ASME INTERPACK 2024

Plenary Talks | Technical Sessions | Breaks | Lunch Presentations | Workshops/Panels | ASME Meetings | Student Posters | Track Keynotes | Tutorials | Panels

Day	7:45 AM	8:00 AM - 9:30 AM		9:30 AM - 10:45 AM		11:00 AM - 12:15 PM	12:15 PM - 1:30 PM	1:30 PM - 2:15 PM		2:30 PM - 03:45 PM	3:50 PM - 5:15 PM	5:45 PM- 6:45 PM	7:00-7:30 PM	7:30-8:00 PM
Day 1 October 7, 2024										Registration Opens	Registration Opens	Leadership Dinner -By invitation Only	Leadership Dinner -By invitation Only	Leadership Dinner -By invitation Only
Day 2 October 8, 2024	Opening Remark	OUSD IBAS RESHAPE Project (California DE)	The Use of Additive Hybrid Electronics as a Key Element in the National Strategy for Advanced Packaging (California DE)	03-01: Electronics Packaging - Electrical Design (Salon C) 02-01: Data Centers and Modular Edge Systems - I (Salon B) 07-01: Transportation Systems, AI and Machine Learning - I (Salon K) Reliability Evaluation of Additively Manufactured Flexible and Stretchable Electronics - Experiments, Models, and Applications (Salon A)	BREAK	03-02: Electronics Packaging - Components (Salon C) 04-01: Power/RF Electronics and Photonics - I (Salon-L) 06-01: FHE Design & Reliability (Salon M) Data Center and Telecom Challenges and Opportunities (Salon A)	Lunch Avram Bar-Cohen Award (California GJFH)	Passive Two-Phase Cooling of Electronics and Energy Efficiency (Salon D) AI/ML and Industry Trends (Salon E)	BREAK	03-04: Electronics Packaging - Stress and Reliability I (Salon-C) 02-02: Data Centers and Modular Edge Systems - II (Salon-B) 04-02: Power/RF Electronics and Photonics - II (Salon L) Machine Learning for Electronics (Salon A)	03-05: Electronics Packaging - Stress and Reliability II (Salon C) 06-02: Advanced Materials & Processes for Printed Electronics - I (Salon M) -- Women in Engineering (Salon A)	Interactive Poster Session (California GJFH)	K-16 Committee Meeting (Open) (Salon D)	K-16 Committee Meeting (Closed) (Salon D)
Day 3 October 9, 2024		SRC's Microelectronics and Advanced Packaging Technologies (MAPT) Roadmap: Driving a New Era of Innovation in Semiconductors and Digital Twins (California DE)	2.5D/3D Integration for High-Speed Light Engines (California DE)	03-06: Electronics Packaging - Stress and Reliability III (Salon C) 01-01: Heterogeneous Integration (Salon A) 06-04: Materials & Processes for RF Electronics (Salon M) 'Net zero computing: liquid-cooling and heat reuse (Salon K)	BREAK	03-07: Electronics Packaging - Stress and Reliability IV (Salon C) 02-03: Data Centers and Modular Edge Systems -III (Salon B) 06-05: FHE Applications & Processing (Salon M) Advancing Electronics Packaging and Heterogeneous Integration: Insights From Interpack 2024 Panels, Tutorials, and Workshops (Salon K)	Lunch InterPACK'24 Allan Kraus Award (California GJFH)	Size and Timescale Matching for Transient-Aware Thermal Management (Salon D) Efficient energy systems/sustainability/battery (Salon E)	BREAK	03-08: Electronics Packaging - Reliability (Salon C) 02-04: Data Centers and Modular Edge Systems -IV (Salon B) 07-03: Transportation Systems, AI and Machine Learning - III (Salon K) Thermal/Mechanical/Electrical Challenges and Opportunities for Mobile/Wireless/AI/IoT/Automotive and Higher Power Compute Devices (Salon A)	05-03: Multiscale Thermal Transport and Energy Storage -III (Salon L) 06-06: Advanced Materials & Processes for Printed Electronics II (Salon M) 03-09: Electronics Packaging - Thermal I (Salon C) K16 Mentoring (Salon A)	InterPACK Meeting (Closed) (Salon D) InterPACK Meeting (Open) (Salon D)	EPPD Meeting (Open) (Salon D)	
