

TABLE OF CONTENTS

Table of Contents	1
Welcome Message	2
ISPCE 2014 Symposium Committee	3
PSES Board of Directors	6
ISPCE 2014 General Information	8
ISPCE 2014 Patrons	11
ISPCE 2014 Exhibitors	12
Keynote Speakers	22
Symposium Schedule	26
ISPCE 2015 Announcement	32

WELCOME MESSAGE

Hello Everyone,

On behalf of the Santa Clara Valley Chapter of the IEEE PSES and indeed the entire PSES, I would like to invite you to the center of where it all began – Silicon Valley – the high tech capital of the world! Yes – this is where the PSES got its start and the first time since then that the Symposium has been back. Not only are we back, but we have made some changes to the Symposium that we hope you will like.

Some of the Changes include:

- A new date earlier in the year to make it easier for more to attend.
- A modified schedule to have more time with the Exhibitors – Please be sure to visit all the exhibitors during the general sessions!
- Two Keynotes – One on 3D printing and one on Wearable Technologies – talk about High Tech!
- A live demonstration – by a local high school First Robotics Team – you will be amazed by what these students do in such a short time – a sample for them of how business works in real life!
- A Member Center – stop by and learn more about the society and the IEEE as well as how you can get more involved – and if you are not a member, we will help you sign up!
- Senior Member Promotion Support – check in at the Member Center and we will help get you started with your elevation to Senior Member status.

Additionally, not only is the Silicon Valley the global center of innovation and high tech, but it is also right in the middle of one of California's most vibrant recreation, entertainment, and education centers. We have something for everyone - Just in San Jose alone there is a lot to do and see: [View it all here](#)

Of course a couple of favorites for us techies are

Computer History Museum

The Tech Museum of Innovation

And within a short drive there are

San Francisco – Theater, Museums, Cable Cars!

Santa Cruz – Beach/Boardwalk

Monterey – Cannery Row, Monterey Bay Aquarium, World Class Golfing –

Pebble Beach, Spyglass

Napa – Wine Country

Sierra Nevada – Lake Tahoe, Yosemite

We have a great venue at the Double Tree by Hilton San Jose, right next to the San Jose International Airport, major highways, and the local Light Rail system that will allow you to easily get to and from the event and explore the local attractions.

We hope you are as excited as we are and we can't wait to get your feedback during the closing session so we can make the 2015 ISPCE even better!

Best Regards,

Kevin L. Ravo PE

IEEE PSES – President 2014 - 2015

IEEE PSES 2014 Symposium General Chair

UL LLC

CONSUMER TECHNOLOGY

Distinguished Member of Technical Staff

ISPCE 2014 SYMPOSIUM COMMITTEE

General Chair

Kevin Ravo, *UL LLC, USA*

Past General Chair

Gary Schrempp, *Dell - Regulatory Compliance, USA*

Secretary

Rich Johnson, *Hewlett-Packard Company, USA*

Treasurer

Dan Arnold, *UL LLC, USA*

Technical Program Chair

Tom Burke, *UL LLC, USA*

Past Technical Program Chair

Gary Tornquist, *Microsoft, USA*

Track Chairs

Energy Storage/Batteries Track

Jan Swart, *Exponent Inc., USA*

Medical, Laboratory & Risk Management Track

Frank O'Brien, *O'Brien Compliance Management, USA*

Richard Gardner, *GE Healthcare, USA*

EMC Workshop

Henry Benitez, *ElectroMagnetic Investigations, LLC, USA*

Conference Sales

Sue Kingston, *Conference Catalysts, LLC, USA*

Conferences Vice President

Doug Nix, *Compliance InSight Consulting Inc., Canada*

Marketing Chair

Tom Jackson, *UL LLC, USA*

Editorial Board Chair

Murlin Marks, *IEEE Product Safety Engineering Society, USA*

Technical Program Committee

John Allen, *Product Safety Consulting, Inc., USA*

Luiz Araujo, *Swarovski Lighting LTD, USA*

Henry Benitez, *ElectroMagnetic Investigations, LLC, USA*

Daniece Carpenter, *Dell, USA*

Flore Chiang, *UL LLC, Taiwan*

Ted Eckert, *Microsoft, USA*

Richard Gardner, *GE Healthcare, USA*

Peter Kelleher, *Dell, Ireland*

Murlin Marks, *IEEE Product Safety Engineering Society, USA*

Frank O'Brien, *O'Brien Compliance Management, USA*

Grant Schmidbauer, *Nemko, USA*

Jan Swart, *Exponent Inc., USA*

Paul Robinson, *IBM, Australia*

Room Hosts

Monday Morning

Henry Benitez, *ElectroMagnetic Investigations, LLC, USA*
Tom Juliano, *UL LLC, USA*
Frank O'Brien, *O'Brien Compliance Management, USA*
Daren Slee, *Exponent Inc., USA*

Monday Afternoon

Henry Benitez, *ElectroMagnetic Investigations, LLC, USA*
Tom Juliano, *UL LLC, USA*
Frank O'Brien, *O'Brien Compliance Management, USA*
Daren Slee, *Exponent Inc., USA*

Tuesday Morning

John Allen, *Product Safety Consulting, Inc., USA*
Henry Benitez, *ElectroMagnetic Investigations, LLC, USA*
Frank O'Brien, *O'Brien Compliance Management, USA*
Jan Swart, *Exponent Inc., USA*

Tuesday Afternoon

John Allen, *Product Safety Consulting, Inc., USA*
Henry Benitez, *ElectroMagnetic Investigations, LLC, USA*
Bansi Patel, *USA*
Jan Swart, *Exponent Inc., USA*

Wednesday Morning

Homi Ahmadi, *USA*
Henry Benitez, *ElectroMagnetic Investigations, LLC, USA*
Ted Eckert, *Microsoft, USA*
Bansi Patel, *USA*

Conference Management/Registration

Conference Catalysts, LLC

How do you turn 20 gigabytes of
streaming data into a faster qualifying time?

