2014 IEEE Symposium on Product Compliance Engineering







What's Inside...

| * | Welcome | 3 |
|---|--------------------------|------|
| * | Keynote | 5 |
| * | Keynote | 7 |
| * | Demonstration | 8 |
| * | Registration Information | 9 |
| * | Hotel Information | 10 |
| * | Author Submissions | 12-3 |
| * | Award Gala | 13 |
| * | Exhibitors | 14-2 |
| * | Schedule | 24 |
| * | | |







WWW.IPSELENGERS.COM - 97745968

Welcome

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! Yes - this is where the PSES got its start and the first time since then that the Symposium has been back. We're coming back, but we are looking forward with 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
- •Private consultation room(s) for Exhibitors and others to meet privately with attendees
- •Two Keynotes
- •A live demonstration
- •A Member Center
- •A Senior Member Promotion Workshop

Additionally, not only is this 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 as well, the DoubleTree by Hilton San Jose, right next to the San Jose International Airport and the local Light Rail system that will allow you to get to and from the event easily for the locals who will be attending and also allow for visitors to easily explore the attractions in the area.

Here are some more reasons why you may want to attend:

- •The symposium will consist of several technical tracks where you will have the opportunity to learn some of the latest with respect to product compliance see the technical program for the various tracks that will be offered.
- •We will have not only one, but two Keynote addresses by leaders of two of the most innovative companies in Silicon Valley!
- •We will also have a number of exhibitors consisting of organizations who offer services and products directly related to our field of interest.
- •We will also have some demonstrations including one by an award winning local High School FIRST Robotics team.
- •You will get the opportunity to spend time networking with leaders in our field.
- •Additionally, many certifications held by our members require engineers to obtain continuing education to maintain their licensure. Attendees can, in many cases, use participation in our various tracks/sessions as suitable evidence of such continuing education.

Spread the word to your colleagues. You might even want to check with your employer about sponsoring your attendance – what you learn here not only supports your individual professional development but it will help you bring more to your work as well. They may even want to sponsor some of your co-workers as well since what you learn will be directly applicable to your work!

We hope you are as excited as we are and we can't wait to see you there!

Because of the location of the event this year, and along with a larger number of exhibitors and papers/presentations we are expecting see a lot more PSES Members as well as many others who are interested in what we do this year.

Best Regards, Kevin Ravo General Chair ISPCE 2014

 $\overline{}$

BAGN TO THE FUTURE

2014 IEEE Symposium on Product Compliance Engineering

WHEN:

May 5-7, 2014

WHERE:

Double Tree Inn, San Jose, CA

REGISTER:

www.psessymposium.org

For professionals from small to large enterprises seeking the latest state-of-art information on product compliance engineering & certification, please consider attending the 2014 IEEE Symposium on Product Compliance Engineering (ISPCE), to be held May 05-07, 2014 in San Jose, CA USA.

Over fifty presentations are scheduled, and planned are tracks on Global Regulations & Certification Management, Standards & their Application, Medical & Risk Assessment, Energy Storage & Batteries, and more, and also included is a 2.5 day EMC Workshop.



Registration is open now and advanced (reduced) registration rates are available through March 28, 2014.

There is expected to be well over 200 attendees from around the world providing lots of opportunity to network. The ISPCE organizers would love to see you there!



Keynote

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

Jonathan L. Cobb Executive Vice President, Stratasys Ltd.

Title: 3D Printing, The Next Industrial Revolution?

Bio:



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/

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.



Keynote

Keynote #2, Tuesday, May 6, 3:45 PM:

Christian Stammel
CEO, Wearable Technologies AG

Title: Wearable Devices - Requirements and Challenges

Bio:

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/

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.



Demonstration

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, =ire 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.

More info on-line: http://www.mvrt.com/

http://www.mvrt.com/?team



ISPCE 2015 – Chicago, II

April – May 2015!

Stay tuned for dates, call for papers, and more information.