Day 4 October 10, 2024		ARPA-E COOLERCHIPS Technology for a Future of Energy Efficient High Power Density/AI Data Centers (California DE)	Data Center Industry's Supply Chain Readiness and Scalability for Liquid Cooling (California DE)	03-10: Electronics Packaging - Thermal II (Two-phase) (Salon-C) 05-01: Multiscale Thermal Transport and Energy Storage -I (Salon L) 02-05: Data Centers and Modular Edge Systems -V (Salon B) Government (Salon-M)	BREAK	03-11: Electronics Packaging - Thermal III (Salon-C) 05-02: Multiscale Thermal Transport and Energy Storage-II (Salon L) 02-07: Data Centers and Modular Edge Systems -VII (Salon B) Flexible Electronics (Salon M)	Lunch InterPACK'24 Awards (Nasser Grayeli Poster, EPPD, JEP) (California GJFH)	Wearable Ultrasound Technology Additive Manufacturing for electronic devices and interconnects	BREAK	03-12: Electronics Packaging - Thermal IV (Single Phase Convection) (Salon C) 02-06: Data Centers and Modular Edge Systems -VI (Salon B) 06-07: FHE Printing & Packaging (Salon M) Two-phase Flow for Electronics Cooling (Salon A)	03-03: Electronics Packaging - Materials (Salon C) 07-02: Transportation Systems, AI and Machine Learning -II (Salon K) 05-03: Multiscale Thermal Transport and Energy Storage -III (Salon L) 06-03: Printed Electronics for Wearables & Health (Salon M)			

Session	Submission Name	First Author	Author Affiliation
01-01: Heterogeneous Integration	Wide-Field, Subsurface Bond Health Evaluation of Heterogeneously-Integrated Microelectronics Using Frequency Domain Thermoreflectance	Amun Jarzembski	Sandia National Laboratories
	A Thermal Reduced Order Model for Power Throttling Simulations of a 3D IC	David Geb	Ansys, Inc.
	Parametric Thermal Design for Heterogeneously Integrated High-Power Packages	Yunhyeok Im	Georgia Institute of Technology
02-01: Data Centers and Modular Edge Systems -I	Exploring the Impact of CRAH Unit Partial Failure in Hybrid-Cooled Data Centers	Ahmad R. Gharaibeh	Binghamton university
	Bio-Analysis of Cross-Mixed Coolants in High Powered Liquid Cooled Data Center	Lochan Sai Reddy Chinthaparthy	University of Texas at Arlington

Session	Submission Name	First Author	Author Affiliation
	Liquid to Liquid In-Row Coolant Distribution Unit Characterization for High Power Data Center	Himanshu Modi	The University of Texas at Arlington
02-02: Data Centers and Modular Edge Systems- II	Review of Commercial One-Dimensional Thermo-Fluid Solvers for Liquid Cooled Server System	Bharath Ram Ravi	Celestica
	Numerical Analysis of Immersed Confined Coaxial Liquid Jet Impingement Heat Transfer for Electronics Thermal Management	Faramarz Kahbandeh	Faramarz
	Topology Optimization of Heat Exchange Surfaces Using Ann-Based Anisotropic Flow and Thermal Submodels	Saeel Shrivallabh Pai	Purdue University
02-03: Data Centers and Modular Edge Systems - III	Experimental Investigation of Single-Phase Forced Convection Heat Transfer With Water in Compressed Copper Foam	Bolape Alade	Villanova University
	Effect of Aspect Ratio and Flow Rate on the Flow Regimes and Thermal Performance of Two-Phase Micro-Channel Cold Plates for Direct to Chip Cooling	Yousaf Shah	Villanova University
	Passive Direct Liquid Cooling for High-Power Processors	Ryan Enright	Seguente Inc.