Dell Intelligent Data Solutions help a Formula 1™ team gain an edge. With an intelligent storage management platform, Dell helps an F1 team turn data into insights into a faster car. By analyzing data trackside, the team can make real-time decisions that improve the car's in-race performance. To see how we can help solve your most important business challenges, visit dell.com/domore



The power to do more

PSES BOARD OF DIRECTORS

Executive Committee

	Name
President	Kevin Ravo
President Elect	TBD
Past-President	Elya Joffe
Secretary	Daniece Carpenter
Treasurer	Jan Swart
Vice President-Communications	Dan Roman
Vice President – Member Services	Thomas Ha
Vice President-Technical Activities	Ivan Vandewege
Vice President - Conferences	Doug Nix

Directors at Large

Term Expires 12/14	Term Expires 12/15	Term Expires 12/16
Paul Wang	Bill Bisenius	Silvia Diaz Monnier
Mike Nicholls	Richard Nute	Stefan Mozar
Steli Lozen	Kevin Ravo	Mark Maynard
Juha K Junkkarinen	Grant Schmidbauer	Jack Burns

Vice President Communications - Dan Roman

Committees	Chairperson
Newsletter Editor	Gary Weidner
Marketing Committee	Anna Klostermann
Email List / EMC-PSTC	Jim Bacher / Dave Heald
PSES IEEE Communities	Jim Bacher / Dave Heald / Dan Roman
Webmaster / Internet	Dan Roman
LinkedIn Admin	Dan Teninty / Dan Roman

Vice President Member Services - Thomas Ha

Committees	Chairperson
Regions 1-6 coordinator	Bansi Patel
Region 7 coordinator	OPEN
Region 8 coordinator	Steli Lozen
Region 9 coordinator	Silvia Diaz Monnier
Region 10 coordinator	Paul Wang
Chapters coordinator	Doug Kealey
Photographer	Richard Georgerian



Hewlett-Packard Company is a multinational information technology corporation headquartered in Palo Alto, California, USA. The company was founded in a one-car garage in Palo Alto by Bill Hewlett and Dave Packard in 1939. Since then HP becomes one of the world's largest information technology companies, operating in nearly every country, supplying not just hardware and software, but

also a full range of services to design, implement, and support IT infrastructure.

HP creates new possibilities for technology to have a meaningful impact on people, businesses, governments and society. The world's largest technology company, HP brings together a portfolio that spans printing, personal computing, software, services and IT infrastructure at the convergence of the cloud and connectivity, creating seamless, secure, context-aware experiences for a connected world.

HP's Imaging and Printing Group is the leading imaging and printing systems provider in the world for printing and scanning devices, employing Inkjet and LaserJet technologies in variety of products, All-in-One multifunction printer/scanner/faxes, Large Format Printers, Digital Press, Photosmart digital cameras and photo printers, a photo sharing and photo products services.

HP's Personal Systems Group one of the leading vendors of personal computers ("PCs") in the world. PSG includes business and consumer PCs and accessories, handheld computing, and digital "connected" entertainment.

HP's Enterprise Business incorporates HP Technology Services, Enterprise Services, Enterprise Security Services, Software Division, and Enterprise Servers, Storage and Networking Group. The Enterprise Servers, Storage and Networking Group oversee "back end" products like storage and servers.

ISPCE 2014 GENERAL INFORMATION

Welcome Reception

Welcome to the 11th IEEE Symposium on Product Compliance Engineering. The Symposium Steering Committee invites attendees to join old friends and meet new acquaintances at the ISPCE 2014 Welcome Reception on Monday, May 5: 6:15 PM – 7:45 PM. The Welcome Reception will be held in the exhibit hall and is included with your registration.

Exhibit Hours

	Morning	Lunch	Afternoon	Evening
Monday	8:00 AM – 10:00 AM	12:00 PM – 1:30 PM	3:30 PM – 4:15 PM	6:15 PM – 7:45 PM Reception
Tuesday	8:00 AM – 8:45 AM	11:30 AM – 12:45 PM	3:45 PM – 6:00 PM	

*Exhibits will be closed during technical sessions

Registration Hours

Monday	7:00 AM – 6:15 PM
Tuesday	7:00 AM – 6:00 PM
Wednesday	7:00 AM – 12:30 PM

Special Meetings

Speaker Breakfast: On the day of your presentation, please join us for a special Speaker Breakfast in the San Carlos Room. Breakfast will be available from 7:00 AM – 8:00 AM.

Exhibitor Breakfast: On each day of your exhibiting, please join us for a special Exhibitor Breakfast in the San Carlos Room. The time for the breakfast is from 8:15 AM – 9:00 AM.

2014 IEEE Product Safety Engineering Society Awards

This year we celebrate the founding of our IEEE society, which goes back twenty-five years. For fifteen years, we existed as a Technical Committee of the IEEE Electromagnetic Compatibility Society (EMCS) or as we were called TC-8. It was always a dream to form our own society of product safety and compliance engineers, but it took the efforts of a number of dedicated individuals to build a network of chapters, workshops, a Newsletter and a list server that established the basis for PSES.

