



The 27th International Conference on Electronic Packaging Technology

Post-Conference Summary Report



From August 5 to 7, 2026, ICEPT 2026 was successfully held in Xi'an, a renowned city of history and culture. Leveraging Xi'an's strategic position as the starting point of the Silk Road and a key hub for innovation and development under the Belt and Road Initiative, the conference brought together more than 1,800 experts, scholars, industry representatives, professionals, and young participants from different countries and regions. It established an international exchange platform spanning the entire industry chain and facilitated in-depth discussions on frontier developments, scientific research and innovation, technology applications, education and training, and industry collaboration in electronic packaging and related fields.



As an important platform connecting academia, industry, and professional practitioners, ICEPT 2026 not only provided participants with opportunities to showcase research achievements and share practical experience, but also further promoted exchanges and collaboration across regions, institutions, and disciplines. With rich content, diverse formats, and active interaction, the conference fully reflected ICEPT's mission of advancing knowledge dissemination, professional development, and industry progress.

I. Conference Overview

(I) Basic Conference Information

Full Name: The 27th International Conference on Electronic Packaging Technology (ICEPT 2026)

Venue: Xi'an, China Dates: August 5–7, 2026

Conference Chair: Prof. Tianchun Ye

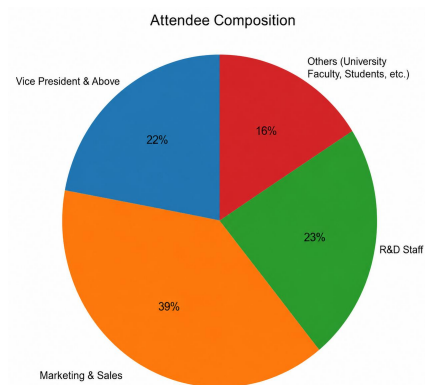
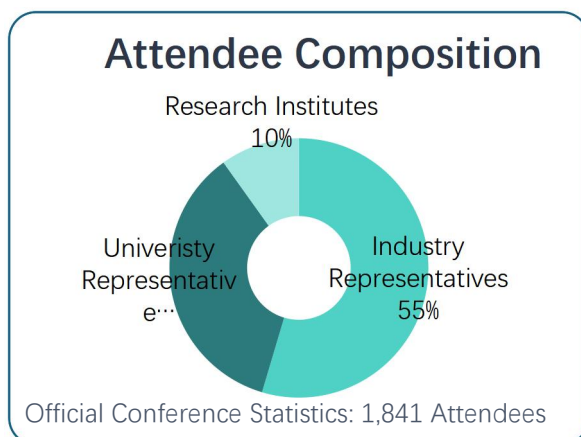
Sponsored by: Institute of Microelectronics, Chinese Academy of Sciences; Xi'an Jiaotong University; IEEE Electronics Packaging Society (IEEE EPS); Electronic Manufacturing & Packaging Technology Society of Chinese Institute of Electronics, China (CIE-EMPT)

Organized by: School of Microelectronics, Xi'an Jiaotong University; National Center for Advanced Packaging Co., Ltd. (NCAP China); Shaanxi Semiconductor Industry Association; Beijing Herogeeks Consulting Company



(II) Participation Scale and Geographic Coverage

The conference attracted more than 1,800 participants from nearly 20 countries and regions, including China, the United States, Germany, France, Japan, South Korea, Singapore, the Netherlands, and Austria. Participants included academicians, IEEE Fellows, experts from leading universities and research institutes in China and abroad, and senior executives from fabless companies, IDMs, foundries, and assembly and test enterprises. The entire upstream and downstream semiconductor packaging value chain was represented, enabling close integration between academic research and industrial practice. Notably, for the first time, the number of corporate participants exceeded that of representatives from universities and research institutes, directly reflecting the accelerating integration of academic research and engineering applications in advanced packaging.



II. Overall Conference Program and Activities

The conference featured a systematic, multi-level program comprising pre-conference Professional Development Courses (PDCs), invited special sessions, plenary keynote presentations, oral presentations, poster sessions, an industry exhibition, and distinctive cultural and sports networking activities. The three-day program was carried out in an orderly manner as follows:

(I) August 5: Professional Courses + Special Sessions + Expert Networking Activities

In the morning, eight advanced Professional Development Courses (PDCs) were offered, attracting 800 participants. Key topics ranged from advanced packaging, co-packaged optics (CPO), hybrid bonding, and stress and reliability to frontier applications. Courses were delivered by international experts from ASE (Advanced Semiconductor Engineering), Unimicron Technology Corporation, Huawei Technologies Düsseldorf GmbH, Tsinghua University, Fudan University, Harbin Institute of Technology, and other organizations, providing systematic technical training for engineers and young scholars attending the conference.



