



Preliminary Program Overview, rev2.4 *(Subject to updates and changes)*

	DAY 1: December 2 (Tue), 2025
8:00am - 9:00am	Registration & Refreshment
Venue	Resort World West Ballroom at Basement 2
9:00am - 9:10am	Welcome Speech: Dr Eric Phua, EPTC 2025 General Chair
9:10am - 9:20am	Opening Speech: Prof Jeff Suhling (EPS President-Elect)
9:20am - 10:05am	Keynote 1: Dr Radha Nagaranjan, SVP/CTO, Marvell
10:05am - 10:25am	20min Coffee Break @ West Ballroom Foyer
10:25am - 11:10am	Keynote 2: Audrey Charles, SVP, Lam Research
11:10am - 12:10pm	Panel Session: Advances and Challenges in Metrology and Test for Heterogeneous Integration Moderator: Sia Choon Beng (FormFactor)
12:10pm - 12:30pm	Technology Solution Presentation: by Lam Research (Diamond Sponsor)
Venue	West Ballroom Foyer
12:30pm - 1:30pm	Lunch @ West Ballroom Foyer
	Exhibition Hall Opens (LEO 1-4 Function Room at Level 1)
Venue	Resort Worlds West Ballroom at Basement 2
1:30pm - 2:15pm	Keynote 3: Pax Wang, TD Director, UMC
2:15pm - 2:30pm	Technology Solution Presentation: by Applied Materials (Platinum Sponsor)
2:30pm - 3:15pm	Keynote 4: Prof. Harald Kuhn, Director, Fraunhofer Institute of Electronic Nano Systems ENAS
3:15pm - 3:40pm	20min Coffee Break @ West Ballroom Foyer
3:40pm - 3:55pm	Technology Solution Presentation: by KLA-Tencor (Platinum Sponsor)
3:55pm - 4:55pm	Panel Session: Co-Packaged Optics: The Next Inflection Point for Advanced Packaging Moderator: Surya Bhattacharya (IME)
4:55pm - 5:45pm	Day 1 Wrap-Up and Networking Reception @ outside West Ballroom
6:30pm - 8:00pm	VIP Dinner @ Tangerine, Equarius Hotel (by invitation only)

	DAY 2: December 3 (Wed), 2025					
Venue	Aquarius 2 & 3	Aquarius 4	Gemini 1	GEMINI 2	Pisces 1	Pisces 2
08:30am - 10:00am	PDC1	PDC2	PDC3	PDC4	PDC5	PDC6
	Advanced Packaging for Chiplets, Heterogenous Integration and CPO Dr John Lau (Unimicron)	Photonic Components and Packaging Technologies for Data Center, Communications, Sensing and Displays Dr Torsten Wipiejewski (Huawei)	Advanced Packaging for MEMS and Sensors Dr Horst Theuss (Infineon)	Current and Future Challenges and Solutions in AI & HPC System and Thermal Management Dr Gamal Refai-Ahmed (AMD)	Overview of Characterization Techniques for 3D HI Circuit Packaging Prof Ali Shakouri (Purdue University)	Design-on Simulation Technology for Reliability Prediction of AP Prof K.N. Chiang (National Tsing Hua University)
10:00am - 10:30am	30min Coffee Break outside Exhibition Hall (Leo 1-4)					
10:30am - 12:00pm	PDC1 (con't)	PDC2 (con't)	PDC3 (con't)	PDC4 (con't)	PDC5 (con't)	PDC6 (con't)
12:00pm - 1:15pm	EPS Luncheon @ Pisces2 to Virgo3					
1:15pm - 2:25pm	Technology Innovation Showcase - Session 1 (70 min) Quiz & Prizes Included					
Venue	Aquarius 3	Aquarius 4	Gemini 1	Gemini 2	Pisces 1	Pisces 2
2:25pm - 3:10pm	Materials and Processing 1	TSV/Wafer Level Packaging 1	Mechanical Simulation & Characterization 1	Interconnection Technologies 1	Advanced Packaging 1	Emerging Technologies
