

ICEPT 2025

OVERVIEW OF CONFERENCE PROGRAM

Note: The information is only for your reference. The final conference schedule shall prevail on the date of conference.

Date	Time	Room 1				Room 2			
Aug. 5 th	08:30-11:50	PDC 1-2				PDC 3-4			
	11:50-13:00	Break							
	13:00-17:50	PDC 5-7				PDC 8-10			
	19:00-21:00	Football Game							
Date	Time	Content							
Aug. 6 th	08:30-12:00	OPENING CEREMONY & PLENARY TALK 1-7							
	12:00-13:30	Lunch							
	Time	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7	Room 8
	13:30-15:20	Session 1	Session 2	Session 3	Session 4	Session 5	Session 6	Session 7	Session 8
	15:20-16:00	Poster Session A							
	16:00-18:00	Session 9	Session 10	Session 11	Session 12	Session 13	Session 14	Session 15	Session 16
	18:00-18:25	/	/	/					
	18:50-21:00	Welcome Dinner							
Date	Time	Content							
Aug. 7 th	08:30-12:30	PLENARY TALK 8-13							
	12:30-13:30	Lunch							
	Time	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7	Room 8
	13:30-15:20	Session 17	Session 18	Session 19	Session 20	Session 21	Session 22	Session 23	Session 24
	15:20-16:00	Poster Session B							
	16:00-18:30	Session 25	Session 26	Session 27	Session 28	Session 29	Session 30	Session 31	Session 32

August 5th Tuesday, 08:30-17:50

Professional Development Course

Time	Room 1	Room 2
Chair	<i>Dr. Qidong WANG, IMECAS, China</i>	<i>Prof. Nan WANG, Shanghai University, China</i>
08:30-10:00	PDC 1-Advanced packaging for High Performance Computing Dr. Daquan YU <i>Xiamen University, Xiamen Sky Semiconductor Co., Ltd., China</i>	PDC 5-Advanced Substrates for Chiplets and Heterogeneous Integration Dr. John H. LAU <i>Unimicron Technology Corporation, Taiwan, China</i>
10:00-10:20	Break	
10:20-11:50	PDC 2 -Mechanics and Reliability of Lead-Free Solder Joints Prof. Jeffrey C. Suhling <i>Quina Distinguished Professor and Department Chair, Department of Mechanical Engineering, Auburn University, USA</i>	PDC 6-Packaging of MEMS and More Prof. Shuji Tanaka <i>Department of Robotics, Graduate School of Engineering, Tohoku University, Japan</i>
11:50-13:00	Break	
Chair	<i>Prof. Wei WANG, Peking University, China</i>	<i>Prof. Luqiao YIN, Shanghai University, China</i>
13:00-14:30	PDC 3-Analysis of Fracture and Delamination in Microelectronic Packages Prof. Andrew Tay <i>Department of Electrical and Computer Engineering National University of Singapore, Singapore</i>	PDC 7-Innovations in Advanced Packaging Technology Dr. Wei Koh <i>Pacrim Technology Irvine, CA, USA</i>
14:30-14:40	Break	
14:40-16:10	PDC 4-MEOL design and process consideration for heterogeneous integrated package and substrate Prof. Gu-Sung Kim <i>Kangnam University, Yongin, S Korea</i>	PDC 8- Quantum Mechanics and Molecular Dynamics and Their Applications in Electronic Manufacturing Prof. Yuzheng GUO, Sheng LIU <i>Wuhan University, China</i>
16:10-16:20	Break	
16:20-17:50	Nano Materials and Polymer Composites for Electronic Packaging Dr. Daniel LU <i>Henkel Corporation, USA</i>	High Reliability Soldering in Semiconductor Packaging Dr. Ning-Cheng LEE <i>Founder of ShinePure Hi-Tech, China</i>
19:00-21:00	Football Game	

August 6th Wednesday, 08:30-12:00

Plenary Talks I

OPENING CEREMONY

Chair: Prof. Kouchi ZHANG, Academician of the Netherlands Academy of Engineering

08:30-08:45	Greeting Prof. Tianchun YE , Chair of ICEPT Prof. Jane ZHANG , Shanghai University Prof. Jeffrey C. Suhling , IEEE EPS President Elect
08:45-09:25	CP Wong Global Electronic Packaging Award–2025
09:25-09:55	Effects of Aging on the Reliability of Electronic Products Incorporating Lead Free Solders Prof. Jeffrey C. Suhling <i>Quina Professor and Department Chair, Department of Mechanical Engineering, and Center for Advanced Vehicle and Extreme Environment Electronics (CAVE³), Auburn University, USA</i>
09:55-10:25	Multi Field Cross Scale Collaborative Design Methods and Technologies for Chip Manufacturing and Integration Prof. Sheng LIU <i>Academician of CAS, Wuhan University, China</i>
10:25-10:50	<i>Tea Break & Networking</i>
Chair: Shuji Tanaka, Department of Robotics, Graduate School of Engineering, Tohoku University, Japan	
10:50-11:20	From DIP to MIP: 40 years in semiconductor packaging Prof. Kees Beenakker <i>Delft University of Technology, the Netherlands</i>
11:20-11:50	Heterogeneous Integration Technology with High Density Bump for Silicon-driven Microdisplays Prof. Jane ZHANG <i>Shanghai University, China</i>
12:00-13:30	<i>Lunch</i>