John Allen, General Chair

Registration Info

2014 IEEE SYmposium on Product Compliance Engineering May 5-7, 2014 San Jose, CA

| Advance (through I | March 28) | Late (| (after March 28) | | |
|----------------------|--|---------------|------------------|----------|-----------------|
| Full Conference | One-Day | Exhibits Only | Full Conference | One-Day | Exhibits |
| Only | , and the second | · | | · | |
| IEEE Member \$550.00 | \$375.00 | \$50.00 | \$600.00 | \$400.00 | \$50.00 |
| Non-Member \$650.00 | \$450.00 | \$50.00 | \$700.00 | \$475.00 | \$50.00 |
| Life Member \$150.00 | | \$50.00 | \$200.00 | | \$50.00 |
| Student \$150.00 | | \$50.00 | \$200.00 | | \$50.00 |
| TD 1 1 D 1 TD 0 | | | OI . D | | |

To register by Bank Transfer, contact our Symposium Administrator, Chris Dyer.

REGISTRATION FEES ARE SHOWN IN US FUNDS

*Conference registration includes access to all technical sessions, breaks, lunches and reception, as well as a copy of the Proceedings.

The deadline to request a refund is April 21, 2014

Non-Members are persons who are not members of IEEE.

REGISTER TO BECOME AN IEEE MEMBER AND SAVE!

Affiliate memberships provide reduced conference registration fees and access to IEEE publications. An Affiliate Membership can be converted to a full membership at any time. The exact value of the Affiliate Membership varies depending on what region you live in. See the IEEE Region Map to check your region.

| Affiliate Membership Value (USD) | Full Rate | Half Year |
|----------------------------------|------------------|-----------|
| Regions 1-6 (USA) | \$64.50 | \$32.25 |
| Region 7, incl. GST (Canada) | \$67.73 | \$33.87 |
| Region 7, incl. HST (Canada) | \$72.89 | \$36.45 |
| Regions 8-10 | \$64.50 | \$32.25 |

MEMBERS are registered members of the IEEE and PSES and Affiliate Members.

Interested in Becoming a Full Member?

To register with IEEE as a Full Member and to join the PSES as a Full Member, please visit the IEEE Member Registration Page. Remember to add your PSES membership when you register!

Life Members are those IEEE members who have achieved Life Membership Status.

Students are persons who are currently enrolled in a secondary or post-secondary school and are studiying electrical or electronics engineering or technology. To register as a student you must be able to present valid student identification (Student Identification Card), proof of current enrollment and one other piece of photo identification (photo drivers license, passport, health card, etc.).

 $_{
m S}$

Hotel Information



The 11th Annual Symposium will be held in the beautiful San Jose, California, at the Double Tree by Hilton.

Double Tree by Hilton 2050 Gateway Place San Jose, CA 95110 Tel: 1-408-453-4000

To make your hotel reservations, go to: https://resweb.passkey.com/go/IEEEMAY2014

Room Rate: \$179.00 USD

Reservations at the discounted room rate can be made until April 15 2014.

If you are encountering any problems booking the conference rate, please contact Chris Dyer (cdyer@conferencecatalysts.com) at Conference Catalysts, LLC for assistance.

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.

* AUTHORS

PLEASE NOTE: The 2014 paper and presentation submission process has changed to align with the process more commonly used by other IEEE symposia and conferences. Please read the following Author Instructions carefully to ensure a seamless transition to the new submission process! Thank you!

FINAL AUTHOR INSTRUCTIONS FOR PAPERS

The Conference Proceedings will be included in the IEEE Interactive Electronic Library (IEL) as part of IEEE Xplore. All authors who have been accepted must register for the conference and attend the conference to present their paper. Authors who do not attend the conference to present their papers, or arrange for a co-author or knowledgeable colleague to present their paper in the absence of the primary author, will not have their paper published in the IEEE IEL and IEEE Xplore, per latest IEEE policy.