	P372 (111)-Oriented Nanotwinned/ Nanograined Bilayer Cu for Post-Q-time Low Temperature Cu-Cu Bonding	P168 Thermally Reliable Through Glass Via Filling with Ni-Fe Alloy for Advanced 3D Packaging (MAT)	P317 Toward lifetime prediction under variable load conditions in power electronics	P266 Surface Treatment for Wafer Bonding using Atmospheric Vapor Plasma Technology	P170 Development of Embedded Bridge Die interposer Using FO Packaging for HI of NPU's and HBMs	P326 3D Surface Ion Trap Process Development for Quantum Applications
	P167 Enhancing Wafer Bonding Strength via Surface and Dielectric Modification Using Plasma Activation Process	P319 RDL-first FOWLP Development for III-V Semiconductor Chips in RF Applications	P255 Board level solder reliability and package stress for TSICV UBM/bump IC package design	P185 Study of Extremely Low Temperature Organic Hybrid Bonding with Grain Engineered Cu	P287 HI of High-Performance Compute, Memory and Photonic Engine Chiplets on Large Molded Interposer package	P161 2

	DAY 3: December 4, 2025 (Thursday AM)					
Venue	AQUARIUS 3	AQUARIUS 4	GEMINI 1	GEMINI 2	PISCES 1	PISCES 2
8:45am -9:45am	TSV/Wafer Level Packaging 2	Smart Manufacturing and Equipment Technology 1	Mechanical Simulation & Characterization 3	Quality, Reliability & Failure Analysis 1	Advanced Packaging 3	Assembly and Manufacturing Technology 2
	P106 Adaptive Patterning®: Unlocking Scalable Density in Embedded Bridge Die Interposer	P242 Connectivity-Guided Feasibility Masking for Efficient Chiplet Placement in 2.5D Packaging via Reinforcement Learning	P177 Study on the Warpage Simulation and its Validation of Lidded FCBGA with Indium alloy TIM	P140 Studies and Elimination of F-induced Corrosion on Al Bondpads and Wafer Fabrication Process Improvement	P312 Characterization of PVD Seed Layer Contact Resistance in 2.0 to 20.0 µm Vias	P273 Selective Post-Soldering Volume Adjustment for Improved Co-Planarity of C4 Bump Interfaces
	P336 Novel Selective Copper Deposition Method for TGV Filling	P263 Real-Time 3D Reconstruction for Wire Bonding Using Multi-View Projection and EM Polynomial Modelling	P233 A Shock Vibration Calculation Method Considering Viscoplastic Behavior of Packaging Systems	P228 Annealing effect for Backside Metallization of SiC device	P150 112 Gbps SERDES Channel Design with 2.5D Sub-Micron BEOL Interconnect	P178 Aerosol Jet Printing of a Copper Nanoparticle Ink by Controlling the Wetness of Aerosols
	P172 Thin Fan-Out Package Characterization and Evaluation	P186 Defect Localization in Material Surfaces Using retinal CSRF kernel and Statistical Peak Profiling	P113 Delamination Effect Investigations Near RDL and UBM in WLCSP Packages	P306 Direct Bonding of Aluminum and Polypropylene in High-Reliability Structural Interfaces	P151 Advanced Bevel Deposition for Enhanced Yield and Cost Efficiency in Wafer-Level Bonding	P162 Heat Release Tape Characterization for Panel Level Packaging