02-04: Data Centers and Modular Edge Systems - IV	Numerical Study of Two-Phase Immersion Cooling Limits for Bare Die Packages With Novec 649	Tanya Liu	Google
	Numerical Study of Single-Phase Immersion Cooling Limits for Bare Die Packages	Sadegh Khalili	Google
	~~Data Center Industry's Supply Chain Readiness and Scalability for Liquid Cooling~~	~~Ani Natekar~~	~~Meta Platform Inc.~~
02-05: Data Centers and Modular Edge Systems -V	Maturation of Pumped Two-Phase Liquid Cooling to Commercial Scale-Up Deployment	Russell Tipton	Vertiv
	Investigation of Server Level Direct-To-Chip Two Phase Cooling Solution for High Power GPUs	Akshith Narayanan	Accelsius
	Advancing in Data Centers Thermal Management: Experimental Assessment of Two-Phase Liquid Cooling Technology	Omar Al-Zu'bi	Binghamton University
	Thermal Performance of Common Cold Plate for Pumped Single- and Two-Phase Direct Liquid Cooling for Next Generation High Power Server Processors	Devdatta Kulkarni	Intel Corporation
02-06: Data Centers and Modular Edge Systems - VI	Commissioning and Thermohydraulic Characterization of a Single-Phase Liquid-Cooled High-Density Data Center Rack	Deogratius Kisitu	Villanova University
	Experimental Study of Electrochemical Additive Manufacturing (Ecam) Cold Plates for Cooling Non-Uniform Heat Dissipation	Jacob Lamotte-Dawaghreh	The University of Texas at Arlington
02-07: Data Centers and Modular Edge Systems- VII	Upper Limits of Phase Change Heat Transfer in Immersion Cooling	Saeed Moghaddam	University of Florida
	Dielectric Fluid Based Optimization Approach for Heat Sinks in Single-Phase Immersion Cooling	Akiilessh Sivakumar	The University of Texas at Arlington

Session	Submission Name	First Author	Author Affiliation
	Experimental Study on Heat Capture Ratio in Single Phase Immersion Hybrid Cooling	Akiilessh Sivakumar	The University of Texas at Arlington
	Experimental Study of Electrochemical Additively Manufactured (Ecam) Heat Sinks for Single-Phase Immersion Cooling	Joseph Herring	The University of Texas at Arlington
02-08: Data Centers and Modular Edge Systems - VIII	Thermal Performance of Low GWP Dielectric Fluid for Two-Phase Immersion Cooling	ANIL YUKSEL	HPE
	Pool Boiling Performance of Low Gwp Dielectric Fluids for Immersion Cooling in Data Center Applications	Cheng-Min Yang	Oak Ridge National Laboratory
03-01: Electronics Packaging - Electrical Design	Topology Optimization of Electronic Line Using Computer Aided Engineering Software	Kotaro Miura	Hirosaki University
	The Key Factors for Impedance Control in Embedded Trace Substrates	Ho-Chuan Lin	Siliconware Precision Industries Co.,Ltd.
	Advanced Thermal Aware Mobile SoC Floorplan Design Optimization by Integrating Proactive Design Rule Check Process and Evolutionary Algorithms	Myunghoon Lee	Ansys
	Enabling Reduced Footprint SMT Components in IC Packages: A Simulation-Based Approach for Solder Paste Volume Optimization	Nidheesh Puliyath	Qualcomm Technologies Inc.
03-02: Electronics Packaging - Components	Fabrication and Passive Assembly of Compact, Broadband Substrate-To-Die Evanescent Couplers for Sustainable Pbps Co-Packaged Optics	Drew Weninger	Massachusetts Institute of Technology
	Comparing Wire Bonding Strategies for High Power Applications	Whit Vinson	University of Arkansas
	State of Health Estimation Model Development for Li-Ion Battery Lifetime Considering Calendar Aging and Post-Knee Degradation	Ved Soni	Auburn University
03-03: Electronics Packaging - Materials	Evolution of Non-PFAS Underfill Properties Under High-Temperature Storage and Hygrothermal Exposure	Madhu Kasturi	Auburn University
	Process-Performance Interactions Under Exposure to Sustained High Temperature for Additively Manufactured Electronics and SMT Assembly With Low-Temperature Curable Adhesives	Sabina Bimali	Auburn University
03-04: Electronics Packaging - Stress and Reliability I	Microvia Geometry Assessment at High-Stress Substrate Locations in Printed Circuit Boards Under Thermomechanical Stresses	Mujahid Abbas Syed	Yokohama National University
	Evaluation of Warpage Deformation in Semiconductor Device Packaging Process	Taiju Yagi	Yokohama National University
	Effects of Package Position and Constraint Conditions on Fatigue Life of QFP Interconnect Structure Under Random Vibration	Nozomi Shimamura	Yokohama National University