1. Prepare the final version of the manuscript using the paper templates linked below.

Paper Templates

REMEMBER: the final version of a paper in the format given above CANNOT EXCEED 6 PAGES. NO EXCEPTION IS ALLOWED.

2. Register online.

Online Registration is now open - You MUST register before uploading your final paper. Papers will be included in the proceedings only if at least one author has registered and paid the full IEEE member or non-member registration fee by March 28, 2014. If you need to register by bank transfer, please contact Chris Dyer, ISPCE 2014 Administrator.

NO PAPER WILL BE PUBLISHED WITHOUT THE AUTHOR'S COMPLETED REGISTRATION AND PAYMENT.

5. An electronic version of the final manuscript must be generated for the conference proceedings.

From the final manuscript formatted as instructed above, authors must generate the electronic version in PDF format. Regardless of its initial format, the file containing the final version of the paper must be transformed in the PDF format using the IEEE PDF express web tool. PDF files generated by means of other tools are not acceptable.

To generate the IEEE Xplore compatible PDF file of your paper, follow these steps:

Create your IEEE PDF eXpress account by going to: http://www.pdf-express.org and using Conference ID: 21098X The first time you access the system, please follow the link to New user. Please note that, in order to access the service, you need to allow the use of cookies from the PDF eXpress web site. Once you have registered as a new user: Upload the source file (containing your paper) for conversion.

Receive by e-mail the IEEE Xplore-compatible PDF of your paper. Once you've received your PDF file, upload it to EDAS. Send the electronic version of the final manuscript, complete the presenter's biography form, and submit the copyright form through EDAS by March 28, 2014.

Once you receive your Xplore compatible PDF, \log in at http://edas.info

Upload your paper.

Click the My Papers tab. Click the upload icon (third column from the right) and a dialog box will open that will enable you to select and upload your paper via the web or via FTP.

Fill in and sign the IEEE Copyright Transfer form.

The IEEE is enforcing strict copyright rules. For your convenience, the copyright form is made available electronically through EDAS. To access the copyright form, click on the 'My Papers' tab and then click on the copyright icon under the copyright column (second column from the right). Authors who are not authorized to sign a copyright transfer form, should download the paper version of a copyright transfer form, fill it in, and ask an authorized person to sign it. Then, send the completed form to the ISPCE 2014 Administrator by fax: +1 (352) 872 5545.

NO PAPER WILL BE PUBLISHED WITHOUT THE SUBMITTED COPYRIGHT FORM.

Prepare the presenter's biography form.

Please declare who will be presenting the paper at the conference on EDAS. To do this, click the 'My Papers' tab, click on your paper title, and then click the Change/Add icon in the Presenter row. Indicate who will present the paper and click Choose presenter. Presenters must fill out a short bio (50 word max) on EDAS by going to the 'My Profile' tab and filling in the information in the 'Brief bio' field. Information in this form will be used by the session chairperson to introduce the presenter.

IMPORTANT COPYRIGHT NOTICE FOR WEB AND INTERNET POSTING

If authors like to post their papers electronically on any web site, any ftp site, or any other electronic dissemination technique, they must include the IEEE Copyright notice on the initial screen displaying the IEEE-copyrighted material.

FINAL AUTHOR INSTRUCTIONS FOR PRESENTATIONS ONLY

- 1. Register online. Online Registration is now open You MUST register before uploading your presentation. Please register by March 28, 2014. One full IEEE member or non-member registration (student registrations do not apply for this) covers only one (1) presentation. If you need to register by bank transfer, please contact Chris Dyer, ISPCE 2014 Administrator. NO PRESENTATION WILL BE PRESENTED WITHOUT THE AUTHOR REGISTRATION
- 2. Upload your presentation. Click the My Papers tab. Click the presentation upload icon (third column from the right) and a dialog box will open that will enable you to select and upload your presentation via the web or via FTP.
- 5. Prepare the presenter's biography form. Please declare who will be presenting the work at the conference on EDAS. To do this, click the 'My Papers' tab, click on your presentation title, and then click the Change/Add icon in the Presenter row. Indicate who will be presenting and click Choose presenter. Presenters must fill out a short bio (50 word max) on EDAS by going to the 'My Profile' tab and filling in the information in the 'Brief bio' field. Information in this form will be used by the session chairperson to introduce the presenter. Presentations that will be in PPT form should use the following template.