Mr. Scott CHEN, Senior Vice President of Engineering at ASE Group, Taiwan, China, presented “Driving the Megawatt AI Era: Next-Gen Packaging.”





Prof. C.P. Wong of Georgia Institute of Technology and Prof. Zhuo LI of Fudan University jointly presented “Nano Materials and Polymer Composites for Electronic Packaging.”



Prof. Jusheng MA of Tsinghua University and Dr. Wei Koh, Founder of Pacrim Technology, jointly presented “Advanced System Packaging and Solder Interconnection.”



Dr. Ning-Cheng LEE, Founder of SHINEPURE HI-TECH, presented “High Reliability Soldering in Semiconductor Packaging.”



Dr. John H. LAU, Chief Scientist of Unimicron Technology Corporation, Taiwan, China, presented “Cu-Cu Hybrid Bonding and Co-Packaged Optics with Silicon



Photonics,” while Prof. Chenxi WANG of Harbin Institute of Technology presented “Wafer Bonding and Hybrid Bonding Technologies: From Fundamentals to Frontier Applications.”



Dr. Torsten Wipiejewski, Director at Huawei Technologies Düsseldorf GmbH, presented “Photonic Components and Packaging Technologies for Optical Links,” and Prof. Jeffrey C. Suhling of Auburn University presented “Experimental Methods for Stress and Strain Analysis of Advanced Electronics Packaging.”

On the afternoon of August 5, ten focused Special Sessions were held as a core innovation and exchange component of the conference. Key sessions included the IEEE EPS R10 Interactive Session, the Advanced Packaging and System Integration EDA Technology Application Forum, a Hybrid Bonding Technology Session, and the Digital Lithography Forum: Advanced Packaging and Micro/Nano Devices. Discussions covered frontier topics including AI, quantum chiplet integration, thermal simulation, 3D packaging, digital lithography, and board-level engineering.



On the evening of August 5, the “UnilC Night • Reception” and the “EPS Cup • Football Game” were held in succession. These informal networking settings accelerated friendly cross-disciplinary and international exchanges among experts and corporate technical professionals from China and abroad.



(II) August 6–7: Plenary Presentations + Technical Sessions

Plenary presentations and technical sessions were held on August 6 and 7. Opening remarks were delivered by ICEPT Conference Chair and IEEE Fellow Prof. Tianchun YE; Prof. Zhiwei SHAN, Vice President of Xi'an Jiaotong University; and Conference Co-Chair, IEEE EPS President, IEEE Fellow, and Auburn University Prof. Jeffrey C. Suhling. Attendees included Prof. Kouchi ZHANG, Academician of the Netherlands Academy of Engineering and IEEE Fellow; Prof. Ricky LEE, Vice President of the Hong Kong University of Science and Technology (Guangzhou) and IEEE Fellow; Prof. Johan LIU, Academician of the Royal Swedish Academy of Engineering Sciences and IEEE Fellow; Prof. C.P. Wong, member of the Hong Kong Academy of Engineering Sciences; Dr. Kitty Pearsall, IEEE Fellow and EPS Distinguished Lecturer; Prof. Jianhua ZHANG, Vice President of Shanghai University; Prof. Li LIANG, Party Secretary of the Faculty of Electronic and Information Engineering, Xi'an Jiaotong University; Prof. Li GENG, Dean of the School of Microelectronics, Xi'an Jiaotong University; Ms. Dongmei XU, Deputy Secretary-General of the China Semiconductor Industry Association and Secretary-General of its Packaging and Testing Branch; and Dr. Xiaoning HE, General Manager of Shaanxi Semiconductor Advanced Technology Center Co., Ltd.

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The “2026 CP Wong Global Electronic Packaging Award” ceremony was held during the opening session. Established in honor of Prof. C. P. Wong, a world-renowned scientist, influential engineering practitioner, and highly respected educator in electronic packaging, the award is presented annually at ICEPT to recognize outstanding individuals who have made exceptional contributions and achievements in the field. In 2026, the award was presented to two outstanding experts from mainland China: Dr. Ning-Cheng LEE, Founder of SHINEPURE HI-TECH, in



recognition of his research achievements in soldering materials, failure modes, and manufacturing technologies that have advanced electronic packaging; and Prof. Guoping ZHANG, Deputy Director of the Shenzhen Institute of Advanced Electronic Materials, Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences, in recognition of his pioneering theoretical and engineering breakthroughs in temporary bonding technology.



