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Technical Sessions Tuesday March 19, 2019		
8:00AM - 8:10AM	**Welcome Message** **General Chair, Adriana Rangel, Cisco**	
	Session 1: LED **Chair: Jim Petroski, Design by Analysis**	
8:10AM - 8:30AM	A Methodology to Determine the Sites of Variability in an LED Assembly *Robin Bornoff, Mentor - A Siemens Business*	
8:30AM - 8:50AM	Accurate Thermal Transient Measurements Interpretation of Monochromatic LEDs *Anton Alexeev, Eindhoven University of Technology*	
8:50AM - 9:10AM	Implementation of a Multi-domain LED Model and its Application for Optimized LED Luminaire Design *András Poppe, Mentor, a Siemens Business*	
9:10AM - 10:10AM	Keynote – Speaker to be Announced	
Tuesday 10:10AM to 10:30AM Networking Break		
	Session 2: Two-Phase Cooling **Chairs: George Meyer and Sobo Sun, Celsia Inc.**	**Session 3: Thermal Interface Materials** **Chair: Jason Strader, Laird**
10:30AM – 10:50AM	Assessment of Critical Heat Flux on Finite Size Surfaces Under Pool Boiling *Julia Reed, University of California, Los Angeles*	Mechanical Cycling Reliability Testing for Thermal Interface Materials for Semiconductor Test Requirements *Dave Saums, DS&A LLC*
10:50AM – 11:10AM	Molecular Dynamic Simulation of Evaporative Heat Transfer on Graphene Coated Silicon Substrate for Electronics Cooling *Binjian Ma, Washington University in St. Louis*	Liquid Metal Innovations for High Performance TIMs *Timothy Jensen, Indium Corporation*
11:10AM – 11:30AM	Experimental and Numerical Investigation of Microdroplets Evaporation on Porous Pillar Structures *Li Shan, Washington University in St. Louis*	High Performance Lightweight Ceramic Material for Thermal Management in Electronic Devices *Bei Xiang, Momentive*
11:30AM – 11:50AM	Heat Pumps to Upgrade Data Center Waste Heat: Integration with 2-Phase Cooling *Steven Schon, QuantaCool*	An Investigation of Methods used to Quantify the In-Use Effects of Condensation from Thermal Interface Materials Post Outgassing *Karen Bruzda, Laird*

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11:50AM – 12:10PM	Numerical Investigation of Hotspot Removal using Metal Foam Heat Sink with Pin Fins Insert *Yogendra Joshi, Georgia Institute of Technology*	Preventing Delamination Failure from Thermal Cycling of Model Thermal Interface Materials *John A. Howarter, Purdue University*
12:10AM – 12:30PM	Simple GUI for Liquid Cooling Calculations at Rack Level *Sruti Chigullapalli, Intel Corporation*	
12:40PM – 2:00PM	Luncheon Speaker "The Future of Innovation - Fusing Art and Technology" *Domhnaill Hernon, Head of Experiments in Arts and Technology at Nokia Bell Labs*	
2:00PM – 5:00PM	Vendor Workshops	
5:00PM – 5:45PM	Product Teardown Session	
6:00PM – 7:15PM	Dinner	
7:30PM – 9:00PM	Evening Tutorial – "Breaking Through the Barriers of Thermal Design with AI" *Lieven Vervecken, CEO at Diabatix*	

Technical Sessions	**Wednesday March 22, 2019**	
8:00AM – 8:10AM	**Welcome Message** **Program Chair, Pablo Hidalgo, Aavid Thermal Division of Boyd. Corp.**	
8:10AM - 9:10AM	Thermi Award Presentation	
	Session 4: Automotive / Aerospace / Outdoor **Chair: Bradley Richard, Advanced Cooling Technologies**	**Session 5: Measurement Techniques** **Chair: Hussam Kabbani, Facebook**
9:10AM – 9:30AM	The Impact of Anodization on the Thermal Performance of Passively Cooled Electronic Enclosures Made of Die-cast Aluminum *Zhongchen Zhang, Simon Fraser University*	Battery Discharge Capacity Calculation by Temperature Measurement *Jeevan Kanesalingam, Motorola Solutions*
9:30AM – 9:50AM	Development of a 3D Printed Loop Heat Pipe *Bradley Richard, Advanced Cooling Technologies*	Thermal Diffusivity Characterization of Thick Graphite Foils *Rick Beyerle, NeoGraf Solutions*
9:50AM – 10:10AM		Measurement of Thermal Resistance of Thermal Interface Materials with High In-plane Thermal Conductivity Using Transient Thermal Based Structure Function Analysis *Aloysius Davin Oetomo, Carbice Corp.*