	P111 Process-induced parasitic surface conduction (PSC) in SOI substrates for 3D-integrated RF front-end applications	P187 Enhancing Wire Bonding Quality Prediction with a Physics-Informed Ensemble Learning Framework	P368 Feasibility Study of Stacked Sub-THz Band AiP Modules Based on Warpage and Stress Analysis	P219 Nanoindentation tests and constitutive study of sintered nano-silver	P307 Physics-Informed Graph Convolutional Neural Network for Scalable, and Accurate Thermal Analysis of 2.5D Chiplet-based Systems	P175 Reliability Evaluations of Pb-free Solder Joint Formed Using Sn-Ag-Cu solder ball and Sn-Bi-Ag solder paste
9:45am -10:15am	30min Coffee Break outside Exhibition Hall (LEO 1-4)					
10:15am -10:45am	Invited Talk 1: Dr Dielacher Bernd (EVG) The Critical Role of Wafer Bonding in Next-Generation Interconnect Scaling	Invited Talk 2: Dr Taku Hanna (ULVAC Inc) Polymer Fine Pattern Formation based upon Plasma Etching Technology for High Density RDL Interposer	Invited Talk 3:	Invited Talk 4: Inohara Masahiro (KIOXIA) Accelerating the Evolution of NAND Flash Memory with Bonding Technologies	Invited Talk 5: Dr Mushuan Chan (SPIL) High Layer RDL Process Technology for Heterogenous Integration Package	Invited Talk 6: Dr Sajay BG (IME) Heterogeneously Integrated Wafer-Level Processed CPO Engine for Next Gen AI/ML Data Centers
Venue	VIRGO 1-4					

	DAY 3: December 4, 2025 (Thursday PM)					
11:55pm -1:00pm	EPTC Luncheon					
Venue	AQUARIUS 3	AQUARIUS 4	GEMINI 1	GEMINI 2	PISCES 1	PISCES 2
1:00pm -1:45pm	Materials and Processing 3	Thermal Management and Characterization 2	Mechanical Simulation & Characterization 4	Interconnection Technologies 3	Advanced Packaging 4	Quality, Reliability & Failure Analysis 3
	P164 Metallurgical properties of Sn-3.0Ag-0.5Cu solder joints with Alumina layer deposition	P191 Magnetohydrodynamic Liquid Cooling Embedded in PCBs for High-power Electronics	P252 Evaluating Dummy Die Sizes and Compound Adjustments to reduce Wafer Warpage in FOEB-T Packaging.	P202 Comparative wear-out study and characterization methods for Pure and Alloyed Copper wires	P320 Ka-Band Ultra-Short Die-to-Antenna Interconnect Enabled by Embedded Glass Fan-Out Packaging	P141 Short-Circuit Behavior and Failure Mechanism Analysis of Double-Trench SiC MOSFETs
	P211 Wettability, Mechanical Properties and IMC of SiC nanoparticle-reinforced Sn-58Bi solders on Cu substrates under multiple reflow cycles	P247 Thermal Performance of MEMS Cross-flow Heat Exchangers Subjected to External Heat Transfer	P369 Characterization and Modelling of Inelastic Behavior of Epoxy Molding Compounds	P378 MDQFN™: Panel-Level QFN for Scalable, Cost-Effective Semiconductor Packaging	P227 Development of a Wideband Energy Harvesting Circuit Utilizing Terrestrial Digital Broadcast Signals	P276 A Modified Test Vehicle Incorporating DNP-Induced Strain Gradients for Single-Specimen Fatigue Life Assessment of Solder Joints