CONTACT

Chris Dyer ISPCE 2014 Administrator Conference Catalysts, LLC

Founders' Awards Gala – Starting our Second Decade

This year's ISPCE is our eleventh annual conference, the start of a new decade! We will have a very special Awards Ceremony to honor all those who have helped to create and build our IEEE society. We'll recognize our founders going back to prehistory: the fifteen years the EMC Society TC-8 represented our efforts to build an IEEE society for product safety and compliance engineers, managers and administrators. It has taken a lot of folks over 25 years to get us to where we are now.

Too often it has been said that we only have a handful of leaders. That's wrong! As you will see at the ceremony, it really has taken an impressive group to create and build the IEEE PSES.

To conserve conference time, we will move through the ceremony quickly. There are so many to honor! But there will be plenty of time to mix and mingle with as many of our Founders as you are likely to find in one place. Other, older IEEE societies look back fondly to their original leaders, most of whom are now gone. This will be a unique opportunity to be part of our history. See you in San José!



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 over 30 years in business, ATEC takes pride in serving our customers with invaluable expertise and technical support.



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.



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



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.



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.

Exhibitors



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.



D.L.S. provides global compliance testing services, including testing certification, and consulting for Product Safety and EMC and Environmental requirements. D.L.S.can test to UL, CSA, CE, (Low Voltage, Medical Device, and Machinery Directives) CCC, GS, CB, ASTM and other global safety requirements. Combined with global EMC testing, D.L.S. provides a true onestop shop for all your global compliance testing needs.



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



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.



Since 1997, G&M Compliance has 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.

Exhibitors



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.



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.

The Consumer Electronics Society (CE Society) is an organization within the



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 many applications including CE Marking, product development, type verification, product safety, component and production testing



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.



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!



The InterpowerTM 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.



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



LCR Electronics and Radius Power specialize in the design and manufacture of EMI filters and suppression components, electronic and motor control boards and custom systems as well as a variety of EMC testing, and engineering. We have expertise in appliance, military and aerospace, commercial, industrial, telecommunications and medical markets. Our extensive line of quality off-the-shelf and custom EMI & RFI filters have proven their value throughout a diverse range of applications and markets. Our products are designed to the latest MIL Standards and our in-house design team works closely with our customers to meet program specific requirements for rugged military and commercial/industrial environments. As global leaders in the design and manufacture of a complete range of high quality standard and custom EMI filters and RFI filters, we are uniquely able to meet all your filtering needs.



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



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!





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.

Exhibitors



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 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 is your one-source solution for world market access, as a leading provider forcompliance 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.



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



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.



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.



Don't forget to take advantage of meeting with the exhibitors whenever we are in the General Assembly.