Pre-History: IEEE EMCS TC-8

TC-8 Chairs:

Rich Pescatore
Brian Claes
Murlin Marks
Jack Burns
Richard Georgerian

Product Safety Newsletter editors who worked long and hard to get the Newsletter out to hundreds on the mailing list before the days of the Internet:

John McBain
Roger Volgstadt

Technically Speaking Column Author and EMC-pstc@ieee.org List Serv coordinator:
Rich Nute

“Founders”

There were a number of people involved, but these were the people who actually led the charge, dealing with IEEE executives and putting together the proposal for what was approved as the IEEE PSES.

Jim Bacher
Jack Burns
Daniece Carpenter
Mark Montrose

First Decade: 2004-2013 IEEE PSES

Presidents: Mark Montrose*
Henry Benitez*
Jim Bacher*
Murlin Marks
Elya Joffe (service to be completed in 2015)

*awarded in 2013

Secretary: Daniece Carpenter

Treasurer: Jan Swart

Annual Symposium Chairs:

Henry Benitez (2004)
Richard Georgerian (2005, 2006, 2007)
Gary Schrempp (2008, 2013)
Doug Nix (2009)
Steve Brody (2010)
Bansi Patel (2011)
Anna Klostermann (2012)

Technical Program Chairs:
Rich Nute
Gary Tornquist

Society and Conference Treasurer: Dan Arnold

Official Conference Photographer: Richard Georgerian

Organizational Support:

For providing support for PSES as EMCS TC-8
IEEE EMCS

For Providing Logistical and In-Kind Support
Dell, Inc
UL

For Providing ISPCE Speakers' Gifts
Microsoft Corporation

Chapter of the Year: TBA

Best Paper, ISPCE 2014: TBA

We invite all attendees to become active members of the IEEE PSES and be a part of a proud tradition.

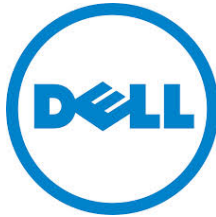
Your Awards' Committee – Murlin Marks, Juha Junkkarinen, and Grant Schmidbauer

ISPCE 2014 PATRONS

Super Platinum Patron



Platinum Patron







Gold Patron



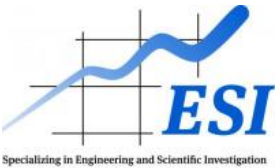


Speaker Gift Patron



ISPCE 2014 EXHIBITORS

	<p>Advanced Test Equipment Rental www.atecorp.com Advanced Test Equipment Rentals (ATEC) supplies complete testing solutions for EMC, Electrical, Power Quality, Environmental and similar testing applications for the Defense, Aerospace, Medical and Telecom industries. Celebrating 32 years in business, ATEC takes pride in serving our customers with invaluable expertise and technical support.</p>
	<p>Associated Research http://www.asresearch.com Associated Research, an ISO 90001 registered company, has been the leader in the electrical safety compliance testing industry for over 77 years! Today, Associated Research offers a complete product line of electrical safety compliance testers. Included in their product offering are AC Hipot, DC Hipot, Insulation Resistance, Ground Bond, Functional Run, Line Leakage testers, and Multi-Function Electrical Safety Compliance Analyzers.</p>
	<p>Bay Area Compliance Laboratories http://baclcorp.com Bay Area Compliance Laboratories Corporation (BACL) was established since 1996 in Sunnyvale, California (Silicon Valley), a strategic hub to many large high-tech companies and the most advanced incubator center for start-up companies in the world. As a testing, certification, consulting, and regulatory management firm, BACL enjoys its reputation providing superior services in testing and product certification in the areas of Electromagnetic Compatibility (EMC), Product Safety, Radio Frequency (RF), Wireless and Radio communications, Telecommunications, Specific Absorption Rate (SAR), NEBS (Verizon accredited), Dynamic Frequency Selection (DFS), Hearing Aid Compatibility (HAC), California Energy Commission (CEC), Energy Efficient Lighting Products (EELP), ENERGY STAR® and so on. BACL's testing and certification extends to most international markets. BACL's philosophy is to provide efficient and timely testing and certification services in accordance with the regulations and to the customers' requirements and satisfaction. For more detailed information, please visit: http://www.baclcorp.com/, or contact us at info@baclcorp.com</p>
	<p>CASE Forensics http://www.case4n6.com CASE Forensics has provided consulting engineering services since 1990. Our experience investigating field failures provides an intrinsic knowledge base to assist you with research, development and product safety testing.</p>

