Day 1 - Wednesday February 1, 2023			
Time	Description/Title	Presenter	Affiliation
8:15-8:30 a.m.	Opening Remarks	Markondeyaraj Pulugurtha	Florida International University
8:30-9:10 a.m.	*S1: Plenary I : Design for Power*		
8:30-9:10 a.m.	*Finite-Element Predictive Modeling for Power Modules*	*Dr. Brandon Passmore*	*Wolfspeed*
9:10-9:50 a.m.	*Integrated Power Delivery for AI Computing: Technology Gaps & Opportunities*	*Prof. Madhavan Swaminathan*	*Georgia Tech.*
9:50-10:05 a.m.	*Break*		
10:05-11:50 a.m.	*S2: IVR for Computers and Servers*		
	Session Chair	Siddharth Ravichandran	Chipletz
10:05-11:50 a.m.	*Keynote: Practical challenges with advanced IVR solutions for microprocessors*	Michael J. Hill	Intel
10:05-10:35 a.m.	3D Power Delivery for High Performance Processors	Noah Sturcken	Ferric, Inc
10:35-11:00 a.m.	Topology and Magnetics Co-Investigation for 48V-1V Point-of-Load VRM	Minjie Chen	Princeton University
11:00-11:25 a.m.	Inductor-Linked Multi-Output Chiplet Power Delivery Architecture	Mian Liao, Ping Wang, Minjie Chen	Princeton University
11:25- 11:50 a.m.	*Lunch*		
12:50-3:00 p.m.	*S3: Multiphysics Design & Tools*		
	Session Chair	Rajen Murugan	Texas Instruments
12:50-1:20 p.m.	Keynote: Machine-learning-based optimization: the future of power package design	Vanessa Smet	Georgia Tech.
1:20-1:50 p.m.	Keynote: Multiphysics System Co-Design Modeling: State-of-the-Art, Challenges, and Opportunities	Rajen Murugan	Texas Instruments
1:50-2:15 p.m.	New Challenges in Transportation Electrification, Powertrain Drives & New Power Electronics Architectures	Osama Muhammed	Florida International University
2:15-2:40 p.m.	Performance Analysis of Thin- and Thick-Film Graphene-Based EMI Shields in Integrated Power Modules	Ghaleb Al Duhni (John Volakis, Markondeyaraj Pulugurtha)	Florida International University
2:40-3:05 p.m.	Reliability Analysis of Wireless Power Transfer for Electric Vehicle Charging Based on Continuous Markov Process	Arif Sarwat (Milad Behnamfar, Md Abu Taher, Alexis Polowsky, Sukanta Roy)	Florida International University
3:05-3:20 p.m.	*Break*		
3:20-4:50 p.m.	*S11: Thermal Management and Reliability*		
	Session Chair	Patrick McCluskey	University of Maryland
3:20-3:50 p.m.	Keynote: integrated thermal management in power electronics and motors	Satish Kumar	Georgia Tech.
3:50-4:15 p.m.	Power Electronics Thermal Design with Carbice Nanotubes for Reliability and Cost Saving	Craig Green	Carbice Corporation
4:15-4:40 p.m.	Inverter/Converter Power Density and Flexibility Improvements Through Modularity and Novel Thermal Management Architecture	Ian Byers	Marel Power Solutions, Inc.