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Wednesday 10:10AM – 10:30AM Networking Break		
	Session 6: CFD / Numerical Modeling **Chair: Taravat Khadivi, Qualcomm**	**Session 7: Two-Phase Cooling** **Chair: Pritish Parida, IBM**
10:30AM – 10:50AM	Design using Multi-Scale, Multi-Physics Analyses and Shape Optimization, for Compact Heat Transfer Devices *Daniel Bacellar, Optimized Thermal Systems, Inc.*	CTE Matching Heat Pipe Thermal Ground Plane *Nelson J. Gernert, Aavid Thermal Division of Boyd*
10:50AM – 11:10AM	Research on Package Thermal Resistance of Power Semiconductor Devices *Koji Nishi, Ashikaga University*	An Ultra-Thin Loop Heat Pipe with Long-Distance Heat Transport for Cooling of Small Electronic Devices *Shuto Tomita, Nagoya University*
11:10AM – 11:30AM	The Necessity for Thermal-Electrical Multiphysics for Board Heating in a Server Rack Unit *Jared Harvest, ANSYS, Inc.*	Evaluation of the Performance of Various Heat Pipe Mounting Methods with Various Thickness TIM's and Mounting Pressures *George A Meyer IV, Celsia Inc.*
11:30AM – 11:50AM	Temperature Profile of High Power Density (HPD) ASIC Device Mounted on Multi-layered Diamond Enhanced Heat Spreader *Firooz N. Faili, Element Six Technologies*	Relative Performance of Two-Phase vs Solid Conductive Heat Spreaders for High Heat Flux Applications *Joe Boswell, Thermavant Technologies*
11:50AM – 12:10PM	Practical Evaluation of Thermally-Conductive Plastics and Guidelines for Use *Dave Saums, DS&A, LLC*	The Impact of Heat Rejection Architecture on the Thermal Performance of a Pumped Two-Phase Cooling System *Timothy A. Shedd, Florida Polytechnic University*
12:10PM – 12:30PM	Optimization of an Array of Heat Sinks to Maximize Reliability *Georgios Karamanis, Transport Phenomena Technologies, LLC*	Impact of Microstructures on Surface Heat Transfer in Microchannel Flow Boiling Process *Saeed Moghaddam, University of Florida*
12:40PM – 2:00PM	Luncheon Speaker Title and Presenter to be Announced	
2:00PM – 5:00PM	Vendor Workshops	
5:00PM – 6:00PM	Exhibitor Reception	
6:15PM – 8:15AM	How-to Courses	

Technical Sessions	Thursday March 22, 2019
8:00AM – 8:10AM	**Welcome Message** **Program Chair, Pablo Hidalgo, Aavid Thermacore Division of Boyd, Corp.**
	Session 8: Consumer Electronics **Chairs: Mark Carbone, Intel and Angel Han, Huawei**
8:10AM – 8:30AM	Analysis of Temperature Changes Dependency on Natural Frequency of MEMS Vibrating Gyroscope *Jacek Nazdrowicz, Lodz University of Technology*
8:30AM – 8:50AM	Alternative Thermal Solution for a Wireless Home Router *Justin G. Dixon, Electronic Cooling Solutions, Inc.*
8:50AM – 9:10AM	Exploring Heatpipe Configurations for Package On Package (PoP) Cooling *Sankarananda Basak, Intel*
9:10AM – 10:10AM	**Embedded Tutorial**
Thursday 10:10AM to 10:30AM Networking Break	
	Session 9: Data Center Cooling **Chair: Marcelo del Valle, Intel**
10:30AM – 10:50AM	Simulation-Based Optimization of Data Center Cooling Performance Using Performance Indicators *Kourosh Nemati, Future Facilities*
10:50AM – 11:10AM	Transient Analysis Overshoot in Temperature for High Power Thermal Solutions *Javier Avalos, Intel*
11:10AM – 11:30AM	Airflow Management Using Active Air Dampers in Presence of a Dynamic Workload in Data Centers *Sadegh Khalili, Binghamton University*
11:30AM – 12:30PM	Hall of Fame Award
12:30PM – 2:00PM	Awards Luncheon