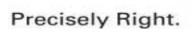
























| Monday | Room 1 | Room 2 | Room 3 | Room4 | | | |
|--------------------|--|---|---|-----------------------------------|--|--|--|
| 7:00 AM | | | | | | | |
| 7:15 AM | Speaker Breakfast | | | | | | |
| 7:30 AM | Room TBD | | | | | | |
| 7:45 AM | | | | | | | |
| 8:00 AM | | | | | | | |
| 8:15 AM | | | | | | | |
| 8:30 AM | | | | | | | |
| 8:45 AM | | Opening Plenary (Welco | me, Program) - Keynote | | | | |
| 9:00 AM | Morning Break - Exhibits | | | | | | |
| 9:15 AM | | | | | | | |
| 9:30 AM | | | | | | | |
| 9:45 AM | | | | | | | |
| 10:00 AM | Breaking Through the BRICs, Part 2 | Operator protection for medical equipment? Risk factors for | Applying Toy Tests to Consumer Products | EMC Regulations | | | |
| 10:15 AM | Dicaking initiagn the bities, rait 2 | operator or patient protection | Applying Toy Tests to consumer Froducts | LIVIC NEgulations | | | |
| 10:30 AM | Mark Maynard & Leslie Bai | | Ted Eckert | John Hirvela & Henry Benitez | | | |
| 10:45 AM | Ivialk Iviayilalu & Lesile Dai | Frank O'Brien | Teu Lineit | John Fill Vela & Helli y Defille2 | | | |
| 11:00 AM | Global Product Certification - How Strong Is Your Product | Innovative approach to Product Realization | An Implementation of Toy Safety Assessment Model | EMC Regulations | | | |
| 11:15 AM | Life Cycle Process? | illiovative approach to Froduct healization | An implementation of Toy Surety Assessment Model | | | | |
| 11:30 AM | Dennis Bartelt & Peter Merguerian | Roger Martin | Shu Lun Mak | John Hirvela & Henry Benitez | | | |
| 11:45 AM | Definits barteit & reter werguerian | vo8ei Mai (III | Jilu Luli Iviak | EMC Regulations | | | |
| 12:00 PM | | | | | | | |
| 12:15 PM | | | | | | | |
| 12:30 PM | | Lunch and | 1 Fyhihits | | | | |
| 12:45 PM | | Lancitum | a Entition | | | | |
| 1:00 PM | | | | | | | |
| 1:15 PM | | | | | | | |
| 1:30 PM | Electrical Product Failures and Regulatory Compliance - An | Patient and Operator - different requirements | Arc-Flash Explosion: What's the Real Risk? | KISS EMC | | | |
| 1:45 PM | Engineering and Legal Perspective (Part I) | · | | Jim Bacher | | | |
| 2:00 PM | Kenneth Ross & John Loud | Grant Schmidbauer | Jonathan Hamilton | | | | |
| 2:15 PM | | | | | | | |
| | | | | | | | |
| | | | NACE TO A SECOND COLUMN | | | | |
| 2:30 PM | Electrical Product Failures and Regulatory Compliance - An | Observe users; improve device safety | Not Science Fiction: Isaac Asimov's Laws of Robotics in | EMC Fundamentals | | | |
| | Engineering and Legal Perspective (Part II) | | Product Safety Engineering | | | | |
| | Kenneth Ross & John Loud | Frank O'Brien | | Elya Joffe | | | |
| 2:45 PM | | | Louis Bilanca | · | | | |
| 3:00 PM | | | | | | | |
| 3:15 PM | | | | | | | |
| 3:30 PM | | Break and | 1 Evhibite | | | | |
| 3:45 PM 4:00 PM | | pleak and | J LAIIIUIC) | | | | |
| 4:00 PM 4:15 PM | | | | | | | |
| 4:30 PM | Regulatory Approval Brazil - Updates and Trends & Best | Converting a Legacy Medical Device to a Wireless Device | What does your touch current look like? | EMC Fundamentals | | | |
| 4:45 PM | Practices - a perspective straight from in-country labs | | | | | | |
| 5:00 PM | Elizabeth Perrier | Nicholas Abbondante | Peter Perkins | Elya Joffe | | | |
| 5:15 PM | Doing Business in Overseas Markets: Opportunities and | Documenting Risk Management In IECEE CB Scheme Test | | | | | |
| 5:30 PM | Resources for U.S. Companies | Report | Injury from Thermal Energy | EMC Fundamentals | | | |
| 5:45 PM | nesources for o.s. companies | периг | | | | | |
| 6:00 PM | Shannon Fraser | Paul Evers | Richard Nute | Elya Joffe | | | |
| 6:15 PM | Sildillolifiasel | 1 dui Lyci3 | | | | | |
| 6:30 PM | | | | | | | |
| 6:45 PM | | | | | | | |
| 7:00 PM | | Exhibitor I | Reception | | | | |
| 7:00 PM 7:15 PM | | | | | | | |
| 7:30 PM | | | | | | | |
| 7:45 PM | | | | | | | |
| | | | | | | | |
| 8:00 PM | Possible PM Chapter Officers Meeting | | | | | | |
| 0.1E DA4 | 1 0001010 1 111 Chapter Officers Meeting | | | | | | |
| 8:15 PM 8:30 PM | 1 033 Die 1 III Grapher Grieces Intecting | | | | | | |

