  
[Call for Presentations](#)

**TOPIC AREAS**

The SSSD seeks original and unpublished tutorials on all aspects of product safety including, but not limited to:

- Medical Devices
- Safety of ITE / A/V&ICT Equipment
- New Standards and Hazard Based Safety Engineering
- Functional Safety
- Batteries and Battery Systems

**WHERE**  
Holiday Inn Carlsbad  
2725 Palomar Airport Rd.  
Carlsbad, CA 92009

The IEEE Product Safety Engineering Society San Diego Chapter hosts SSSD (Safety Summit San Diego) for So-Cal professionals in area of product safety.

Join us in Carlsbad (San Diego) for 1 day of technical sessions and exhibits.

**ORGANIZERS**  
General Chair - [Leszek Langiewicz](#)  
Co-Chair - [Bansi Patel](#)  
Treasurer - [Nicole Harris](#)  
Marketing - [Gabriel Alcalá](#)

**Technical Program Committee**  
TPC - [Leszek Langiewicz](#)  
ME Track Chair - [Fabio Furlan](#)  
ITE Track Chair - [Grant Schmidbauer](#)

**Deadlines:**

- Presentation Submittal Deadline: August 18, 2019
- Acceptance Notification Deadline: September 1, 2019
- Final Presentation Submission Deadline: September 15, 2019

**2019 SSSD**  
October 8, 2019