The conference Academic Chair was Prof. Xiaohong GUAN, Academician of the Chinese Academy of Sciences and IEEE Fellow; the Technical Committee Chair was Prof. Li GENG, Dean of the School of Microelectronics at Xi'an Jiaotong University; and the Organizing Committee Chair was Prof. Guohe ZHANG, Vice Dean of the School. Thirteen plenary presentations provided a panoramic view from fundamental research to industrial implementation, covering stress-sensing tests, heterogeneous integration, power-module sintering, glass packaging, intelligent-computing chip packaging, integrated Chiplet solutions, packaging materials innovation, packaging equipment, wafer bonding, silicon photonics, EDA co-design, semiconductor industry trends, and the reshaping of electronics manufacturing. From August 6 to 7, the conference hosted 32 technical sessions, including 43 invited presentations and 172 oral presentations, covering 11 areas such as advanced packaging, packaging materials and processes, packaging design and modeling, interconnect technology, advanced manufacturing, quality and reliability, power electronics and energy electronics, and RF electronic packaging. A new “AI-Empowered Advanced Packaging” session was introduced this year in response to the new packaging challenges created by rapidly growing AI computing demand. An ICEPT–ICEP joint session and a Co-Packaged Optics (CPO) workshop were also held, further expanding the breadth and depth of technical exchange.



Prof. Jeffrey C. Suhling, Auburn University — “Stress Sensing Test Chips for Application to Electronics Packaging”



Prof. Sheng LIU, Academician of the Chinese Academy of Sciences and Dean of the School of Integrated Circuits, Wuhan University — “Heterogeneous and Hybrid Integration Technologies for the Era of Humanoid Robotics and the Low-Altitude Economy”



Dr. Ali Roshanghias, Head of the Research Unit for Heterogeneous Integration Technologies (HIT), Silicon Austria Labs (SAL), Austria — “Sinterconnects® as a Platform for Double-Sided-Sintered WBG Power Modules”; Dr. John H. LAU, Chief Scientist, Unimicron Technology Corporation, Taiwan, China — “Glass Packaging and Its Reliability”

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Prof. Daohong YANG, Director of Yangtze Laboratory and Dean of the School of Integrated Circuits, Hubei University — “Application Practice and Prospect of Advanced Packaging Technology in Intelligent Computing Chip Systems”; Dr. Tanja Braun, Head of Department, Fraunhofer IZM, Germany — “Holistic Chiplet Packaging Approach”



Mr. Hidenori ABE, CTO for Semiconductor Materials and Executive Director, Electronics Business Headquarters of Resonac Corporation, Japan — “Advanced Packaging Materials Innovation through Co-creative Activities”; Mr. Fei YU, Director of Marketing, Product & Solution, Beijing NAURA Microelectronics Equipment Co., Ltd., China — “Advanced Packaging Equipment Empowers a New Ecosystem of Heterogeneous Integration”

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Mr. Weijia CAI, CTO, WuShi Microelectronics (Suzhou) Co. Ltd., China — “Application of Wafer Bonding in Advanced Packaging”; Dr. Ruby YAN, Vice President for Global Business Center, Guangzhou Zen Semiconductor Corporation, China — “Poised for Growth: Meeting the Challenges of Silicon Photonics”



Dr. Alex ZHAO, Founder and Chief Scientist, Zhuhai Silicon Chip Technology Ltd., China — “Chips Z: 2.5D/3D AI EDA+ Ushering in a New Era of STCO-Driven System-Level Collaboration for Advanced Packaging”; Dr. Kitty Pearsall, IEEE Fellow, EPS Distinguished Lecturer and EPS Past President — “Semiconductor Industry – Impact of Wafer Fabrication Equipment and Its Respective Processes and Critical Materials for Advanced Packaging”



Dr. Charles E. Bauer, Senior Managing Director, TechLead Corporation, USA —



“Navigating the Collision of AI, Politics & Engineering: Reshaping Electronics Manufacturing!”