	Modelling Effect of Isothermal Aging of Anisotropic SaAgCu(SAC) Solder Joint Using Crystal Viscoplasticity	Aniket Bharamgon da	University of Maryland
	Reliability Analysis of SAC Solder Under Thermal Fatigue for Encapsulated GaN Packages	Patrick McCluskey	University of Maryland, College Park

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03-05: Electronics Packaging - Stress and Reliability II	Minimizing Die Cracking Risk by Copper Pillar Design Optimization for Advanced 5nm Silicon Node	Shrinath Shrinivas Ramdas	Marvell Technology
	Evolution of Mechanical Properties and Microstructure of SAC305 Lead Free Solder Subjected to Mechanical Cycling and High Temperature Aging	Mahbub Alam Maruf	Auburn University
	Comparisons of Mesoscale and Conventional Techniques to Predict Thermal Cycling Induced Solder Joint Deformation Behavior	Debabrata Mondal	Auburn University
03-06: Electronics Packaging - Stress and Reliability III	Effect of Die Parameters on the Thermomechanical Performance of PBGA Packages With Hybrid SAC-LTS Interconnects	Souvik Chakraborty	Auburn University
	Mechanical Characterization and Aging Behavior of iSAC Lead Free Solder	Golam Rakib Mazumder	Auburn University
	Effect of Bismuth Concentration on the High Strain Rate Characteristics of Sn-Ag-Cu Solders and Analysis of High-g Level Shock Damage During Extended Sustained Operation at 100°C	Vishal Mehta	Auburn University
	Sequential High Temperature and Hygrothermal Exposure on the Evolution of Interfacial Fracture Toughness of TIM-Copper and EMC Interfaces	Madhu Kasturi	Auburn University
03-07: Electronics Packaging - Stress and Reliability IV	Sequential High-Temperature Aging and High Humidity Exposure of Chip/Underfill Interfaces to Investigate the Evolution of Interfacial Stress Intensity Factor in FCBGA Stress Intensity	Aathi Pandurangan	Auburn University
	Investigation of Interfacial Reliability and Comparison Non-PFAS Underfills in FCBGAs Under Humidity and High-Temperature Exposure	Aathi Pandurangan	Auburn University
	Warpage Prediction Improvements for Thin Package-on-Package Architectures	Nakul Kothari	Qualcomm Technologies
03-08: Electronics Packaging - Reliability	Study on the Impact of Prolonged High-Temperature Exposure on the Reliability of Lead-Free Solder Joint Assemblies Under Vibration	Vishal Mehta	Auburn University
	Hygrothermal Aging Evolution of Non-PFAS FCBGA Interfaces	Padmanava Choudhury	Auburn University
	Sequential High Humidity and Isothermal Evolution of UF-Substrate Interface	Padmanava Choudhury	Auburn University
	Exploring Signal Processing Techniques for Resolution Enhancement in Scanning Acoustic Microscopy for Microelectronic Package Inspection	Ehsan Dehghan Niri	Arizona State University
03-09: Electronics Packaging - Thermal I	Advances in Thermal Analysis Techniques to Address the Growing Thermal Challenges With Heterogeneous Packaging	Mo Shakouri	Microsanj LLC

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	Fundamental Study on Practical Measurement Method of Anisotropic Thermal Conduction Performance Using Zig-Zag Jigs	Natsumi Kimura	Kanazawa Institute of Technology
	High-Precision Thermal Characterization of Ultra-Low Thermal Resistance Copper Nano-Wire (CuNWs)-Polydimethylsiloxane (PDMS) Composite Thermal Interface Materials (TIMs) Tape	Kaiying Jiang	Stanford university
	Characterization of Heat-Curable Thermal Interface Materials and Influence on Package Thermal Performance	Kevin Cox	Tektronix Component Solutions
03-10: Electronics Packaging - Thermal II (Two-phase)	Scalable Large-Area Two-Phase Capillary-Enhanced Micro-Cooler Using Silicon Microchannel Fin Array With 3D Silicon Manifold for High-Heat-Flux Electronics Cooling Application	Heungdong Kwon	Stanford University
	Capillary-Based Two-Phase Cooling for High Power Density Power Electronics	Yujui Lin	Stanford University
	Mitigation of Boiling-Induced Thermal Degradation Using Microporous Nickel Inverse Opal (NIIOs) Structures	Kaiying Jiang	Stanford university
	Implementation and Assessment of Various Thermal Management Strategies/solutions in 3d Dense Integrated Circuits	Luke (Gyubin) Min	Stanford University
03-11: Electronics Packaging - Thermal III	Additively Manufactured Cold Plate Integrated With Evaporator Wicks and Phase Separators for Thermal Management of Multiple High-Heat-Flux Heat Sources	Mohammad Reza Shaeri	Advanced Cooling Technologies, Inc.
