3D PEIM 2023 Preliminary Program

Day 1 - Wednesday February 1, 2023			
Sessions	**Description/Title**	**Presenter**	**Affiliation**
S1: Plenary I : Design for Power	*Highly integrated low inductance SiC power modules*	*Dr. Michael Guyenot*	*Bosch*
	Finite-Element Predictive Modeling for Power Modules	*Dr. Brandon Passmore*	*Wolfspeed*
Break			
S2: IVR for Computers and Servers	*Session Chair*	Dr. Siddharth Ravichandran	Chipletz
	Keynote: Practical challenges with advanced IVR solutions for microprocessors	Dr. Michael J. Hill	Intel
	3D Power Delivery for High Performance Processors	Dr. Noah Sturcken	Ferric, Inc
	Architecture, Magnetics, and Performance Bottlenecks for 48V-1V CPU VRM	Dr. Minjie Chen	Princeton University
	Reserved for Submitted Papers		
Lunch			
S3: Multiphysics Design & Tools	*Session Chair*	Dr. Rajen Murugan	Texas Instruments
	Keynote: Machine-Learning Based optimization tools for multiphysics design of power modules	Prof. Madhavan Swaminathan	Georgia Tech.
	Multiphysics System Co-Design Modeling: State-of-the-Art, Challenges, and Opportunities	Dr. Rajen Murugan	Texas Instruments
	New Challenges in Transportation Electrification, Powertrain Drives & New Power Electronics Architectures	Dr. Osama Muhammed	Florida International University
	Reserved for Submitted Papers		
Break			
S4: Additive Manufacturing	*Session Chair*	Dr. Peter Friedrichs	Infineon
	Packaging, Embedded Cooling, and 3D Printed PCBs	Dr. Thomas Foulkes	Pacergy
	Additive deposition technologies: from 2D towards 3D electronic systems	Dr. M. Wiemer	Fraunhofer Institute
	Reserved for Submitted Papers		
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S5: Manufacturing Technologies	*Session Chair*	Jason Rouse	Taiyo America
	To be Announced	Dr. Matt Kelly	IPC
	To be Announced	Dr. Bill Chen	ASE
	Enabling Increased Aluminum Utilization within Power Electronic Packaging	Divyakant P Kadiwala	Averatek
	To be Announced		
WELCOME RECEPTION			
S6: Plenary II: Improved Electrical Performance for Power	*PCB based Integrated Magnetics*	*Prof. Fred C. Lee*	*Virginia Tech.*
	power module	*Prof. Katsuaki Suganuma*	*University of Osaka*
Break			
S7: Materials I Interconnects & Lead Attachments	*Session Chair*	Andy Mackie	Indium Corporation
	Keynote: Cu Sintering/Interconnect Analysis	Prof. Gordon Elger	Fraunhofer Application Center
	Keynote: Die Top System: Advanced interconnect for Power Electronics Module Packaging	Dr. Habib Mustain	Heraeus
	Reserved for Submitted Papers		
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Lunch with Posters			
S8: Materials II Substrates & Encapsulants	*Session Chair*	Dr. Ninad Shahane	Texas Instruments
	Voltage Power Modules	Prof. G. Q. Lu	Virginia Tech.
	Reserved for Submitted Papers		
	Reserved for Submitted Papers		
Break			
S9: High Power Module Integration	*Session Chair*	Cyril Buttay	
	US Navy Power Electronics needs	Dr. L. J. Petersen	US Navy
	To be Announced	Dr. S. Idaka	Mitsubishi
	Reserved for Submitted Papers		
S11: Thermal Management and Reliability	*Session Chair*	Patrick McCluskey	University of Maryland
	To be Announced		
	To be Announced	Steve Martell Sonoscan NDA 3D	Sonoscan
	Reserved for Submitted Papers		
S10: Partners Session	To be Announced		
BANQUET DINNER			
S14: Plenary III: Improved Electrical Performance for Power	*Emerging Power electronics packaging and system integration for automotive applications*	*Dr. Mahadevan Iyer*	*Amkor*
	To be Announced		
Break			
S12: Passive Component Integration	*Session Chair*	John Bultitude	KEMET
	Keynote: Enabling Sustainable Power Electronics Through Miniaturization and Integration of Power Magnetics	Dr. Matt Wilkowski	Enachip
	Application of Circuit Board Technology for Passives Packaging	B. K. Summey	KEMET
	High-density nanoporous silicon decoupling capacitors	Dr. Mohamed Jatlaoui	Murata
	Reserved for Submitted Papers		
Lunch			
S13: Low Power & Telemetry	*Session Chair*	Prof. Shubhendu Bhardwaj	Florida International University
	Keynote: eSiP (energy source in package) - 3D packaging considerations for self-powered IoT edge devices	Dr. Mike Hayes	Tyndall
	To be Announced	Sakhrat Khizoev	University of Miami
	Reserved for Submitted Papers		
	Reserved for Submitted Papers		
Break			
S15: LABORATORY TOUR	*Florida International University*		