(III) August 6–7: Industry Exhibition + Poster Sessions

The industry exhibition and poster area remained open throughout August 6 and 7. The conference also featured a supporting industry exhibition, with major exhibitors including:

International companies included ULVAC, Inc., DISCO, Heraeus, KLA, SCHOTT AG, Synopsys, KEYENCE, Hitachi, Ltd., and others. Leading domestic institutions and companies included Emphyrean Technology Co., Ltd., Yangtze Laboratory, Leadlap Semiconductor, Chengdu ECHINT Technology Co., Ltd., Beijing NAURA Microelectronics Equipment Co., Ltd., THE 2ND RESEARCH INSTITUTE OF CHINA ELECTRONICS TECHNOLOGY GROUP CORPORATION, National Center for Advanced Packaging Co., Ltd. (NCAP China), Xiamen Sky Semiconductor Co., Ltd., Circuit Fabology Microelectronics Equipment Co., Ltd., SBT Ultrasonic Technology Co., Ltd., Shenzhen Hongxin Micro-assembly Technology Co., Ltd., Shenzhen Fitech Co., Ltd., SHENYANG HEYAN TECHNOLOGY CO., LTD., Arrayed Materials (China) Co., Ltd., Shanghai Purechip Technology Co., Ltd., and other materials, equipment, packaging and testing, and simulation service providers. Exhibits covered the full packaging value chain, including lithography equipment, dicing equipment, simulation and modeling software, specialty packaging resins, conductive interconnect materials, reliability testing equipment, and AI visual inspection systems, providing participating companies with channels for technology selection and business matchmaking.

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The poster area was organized into twelve major technical tracks, with more than 340 posters presenting the latest research achievements. Tracks covered advanced packaging, packaging materials and processes, packaging design and modeling, interconnect technology, advanced manufacturing, quality and reliability, power electronics, energy electronics, AI-enabled packaging technologies, and other areas. More than 300 academic posters were displayed, enabling participants to exchange ideas freely and discuss technical details one-on-one. The exhibition area became an important hub connecting academia and industry; during coffee breaks and exhibition networking periods, delegates engaged in in-depth discussions with vendor technical teams, helping align innovative research outcomes with engineering needs.



(IV) Outstanding Paper Awards

During the conference welcome banquet, the Outstanding Paper Awards ceremony was also held. Following multiple rounds of rigorous review, 35 papers selected from



more than 750 submissions received awards in three categories: Best Student Paper Award, Outstanding Paper Award, and Best Industrial Paper Award. The winning papers showcased the latest breakthroughs and industrial applications in semiconductor packaging and provided an important reference for assessing future technical trends in the industry.



III. Key Technical Discussion Themes and Industry Consensus

(I) In the Post-Moore Era, Advanced Packaging Has Become a Core Pathway for Enhancing Chip Performance

The plenary presentations and technical sessions reached a common industry understanding: as Moore's Law slows, advanced packaging has become a key solution for sustaining chip performance improvements and reducing single-die development costs. 3D stacking, system-in-package technologies, and heterogeneous integration are major focus areas for leading companies and research institutions worldwide. Packaging is no longer merely a back-end supporting process for chips; it has become a core element of chip system design.

(II) Deep Integration of Artificial Intelligence and Advanced Packaging Is Emerging as a New Development Track



This year, the conference introduced a dedicated “AI-Empowered Advanced Packaging” session for the first time, representing one of the conference’s most significant innovations:

Industry: AI is being applied to wafer defect inspection, packaging process parameter optimization, accelerated reliability simulation, and supply-chain risk prediction;

Academia: physics-aware AI algorithms, AI-driven packaging simulation tools, and dedicated packaging architectures for high-performance AI chips are becoming mainstream research directions;

Implementation challenges: the industry currently lacks standardized AI packaging datasets, and cross-vendor algorithm adaptation remains difficult. These issues will be key priorities for future industry–academia–research collaboration.

(III) Market Demand for Reliability, Power Electronics, and Energy-Electronics Packaging Continues to Grow

Technical discussions on power electronics, new-energy storage, and automotive-chip packaging drew significantly greater attention. High-temperature, high-voltage, and high-reliability packaging materials, interconnect processes, and failure-detection solutions have become essential for enterprise technology upgrades. Submissions in the quality and reliability track ranked among the highest for both posters and oral presentations.

IV. Summary of Conference Value and Outcomes

(I) Academic Value

The conference provided a comprehensive overview of the latest global technology roadmaps in electronic packaging, establishing a complete academic discussion framework around three frontier areas: AI + advanced packaging, 3D heterogeneous integration, and automotive/power-electronics packaging;

Through PDC courses and poster exchanges, young scholars and students gained opportunities for face-to-face interaction with academicians and IEEE Fellows, strengthening channels for academic exchange and knowledge sharing;

A large number of previously unpublished frontier research results were presented, providing references for future research topics and project planning.