August 6th Wednesday, 13:30-18:40

ICEPT 2025 Session Talks

Time	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7	Room 8
Committee	Advanced Packaging	Packaging Design & Modeling	Interconnection Technologies	Packaging Materials & Processes	Quality & Reliability & Power Electronics	Advanced Manufacturing	Power Electronics	/
13:30-15:20	Session A1-Advanced Integration	Session B1-Thermo-Mechanical Simulation and design	Session C1-Advanced Materials & Processes for Interconnection	Session D1-Polymer Packaging Materials	Session E1-Process Design Optimization	Session F1-Bonding and Interconnection	Session G1-Power Packaging Design	Session H1-Hybrid Bonding
Chairs	Wei WANG, Shuye ZHANG	Xu Long, Hongbin SHI	Yunwen WU, STEVEN HE WANG	Chuantong CHEN, Xiaoliang ZENG	Kui LI, Yanwei DAI	Zhaofu ZHANG, Guannan YANG	Hongwen HE, Fengtao YANG	Tadatomo SUGA /Qidong WANG
13:30-13:55 (Keynote)	Yu WANG	Shuyang QIN	Jonathan Abdilla	Yik-Yee TAN	Guoguang LU	Xiaojun ZHANG	Jing ZHANG	John H. LAU Viorel Dragoi Kenny Ye Chenxi Wang Liyi LI Bin ZHAO Chaoqun REN Renxi JIN Fengwen MU
13:55-15:20 (Oral)	8, 39, 176, 255, 331, 462, 601	47, 76, 207, 334, 369, 430, 513	213, 347, 469, 500, 603, 620, 630	63, 155, 247, 253, 341, 344, 628	7, 34, 72, 322, 476, 618, 549	60, 199, 260, 279, 351, 502, Byeongchan Kim	154, 195, 313, 314, 376, 547, 652	
15:20-16:00	Poster Session A							
Committee	Advanced Packaging	Packaging Design & Modeling	Interconnection Technologies	Packaging Materials & Processes	Quality & Reliability	Optoelectronics and New Display	Power Electronics	

16:00-18:25	Session A2-Chiplet & FOPLP	Session B2-Thermal Management Simulation	Session C2-3D Interconnection Technologies	Session D2-Metal Packaging Materials	Session E2-Testing & Reliability Simulation	Session F2-Optoelectronic Intergration	Session G2-Power Packaging Materials	
Chairs	Shuying MA, Qian WANG	Jun WANG, Meiying SU	Wangyun LI, Liangxing HU	Zhiquan LIU, Caifu LI	Xiaofeng YANG, Kui LI	Lianqiao YANG, Haohui LONG	Zhaozheng HOU, Jing ZHANG	
16:00-16:25 (Keynote)	Yi ZHAO Yonghua SU Yan HUO Peng SUN Kang ZHANG Guoping ZHANG	Zhenhong ZHONG	Yunwen WU	Yue JIANG	Joonho You	Atsushi Okuno	Yunhui MEI	
16:25-18:40 (Oral)		77, 136, 202, 271, 355, 360, 452, 642	130, 131, 172, 460, 526, 617, 625	<Keynote: Chuantong CHEN> 80, 128, 261, 294, 300, 384, 451, 475, 558, 624	32, 61, 85, 159, 315, 454, 498, 501, 517, 644	108, 113, 303, 393, 535, 543, 552, 553, 562, 572	50, 59, 188, 244, 356, 362, 400, 435, 445, 489	
18:40-21:00	Welcome Dinner							

August 6th Wednesday, 13:30-18:30

Special Session II: Hybrid Bonding Technology

Chair: Prof. Tadatomo SUGA, Meisei University, Japan

Dr. Qidong WANG, Institute of Microelectronics of Chinese Academy of Sciences (IMECAS), China

