



**February 11-14, 2019 | Kauai, Hawaii | Kauai Marriott Resort**

**Monday, February 11th** *\*Designates Distinguished Speaker*

TIME	LOCATION	
12:00p-5:30p	Area outside of Puna Ballroom	<b>REGISTRATION</b>
		Plenary Session Chair: Charles Bauer, Ph.D., TechLead Corporation
3:00p-3:35p	Puna Ballroom A,B,C	<b>A Hybrid PCB Verification Methodology with Geometrical Checks &amp; Simulations</b> Minoru Ishikawa, Mentor Graphics, a Siemens Business
3:35p-4:10p	Puna Ballroom A,B,C	<b>Next Era in Electronics - Moore's Law for Packaging</b> *Rao Tummala, Ph.D., Georgia Institute of Technology
4:10p-4:25p	Area outside of Puna Ballroom	<b>REFRESHMENT BREAK</b>
4:25p-5:00p	Puna Ballroom A,B,C	<b>Real-Time Reliability Testing Advancements on Production Electronic Hardware</b> *Mike Bixenman, MBA, DBA, KYZEN Corporation
5:00p-5:35p	Puna Ballroom A,B,C	<b>Voyaging: A Look into the Past to Steer Toward the Future</b> Dennis Chun, Kaua'i Community College
5:45p-6:45p	Puna Court	<b>WELCOME RECEPTION</b>

**Tuesday, February 12th**

TIME	LOCATION	Session 1 - Processing Technologies Chair: *Ronald C. Lasky, Ph.D., PE, Indium Corporation	LOCATION	Session 2 - Advancements in Vision Systems Chair: *Dwight Howard, APTIV
8:30a-9:00a	Puna Ballroom A,B,C	<b>From Wafer Processing to Advanced Packaging: Broadening the Applications for TSVs Beyond the High End</b> Richard Hollman, ASM NEXX	Puna Ballroom D	<b>Industry 4.0 for Advanced Inspection</b> *Keith Bryant, Independent Business Consultant
9:00a-9:30a	Puna Ballroom A,B,C	<b>IEEE HIR Roadmap</b> Chris Bailey, University of Greenwich	Puna Ballroom D	<b>I/O Planning and Cross-Hierarchical Optimization for Advanced Electronic "Systems 4.0"</b> Anna Fontanelli, Monozukuri S.P.A.
9:30a-10:00a	Puna Ballroom A,B,C	<b>Advanced Package Wiring Technology Solution for Heterogeneous Integration</b> Koukou Suu, Ph.D., ULVAC, Inc.	Puna Ballroom D	<b>Thermal Scanning Probe Lithography for Nano-Fabrication</b> Heiko Wolf, Ph.D., IBM Research - Zurich
10:00a-10:15a	Area outside of Puna Ballroom	<b>REFRESHMENT BREAK</b>		
10:15a-10:45a	Puna Ballroom A,B,C	<b>Copper Electrolytic Process Applications for Filling BMVs, X-Through Via Holes and Pattern Plate</b> *Maria Nikolova, Ph.D., MacDermid Enthone		
11:00a-11:45a	Puna Ballroom A,B,C	<b>Symposium Keynote I</b> Chair: Yasumitsu Orii, NAGASE Group  <b>New Era of Device Science</b> Jun Mizuno, Waseda University		
11:45a-12:45p	Puna Court	<b>LUNCH BREAK</b>		
	LOCATION	Session 3- Advanced Process & Materials Chair: *Kirsten Weide-Zaage, Ph.D., University of Hannover	LOCATION	Session 4 - Operations & Supply Chain Chair: *Dock Brown, CRE, DfR Solutions Inc.
12:45p-1:15p	Puna Ballroom A,B,C	<b>Tin Whiskers 101: Causes, Risks &amp; Mitigation 2019</b> *Ronald Lasky, Ph.D., P.E., Indium Corporation	Puna Ballroom D	<b>Managing 21st Century Workforce</b> Kewal Verma, Ph.D., M.Tech. & Olayide Abosedede Aina, MBA, DM, Aster Global Inc.
1:15p-1:45p	Puna Ballroom A,B,C	<b>Impact of Stencil Quality &amp; Technology on Solder Paste Printing Performance</b> *Jonas Sjoberg, Indium Corporation	Puna Ballroom D	<b>A Hybrid MultiCloud System for Effective Supply Chain Product Information Dissemination</b> N. Nagaraj, Ph.D., P.E., Papros, Inc.
1:45p-2:15p	Puna Ballroom A,B,C	<b>Flip-Chip Connections with Indium Bumps for focal plane arrays</b> Chris Bailey, University of Greenwich	Puna Ballroom D	<b>Selection &amp; Qualification of a Local Rework Supplier</b> *Phil Isaacs, IBM Corporation
2:15p-2:30p	Area outside of Puna Ballroom	<b>REFRESHMENT BREAK</b>		
	LOCATION	Session 5 - Demanding Requirements for Harsh Environments Chair: *Keith Bryant, Independent Business Consultant		
2:30p-3:00p	Puna Ballroom A,B,C	<b>Functional Safety Compliance &amp; the Key Role &amp; Readiness of the EDA Tools</b> *Dwight Howard, APTIV		
3:00p-3:30p	Puna Ballroom A,B,C	<b>Reliability Engineering Techniques for Consumer Products</b> *John Cooper, P.E., Ops A La Carte, LLC		
3:30p-4:00p	Puna Ballroom A,B,C	<b>New Automotive Autonomous Driving Challenges for the Microelectronic Components</b> *Kirsten Weide-Zaage, Ph.D., University of Hannover		
4:00p-4:45p	Puna Ballroom A,B,C	<b>Harsh Environment, High Reliability Requirements Panel</b>  Moderator: *Dwight Howard, APTIV Panelists: TBD		