	Reduced-Order Modelling for Efficient Chip-Package-Board Design	Chengdong Yuan	Jade University of Applied Sciences
03-12: Electronics Packaging - Thermal IV (Single Phase Convection)	Basic Study on Transient Flow Control Technique in Narrow Flow Passage With Flow Separation Region for Maximization of Cooling Performance of Heating Elements	Daiki Kobayashi	Kanazawa Institute of Technology
	Computational Fluid Dynamics (CFD) Modeling and Optimization of Large-Scale (3 cm X 3 cm) Silicon-Based Embedded Microchannels With 3D Manifold Micro-Coolers	Daeyoung Kong	Stanford University
	Microscale Transport Phenomena and Bubble Dynamic in Microfluidic Electroless Copper Interconnection for Chip 3d Integration	Yonglin Zhang	The Hong Kong University of Science and Technology
04-01: Power/RF Electronics and Photonics -I	Thermophysical Property Measurement of GaN-on-AlN Wafers for Next-Generation RF Device Technologies	Husam Walwil	Pennsylvania State Universioty
	A Numerical Study on Die-Integrated Manifold Microchannel Heat Sinks Considering Transistor-Level Heat Dissipation of GaN Based MMIC Devices	Orcun Yildiz	Aselsan Inc.
	Standardized Approach for Assessing Fiber Device Resiliency	Conor Galligan	MIT Lincoln Laboratory
	Thermal Management System of an Outer-Rotor-Motor-Based Traction Drive With Integrated Power Electronics in its Central Cavity	Bidzina Kekelia	National Renewable Energy Laboratory

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04-02: Power/RF Electronics and Photonics -II	Enhanced RF and Thermal Performance of 400 W GaN-on-SiC S-Band Amplifier MMICs Using CVD Diamond Heat Spreaders	Ian Friel	Element Six (UK) Ltd
	Efficient Cooling Solutions for High Heat Flux Electronics: Ann Optimization of Jet Impingement and Micropost Systems	Seungwoo Kim	Korea Advanced Institute of Science and Technology (KAIST)
	Evaluating the Transient Thermal Dynamics of High Al Content Algan Channel Hemts	Georges Pavlidis	University of Connecticut
05-01: Multiscale Thermal Transport and Energy Storage -I	Evaporative Thermal Management of Batteries in Electric Vehicles Using Flexible Structures	Myriam Bouzidi	Georgia Institute of Technology
	Comprehensive Analysis of Two-Phase Flow Boiling for IT Equipment Cooling: A System and Component-Level Approach	Mohammad Reza Najjari	CoolIT Systems
	Enhanced Passive Cooling in Thermal Interface Materials via Encapsulated Phase Change Material Additives	Joshua Kasitz	University of Arkansas
	Cooling Electronics by Direct Contact With Liquids	Amanie Abdelmessi h	California Baptist University
	Enhanced Pool Boiling Heat Transfer Using Re-Entrant Surfaces	Yimin Zhou	University of Michigan-Ann arbor
05-02: Multiscale Thermal Transport and Energy Storage -II	Optimized Single-Phase Cooling of Multi-Chip Modules	Valentin Belosludtse v	The University of Illinois at Urbana-Champaign, Department of Mechanical Science and Engineering
	Dynamic Phase Change Material for High Power Electronics Cooling	Soonwook Kim	University of Illinois at Urbana-Champaign
	Simulation of Evaporating Cooling in Micropillar Array for Chip Thermal Management	Sumanta Acharya	Illinois Institute
	Measurements of Strain-Dependent Thermal Properties of Elastocaloric Refrigeration Materials	Ronald Warzoha	United States Naval Academy
05-03: Multiscale Thermal Transport and Energy Storage -III	Electrochemical Additive Manufacturing of Three-Dimensional Topology Optimized Fins for High Heat Flux Thermal Management Applications	Valentin Belosludtse v	The University of Illinois at Urbana-Champaign, Department of Mechanical Science and Engineering
	Quantitative Thermophysical Property Characterization of Thin Layered Structures by Means of Combined Thermoreflectance-Nid Algorithm Technique	Kazuyoshi Fushinobu	Tokyo Institute of Technology