Contributors

Kevin Ravo General Chair Technical Program Chair Tom Burke Dan Arnold Treasurer Rich Johnson Secretary Tom Jackson Marketing Daniece Carpenter Merchandising VP Conferences Doug Nix Dan Roman **VP** Communications

Newsletter Committee

Jennine Burton (editor), Tom Jackson (chair), Daniece Carpenter, Sue Kingston, Chris Dyer, Kevin Ravo, Murlin Marks, Ken Kapur, and Mark Maynard

| PROGRAM SCHEDULE - Monday, May 5, 2014 | | | | | | |
|--|--|--|---|------------------------------|--|--|
| Monday, May 5 | San Jose | Santa Clara | Monterey | Carmel | | |
| 7:00 AM - 6:15 PM | 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 - K | eynote #1 - 3D Printing, The N | Next Industrial Revolution? - Do | nner/Siskiyou/Cascade | | |
| 9:30 AM - 10:00 AM | | Break & Exhibits - D | onner/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 | EMC regulations | | |
| 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 | John Hirvela & Henry Benitez | | |
| 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 | Santa Clara | Monterey | Carmel |
|-------------------|---|--|--|------------------------|
| 2:30 PM - 3:30 PM | Electrical product failures and regulatory compliance - An engineering and legal perspective (cont.) | Observe users; improve device safety | Safe product design, forensic engineering, and Asimov's laws of robotics | KISS EMC Jim Bacher |
| | Kenneth Ross & John Loud | Frank O'Brien | Louis Bilancia | |
| 3:30 PM - 4:15 PM | Break & Exhibits - Donner/Siskiyou/Cascade | | | |
| 4:15 PM - 5:15 PM | Regulatory approval Brazil - Updates and trends & best practices - a perspective straight from in-country labs Elizabeth Perrier | Converting a legacy medical device to a wireless device Nicholas Abbondante | What does your touch current look like? Peter Perkins | EMC fundamentals |
| 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 IECEE CB scheme test report Paul Evers | Injury from thermal energy Richard Nute | Mark Montrose |
| 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 | Carmel | | |
| 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 | Introduction to printed circuit board design for EMC compliance | | |
| 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 | Mark Montrose | | |
| 10:45 AM - 11:30 AM | O AM Coffee & Awards Ceremony - Donner/Siskiyou/Cascade | | | | | |
| 11:30 AM - 12:45 PM | Lunch & Exhibits - Donner/Siskiyou/Cascade | | | | | |

| 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 | Carmel | | |
| 7:00 AM - 12:30 PM | 2:00 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 | Evaluating interference issues with wireless networks Kenneth Wyatt | | |
| 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 | How I use social media & the Internet for networking, branding, & providing customer value low cost radiated immunity pre-compliance testing Kenneth Wyatt | | |
| 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 | Ken's top ten EMC design issues Kenneth Wyatt | | |
| 11:00 AM - 12:30 PM | Closing Session – Donner/Siskiyou/Cascade | | | | | |

2014 IEEE Symposium on Product Compliance Engineering

Presentations given by industry experts covering diverse topics such as Global Regulations & Certification Management, Standards & their Application, Medical & Risk Assessment, Energy Storage & Batteries, and more, and also included is a 2.5 day EMC Workshop.

The Keynote Speakers include Jonathan Cobb, EVP Marketing at Stratasys and Christian Stammel, CEO Wearable Technoloigies AG

May 5-7 2014
San Jose California