## Wednesday, February 13th

TIME	LOCATION	Session 6 - Material Technology Chair: Osamu Suzuki, Namics Corporation	LOCATION	Session 7 - Trends in Advanced Packaging & Interconnects Chair: *Raiyo Aspandiar, Ph.D., Intel Corporation
8:30a-9:00a	Puna Ballroom A,B,C	<b>High Thermal Conductive Adhesive Sheet with Low Dielectric Constant</b> *Masao Tomikawa, Toray Industries	Puna Ballroom D	<b>Partially Liquid Interconnects with Au-Ge System - Mechanical Strength and Electrical Resistance</b> Andreas Larsson, M. Sc., TECHNIA AS
9:00a-9:30a	Puna Ballroom A,B,C	<b>High Performance High Density Liquid Crystal Polymer Circuits with Embedded Active and Passive</b> James Rathburn, HSIO Technologies	Puna Ballroom D	<b>Cu Paste for Molded Interconnect Devices</b> *Yoshinori Ejiri, Ph.D., Hitachi Chemical Co., Ltd.
9:30a-10:00a	Puna Ballroom A,B,C	<b>TRIZ Based Design of TFT-LCD for LC-Projectors</b> Yutaka Takafuji, Tokyo City University	Puna Ballroom D	<b>Conductive Adhesive Films (ACFs and NCFs) Materials for Electronics Packaging Applications</b> Kyung Paik, Ph.D., KAIST
10:00a-10:15a	Area outside of Puna Ballroom	<b>REFRESHMENT BREAK</b>		
10:15a-10:45a	Puna Ballroom A,B,C	<b>The Digital Twin: Virtualization of Electronics Development &amp; Design</b> *Dwight Howard, APTIV		
11:00a-11:45a	Puna Ballroom A,B,C	<b>Symposium Keynote II</b>  <b>What Does My Shirt Tell Me? The Integration of Electronics in Clothing</b> Kaspar Jansen, Ph.D., Delft University of Technology		
11:45a-12:45p	Puna Court	<b>LUNCH BREAK</b>		
	<b>LOCATION</b>	<b>Session 8 - Materials &amp; Methods in Harsh Environments</b> Chair: *Cameron Shearon, Raytheon Company		
12:45p-1:15p	Puna Ballroom A,B,C	<b>Recent Advances in Reactive Monitoring of Air Corrosivity</b> *Prabjit Singh, Ph.D., IBM Corporation		
1:15p-1:45p	Puna Ballroom A,B,C	<b>Water Film Formation on PCBA Surface &amp; Humidity Robustness of Electronics</b> Rajan Ambat, Ph.D., Technical University of Denmark		
1:45p-2:15p	Puna Ballroom A,B,C	<b>Impact of Process-Related Flux Contamination on the Electronics Reliability Issues Under Detrimental Climatic Conditions</b> Kamila Piotrowska, Ph.D., Technical University of Denmark		