	Performance of Topology Optimized Cold Plate Designs for Cooling Arrays of Discrete Heat Sources	Avinash Bairwa	Purdue University
	Criteria for Transition From Bubbly to Elongated Bubbles Flow Regime	Ashwani Verma	University of Florida
	Enhancement of Thermal Boundary Conductance in Wide and Ultrawide Bandgap Semiconductor Devices With Interlayer	Chung-Ping Ho	University of Florida

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06-01: FHE Design & Reliability	Behavior of Printed Hybrid Electronic Assemblies With Embedded Components in Polymeric Substrates Subject to Extreme Acceleration Levels and Elevated Temperatures	Hayden Richards	University of Maryland
	Wearable Ultrasound Technology	Sheng Xu	UC San Diego
	Hybrid Electronics Integration and Design for Reliability	Janos Veres	NextFlex
06-02: Advanced Materials & Processes for Printed Electronics- I	Thermal Cycling Reliability on Encapsulated Flexible Printed Circuit Fabricated With Water-Based Ink and Room-Temperature Curable Adhesive	Sabina Bimali	Auburn University
	Performance and Reliability of In-Mold Direct-Write Signal Processing Circuits in Sustained High-Temperature Operation	Md Golam Sarwar	Auburn University
	Additively Printed Circuits Using Biodegradable Substrates on Aerosol-Jet With Aqueous-Based Silver Conductive Paste Using ECA and Low-Temperature Interconnects	Daniel Karakitie	Auburn University
	Comparative Performance Analysis of Screen-Printed Structures on PET and BPET Substrates Utilizing Low-Temperature ECA and MACA for SMD Component Attachment	Shriram Kulkarni	Auburn University
	Synthesis of 2d Material and Nanoparticle Inks for Advanced Device Applications	David Estrada	Boise State University
06-03: Printed Electronics for Wearables & Health	Sustainable and Cost-Effective Paper Based Dry Electrodes Leads for Health Monitoring	Babatunde Falola	Binghamton University (SUNY)
	Seeing the Sound: An Ultrasound-Based Intravascular Light Source for Non-Invasive Neuromodulation	Guosong Hong	Stanford University
06-04: Materials & Processes for RF Electronics	Study of Liquid Metal Inks on Textile Fibers via Direct-Write for a Novel Multi-Layer Rf Application	Adria Kajenski	University of Massachusetts Lowell
	3D-Printed Multifunctional Flexible Sensors for Low-Frequency Magnetic Field Detection and Manipulation	Richard Harry	Tuskegee University
	Aerosol Jet Printed Coplanar Waveguides on Hpfs Substrates	Mousa Al-Zanina	Binghamton University
	Hybrid Additive Manufacturing of Flexible Copper-Based Electronics	Shenqiang Ren	University of Maryland
06-05: FHE Applications & Processing	Oscillator Performance on Thermoformed Additive In-Mold Electronics for Automotive Applications	Aditya Harsha	Auburn University
	Evaluation of Additively Printed Filters on High-Temperature Performance on the Aerojet Platform Using Ceramics Substrate and Laser Ablation Process	Daniel Karakitie	Auburn University
	Printed Liquid Electronics for Ultra-Soft Stretchable Electronics	Christopher Tabor	Air Force Research Laboratory
	Effect of Passivation Layer and Line Thickness on Damage Mechanism of Flexible Ag Nanowire Interconnects Under High Density Current	Kazuki Hisasue	Hirosaki University

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06-06: Advanced Materials & Processes for Printed Electronics- II	Water-Based Inks and Low-Temperature Interconnects for Direct-Write Fabrication of Flexible Electronics Under Thermal Cycling	Fatahi Musa	Auburn University
	Thermal Cycling Reliability of In-Mold Direct Write Additively Printed Integrator and Active Low-Pass Filter	Scott Miller	NextFlex National Manufacturing Institute
