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

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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 it 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.
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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
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.
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Symposium – Keynote Speakers (Tuesday May 7th)

- 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.
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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
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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.
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Patrons

• Platinum Patron
  ![UL](image1.png)  ![HP](image2.png)

• Gold Patrons
  ![CSA Group](image3.png)  ![Nemko](image4.png)

• Reception Patron
  ![Intertek](image5.png)

• Speaker Gift Patron
  ![Microsoft](image6.png)

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
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2019 ISPCE Retrospectives Program

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

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

The Needled Needleman Method for Li-ion Thermal Runaway Initiation - Dustin Summey (Exponent, Inc., USA)

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

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

Touch-current / Electric shock tutorial Compliance Tool 1- Peter Perkins (P. E. Perkins PE, USA)

Risk Assessment for LVD and EMC Directives - Party Knutseth (Teradata Corporation, USA)

My experiences of Product Compliance - Heart to change IEC standards - Hiroshi Sasaki (I･I･T･K, Japan)

Product Marking, and labelling - Richard Nute (IEEE Product Safety Engineering Society Amps, Richard Nute Product Safety Consultant, USA)

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

Applying Test Strip To Your Consumer Electronics Product - Dan Roman (Cotage-Palmville Company, USA)

Consumer Electronics - Basic Product Safety - Ikuo Possia (Sony Electronics Inc., USA)

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

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

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

Assessment of a product to determine safe Electromagnetic Field (EMF) Exposure Levels - Tim Dowell (Nemko America, Canada)

Bluetooth Certification - Tom Tidewell (Nemko USA, Canada)

Citizen’s Broadband Radio Services and DTV Certification - Tom Tidewell (Nemko USA, Canada)

Overview of RF Exposure Requirements - Graizun White (ITEQ Inc., USA)

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

Basics of Lighting Protection For Communications Towers - James A Behar (JB Consulting, USA)

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

South American, Korea, & Taiwanese Product Compliance - Mark W. Maynard (American Certification Body, Inc. & Bamp; Washington Laboratories, Ltd., USA)

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

Middle East Countries Electronic Product Compliance - Mark W. Maynard (American Certification Body, Inc. & Bamp; 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 Under (SGS North America, USA)

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

IE RoHS 3: Are You Ready? - Kenneth Stanwick (Intertek, USA)

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

Topological Vocabulary for Supporting Conformity Assessment of Interoperable Medical Products - Christopher Hatcliff (IEEE, USA)

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

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

Creating HazLoc Product and Compliance Guidelines for the Marijuana Industry - Lin Havick (5902 McIntyre Street Bamp; HAL Extraction Technology Ltd., USA)

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

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

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

UNEP Technology and Trends in Global Hazardous Locations - Paul T. Kelly (Exponent, Inc., 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&MP Compliance Management, G&MP Compliance, P.R. China)

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

New regulations of China CCC - SIRI and Nii - Paul Wang (G&MP Compliance Management, G&MP Compliance, P.R. China)

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

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

Do Not Let Global Regulatory Compliance Negate Your Product’s Reach - Catherine Wong (SGS North America, USA)


Application of Bluetooth Technology to Laboratories Operations - Leslie Bal (Bureau Veritas)

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

Latest Country Regulatory Update - Tina Ding (TUV SUD, USA)

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

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

What in the World? A update on the latest international requirements (EMC/Safety) - Lars Mellander (Testing & Compliance, Nemko, 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 - IMETRO Safety for ITE, HIES, MED and Ex, Anatel for Wireless and Energy Efficiency - Theresa Glenn (ITUV SUD America Inc., USA)

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

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

Telecom Regulatory Updates Affecting 2019 Approvals in Latin America - Elizabeth Perrier (Product Regulatory Compliance, Latin America &amp; Orics 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 Electromagnetic Radiation Standards - Najy Saway (ESG Europe, USA)

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

IEC Hazardous Substances in Medical Devices - Geoffrey Rock (TUV Rheinland of North America, Inc., USA)

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

Daiel 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 Jang (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 Gas (IDSQ Compliance LLC, USA)

Key Considerations and Challenges with IEC 62368-1 - Leszek M Langiewicz (HP Inc., USA)
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Q&A
FYI; 2019 SSSD (SAFETY SUMMIT SAN DIEGO)
https://www.safetysummitsandiego.org/

**WHEN**
October 8, 2019

**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 the area of product safety.

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

**ORGANIZERS**
General Chair - Leszek Krawczyk
Co-Chair - Benoit Foulon
Treasurer - Nicole Harris
Marketing - Gabriel Alcivar
Technical Program Committee - Benoit Foulon, Nicole Harris
IEEE Track Chair - Fabio Fadul
ITE Track Chair - Grant Schneidhauer