

2012 IEEE Symposium on Product Compliance Engineering

(ISPCE 2012)

**Portland, Oregon, USA
5 – 7 November 2012**



**IEEE Catalog Number: CFP12PSE-PRT
ISBN: 978-1-4673-1031-4**

Table of Contents

Welcome Message	v
ISPCE 2012 Symposium Committee	vi
PSES Board of Directors	viii
ISPCE 2012 Patrons	x
ISPCE 2012 Exhibitors	xi
Keynote Speaker	xv
Monday, November 5, 2012	
Strategies for Tracking Regulatory Requirement Changes.....	1
<i>Ted Eckert (Microsoft Corporation, USA)</i>	
System Safety and ISO 26262 Compliance for Automotive Lithium-Ion Batteries	6
<i>William Taylor (kVertex Associates (kVA) LLC, USA)</i>	
<i>Gokul Krishivasan (kVertex Associates (kVA) LLC, USA)</i>	
<i>Jody J Nelson (kVertex Associates (kVA) LLC, USA)</i>	
Cutaneous burn at an elevated ambient air temperature	12
<i>Flore Chiang (Underwriters Laboratories Taiwan Co., Ltd., Taiwan)</i>	
Tuesday, November 6, 2012	
New Editions of ANSI Standards for Warnings.....	17
<i>Steven Hall (Applied Safety & Ergonomics, Inc., USA)</i>	
<i>Judith Isaacson (Applied Safety & Ergonomics, Inc., USA)</i>	
<i>Charles Burhans (Applied Safety & Ergonomics, Inc., USA)</i>	
<i>J. Paul Frantz (Applied Safety & Ergonomics, Inc., USA)</i>	
<i>Timothy Rhoades (Applied Safety & Ergonomics, Inc., USA)</i>	
<i>Raina Shah (Applied Safety & Ergonomics, Inc., USA)</i>	
<i>Stephen Young (Applied Safety & Ergonomics, Inc., USA)</i>	
Radio Approval in Taiwan	21
<i>Grace Lin (Crestron Electronics, Inc., USA)</i>	
<i>Alpha Liu (Intertek Testing Services Taiwan, Taiwan)</i>	
<i>Cliff Wang (CCS RF, Taiwan)</i>	
Large Scale Energy Storage Systems	B#5
<i>Devarajan Maheswaran (LARSEN & TOUBRO LIMITED, India)</i>	
A Study on a management system for pursuing product safety of consumer electronics products using Hazard based assessment.....	33
<i>Yasuo Harada (Panasonic, Japan)</i>	
DC High-Energy Arcing Ignition (HAI) Resistance for Polymeric Materials.	
Part I: Consistency and Repeatability of DC-HAI System.....	39
<i>Hai Jiang (Underwriters Laboratories (UL), USA)</i>	
<i>Paul Brazis (Underwriters Laboratories (UL), USA)</i>	
<i>Noe Navarro (Underwriters Laboratories (UL), USA)</i>	

Fuse Selection Criteria for Safety Applications	43
<i>Ray Huang (Exponent, USA)</i>	
<i>Stig Nilsson (Exponent, USA)</i>	
Safety Considerations of Wireless Charger For Electric Vehicles	51
<i>Hai Jiang (Underwriters Laboratories (UL), USA)</i>	
<i>Paul Brazis (Underwriters Laboratories (UL), USA)</i>	
<i>Mahmood Tabaddor (Underwriters Laboratories (UL), USA)</i>	
<i>Joseph Bablo (Underwriters Laboratories (UL), USA)</i>	
Wednesday, November 7, 2012	
Introduction to Lightning and AC Power Fault Surge Protection for Telecom Signaling Cables	57
<i>Joseph Randolph (Randolph Telecom, Inc., USA)</i>	
The Use of TDR and FDR Techniques to Characterize a GTEM Chamber for EMI/EMS/EMC Pre-Compliance Test	B#5
<i>Humberto Xavier de Araujo (University of Campinas, Brazil)</i>	
<i>Luis Kretly (University of Campinas, Brazil)</i>	
Grounding Architecture Design for Wireless Base Stations - EMC and PS Considerations	73
<i>Dheena Moongilan (Alcatel-Lucent, USA)</i>	
Electric Shock Hazards - Risk Assessment and Safety Management.....	82
<i>Thomas Lanzisero (UL LLC, USA)</i>	
The Beelzebub Zone	88
<i>Louis Bilancia (Synnovation Engineering, Inc., USA)</i>	
AUTHOR INDEX.....	93