	<p>Compliance West, USA http://www.compwest.com Based in San Diego, California, Compliance West, USA is one of the world's leading manufacturers of customized hipot and surge testing equipment. The company's software/firmware capabilities can provide computerized operation and automated test solutions for a wide range of industries; from medical device manufacturers and LED lighting to computer technology and solar energy.</p>
	<p>CSA Group http://www.csagroup.org CSA Group is a global solutions provider of product testing and certification services for electrical, mechanical, plumbing, gas, medical and a variety of other products. Recognized in the U.S., Canada and around the world. CSA Group certification marks appear on billions of qualified products worldwide.</p>
	<p>D.L.S. http://www.dlsemc.com D.L.S. provides global compliance testing services, including testing certification, and consulting for Product Safety and EMC requirements. D.L.S. can test to UL, CSA, CE, (Low Voltage, Medical Device, and Machinery Directives) CCC, GS, CB and other global safety requirements. Combined with global EMC testing, D.L.S. provides a true one-stop shop for all your global compliance testing needs.</p>
	<p>E.D. & D. http://www.productsafet.com ED&D is your One-Stop Shop for Product Safety Test Equipment, offering the world's most extensive inventory available. Everything you need for Product Safety testing, such as Automated Hipot testers, digital leakage current testers, Impact hammers, glow wire testers, IP Code Equipment such as Dust chambers, jet nozzles, Drip Boxes, waterproof turntables, probes, force gauges, and many more items, of which many will be on display. ED&D is ISO 17025 Accredited, with the industry's most complete Scope for specialized test equipment. Product Safety Training courses also available.</p>
	<p>Electro Magnetic Test, Inc. www.emtlabs.com EMT Labs (Electro Magnetic Test, Inc), an ISO 17025 NVLAP accredited testing and consulting firm. Our service is providing engineering focus across all areas of Electromagnetic Compatibility, Wireless, Wireline, Telecom, and Safety certifications for a wide range of products for many different environments. EMT is ready to provide your company with the testing, approvals, and homologation certifications desired and required to make your company's product an international success.</p>

	<p>ESI (Engineering Systems Inc.) http://www.esi-website.com ESI is a preeminent engineering and scientific investigation and analysis firm committed to providing clear answers to the most demanding technical issues faced by our clients. Our comprehensive multidisciplinary expertise and practical experience, combined with our extensive diagnostic, analytical, and physical testing capabilities, create an ideal environment for efficiently solving the challenges our clients bring to us.</p>
	<p>G&M Compliance http://www.gmcompliance.com Since 1997, G&M Compliance has proudly provided manufacturers with solution based product regulatory and certification services. We provide Product Safety, EMC, EMI, NEBS, Climatic, Dynamic testing and consulting. We test to UL, CSA, CE, EN, IEC, FCC, Belcore, European, China CCC, S. Korea KC, Russia GOST-R and various International Standards. We specialize in information technology (ITE), network telecommunication, audio & video, medical, laboratory, control, measurement, automotive and machinery equipment.</p>
	<p>Go Global Compliance, Inc. http://goglobalcompliance.com Go Global Compliance Inc. is a privately-held company founded in 2010 whose core values include improved time to market, quality enhancement, and cost effective solutions across our clients' product portfolio. With staff experience spanning 85+ years, our client base consists of the world's hi-tech Fortune 100 and Fortune 500 companies. Go Global Compliance offers solutions and expertise in compliance engineering, international mandatory approvals and representation for 150+ countries, process control and optimization, factory quality system audits, regulatory policies, specifications and compliance roadmaps. We are redefining the way global compliance/certification services are managed and delivered in the industry by replacing the task-oriented, reactive, client-vendor model with a proactive, integrated partnership that lasts throughout the product life cycle. Go Global Compliance values strong relationships with in-country partner organizations, test laboratories, approval bodies, regulators and professionals helping us to accelerate the certification process and keeping our clientele updated with the ever changing regulations. We have garnered significant experience from projects delivered across the world and understand the data, channels and business environments across technologies and continents to provide the professionalism and experience you demand – on time and wherever you want it.</p>



Haefely Hipotronics

<http://www.hipotronics.com>

As a leader in the field of EMC, Haefely Hipotronics has a full range of conducted immunity test equipment designed to simulate the effects of interference sources on electronic, electrical and telecommunications products. Most prevalent and included in both IEC and EN product standards are the "classic" EMC tests for electrostatic discharge (ESD), electric fast transient/burst (EFT), lightning surge, magnetic field (MF), and power line quality. Our objective is to provide the best-in-class range of instruments that are flexible enough to be used in CE Marking, product development, type verification, product safety, component and production testing.



HV Technologies

<http://www.hvtechnologies.com>

The staff of HV TECHNOLOGIES, Inc., in partnership with EMC Partner AG, Prana Amplifiers, Montena Technology, Gauss Instruments, and TESEO, are focused on providing our clients with the highest quality and competitively priced, full compliance test instruments available. Our staff has been supporting the EMC testing community by designing, producing, and distributing the best in EMC test instruments and systems for over two decades. When using our products, customers experience the most reliable test instruments with the cleanest measurements, and repeatable wave shapes available. This has been possible through innovative product design and the deployment of unique leading-edge technologies. We offer complete EMC equipment solutions from immunity to emissions, both conducted and radiated. Come see all we have to offer!



IEEE Consumer Electronics Society

<http://cesoc.ieee.org>

The Consumer Electronics Society (CE Society) is an organization within the IEEE that strives for the advancement of the theory and practice of Electronic Engineering and of the allied arts and sciences with respect to the field of Consumer Electronics and the maintenance of a high professional standing among its members, which now number over 5000. The society has long been the premier technical association in the Consumer Electronics Industry. The Consumer Electronics Society is truly international; its publications and presentations are authored by researchers from countries throughout the world. Activities of the CE Society are directed by the society's administrative committee (AdCom), whose members represent the technical and commercial breadth of the organization.