	P304 Impact of Solder Powder Size on Cleaning Efficiency in Chip Resistor Assemblies for Future Advanced Packaging	P270 Numerical Investigation of Embedded Micro-Pin Fin Two-Phase Liquid Cooling for Dual-Chip Stacks in HPC & AI Applications	P220 Nanoindentation Test and Crystal Plasticity Finite Element Model of SAC305 Solder Joint Considering Crystal Orientation	P157 Investigation of Cu bonding wire lifetime under accelerated temperature environments	P146 Optimization of Shielded Capacitive Power Transfer (S-CPT) Systems Using Slotted Electrodes	P147 Correlation Between Thermal Cycling Ramp Rates and its Respective Solder Joint Reliability
1:45pm - 3:15pm	Interactive Presentation 2 (Poster), Exhibition and Coffee Break outside Exhibition Hall (LEO 1-4)					
Venue	AQUARIUS 3	AQUARIUS 4	GEMINI 1	GEMINI 2	PISCES 1	PISCES 2
3:15pm -4:00pm	Materials and Processing 4	Thermal Management and Characterization 3	Mechanical Simulation & Characterization 5	Interconnection Technologies 4	Advanced Packaging 5	Assembly and Manufacturing Technology 3
	P379 Enhancing Yield Performance in Chip-to-Wafer Hybrid Bonding in Advanced Packaging	P371 Direct-Bonded Manifold-J				

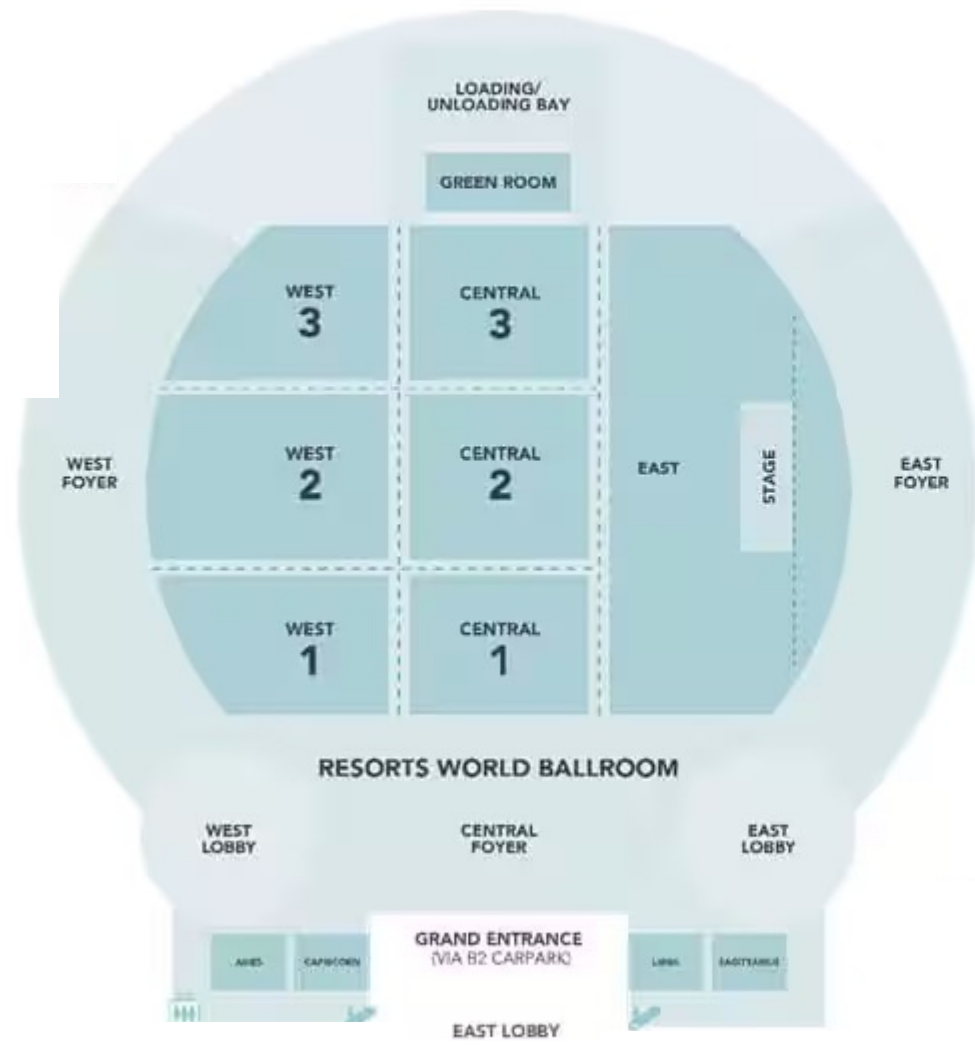
	DAY 4: December 5, 2025 (Friday AM)					
Venue	VIRGO 1-4					GEMINI 2
8:45am – 10:00am	Technology Innovation Showcase Session 4 (75 min) Quiz & Prizes Included					R10 EPS Chapter Officers's Meeting
10:00am - 11:00am	60min Coffee Break outside Exhibition Hall (Leo 1-4)					
Venue	PISCES 1	PISCES 2	PISCES 3	PISCES 4	GEMINI 1	GEMINI 2
11:00am -11:30am	Invited Talk 7: Dr Kathy Yan (TSMC) From Cloud AI to Edge AI: Driving Innovation with Advanced Packaging	Invited Talk 8: Dr Takenori Fujiwara (Toray Industries) Polymer Bonding Technology for Semiconductor Advanced Packaging	Invited Talk 9: Dr Tan Yik Yee (Yole Group) AI Is Accelerating the Shift to Advanced Packaging with FOPLP	Invited Talk 10: Jonathan Abdilla (BESI) Hybrid Bonding and Fluxless TCB: Defining the Sub 10um Interconnect Roadmap for 3D HI	Invited Talk 11: Dr Fu Chao (WinTechNano) Lables Enable Effective FA of Electronics Packages through Scientific Approach	Invited Talk 12: Dr Zhao Yi (ZSCT) Advanced Packaging EDA's New Paradigm: Collaborative Innovation Revolution for Design-Simulation-Verification in the 2.5D/3D Era
	Advanced Packaging 6	Materials and Processing 6	Smart Manufacturing and Equipment Technology 2	Interconnection Technologies 6	Quality, Reliability & Failure Analysis 5	Mechanical Simulation & Characterization 6
11:30am -11::45pm	P350 n77/n79 Antenna-plexer with BAW and Glass-IPD Technology for 5G Applications	P240 Copper Pillar Bump FCBGA Underfill Process Characterization for Automotive Application	P193 AI-driven Pixel-Level Defect Localization using Magnetic Current Images	P143 UV-Assisted Fluxless Thermal-Compression Bonding Under Ambient Conditions	P132 Anomalyspy: A Generative Defect Localization in Semiconductor Packages, with X-ray Microscopy	P321 Degradation Mechanism of Frequency Stability in MEMS Resonant Accelerometers