	Performance and Reliability Comparison of Thermoformed, Screen-Printed Structures on Polycarbonate (PC) and High Impact Polystyrene (HIPS) Substrates Under Sustained High Temperatures for In-Mold Electronics	Shriram Kulkarni	Auburn University
	Innovative Materials for Additive Manufacturing	Daniel Slep	ChemCubed, LLC
06-07: FHE Printing & Packaging	Validation and Translation of Process Monitoring Tools for Commercial Aerosol Jet Printing Systems	Ethan Secor	Iowa State University
	Reliability of Direct Write Additively Printed Sustainable Flexible Circuitry With ECA Under Sustained High-Temperature Operation	Md Golam Sarwar	Auburn University
	Evaluation of Printed Logic Circuits With Additively Packaged GaN Bare Die Devices at High Temperatures	Ved Soni	Auburn University
	Multiphysics Modelling of Direct-Write Hollow Pillars for Microfluidic I/o by Uv-Assisted Coaxial Printing	Qianwen Xu	The Hong Kong University of Science and Technology
07-01: Transportation Systems, AI and Machine Learning -I	Predictive Machine Learning Models for LiDAR Sensor Reliability in Autonomous Vehicles	Saba Farahani	University of California, Irvine
	Nusselt-Constrained Physics-Driven Learning for Condensation Heat Transfer in Non-Condensable Gas	Haeun Lee	Chung-Ang University
07-02: Transportation Systems, AI and Machine Learning -II	Anti Theft Control of Automatic Teller Machine Using Wireless Sensors	Dheeraj Royal	srm university
	Intelligent Packaging Is Changing Transportation	Md Sameer	SRM Institute of Science and Technology
07-03: Transportation Systems, AI and Machine Learning -III	Revolutionizing Transportation Systems With Ai and Machine Learning: Innovations and Impacts	Koushik Mahto	SRM INSTITUTE OF SCIENCE AND TECHNOLOGY,CHENNAI
	"Revolutionizing Transportation: The Role of Ai and Machine Learning in Modern Mobility"	Aditya Singh	SRMIST
08-01: Interactive Presentations	Electro-Thermal Co-Simulation for Sic Power Module Based on Ltspice-Matlab-Comsol	Juho Park	Chung-Ang university
	Thermal Spreading Resistance Analysis for High Heat Flux Removal in Power Modules of Evs/hevss	nana Kang	Chung-Ang university
	Enhanced Boiling Heat Transfer on a Large Surface Area With an Integrated Micropillar and Microporous Copper Structure	Youngseob Lee	School of Intelligent and Energy Industry, Chung-Ang Univ
	Hierarchical Structure With Laser-Induced-Roughness for Enhanced Pool Boiling Heat Transfer	Jeonghwan Park	Chung_Ang University, Advanced Thermal System Lab.
	Thermal Transport	Harshith Tadikonda	SRMIST

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	Advancements in Heterogeneous Integration for Next-Generation Electronic Systems	Amokh G Nair	SRM IST
	Optimizing Data Management: The Role of Data Centers and Modular Edge Systems in the Digital Era	M Vaishnavi Prabha	SRM IST
	Wire Bonding Strategy Comparison for High Power Applications	Whit Vinson	University of Arkansas
	Improvement of Adhesion Reliability of Epoxy Adhesives Under Environment of High Temperature and High Humidity by Surface Treatment of Adherend	Taro Katayama	Gunma University
	Opportunity for Encapsulated Phase Change Material Passive Cooling in Thermal Interface Materials	Joshua Kasitz	University of Arkansas
	Bondability and Corrosion Resistance of Cr-Free Brazing Filler for Solid Oxide Fuel Cells	Koya Tsukagoshi	Gunma University
	Aluminum Powder-Based Bonding Materials: Preparation Techniques and Characterization of Their Bonding Properties	Rika Goto	Gunma University
	Effect of Ag Addition on Microstructure and Mechanical Properties of Sn-Sb-Ag-Ni-Ge Lead-Free Solder	Kentaro Kawai	Gunma University
	Improving Electronic Cooling With Nanostructured Materials	Karishma Prasad	SRM INSTITUTE OF SCIENCE AND TECHNOLOGY - KTR CAMPUS
	Comparison of Low Melting Point Lead-Free Solder for Flip Chip Bonding in Mechanical Properties With Sn-Ag-Cu Solder	Shota Umeda	Gunma University