4:50-6:25 p.m.	*S5: Manufacturing Technologies*		
	Session Chair	Jason Rouse	Taiyo America
4:40-5:10 p.m.	Keynote: Insights from Microelectronic Packaging for Power Packaging Advancement	Matt Kelly	IPC
5:10-5:35 p.m.	Vertical Integrated High Density Power Packaging Technology	C.P. Hung, Matt Li, Kay Essig	ASE
5:35-6:00 p.m.	Reticular Graphene Reinforced Copper for Low-Stress Thermal Management Application	Ambreem Nisar (Cheng Zhang, Markondeyaraj Pulugurtha, Arvind Agarwal, Al Dunni Ghaleb)	Florida International University
6:00-9:00 p.m.	*WELCOME RECEPTION*		

Day 2 - Thursday February 2, 2023			
Time	Description/Title	Presenter	Affiliation
8:30-9:50 a.m.	*S6: Plenary II: Improved Electrical Performance for Power*		
8:30-9:10 a.m.	*PCB based Integrated Magnetics*	*Prof. Fred C. Lee*	*Virginia Tech.*
9:10-9:50 a.m.	*Future of Packaging and the Role of Power Integration*	*Prof. Rao R. Tummala*	*3D Electronic Systems Packaging Research Center(PRC)*
9:50-10:05 a.m.	*Break*		

Day 2 - Thursday February 2, 2023 cont'd			
Time	**Description/Title**	**Presenter**	**Affiliation**
10.05-11:30 a.m.	*S7: Materials I Interconnects & Lead Attachments*		
	Session Chair	Andy Mackie	Indium Corporation
10:05-10:35 a.m.	*Keynote: Roadmap for Copper Sintering - Next Interconnect for Power Electronic Module Packaging*	Gordon Elger	Fraunhofer Application Center
10:35-11:05 a.m.	*Keynote: Die Top System: Advanced interconnect for Power Electronics Module Packaging*	Habib Mustain	Heraeus
11:05-11:30 a.m.	Rapid Development of Electrically Conductive Materials for Additive Manufacturing Feasibility and Applications	Gilad Nave, Patrick McCluskey	University of Maryland
11:30 a.m.-12:20 p.m.	*S8: Materials II Substrates & Encapsulants*		
	Session Chair	Ninad Shahane	Texas Instruments
11:30-12:00 p.m.	Keynote: A Polymer-Nanoparticle Composite for Nonlinear Resistive Field-Grading in Medium-Voltage Power Modules	G. Q. Lu	Virginia Tech.
12:00-12:25 p.m.	New Substrate Technology for Power Applications	Neda Ameli	Rogers Corporation
12:25-1:25 p.m.	*Lunch with Posters*		
	Laser-Induced graphene supercapacitors on flex substrates for package-Integrated Power Supply in Wearable and IoT Devices	Reshmi Banerjee, Azmal Chowdhury, Pavar Sai Kumar, Chunlei Wang, Sanket Goel, Pulugurtha Markondeya Raj	Florida International University
	Copper nanowired Interconnection for Embedding Power Dies in PCB	Caio De Oliveira Mendes, Julien Morand, Vincent Bley, Jean-Pascal Cambronne, Guillaume Lefevre	Mitsubishi Electric R&D Center Europe
	New Design Concepts for PCB-Integration Technology in Power Electronics Reducing Circuit Parasitics to a Minimum	Rando Raßmann, Jasper Schnack, Ulf Schümann	University of Applied Science Kiel
	Low Frequency Power Telemetry Using Multiferroic Laminate Heterostructures	Pawan Gaire, Veeru Jaiswal, Markondeyaraj Pulugurtha, Maria Thuy Do, Ravi Mullapudi, Shubhendu Bhardwaj	University of Nebraska-Lincoln
	Overview of Power Electronic Converters in Electric Vehicle Applications	S M Sajjad Hossain Rafin, Rejaul Islam, Osama Mohammed	Florida International University
	Wide Band Gap Semiconductor Devices for Power Electronic Converters	S M Sajjad Hossain Rafin, Rony Ahmed, Osama Mohammed	Florida International University
	A Review of Power Electronics Converters for Electronic Aircrafts	S M Sajjad Hossain Rafin, Md Ashikul Haque, Osama Mohammed	Florida International University
	Power Electronic Converters for Wind Power Generation	S M Sajjad Hossain Rafin, Rejaul Islam, Osama Mohammed	Florida International University
1:25-4:05 p.m.	*S9: Module Integration*		
	Session Chair	Vanessa Smet	Georgia Tech.