13:30-14:00	Flip Chip on Glass-Core Substrate with Micropump and Cu-Cu Hybrid Bonding	Dr. John H LAU <i>Unimicron Technology Corporation, Taiwan CHINA</i>
14:00-14:30	Hybrid Bonding as Crucial Technology for Future Applications	Dr. Viorel DRAGOI <i>EV Group, Austria</i>
14:30-15:00	Advancements in Bonding Technologies Enabling Innovations in Device Structures and Packaging Capabilities	Dr. Kenny YE <i>Piotech, China</i>
15:00-15:30	Low-Temperature Hybrid Bonding for Heterogeneous Integration	Prof. Chenxi WANG <i>Harbin Institute of Technology, China</i>
15:30-16:00	<i>Tea Break & Networking</i>	
16:00-16:30	Hybrid bonding interface Issues	Prof. Liyi LI <i>Southeast University, China</i>
16:30-17:00	Pushing The Limit of Bonding Accuracy and Throughput	Mr. Bin ZHAO <i>iStar, China</i>
17:00-17:30	Application of Advanced Bonding Technologies in FEOL Processes	Mr. Ren Chaoqun <i>Wisdom SemiTeC (jiangsu) Technology Co.,Ltd., China</i>
17:30-18:00	Interface Engineering for Hybrid Bonding Interconnect	Dr. Renxi JIN <i>Institute of Microelectronics, Chinese Academy of Sciences, China</i>
18:00-18:30	Advanced Hybrid Bonding Technologies and Applications	Dr. Fengwen MU <i>iSABers, China</i>

August 7th Thursday, 08:30-12:30

Plenary Talks II

Chair: Prof. Johan LIU, Chalmers University of Technology, Sweden

08:30-09:00	Recent Advances and Trends in Cu-Cu Hybrid Bonding Dr. John H Lau <i>Unimicron Technology Corporation, Taiwan, China</i>
09:00-09:30	Advanced packaging technology for AI and power semiconductors Prof. Katsuaki Suganuma <i>Osaka University, Japan</i>
09:30-10:00	Manufacturing Transformation Era: Process Solutions for Wafer and Panel-Level Packaging Driven by Semiconductor Process Technology Dr. Taku Hanna, Ph.D <i>Director, PE-Semiconductor Technology Research Department Institute of Advanced Technology, Research & Development HQ ULVAC, Inc</i>
10:00-10:30	TBD Mr. Scott CHE <i>ASE (Advanced Semiconductor Engineering), Taiwan, China</i>
10:30-10:45	<i>Tea Break & Networking</i>
<i>Chair: Prof. Ricky LEE, Hongkong University of Science & Technology, China</i>	
10:45-11:15	Semiconductor Equipment Supply Chain for FEOL Advanced Packaging Dr. Kitty Pearsall <i>President of Boss Precision Inc., Independent Consultant, USA</i>
11:15-11:45	Low-Temperature Bonding Technology for Heterogeneous Integration and Advances in Sensors and Electronic Devices Prof. Eiji Higurashi <i>Tohoku University, Japan</i>
11:45-12:15	The Challenges and New Developments on TSV Etch Applications Dr. Guorong LI <i>Vice General Manager of the First Etching Business Unit, NAURA China</i>
12:15-12:30	The Role of the IEEE Electronics Packaging Society in the Development of Professionals and Students in Electronics Packaging Prof. Andrew Tay <i>IEEE EPS Program Director</i>
12:30-13:30	<i>Lunch</i>

August 7th, Thursday 13:30-15:30

ICEP Special Session

Chair: **Dr. Junsha WANG**, ICEP 2026 Technical Program Committee, Meisei University, Japan

Co-chair: **Dr. Yasuhiro Morikawa**, ICEP 2026 General Chair, ULVAC Inc., Japan

13:30-14:00	Surface activated room temperature bonding for heterogeneous photonics integration <i>Prof. Ryo Takigawa</i> Associate Professor, Kyushu University
14:00-14:30	Polysilazane-mediated Room Temperature Bonding for Electronics Packaging <i>Dr. Kai Takeuchi</i> Assistant Professor, Tohoku University
14:30-15:00	Acid Copper Plating Process for RDL Interposer <i>Dr. Yamaguchi Atsuya</i> R&D Center, Electronics Development Department, JCU CORPORATION
15:00-15:30	Application of Magnetic Neutral Loop Discharge Plasma in Deep Etching of Low-CTE Glass Substrate for Co-Packaged Optics <i>Dr. Yasuhiro Morikawa</i> Manager, ULVAC, Inc.
15:30-16:00	<i>Tea break & Networking</i>