	Advancements in Multiscale Thermal Transport and Energy Storage Technologies	Yashwad Shaik	SRM INSTITUTE OF SCIENCE AND TECHNOLOGY
	Exposure to Sustained High Temperatures in Additively Manufactured Electronics Created With Water-Based Ink and Low-Temperature Curable Adhesives	Sabina Bimali	Auburn University
	Accelerated Life Testing Reliability of Pfas-Free Fcbga Interfaces	Padmanava Choudhury	Auburn University
	Aerosol-Jet Printing of Additive Circuits on Biodegradable Substrates Using Aqueous-Based Silver Conductive Paste With High and Low-Temperature Interconnects	Daniel Karakitie	Auburn University
	Evaluation of Interfacial Fracture Toughness of Tim/copper and Emc/substrate Interfaces Exposed to Sequential Isothermal and Hygrothermal Loading	Madhu Kasturi	Auburn University
	Reliability of Conductive Epoxy Joints in Flexible Electronics Undergoing Vibration	Sara Lieberman	Binghamton University
	Mechanical Properties of Lts and Sac+bi Subjected to High Strain Rate With Isothermal Aging	Mrinmoy Saha	Auburn University
	Reliability of Additively Printed In-Mold Electronics With Eca Under Sustained High Temperature Operation	Md Golam Sarwar	Auburn University

Session	Submission Name	First Author	Author Affiliation
	Impact of Thermal Cycling on the Reliability of In-Mold Direct Write Additively Printed Integrators and Active Lowpass Filters.	Fatahi Musa	Auburn University
	Aging and Humidity Effect of Non-Pfas Tims and Ufs Thermal Conductivity Evolutions	Yunli Zhang	Auburn University
	Probing the Effects of Sequential Environmental Stressors on Chip/underfill Interfacial Toughness in Fcbga Assemblies for Automotive Applications	Aathi Raja Ram Panduranga n	Auburn University
	Investigations on the Effects of Extended High-Temperature Exposure on the Reliability of Lead-Free Solder Joint Assemblies Under Vibrations	Vishal Mehta	Auburn University
	Performance Comparison of Screen-Printed Structures on PET and BPET Substrates With Low-Temperature ECA and MACA for SMD Component Attachment	Shriram Kulkarni	Auburn University
	Unified Cell Lifetime Model Development for Soh Estimation of Li-Ion Batteries Considering Calendar Aging and Post-Knee Degradation	Ved Soni	Auburn University
	Performance of Oscillator Circuit in Additive In-Mold Electronics for Automotive Applications	Aditya Harsha	Auburn University
	Advances in Flexible, Wearable, and Printed Electronics: Processing, Reliability, and Applications	Harshith Tadikonda	SRMIST
	Thermal Management of 3d Rf Pop Based on Ceramic Substrate	Hiranmoy Dey	SRM Institute of Science and Technology
	Low-Temperature Lead-Free	Jeevan Kumar Yalla	S.R.M INSTITUTE OF SCIENCE AND TECHNOLOGY
	Utilizing Ansys Icepak for Capstone Thermal Systems Design in Mechanical Engineering Education	Kevin R. Anderson1	NA
	Thermal Optimization of Smartphone Components	Devadharsh ini S	SRM Institue of Science and Technology
	Experiential Learning in Electronic Cooling Design Using Ansys Icepak: A Capstone Course Perspective	Dinesh Kumar S	SRM Institute of Science and Technology
	Enhancing Electronics Cooling Efficiency Through Advanced Heat Transfer Analysis With Ansys Icepak and Ai/ml Integration	Leni Nikitaa	SRM INSTITUTE OF SCIENCE AND TECHNOLOGY
	Thermal Management of High-Power Led Arrays	Pradeep T	srm institute of science and technology kattankulathur
	Thermal Management of Autonomous Vehicle Electronics	Gowshigan M	SRM
	Enhancing Electronics Cooling Efficiency Through Advanced Heat Transfer Analysis With Ansys Icepak and Ai/ml Integration	Ramjimaha devan Rg	SRM

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	Cold Plate and Liquid Cooling Thermal Analysis	Raajneel Ray	SRMIST
	Enhanced Pool Boiling Heat Transfer Using Re-Entrant Surfaces	Yimin Zhou	University of Michigan