2:15p-2:45p	Puna Ballroom A,B,C	<b>iNEMI Project on Process Development of BiSn-Based Low Temperature Solder Pastes - Part V: Post Mechanical Shock Failure Analysis on Mixed BGA - SAC Solder Joints of POP Components</b> *Raiyo Aspandiar, Ph.D., Intel Corporation		
2:45p-3:00p	Area outside of Puna Ballroom	<b>REFRESHMENT BREAK</b>		
	<b>LOCATION</b>	<b>Session 9 - X-Ray &amp; Inspection</b> Chair: *Raiyo Aspandiar, Ph.D., Intel Corporation	<b>LOCATION</b>	<b>Session 10 - Definition of Cleanliness</b> Chair: David Raby, STI Electronics
3:00p-3:30p	Puna Ballroom A,B,C	<b>Acoustic Micro Imaging &amp; X-Ray Analysis for More Thorough Evaluation of Microelectronic Devices</b> *Janet Semmens, Nordson Sonoscan	Puna Ballroom D	<b>Cleanliness Requirements: A Moving Target</b> *Terry Munson, Foresite, Inc.
3:30p-4:00p	Puna Ballroom A,B,C	<b>A Practical Way to Limit Counterfeits</b> *Cameron Shearon, Raytheon Company	Puna Ballroom D	<b>The Forgotten Benefits of Clean Assemblies in Harsh Environments</b> *Mike Konrad, Aqueous Technologies
4:00p-4:30p	Puna Ballroom A,B,C	<b>X-Ray Advances for Semicon</b> *Keith Bryant, YXLON International	Puna Ballroom D	<b>Using Conformal Printed Electronics for 3D Printed Antenna Systems Building Blocks</b> *Sammy Shina, Ph.D., P.E., University of Mass Lowell

## Thursday, February 14th

TIME	LOCATION	Session 11 - A Look to the Future Chair: *Phil Isaacs, IBM Corporation
8:30a-9:00a	Puna Ballroom A,B,C	<b>How AI is Changing the Way We Make Things</b> *Bill Cardoso, Ph.D., Creative Electron Inc.
9:00a-9:30a	Puna Ballroom A,B,C	<b>Memory Market Trends &amp; Directions</b> Kim Il Ung, SK Semiconductor
9:30a-10:00a	Puna Ballroom A,B,C	<b>2019 iNEMI Roadmap Highlights: Collaborative Gap Closure Opportunities</b> Marc Benowitz, iNEMI
10:00a-10:15a	Area outside of Puna Ballroom	<b>REFRESHMENT BREAK</b>
10:15a-10:45a	Puna Ballroom A,B,C	<b>The Semiconductor Trend From the Front-End View</b> Makiko Nagao, Toppan
11:00a-11:45a	Puna Ballroom A,B,C	<b>Symposium Keynote III</b> Chair: *Phil Isaacs, IBM Corporation  <b>AI Influenced Material Science &amp; the Design of Adhesives for Electronics</b> Bob Allen, IBM Corporation
12:00p		<b>Conference Concludes</b>
6:00p-9:00p	Luau Gardens	<b>Private Luau</b>