August 7th, Thursday 16:00-18:30

Special Session: IEEE EPS Region 10 Session

Chairs: **Dr. Shaw Fong WONG**, IEEE EPS R10 Program Chair

Dr. Qian WANG, IEEE EPS Beijing Chapter

16:00-16:05	Greeting Dr. Qian WANG , EPS Beijing Chapter Chair, Tsinghua University
16:05-16:25	Greeting Dr. Shaw Fong WONG , IEEE EPS R10 Program Chair
16:25-16:50	Exploring the Correlation Between Post-Die Bond Epoxy Void and Bond Line Thickness and other Factors on Power Packaging with Silver Sintered Epoxy IEMT-James Kim , NXP Semiconductors, Malaysia
16:50-17:15	Thermal and Failure Analysis of Advanced Microelectronic Devices EPTC-Dr. Andrew TAY , National University of Singapore
17:15-17:40	A Novel Expansion Process Using Tape Expansion, Self-Assembly, and Tape Frozen Detachment Technique and Its application to Hybrid Bonding ICSJ-Mr. Shinya Takyu , Assistant General Manager, LINTEC Corporation, Japan
17:40-18:05	Two-Phase In-Situ Thin Liquid Film Cooling for Computing Module ICEPT-Dr. Qidong WANG , Director of Packaging and Integration R&D center of IMECAS, China

August 7th Thursday, 13:30-18:40

ICEPT 2025 Session Talks

Time	Room 1	Room 2	Room 3	Room 4	Room 5	Room 6	Room 7	Room 8
Committee	Advanced Packaging	Packaging Materials & Processes	Packaging Design & Modeling	Advanced Manufacturing	Packaging Design & Modeling	Quality & Reliability	Packaging Materials & Processes	/
13:30-15:20	Session A3-Hybrid Bonding Technology	Session B3-Ceramic and Composite Packaging Materials	Session C3-Electromagnetic Simulation	Session D3-Evaluation and Measurement	Session E3-Emerging Simulation Technologies	Session F3-Failure Analysis	Session G3-Packaging Materials	Session H3-ICEP Session
Chairs	Kai ZHAO, Ziyu LIU	Tao HANG, Yujie LI	Jun LI, Xingchang WEI	Fulong ZHU, Zili ZHANG	Daoguo YANG, Pei CHEN	Chuantao HOU, Sha XU	Yi ZHONG, Zhengwei FAN	Junsha WANG/Yasuhiro Morikawa
13:30-13:55 (Keynote)	Sarah Eunkyung Kim	Farhang Yazdani	Haibo FAN	Cruise YANG	Cheng YANG	Hongbin SHI	Jan Vardaman	Ryo Takigawa Kai Takeuchi Yamaguchi Atsuya Yasuhiro Morikawa
13:55-15:20 (Oral)	81, 245, 424, 436, 607	70, 129, 148, 152, 153, 284, 401	21, 56, 198, 210, 292, 497, 499	123, 146, 346, 359, 386, 481, 569	20, 62, 93, 134, 295, 567, 627	38, 125, 381, 391, 406, 492, 573	90, 96, 114, 137, 191, 194, 228	
15:20-16:00	Poster Session B							
Committee	Advanced Packaging&Packaging Materials & Processes	Packaging Materials & Processes	MEMS Packaging & Optoelectronics and New Display	RF Electronic Packaging	Emerging Technologies & Packaging Materials & Processes	Quality & Reliability	Quality & Reliability & Interconnection Technology	/

16:00-18:25	Session A4-Thermal Management & Interface	Session B4-Materials for Process and Reliability	Session C4: MEMS, Sensor and IOT	Session D4-RF Filters & Electronic Packaging	Session E4-Emerging Packaging Technologies	Session F4-Reliability Testing and Modeling	Session G4-Reliability Prediction	Session H4-R10 Interactive Session
Chairs	Chi ZHANG, Shenglin MA	Haoran MA, Liang ZHANG	Ke XIAO, Jintang SHANG	Nan WANG, Yue SUN	Yanhong TIAN, Daquan YU	Sha XU, Chuantao HOU	Zhengwei FAN, Yi ZHONG	Shaw Fong WONG/Qian Wang
16:00-16:25 (Keynote)	Hua BAO	Wangyun LI	Daiki Nakaya	TBD	Eu Poh Leng	Karsten Meier	Terry WU	Qian WANG James Kim Andrew Tay Shinya Takyu Qidong WANG
16:25-18:40 (Oral)	229, 485, 488, 536, 537, 578, 539, 541, 544, 626	22, 31, 52, 227, 352, 404, 440, 505, 515, 540	98, 192, 216, 220, 368, 428, 453, 580, 637	327, 466, 554, 555, 570, 611, 613, 634, 636	<Keynote: Guangbin DOU> 221, 258, 342, 378, 397, 418, 297, 390 439	9, 15, 42, 46, 95, 288, 389, 409, 410, 448	55, 306, 414, 512, 621, 144, 217, 345, 551, 619	