	<p>In Compliance Magazine http://incompliancemag.com In Compliance Magazine features in-depth coverage of worldwide regulatory compliance issues for the electronics industry. Each month you'll find technical articles from industry leading authors on topics related to test and design, standards updates and changes, products, services, and more! Available in print or digitally, we offer a variety of informational resources for the electrical engineering professional. Visit our website, activate your free subscription, and join one of our many eNewsletters for regular updates.</p>
	<p>Interpower http://www.interpower.com The Interpower™ International Power Source is an AC power source used to verify your product design and for product testing. The unit can be used on a bench top, or is rack mountable. Interpower has four models available which have an input of 100-240VAC/50-60Hz. For each output option we offer a model with a RS232 and USB port, and a model with no communication ports. Interface software available for automated remote control operation. Rental Units also available.</p>
 <p>Valued Quality. Delivered.</p>	<p>Intertek http://www.intertek.com Intertek is a global leader in testing, inspection and certification services, which operates in over 1000 laboratories and offices in 100 countries throughout the world. Intertek provides Global Market Access through its local services, including EMC testing, energy efficiency and ENERGY STAR testing, environmental testing, calibration, product safety testing, certification and performance testing for clients in such industries as appliances, military, HVAC, components, industrial, medical, telecommunications, lighting, automotive, semiconductor, retail, building products, telecom, wireless, electronics, and cabling products. For more information, visit www.intertek.com/electronics</p>



MET Laboratories, INC

<http://www.metlabs.com>

As the U.S.'s first OSHA-licensed Nationally Recognized Testing Laboratory, MET Laboratories is an internationally-recognized resource for regulatory certification of electrical products for the worldwide marketplace. Testing covers a wide range of regulatory, commercial and military standards. MET provides testing services required for specific certifications needed to establish product safety, electro-magnetic compatibility, environmental hardiness, telecom, metering, fiber optic, wireless and RFID compliance. MET Laboratories is headquartered in Baltimore, Maryland, with office locations in Union City and Santa Clara, California, Cary, North Carolina, Austin, TX and wholly-owned international locations in China, Taiwan, Korea and Italy. Learn more about MET at www.metlabs.com



Mobile Power Solutions

<http://www.mobilepowersolutions.com>

Mobile Power Solutions specializes in guiding your company through today's increasingly complex battery-related safety regulations. MPS provides comprehensive regulatory compliance, safety, and performance testing; we are A2LA accredited to ISO/IEC 17025:2005, a CBTL and participate in UL's Data Acceptance Program. Testing services include IEC 62133, UN 38.3, UL 2054, UL 1642, RTCA D0-227 and D0-311 Testing. Custom safety tests include: Fire Exposure, Nail Penetration, Failure Propagation, Failure Analysis and a host of other custom safety and performance tests. We can help with Vendor Selection & Auditing, Design Reviews and Validation Testing.

	<p>National Technical Systems http://www.nts.com We are a diversified engineering services company, providing a wide range of product design consulting services, testing and certifications, and supply chain management solutions. Our clients see us as an extension of their own engineering teams, filling in their internal gaps and providing the expertise required to build better, stronger, safer, more reliable products and bring those products to market quickly and efficiently. With the largest network of test laboratories and engineering service centers in North America and over 50 years of experience to draw from, NTS is prepared to meet any challenge. Because helping you achieve your goals is how we achieve ours!</p>
	<p>Nemko http://www.nemko.com Nemko is your complete source for compliance testing, certification, and worldwide market approvals. With 20 locations globally and an experienced international staff, Nemko is strategically positioned to provide on time certifications and approval support. We feature: Accredited EMC/RF/Wireless and Electrical Safety testing under one roof. Experienced Engineers providing "precompliance" evaluations to reduce your time at market. Easy market access, one local point of contact for all major market certifications using our Nemko Direct network. CB Scheme International Certifications for more than 40 countries; Nemko Direct for Telecom products for more than 150 countries, and Nemko's North American NRTL/C certification.</p>
	<p>OnRule http://www.onrule.com OnRule empowers organizations to increase control and visibility over their product regulatory compliance. Big and small companies use OnRule to monitor the status of their product portfolio certifications across the world, and to share information with their engineering, sales and external teams; ultimately mitigating the risk of non-compliance.</p>



Orbis Compliance

<http://www.orbiscompliance.com>

Orbis Compliance specializes in Product Regulatory Compliance for Latin America, Central America and the Caribbean for the Wireless and Telecom Industry. Product Safety, EMC, and Telecom Certifications are our areas of concentration. Orbis Compliance's infrastructure and operating procedures are designed to support its mission: To dramatically accelerate manufacturers' time to market revenue in Latin America by expediting the regulatory process for their products. We achieve this mission by working 100% directly with in-country Regulators, by having dedicated engineering expertise supporting in-country testing labs in major markets such as Brazil, Mexico and Argentina, and by having complete control over the project from beginning to end, managed by certified project managers. Orbis Compliance's industry connections, knowledge of the Latin Market, language and culture allows us to complement our dedication to our clientele by supporting and providing them with the network of connections necessary to have a successful market entry in Latin America. ORBIS COMPLIANCE - Simple and Fast Certifications for Latin America. For more information, please visit www.orbiscompliance.com.



Rohde & Schwarz

<http://www.rohde-schwarz.com>




Rohde & Schwarz is the world's leading manufacturer of EMC test and measurement equipment. For 80 years, Rohde & Schwarz has stood for quality, precision and innovation in all fields of wireless communications. The company is based on four pillars: test and measurement, broadcasting, secure communications, radiomonitoring and radiolocation. As a result, the company can address diverse market segments including wireless communications, the broadcasting and electronics industry, aerospace and defense, homeland security and critical infrastructures.