(II) Industry Value



Domestic packaging and testing, chip-design, equipment, and materials companies connected with advanced international technology solutions and gained a clearer understanding of technical gaps and pathways for catching up with leading overseas suppliers;

Industry consensus was strengthened around the localization and independent development of domestic equipment and packaging materials, encouraging coordinated innovation across upstream and downstream companies;

A business matchmaking platform was established, and multiple participating companies reached preliminary intentions for technical cooperation, sample testing, and joint R&D.

(III) International Exchange

Leveraging Xi'an's role as a Belt and Road hub, the conference strengthened academic and industrial exchange channels across Asia, Europe, and North America, consolidated ICEPT's position as a leading international electronic packaging conference in the Asia-Pacific region, and reinforced long-term strategic cooperation with the global IEEE EPS organization.

V. Outstanding Industry Challenges and Recommendations for Future Development

(I) Key Industry Challenges Highlighted During the Conference

Standardization for AI packaging applications remains insufficient, with no unified industry datasets or simulation evaluation standards;

Core high-end packaging equipment and specialty electronic materials remain highly dependent on imports, while the stability and consistency of domestic products still require improvement;

Technical bottlenecks remain in thermal management for heterogeneous 3D packaging and in understanding high-density interconnect reliability failure mechanisms;

There is a major shortage of multidisciplinary talent in advanced packaging, particularly professionals with combined expertise in chip design, materials, processes, and simulation.



(II) Recommendations for Future Industry Collaboration

Leverage the ICEPT platform to establish an AI Packaging Joint Working Group with IEEE EPS, domestic universities, and leading enterprises, promoting the joint development of industry standards;

Deepen industry–academia–research collaboration by drawing on research platforms such as the School of Microelectronics at Xi'an Jiaotong University and the Institute of Microelectronics of the Chinese Academy of Sciences, with targeted efforts on domestic packaging equipment and core materials;

Continue strengthening international exchange, promote joint project applications and personnel visits between Chinese and overseas institutions, and balance independent technological innovation with global industrial collaboration.

VI. Conclusion

Special thanks to the following organizations for their support of ICEPT 2026:

SPONSORS



Special thanks to all ICEPT 2026 committees and volunteers for their dedicated work:



ICEPT 2026 in Xi'an successfully completed all planned activities. The three days of multidimensional exchange fully demonstrated the innovative vitality of the global electronic packaging industry in the post-Moore era. The conference connected three major channels—academic research, industrial implementation, and international collaboration—and identified three core development themes: AI-integrated advanced packaging, innovation ecosystem development, and heterogeneous integration. The technical consensus and cooperation intentions formed during the conference will continue to support high-quality development of the global semiconductor packaging industry. The Organizing Committee has largely completed the compilation of conference materials and shared them with all participants.

Looking ahead, ICEPT will continue to uphold the principles of openness, professionalism, cooperation, and sharing, continuously improve conference content and services, and further enhance its international influence and professional value. We look forward to maintaining long-term connections with all participants and meeting again in 2027 to continue advancing innovation in global electronic packaging technology and coordinated industry development.

See You in Shenzhen in 2027!



About ICEPT

The International Conference on Electronic Packaging Technology (ICEPT), founded in 1994, is one of the four leading authoritative conferences in the global electronic packaging field. It is also one of Asia's larger international packaging technology conferences, combining strong academic depth with substantial industrial value. The conference has long been held in China and has now been organized for 27 consecutive editions, hosted in turn by institutions including Tsinghua University, Peking University, Fudan University, Shanghai Jiao Tong University, and Xi'an Jiaotong University. Its scope covers electronic packaging design, manufacturing, testing, optoelectronics, MEMS, system-in-package technologies, and related areas. Each year it attracts more than one thousand experts and scholars from nearly 20 countries and regions and has become an academic platform with significant international influence in electronic packaging.

ICEPT 2026 Materials:

① Program:

<https://www.icept.org/Private/Files/20260730/6392101941900227036826482.pdf>

② Live Photo:

https://www.xxpie.com/m/album?id=6a62df837434840a9e6fa139&source=SHARE_LINK&r=1919

③ ICEPT 2026 Professional Development Courses (PDC):

Link: <https://pan.baidu.com/s/1wXXB7tKNixfDkEyBdta31A?pwd=v4im>



Access Code: v4im

④ ICEPT 2026 Proceedings:

Link: <https://pan.baidu.com/s/1x1EQW6gndEox7ZHlyUn3Qw?pwd=p68a>

Access Code: p68a

⑤ Plenary & Sessions Shareable Materials:

Link: <https://pan.baidu.com/s/1DJolQUyOuhLioDNa-2QIkA?pwd=3ast>

Access Code: 3ast

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