11:45am -12::00pm	P308 Power and Performance Comparison between FPGA-Optics Integrated 3D SiP and equivalent board level test hardware	P212 Enhanced Reliability of Large BGA Assemblies for AI Server and HPC Application	P236 Research on Intelligent Prediction of 3D-IC Packaging Injection Molding Based on Machine Learning	P244 Characterization of Fine Line Width/Spacing RF Interconnects for Co-Packaged Optics with High I/O Density	P180 Cu/SiCN wafer-to-wafer hybrid bonding interface reliability down to 400 nm pitch	P370 Dev of a Reproducible, Stable, and Scalable Eval Routine for Lifetime Assessment of Power and Microelectronic Devices
12:00pm- 12:15pm	P361 Process Developments of Chip-to-Wafer assembly with HPC and Photonics Chiplets on large RDL-first interposer	P384 Development and Monitoring of Gold Electroplating Process on 300mm Wafer Level	P359 Cross-Domain Adaptation of Automated 3D X-ray Defect Detection from HBM to Optical Transceivers	P117 Study on Solder Core Ball Using Sn-Bi Plating for Low-Temperature Bonding</		

	DAY 4: December 5, 2025 (Friday PM)							
12:15pm -1:30pm	Conference Lunch @ VIRGO 1 to 4							
Venue	PISCES 1	PISCES 2	PISCES 3	PISCES 4	GEMINI 1	GEMINI 2		
	Advanced Packaging 7	Materials and Processing 7	Electrical Simulations & Characterization	Smart Manufacturing and Equipment Technology 3	Advanced Optoelectronics and Displays	Mechanical Simulation & Characterization 7		
1:30pm - 1:45pm	P260 Demonstration of Integrated Passive Devices in Glass substrate using TGV process	P129 Pressure Sintering Mechanism of Ag Nanoparticles Based on The Master Sintering Curve and Visualization of Sinterability	P169 Characteristics in the quasi-millimeter wave band of planar transmission lines formed on flexible substrates	P348 Inferring Wire Length and Depth from Magnetic Field Images via Deep-Spatial Physics Informed Model	P267 Assembly of optical micro-ring resonator-based ultrasound sensor for photoacoustic imaging	P139 Key Insights into Design for Reliability of 3D NAND Packages in Solid-State Drive		
1:45pm - 2:00pm	P154 Residue Free TaN Etch Method for MIM Capacitor in Advanced Packaging	P221 High-Performance Graphene Coatings for Superior Thermal and Mechanical Properties in Electronic Packaging Enclosures	P289 Development of PDK Library for Accurate Modelling of 2.5D Interconnect Structures in Heterogeneous Integration	P213 Device-to-Package Electrothermal Performance Prediction of Power MOSFETs via Coupled Iterative Dual-Artificial Neural Networks	P104 High Coupling Efficiency Adhesive for Photonic Packaging	P373 A novel wafer warpage numerical model considering further shrinkage of epoxy molding compound		