SIEMIC

<http://siemic.com>

SIEMIC is your one-source solution for world market access, as a leading provider for compliance testing, product certification, and international approval services. Their US headquarters is located in Milpitas, California, with additional global locations in Asia. In the last eleven years SIEMIC has built a solid reputation for offering high-quality and cost-effective turnkey solutions. Featuring a top-flight staff with expertise in EMC, Wireless, SAR, DFS, Telecom, Safety, and Energy Star, our state of the art engineering test labs, compliance consulting services, and local technical support and guidance will result in short lead times and fast turnaround on your next product.

 <p>Advanced Test Solutions for EMC</p>	<p>TESEQ http://www.teseq.com Teseq joins AMETEK as part of its Electronic Instruments Group. It is now a unit of AMETEK Compliance Test Solutions. Teseq offers the world's most comprehensive range of EMC systems for immunity and emissions testing. We take great pride in our world-class research and development program, backed by state-of-the-art global manufacturing.</p>
 <p>Precisely Right.</p>	<p>TÜV Rheinland http://www.tuv.com TÜV Rheinland® is a leading provider of international testing & certification services. Our professionals have expertise in product assessment as well as EMC, electrical, and telecommunications safety testing. Our 10, 5, and 3 meter anechoic and semi-anechoic EMC labs can accommodate both large and small products. We also offer CE Marking to ensure market access and acceptance in the European Union. Our expert services help companies to obtain a competitive advantage and sell their products in markets across the globe. For more information, visit our website: http://www.us.tuv.com.</p>
 <p>America</p>	<p>TÜV SÜD America http://www.tuv-sud-america.com TÜV SÜD America, a subsidiary of TÜV SÜD AG, is a business-to-business engineering services firm providing international safety testing and certification services. With over 700 experts in North America, TÜV SÜD provides NRTL and SCC Certification, CB Scheme Certification, Field Evaluations, SEMI Evaluations and other Industrial Machinery Services. Additional services include Medical services as an EU Notified Body, CE Marking assistance, International Compliance, EMC/Environmental Testing, and Quality Management System Certification. TÜV SÜD also provides Electromagnetic Compatibility (EMC), Electrical & Mechanical Safety, Wireless Testing, ENERGY STAR® Testing, Lighting and Photovoltaic services, and many additional global conformity assessment services that help companies gain product compliance to enter individual country markets. For more information, visit www.TUVamerica.com.</p>



UL

<http://www.ul.com>

UL is a premier global independent safety science company that has championed progress for 120 years. Its more than 10,000 professionals are guided by the UL mission to promote safe working and living environments for all people. UL uses research and standards to continually advance and meet ever-evolving safety needs. We partner with businesses, manufacturers, trade associations and international regulatory authorities to bring solutions to a more complex global supply chain. For more information about our certification, testing, inspection, advisory and education services, visit <http://www.UL.com>.

KEYNOTE SPEAKERS

Keynote #1, Monday, May 5, 8:45 AM

Jonathan L. Cobb

3D Printing, The Next Industrial Revolution?

Abstract:

Even though 3D Printing has been around for over 20 years it is now hailed by some as having the power to fuel the next industrial revolution. Stratasys was one of the first to enter the 3D Printing space. Stratasys offers over 30 3D Printing solutions with material printing capabilities ranging from PLA to Ultem materials. Stratasys systems have been helping companies design better, safer and more reliable products for 25 years. Initially 3D Printing was primarily used by aerospace and automotive companies to assist in prototyping ideas. Today, the majority of 3D Printers are still used for prototyping, during the past 3 to 5 years there has been increased interest in 3D Printing for end use parts. The Stratasys customer base is broad, serving many industries. Consumer products, automotive, medical and aerospace are the largest commercial uses. Education, from grade school to post graduate education has accounted for over 20% of Stratasys sales for the past 10 years.

The presentation will feature a variety of case studies highlighting education, product development, prototyping and its use in gaining regulatory approval and using 3D Printing to produce end use parts. Stratasys has used 3D Printing numerous times to win agency approval, Peppermint Energy used 3D printing to quickly move from concept to product sales, STARBASE and its Mission To Mars program is attracting young people to math and science education. Finally, meet Emma and learn how 3D Printing is changing people's lives today.

Biography:

Jon Cobb has served as Vice President, Global Marketing at Stratasys from 2010 to 2012 and currently serves as Executive Vice President, Global Marketing of Stratasys Ltd. Stratasys (SSYS) is a publicly traded, multi-national company with revenues in excess of \$500 million. Cobb has also held the position of Vice President and General Manager for the Dimension 3D printing business unit of Stratasys, since January of 2002. Cobb joined the company as Vice President of Marketing in August of 1995. Before joining the company, he served as Vice President of Sales and Marketing for Westec Security, Inc., and he has held various management-level sales and marketing positions with Lockheed Martin's Calcomp Division. Cobb has a B.S. from the University of Wisconsin, Madison.
<http://www.stratasys.com/>

Keynote #2, Tuesday, May 6, 4:00 PM

Christian Stammel

Wearable Devices - Requirements and Challenges

Abstract:

Being a pioneer and evangelist for the wearable technologies market Christian will look into challenges and opportunities for this field of technology. Having led countless discussions on the topic in the past he will be sharing his view on wearable devices currently on the market and point out potential problem areas. Technologies worn close and constantly on the body have special requirements and some are not easy to overcome. Join Christian for this deep dive behind the scenes of the hyped wearable tech topic.

