![ECTC 2025 IEEE 75th Electronic Components and Technology Conference]

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For Immediate Release

2025 IEEE Electronic Components and Technology Conference Highlights Microelectronics Packaging and Component Breakthroughs

- *Premier electronics packaging conference celebrates 75 years of serving the industry*
- *Key topics include heterogeneous integration, hybrid bonding, ultra-dense interconnections, photonic devices*
- *An expanded number of special sessions on critical technologies*
- *A Student and Startup Innovation Challenge*

DALLAS, TX (February 27, 2025) – More than 2,000 scientists, engineers and businesspeople are expected to attend the 75th annual IEEE Electronic Components and Technology Conference (ECTC) from May 27-30, 2025 at the Gaylord Texan Resort & Convention Center here. ECTC is the premier international event bringing together the best in packaging, components, and microelectronic systems science, technology, and education in an environment of cooperation and technical exchange. There are only a few rooms left at the conference rate so reservations should be made as soon as possible.

The flagship conference of the IEEE Electronics Packaging Society, ECTC 2025 offers a finalized technical program of some 400 technical papers in 36 oral and five interactive sessions, one of which is a student session; 12 special sessions on selected topics; a range of professional development opportunities; 135+ exhibits showcasing industry-leading product and service companies from around the world; and various social events and student outreach activities to facilitate networking.

The range of topics to be covered at ECTC 2025 encompasses heterogeneous integration, photonics, components, materials, assembly, reliability, modeling, interconnect design and technology, 2.5D/3D/3.5D integration technologies, direct/hybrid bonding, device/system packaging, wafer-level packaging, optoelectronics and more.

"Packaging has become critically important in the semiconductor industry, because the benefits to be gained from heterogeneous integration and advanced packaging techniques are rivaling and surpassing those which can be obtained by the traditional approach of making chips faster according to Moore's Law," said Przemyslaw Gromala, ECTC 2025 Program Chair and Sr. Expert/Simulation Team Leader at Robert Bosch GmbH. "ECTC is the premier industry forum where these technologies are unveiled and discussed. The growing worldwide interest in them is evident in the results from last year's ECTC

conference, which had record attendance, a record number of paper submissions and presentations, record international participation, and a sold-out exhibition hall."

Here are details of the 2025 IEEE Electronic Components and Technology Conference:

Plenary Keynote Talk: Wednesday, May 28
- *Achieving Efficient Zettascale Compute in the AI Era*, by Samuel Naffziger, Sr. Vice President and Corporate Fellow at AMD.

The demand for compute, and for the energy to power it, is increasing faster than ever before. Meeting the challenge of delivering this processing power in the AI era requires holistic innovation from the device to the datacenter level. It starts with integrating highly optimized, domain-specific accelerators with advanced 2.5D and 3.5D packaging to maximize the amount of compute within the most efficient, local communication domain. These accelerators and other system components must be packed into tightly integrated sleds that minimize losses and power for high-speed communication, while taking advantage of workload-aware power management. Scaling to the rack and datacenter level will require many advances in signaling technologies, rack design and power optimization to enable the training and inference computation required by the most demanding frontier models. This talk will cover these trends and the key technologies that will power compute growth at a scale we wouldn't have conceived of just a few short years ago.

Special Sessions: Tuesday, May 27 – Friday, May 30
In addition to the keynote talk, ECTC 2025 includes a series of Special Sessions, which feature industry experts discussing technology status and roadmaps in key areas of interest.
 The ECTC 2025 Special Sessions also include:
- *Ultra High-Density Interconnect Technologies and Supply Chain Readiness for AI & HPC*
- *Hybrid Bonding (HB): to B, or not to B? Needs and Challenges for the Next Decade*
- *Quantum Photonic Advanced Packaging*
- *Glass Core vs. RDL Interposers: Ready for Prime-Time?*
- *Advanced Materials for Enabling Co-Packaged Optics Integration*
- *Advances in Chiplets: Tackling Fault Isolation and Failure Analysis in Heterogeneous Integration*
- *Advancements in mmWave and Sub-THz Packaging for Communication and Radar Applications*
- *Thermal Management Solutions for Next-Generation Backside Power Delivery*
- *IEEE EPS Seminar: User Perspective of Chiplet Technology*
- *ECTC 2025 Plenary Session: Emerging Advanced Power Delivery for the AI Computing Era*
- *IEEE EPS President's Panel: Challenges and Benefits of Recruiting and Retaining a Diverse Workforce*

Student and Startup Innovation Challenge Competition: Wednesday, May 28
Another special session is a competition where both students and start-up companies will pitch their innovative ideas to a jury panel, followed by audience Q&A, jury deliberation, and then awards and a networking event.

Heterogeneous Integration Roadmap (HIR) Workshop: Tuesday, May 27
ECTC 2025 will also feature a Heterogeneous Integration Roadmap (HIR) workshop with four focused discussions:
- IoT & AI at the Edge
- Advancing Heterogeneous Integration through Metrology & AI
- Integrating Photonics in HPC & Network Systems

- Advances in Panels, Substrates, and Printed Circuit Boards.

Professional Development Courses: Tuesday, May 27

In addition to the technical program, ECTC 2025 offers 16 Professional Development Courses (PDCs). These are offered in conjunction with the co-located IEEE ITherm Conference, which focuses on thermal/thermomechanical issues in electronic systems. These four-hour courses are on a variety of relevant electronic packaging topics and are taught by world-class experts, enabling participants to broaden their technical knowledge base. Attendees will be awarded either CEU or PDH credits (continuing education units or professional development hours, respectively).

Celebrating 75 Years of Serving the Microelectronics Industry

ECTC began in 1950 as the Symposium on Improved Quality Electronic Components, held at the U.S. Department of the Interior and sponsored by the former American Institute of Electrical Engineers (AIEE), Institute of Radio Engineers (IRE), and Electronic Industries Association (EIA). In succeeding years the conference has evolved in many ways, with various name changes, technical programs aligned with evolving electronics technologies, different locations and co-sponsors. Today, the ECTC conference serves as a global platform for exploring leading-edge advancements in microelectronic packaging and component technologies, fostering innovation, and addressing industry challenges. The ECTC Reception Gala on Thursday, May 29 will feature a special event to celebrate the conference's 75th anniversary.

Further information about ECTC 2025

For registration and other information, visit https://www.ectc.net/index.cfm

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The IEEE Electronics Packaging Society (EPS) sponsors the ECTC conference. EPS is the leading international forum for scientists and engineers engaged in research, design and development of revolutionary advances in microsystems packaging and manufacturing. Its areas of interest encompass all aspects of packaging and integration of electrical, electronic, optoelectronic, biological, micromechanical and sensing components; addressing signal and power delivery, material aspects, thermal and structural design and reliability.

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