2:00pm - 2:15pm	Invited Talk 13 David Gani (STMicro) Challenges and Advantages in Panel Level Packaging	Invited Talk 14 Hidenori Abe (Resonac) Advanced Packaging Materials Innovation through Co-Creative Activities and Trends in Advanced Packaging Processes	Invited Talk 15: Dr Min Woo Rhee (Samsung) Understanding of Hybrid Bonding Mechanism by Utilizing Molecular Dynamics Approach	P209 Thermal- and Wirelength-Aware Chiplet Placement in 2.5D Systems Through Multi-Agent Reinforcement Learning	P253 2.5D PIC Photonic Interposer Engine for Next Generation Photonic Link CPO of High-Performance Computing and Data Communications	P127 Development of Warpage Predictive Models using Physics-Driven Simulation		
2:15pm - 2:30pm				P264 Generative AI-Powered Defect Detection for 3D X-ray Microscopy Scans of High Bandwidth Memory Bumps	P206 An Integrated Computational Materials Engineering approach for Anisotropic Conductive Films	P239 Thermal and mechanical properties optimization of TGV interposer for 2.5D integrated transceiver		
2:30pm – 3:00pm	30min Coffee Break outside Exhibition Hall (Leo 1-4)							
Venue	VIRGO 1 to 3 (combined rooms)							
3:00pm - 3:30pm	Heterogeneous Integration Roadmap (HIR) Workshop Theme: Interconnects - Design and Manufacturing of Complex HI Structures							

Paper ID	Technical Committee	Authors	Affiliation
100	Advanced Packaging	Seyedmohammadi, Shahram	Henkel, United States of America
112	Advanced Packaging	Tateishi, Eiichi	Kyushu University Graduate School of Information Science and Electrical Engineering, Japan
114	Advanced Packaging	Wan Ahmad, Wan Mohd Alimie	NXP Semiconductors, Malaysia
128	Advanced Packaging	Volkovich, Roie	KLA, Israel
148	Advanced Packaging	Cheng, Ray	Lam Research, Taiwan
194	Advanced Packaging	Mohd Zali, Mohd Rozaini	Nexperia Malaysia Sdn Bhd, Malaysia
204	Advanced Packaging	Mühlstätter, Christian	EV Group, Austria
226	Advanced Packaging	Tseng, Chia-Wei	Graduate School of Advanced Technology, National Taiwan University, Taiwan
231	Advanced Packaging	Tschoban, Christian	Fraunhofer IZM, Germany
324	Advanced Packaging	Monroe, Matthew	Micron technology Inc., United States of America
333	Advanced Packaging	Zheng, Yuxiang	Institute of Microelectronics, Chinese Academy of Sciences
335	Advanced Packaging	Lian, Ziqi	Institute of Microelectronics of Chinese Academy of Sciences, Beijing
337	Advanced Packaging	Heinig, Andy	Fraunhofer IIS/EAS, Germany
257	Assembly and Manufacturing Technology	Zainal, Mohd Khairul	Nexperia Malaysia Sdn Bhd, Malaysia
295	Assembly and Manufacturing Technology	Rodriguez, Jenelyn	Infineon Technologies Asia Pacific Pte Ltd, Singapore
296	Assembly and Manufacturing Technology	Bartolo, Marlon	Infineon Technologies Asia Pacific Pte Ltd, Singapore
318	Assembly and Manufacturing Technology	Narayanasamy, Jayaganasan	PT. Infineon Technologies, Batam, Indonesia
338	Assembly and Manufacturing Technology	Soh, Serine	Institute of Microelectronics, Singapore
383	Assembly and Manufacturing Technology	Hu, Chao	Huazhong University of Science and Technology
107	Electrical Simulations & Characterization	Foo, Loke Yip	Altera, Malaysia