Biography:

As founder and CEO Christian Stammel has more than 20 years' experience in marketing and sales as well as an excellent international network. Using this expertise he supported numerous international companies of all sizes regarding business development, technology marketing, and increase of sales activities with his innovation and marketing company Navispace AG. The natural next step to Navispace's huge success "Wearable Technology" was the incorporation of the Wearable Technologies AG in 2011. Since then, WT served as a business accelerator for more than 3000 renowned companies and will remain the key hub for marketing new technologies in this field in the years to come.

<http://www.wearable-technologies.com/>



ONE WORLD [®] OUR APPROVAL

ONE Nemko

Nemko is celebrating our 80th anniversary by launching a new strategy with expanded services as well as an enhanced logo as the symbolic image of our significant global presence.

One world – our approval

Companies around the world trust Nemko to assess their products, systems, installations and personnel for conformity with relevant standards and regulations.

- West Coast Operations, San Diego, CA 760-444-3500
- Mountain Operations, Salt Lake City, UT 801-972-6146
- Mid West Operations, Dallas, TX 972-436-9600
- East Coast Representative, Tampa, FL 813-528-1261
- Canada, Ottawa, ON 613-737-9680 and Montreal, QC



nemko.com

Demonstration #1, Tuesday, May 6, 5:30 PM

Monta Vista Robotics Team

FIRST Robotics Demonstration

The Monta Vista Robotics Team (MVRT) will be holding a demonstration at the Symposium highlighting Robotics at the High School level.

The Monta Vista Robotics Team (MVRT) is a high school robotics team in Cupertino, CA competing in the FIRST (For Inspiration and Recognition of Science and Technology) Robotics Competition. FIRST announces a new game every year in January and challenges teams to build a robot to play for the game. Through six intense weeks, MVRT members work with engineers and advisors to brainstorm, design, prototype, fabricate, assemble, wire and program a 120 pound robot. After the six-week build period, the robot is immediately shipped off to compete at regional and championship competitions.

<http://www.mvrt.com/>

YOUR HIGH TECH COMPLIANCE
RESOURCE



WIRELESS/EMC

**GLOBAL
MARKET
ACCESS**

SAFETY

**TRAINING &
EDUCATION**

PERFORMANCE

**ENVIRONMENTAL
SUSTAINABILITY**



Explore the advantages of
UL's services, visit: ul.com/hitech



PROGRAM SCHEDULE - Monday, May 5, 2014			
Monday, May 5	San Jose	Santa Clara	Monterey
7:00 AM - 6:15 PM			Carmel
	Registration - Bayshore Foyer		
7:00 AM - 8:00 AM	Speaker Breakfast - San Carlos		
8:15 AM - 9:00 AM	Exhibitor Breakfast - San Carlos		
8:00 AM - 9:30 AM	Opening Plenary - Keynote #1 - 3D Printing, The Next Industrial Revolution? - Donner/Siskiyou/Cascade		
9:30 AM - 10:00 AM	Break & Exhibits - Donner/Siskiyou/Cascade		
10:00 AM - 11:00 AM	Breaking through the BRICs, Part 2 Mark Maynard & Leslie Bai	Operator protection for medical equipment? Risk factors for operator or patient protection Frank O'Brien	Applying toy tests to consumer products Ted Eckert
11:00 AM - 12:00 PM	Global product certification - how strong is your product life cycle Process? Dennis Bartlet & Peter Merguerian	Innovative approach to product realization Roger Martin	An implementation of toy safety assessment model Shu Lun Mak
12:00 PM - 1:30 PM	Lunch & Exhibits - Donner/Siskiyou/Cascade		
1:30 PM - 2:30 PM	Electrical product failures and regulatory compliance - An engineering and legal perspective Kenneth Ross & John Loud	Patient and operator - different requirements Grant Schmidbauer	Arc-Flash explosion: What's the real risk? Jonathan Hamilton
			KISS EMC Jim Bacher

Monday Cont.	San Jose <i>Electrical product failures and regulatory compliance - An engineering and legal perspective (cont.)</i> Kenneth Ross & John Loud	Santa Clara <i>Observe users: improve device safety</i> Frank O'Brien	Monterey <i>Safe product design, forensic engineering, and Asimov's laws of robotics</i> Louis Bilancia	Carmel KISS EMC Jim Bacher
2:30 PM - 3:30 PM				
3:30 PM - 4:15 PM	Break & Exhibits - Donner/Siskiyou/Cascade			
4:15 PM - 5:15 PM	Regulatory approval Brazil <i>- Updates and trends & best practices - a perspective straight from In-country labs</i> Elizabeth Perrier	Converting a legacy medical device to a wireless device Nicholas Abbondante	What does your touch current look like? Peter Perkins	EMC fundamentals Mark Montrose
5:15 PM - 6:15 PM	Doing business in overseas markets: opportunities and resources for U.S. companies Aileen Crowe Nandi	Documenting risk management in IECCE CB scheme test report Paul Evers	Injury from thermal energy Richard Nute	
6:15 PM - 7:45 PM	Exhibitor Reception - Donner/Siskiyou/Cascade			
7:45 PM - 9:00 PM	Chapters Meeting – San Juan			

