Tuesday, June 6- Workshops

	Morning Workshops (Chocolate Ballroom)	
7:30am	**Registration**	
8:30am – 12:00pm	**WS1:** Shining a Light on LED Technology: Construction, Reliability, Qualification, Failure Modes	Martine Simard-Normandin, Ph.D. MuAnalysis Inc.
8:30am– 12:00pm	**WS2:** The Incredible Shrinking World Of Electronics – Are Traditional DFM, DFR, DFF, … Methods Obsolete?	Dale Lee, Plexus Corp.
	Afternoon Workshops (Chocolate Ballroom)	
1:30pm – 5:00pm	**WS3:** Understanding Shock & Vibration	Alec Feinberg, Ph.D., DfR Soft
1:30pm – 5:00pm	**WS4:** DFX- Design for Cleaning and Reliability Excellence	Dale Lee, Plexus Corp.

Wednesday, June 7

7:00am	**Registration (Chocolate Ballroom)**	
7:50am	**Opening Comments**	SMTA President: Jeff Kennedy, Celestica, Inc. Conference Chair: Jason Keeping, P.Eng. Celestica, Inc. Technical Chair: Peter Arrowsmith, Ph.D. Ops A La Carte
	Session 1: Solder R&D and Applications	Session Chair: Alan Rae, Ph.D., MBA TPF Enterprises Co-Chair: Xu Di, University of Waterloo
8:00am	Thermal Preconditioning and Restoration for Microstructure and Property Improvement in Bi-containing Solder Alloys	André Delhaise, Celestica, Inc. & University of Toronto
8:30am	Low Temperature Sinter-able Silver Paste for High Power Die Attach Application	Sihai Chen, Indium Corporation
9:00am	Effect of Nanoparticles on Bonding Properties	Jae Pil Jung, Ph.D., University of Seoul
9:30am	High Temperature Lead-free Die Attach Materials - A Review	Hongwen Zhang, Ph.D., Indium Corporation
10:00am-10:30am	**Break-Expo Hall (Truffle Ballroom)**	
	Session 2: Solder Joint Reliability	Session Chair: André Delhaise, Celestica, Inc. & University of Toronto Co-Chair: Prakash Kapadia, Celestica, Inc.
10:30am	Investigating Solder Paste Performance After Worst-Case Shipping Scenarios	Brook Sandy-Smith, Indium Corporation
11:00am	Accelerated Life Testing Solder Reliability in Combined Environments: Iso Temperatures with Harmonic Vibration	Ivan Tan, Celestica, Inc.
11:30am	Low Silver SAC-Bi Lead-Free Solder for Reliable Applications	Mehran Maalekian, Ph.D., AIM Solder
12:00pm - 1:00pm	**Lunch and Poster Session (Truffle Ballroom)**	
	Session 3: Future Trends	Session Chair: Matt Kelly, P.Eng, MBA IBM Corporation Co-Chair: Dale Lee, Plexus Corp
1:00pm - 2:00pm	**Keynote:** Nanotechnology in Electronics Packaging, Interconnect, and Assembly: Hype or Reality?	Chuck Bauer, Ph.D., TechLead Corporation
2:00pm	The iNEMI Electronics Roadmap 2017	Alan Rae, Ph.D., MBA, TPF Enterprises
2:30pm	Reliable Microelectronic Assembly Process Design Test Methods – A Non-Standard Approach	Mike Bixenman, DBA, KYZEN Corporation
3:00pm - 3:30pm	**Break-Expo Hall & Poster Session (Truffle Ballroom)**	

	Session 4: Contamination and Cleanliness Testing	Session Chair: Jason Keeping, P.Eng. Celestica, Inc. Co-Chair: John Fleming, ECT
3:30pm	A Comparison of Localized Electronics Cleanliness Testing and Surface Insulation Resistance – Part 1	Jason Fullerton, Alpha Assembly Solutions
4:00pm	Addressing the Problems with Ionic Cleanliness Testing on Modern Circuits	Todd Rountree, Austin American Technology
4:30pm	The Effect of FR-4 Laminate Materials on the Surface Insulation Resistance of Wave Soldering Fluxes	Karen Tellefsen, Ph.D., Alpha Assembly Solutions
5:00pm	**Day 1 Conclusion**	
5:15pm	**Integrity Testing Laboratory Facility Tour**	

Thursday, June 8

7:30am	**Registration (Chocolate Ballroom)**	
	Session 5: Failure Modes and Mitigation	Session Chair: Peter Arrowsmith, Ph.D. Ops A La Carte Co-Chair: Ata Taghipour, Ryerson University
8:00am	Characterization of the Capability of Conformal Coating to Inhibit Tin Whisker Growth	Dave Hillman, Rockwell Collins
8:30am	Blackpad Revisited	Martine Simard-Normandin, Ph.D., MuAnalysis Inc.
9:00am	Fracture of Lead-free Solder Joints Under Bending as a Function of Joint Width	Amir Nourani, Sharif University of Technology
9:30am – 10:00am	**Break**	
	Session 6: Reliability	Session Chair: Dale Lee, Plexus Corp. Co: Chair: Eddie Rezaei, STIM
10:00am	Semi-analytical Fatigue Life Model for Reliability Assessment of Solder Joints in QFN Packages Under Thermal Cycling	Maxim Serebreni, DfR Solutions
10:30am	Improved Method for ALT Plan Optimization	Peter Arrowsmith, Ph.D., Ops A La Carte
11:00am - 12:00pm	**Keynote:** The Importance of Design to Improve Manufacturing Process Yield and Reliability	Jasbir Bath, Koki Solder
12:00pm – 1:00pm	**Lunch**	
	Session 7: Defect Detection	Session Chair: Bev Christian, Ph.D., HDPUG Co-Chair: André Delhaise, Celestica, Inc. & University of Toronto
1:00pm	Failure Mechanisms in IGBT's Related to Voiding	Keith Bryant, YXLON International
1:30pm	2D, 2.5D, and 3D X-Ray Inspection – What's a "D"?	Bill Cardoso, Ph.D., Creative Electron, Inc.
2:00pm	CT Technology Advances Imaging Microelectronics to Assembled Products	Keith Bryant, YXLON International
2:30pm – 3:00pm	**Break**	
	Session 8: Panel Discussion	
3:00pm – 4:15pm	Bottom Termination Component Design Panel Solder Joint Reliability: Dave Hillman, Rockwell Collins Board and Package Design: Matt Kelly, P.Eng, MBA, IBM Corporation Ionic Cleanliness Design: Mike Bixenman, DBA, KYZEN Corporation Test Design: Dave Vicari, Universal Advance Process Labs X-ray Analysis: Keith Bryant, YXLON International	Moderators: Brook Sandy-Smith, Indium Corporation and Matt Kelly, P.Eng, MBA, IBM Corporation
4:15pm	**Conference Concluding Remarks**	

Poster Presenters:

UV Broad Spectrum & LED Curable 100% Solids Very Low Viscosity Conformal Coating
Aysegul Kascatan Nebioglu, Ph.D., Dymax

Powercycling design for Solder Joints with Chip Resistor
Di Erick Xu, Michael Mayer, Centre for Advanced Materials Joining, University of Waterloo