1:25-1:55 p.m.	Keynote: Power Electronic Materials and Devices: Silicon to Diamond	Travis Anderson	US Navy
1:55-2:25 p.m.	Keynote: Heterogeneous Roadmap Update	Patrick McCluskey	University of Maryland
2:25-2:50 p.m.	Towards next generation power module package technology blooming	S. Idaka	Mitsubishi Electric R&D Centre Europe
2:50- 3:15 p.m.	An intelligent power module	Julien Morand, Johan Le Lesle	Mitsubishi Electric R&D Centre Europe
3:15-3:40 p.m.	WAVELET-Based Parameter Estimation of High Voltage Impulse Signals	Emel Onal	Istanbul Technical University
3:40-4:05 p.m.	NMOS/NLDMOS LSS dead-Time Minority Carrier Isolation Optimization	Gang Liu, Olivier Causse	onsemi
4:05 - 4:20 p.m.	*Break*		
4:20-5:15 p.m.	*S4: Additive Manufacturing*		
	Session Chair	Peter Friedrichs	Infineon
4:20-4:50 p.m.	Keynote: Nano Additive Manufacturing of Challenging Materials	Wendy Gu	Stanford University
4:50-5:15 p.m.	Additive deposition technologies: from 2D towards 3D electronic systems	Frank Roscher	Fraunhofer Institute, Germany
5:40-6:05 p.m.	*S10: Partners Session*		
	Amkor Technology		
	KEMET Electronics Corporation		
	FIU Biomedical Engineering		
	Wolfspeed		
	Indium Corporation		
	POSTERS & BENCHTOP PARTNERS		
7:00-9:00 p.m.	*BANQUET DINNER*		

Day 3 - Friday February 3, 2023			
Time	**Description/Title**	**Presenter**	**Affiliation**
8:30-9:50 a.m.	*S14: Plenary III: Improved Electrical Performance for Power*		
8:30-9:10 a.m.	*Superior heat dissipation by low pressure Ag sinter joining and real time AI lifetime prediction for SiC power module*	*Prof. Katsuaki Suganuma*	*University of Osaka, Japan*
9:10-9:50 a.m.	*Emerging Power electronics packaging and system integration for automotive applications*	*Dr. Mahadevan Iyer*	*Amkor*
9:50-10.05 a.m.	*Break*		
10:05 a.m.-12:15 p.m.	*S12: Passive Component Integration*		
	Session Chair	John Bultitude	KEMET Electronics Corporation
10:05-10:35 a.m.	Keynote: Enabling Sustainable Power Electronics Through Miniaturization and Integration of Power Magnetics	Matt Wilkowski	Enachip
10:35-11:00 a.m.	Application of Circuit Board Technology for Passives Packaging	B. K. Summey	KEMET Electronics Corporation
11:00-11:25 a.m.	High-density nanoporous silicon decoupling capacitors	Mohamed Jatlaoui	Murata Integrated Passive Solutions, France
11:25-11:50 a.m.	Cold-sprayed aluminum capacitors for 3D power packaging	Reshmi Banerjee (Denny John, Cheng Zhang, Arvind Agarwal, P. Markondeya Raj)	Florida International University
11:50-12:15 p.m.	Class I Multi-Layer Ceramic Capacitors (MLCCs) Performance As Wide Band Gap (WBG) Snubbers for Hard Switching Applications	Allen Templeton, Nathan Reed, Hunter Hayes, James Davis, John Bultitude	KEMET Electronics Corporation
12:15-1:15 p.m.	*Lunch*		
	Lunch Plenary: Magnetoelectric Nanoparticles As a Wireless Brain-Machine Interface	*Sakhrat Khizoev*	*University of Miami*
	S13: Low Power & Telemetry		
1:15-3:00 p.m.	*Session Chair*	Girish Wable	Jabil
1:15-1:45 p.m.	Keynote: eSiP (energy source in package) - 3D packaging considerations for self-powered IoT edge devices	Brian Zahnstecher	PowerRox
1:45-2:10 p.m.	Manufacturing Challenges and Qualification of 3D Packaging	Chuck Woychik	Skywater Technology
2:10-2:35 p.m.	Metamaterial beam steering for wireless power	Hae-In Kim, Y.K. Yoon	University of Florida
2:35-3:00 p.m.	Laminate-Embedded Multimodal Energy Harvester for Multilevel Power Supply	Jorge A. Caripidis Troccola (Sweta Gupta, Maxence Carvalho, Satheesh Bojja Venkatakrishnan, Pulugurtha Markondey Raj)	Florida International University
3:00-3:15 p.m.	Closing Remarks	Markondeyaraj Pulugurtha	Florida International University
	S15: LABORATORY TOUR - Florida International University		