PROGRAM SCHEDULE - Tuesday, May 6, 2014			
Tuesday, May 6	San Jose	Santa Clara	Monterey
7:00 AM - 6:00 PM	Registration - Bayshore Foyer		
7:00 AM - 8:00 AM	Speaker Breakfast - San Carlos		
8:00 AM - 8:45 AM	Continental Breakfast & Exhibits - Donner/Siskiyou/Cascade		
8:45 AM - 9:45 AM	Regulatory labeling Gary Schrempp	Why 500VA for Hipot testers? A TC66 investigation to explore the necessity of 500VA Hipot testers Nicholas Piotrowski	Test method to simulate internal short-circuit in lithium-ion cells Alvin Wu
9:45 AM - 10:45 AM	Becoming a thought leader Melinda Marks	Hazard based safety engineering in relation to injury epidemiology and etiology Thomas Lanzisero	Rechargeable battery condition monitoring using vibrational properties Juha Backman & Antti Järvinen
10:45 AM - 11:30 AM	Coffee & Awards Ceremony - Donner/Siskiyou/Cascade		
11:30 AM - 12:45 PM	Lunch & Exhibits - Donner/Siskiyou/Cascade		
			Introduction to printed circuit board design for EMC compliance Mark Montrose

Tuesday Cont.	San Jose	Santa Clara	Monterey	Carmel
12:45 PM - 1:45 PM	State of wireless power transfer - Standards, certification, consortia, etc. Answer Sung	Residential solar and electric vehicle bonding and grounding methods for galvanic compatibility Dheena Moongilan	Certification changes for batteries in electrical devices Rich Byczek	Historical methods of testing EMI gaskets George Kunkel
1:45 PM - 2:45 PM	Global substance regulations impacting the electrical industry Joe Langton	Equipotentiality and grounding derivation of grounding resistance for equipment Richard Nute	Overview of IEC safety requirements for micro fuel cells Harry Jones	ESD design - Troubleshooting & demonstrations Doug Smith
2:45 PM - 3:45 PM	RAPEX-System and intervention of European market surveillance authorities - Burden or relief? Thomas Klindt & Susanne Wende	Requirements for modular data centers Anh Nguyen & Randy Ivans	Latent defect characterization using lithium ion cells Jan Swart	
3:45 PM - 4:00 PM	Coffee Break & Exhibits - Donner/Siskiyou/Cascade			
4:00 PM - 5:00 PM	Keynote #2 - Wearable Devices - Requirements and Challenges; Exhibits - Donner/Siskiyou/Cascade			
5:30 PM - 6:15 PM	FIRST Demonstration & Exhibits - Donner/Siskiyou/Cascade			
6:15 PM - 9:00 PM	Technical Committee Meetings – San Juan			

PROGRAM SCHEDULE - Wednesday, May 7			
Wednesday, May 7	San Jose	Santa Clara	Monterey
7:00 AM - 12:30 PM	Registration - Bayshore Foyer		
7:00 AM - 8:00 AM	Speaker Breakfast - San Carlos		
8:00 AM - 9:00 AM	ANEC the European consumer voice in standardization Helmut Hintz	Energy efficiency testing Uwe Meyer	Are amps and volts created equal? Gary Tornquist
9:00 AM - 10:00 AM	Product DNA: Materials traceability, safety, and collaborative sustainability Rakesh Vazirani	Comparison between fire enclosure requirements in IEC 60950-1 and IEC 62368-1 Jim Kao	Lightning surge damage to Ethernet and POTS ports connected to inside wiring Joseph Randolph
10:00 AM - 11:00 AM	Safety design issues for consumer electronics power supplies Stefan Mozar	IEC 62368-1: Latest news on the standard and its adoption Jerry Dikun & Thomas Burke	Quantitative solder inspection with computed tomography Ray Huang, Adam Sorini & John McNulty
11:00 AM - 12:30 PM	Closing Session – Donner/Siskiyou/Cascade		
			Evaluating interference issues with wireless networks Kenneth Wyatt
			How I use social media & the Internet for networking, branding, & providing customer value low cost radiated immunity pre-compliance testing Kenneth Wyatt
			Ken's top ten EMC design issues Kenneth Wyatt

Hotel floor plan



ISPCE 2015 ANNOUNCEMENT

Join us next year for the 2015 IEEE Symposium on Product Compliance Engineering! ISPCE 2015 will be held in Chicago, Illinois, on May 18-20. The IEEE Product Safety Engineering Society seeks original and unpublished papers, presentations, workshops, and tutorials on all aspects of product safety and compliance engineering including, but not limited to:

- EMC Compliance
- Energy Storage
- Forensics
- Hazard-based Safety Engineering & Safety Science
- Innovation
- Leadership
- Medical Devices
- Risk Analysis, Assessment & Management
- Anti-counterfeiting
- Certification & Compliance
- Components
- Demonstrations
- Environmental
- Functional & Software Safety
- Hazard-specific topics
- Photobiological safety & compliance
- Product Liability & Recalls
- Research

The preliminary authors' schedule is as follows. Indicated deadlines require that the associated documents be loaded into EDAS by the due date:

- Review Manuscript/Presentation Submission: **December 15, 2014**
- Acceptance Notification: **February 1, 2015**
- Final Camera-ready Paper/Presentation Submission: **April 1, 2015**

We hope to see you there! Find out more information at: www.psessymposium.org.

Organizers

General Chair

John Allen

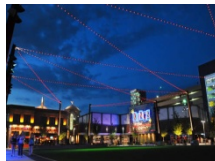
Jrallen@productsafetyinc.com



Technical Program Chair

Tom Burke

thomas.m.burke@ieee.org



Technical Program Co-Chair

Dwayne Davis

dwayned@asresearch.com