377	Electrical Simulations & Characterization	You, Wenchao	Beihang University, China
120	Emerging Technologies	Nakashima, Kenta	Kyushu University, Japan
262	Emerging Technologies	Otake, Yugi	Yokohama National University, Japan
130	Materials and Processing	Andriani, Yosephine	Infineon Technologies Asia Pacific Pte Ltd, Singapore
133	Materials and Processing	Buret, Mathilde	Inventec Performance Chemicals, France
134	Materials and Processing	Shrivastava, Saurabh	Macdermid Alpha Electronics Solutions India Private Limited, India
152	Materials		

Paper ID	Technical Committee	Authors	Affiliation
145	Quality, Reliability & Failure Analysis	Chen, Yong	STMicroelectronics, Singapore
171	Quality, Reliability & Failure Analysis	Ichikawa, Norimitsu	Kogakuin University, Japan
198	Quality, Reliability & Failure Analysis	Mori, Tomoki	YOKOHAMA National University, Japan
203	Quality, Reliability & Failure Analysis	NAMBA, Haruhito	Yokohama National University, Japan
205	Quality, Reliability & Failure Analysis	Shinomiya, Keisuke	Lintec corporation, Japan
214	Quality, Reliability & Failure Analysis	Tan, Tze Qing	Innovation, Heraeus Materials Singapore Pte. Ltd.
184	Smart Manufacturing Equipment Tech	Yu, Yang	Institute for Infocomm Research (I2R), Singapore
290	Smart Manufacturing Equipment Tech	Li, Mengyang	Institute of Microelectronics, Singapore
292	Smart Manufacturing Equipment Tech	Lestari, Yuli	INFINEON, Indonesia
124	Thermal Management & Characterization	RAVI, KAVITHA	Rajalakshmi Engineering College, India
225	Thermal Management & Characterization	Tseng, Chia-Wei	Graduate School of Advanced Technology, National Taiwan University, Taiwan
248	Thermal Management & Characterization	Huang, Jiapeng	Xiamen University, Xiamen, China
342	Thermal Management & Characterization	Liu, Cong	University of Electronic Science and Technology of China
357	Thermal Management & Characterization	Heinig, Andy	Fraunhofer IIS/EAS, Germany
121	TSV/Wafer Level Packaging	Chen, Zack	Lam Research, Taiwan
181	TSV/Wafer Level Packaging	Wang, Zhishen	Wuhan University, China
183	TSV/Wafer Level Packaging	Yang, Huihui	Lam Research, China
230	TSV/Wafer Level Packaging	Rathore, Shubham	Indian Institute of Technology Hyderabad, India
341	TSV/Wafer Level Packaging	Jl, Hongmiao	Institute of Microelectronics (IME), A*STAR, Singapore
123	Interconnection Technologies	PELINGO, JORELL	onsemi Carmona, Philippines
160	Interconnection Technologies	Manalo, Ginbert	onsemi Philippines, Philippines
245	Interconnection Technologies	Lin, Xiaoting	Shenzhen Advanced Joining Technology Co., LTD., China
278	Interconnection Technologies	Ong, Edward Yong Xi	Institute of Microelectronics, Singapore
288	Interconnection Technologies	DE JESUS, EDSEL	STMICROELECTRONICS, Singapore
330	Interconnection Technologies	Liu, Sichen	Beijing Institute of Technology, Beijing, China
331			

Basement 2 Resort World Ballroom Floor Plan



Level 1 Exhibition and Breakout Room Floor Plan

