Call for Papers

The 10 IEEE Electron Devices Technology and Manufacturing (EDTM)

# The 10th IEEE Electron Devices Technology and Manufacturing (EDTM) Conference 2026 Penang, Malaysia, March 1st – 4th, 2026

## Theme: Shaping the Future with Innovations in Devices and Manufacturing

Three-page camera-ready paper submission starts: **August 1, 2025**
Paper submission deadline: **October 1, 2025**
Notification for Acceptance: **December 1, 2025**

**https://attend.ieee.org/edtm-2026/**

The 10th IEEE Electron Devices Technology and Manufacturing (EDTM 2026) Conference will be held for the first time in Penang, Malaysia, well known as the Silicon Valley of the East. EDTM 2026 will be a full four-day conference, established and organized by the IEEE Electron Devices Society (EDS). It is a premier conference, which aims to bring together experts/researchers from industry and academia around the world on a common platform, to showcase new discoveries and discuss on a broad range of topics covering semiconductor device technology and manufacturing.

### Technical Areas

EDTM 2026 solicits papers in all areas of electronic devices, including materials, processes, modeling, device/circuit/system design, reliability, packaging, manufacturing, testing, and yield. EDTM 2026 will include parallel technical sessions of oral and poster presentations.

### Publication Opportunities

The accepted and presented papers will be published in the EDTM 2026 Proceedings included in IEEE Xplore. The authors of a selected number of high-impact papers will be invited to submit extended versions for publication in the special issue of IEEE Journal of Electron Devices Society (J-EDS) or IEEE Transactions on Electron Devices, subjected to J-EDS and TED policy.

### Award Opportunities

EDTM 2026 offers one Best Paper Award in each sub-technical area.

### Short Courses and Tutorials

EDTM 2026 will start with a set of short courses and tutorials on February 28, 2026. Tutorials will cover selected topics from the basics to the state-of-the- art. The Short Courses will discuss the latest research and challenges on emerging and advanced topics.

### Exhibition

EDTM 2026 offers vendors to showcase their newest products and technologies, allowing attendees to learn about new tools and techniques.

**General Chair:** Bernard Lim (Appscard)
**General Co-Chair:** Merlyne De Souza (U of Sheffield)
**TPC Chair:** P Susthitha Menon (IMEN, National University of Malaysia-UKM)
**TPC Co-Chair:** Pei-Wen Li (National Yang Ming Chiao Tung University, Taiwan)
**TPC Co-Chair**: Can Li (The University of Hong Kong - HKU)
**TPC Co-Chair**: Asrulnizam Manaf (CEDEC, Universiti Sains Malaysia -USM)

### Steering Committee:

Shuji Ikeda (TEI Solutions) – Chair
Bin Zhao (CTI)
Arokia Nathan (Cambridge U.)
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Albert Wang (UC Riverside)
Kazunari Ishimaru (Rapidus)
Yogesh Chauhan (IIT Kanpur)

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## The sub-technical areas are:

**01. Materials**: All device-related materials, including semiconductors, magnetics, ferroelectrics, insulators and metals, etc. Smart materials enabling intelligent devices are highly welcome.

**02. Process, Tools, Yield, and Manufacturing:** Semiconductor processes and equipment, including process integration, process control, equipment impact on devices, reliability and yield, self-assembly techniques, process sensing, process enhancement by AI/ML, etc.

**03. Advanced Semiconductor (Logic) Devices:** All semiconductor devices including Si/Ge CMOS,interconnects, compound semiconductors, oxide semiconductors, low-dimensional nanomaterials, ferroelectric, spintronics, 3D devices, Logic for Memory, etc.

**04. Memory Technologies:** Embedded and standalone, volatile and nonvolatile memories, in-memory and neuromorphic computing, charge-based memories, RRAM, MRAM, PCM, FeRAM, cross- point and selectors, bio-inspired memory, 3D integration, and novel hierarchies/architectures for memory-centric computing.

**05. Photonics, Imaging and Display:** Topics include photonics for energy, optoelectronics, microwave photonics, nano-photonics, optical sensors, optical communications/networking, optical switches, bio-photonics, lasers, optical systems, bio-imaging, imagers, display technology, and other emerging technologies in photonics, imaging, and display.

**06. Wide-Bandgap Power and RF Devices/Circuits:** Power device materials such as wide bandgap and ultra- wide bandgap materials (SiC, GaN, AlN, etc.). Discrete and integrated high frequency devices and physics, RF modules and systems, III-V devices for RF application, Active and passive component design for RF.

**07. Modeling and Simulation:** Advances in modeling/simulation of electron devices, packages, and processes. Includes numerical, analytical, and statistical modeling of electronic, optical, or hybrid devices; interconnects; technology CAD; benchmarking; monolithic/heterogeneous integration.

**08. Reliability and testing:** Reliability of devices, circuits and systems; Design for reliability and variability aware design; Degradation mechanism of emerging devices and memories; stress testing, reliability enhancement techniques, and innovative testing solutions for electronic devices.

**09. Packaging and Heterogenous Integration:** 2.1D, 2.5D, and 3D integrations, wafer-level packaging, chiplets, ultra-fine-pitch interconnection, sub-micron package-level wiring, optical/wireless interconnect, power/sensor device packaging, thermal-expansion coefficient, thermal management.

**10. Sensor, MEMS, Bio-electronics:** Advances in sensors, transducers, and actuators; Intelligent sensors with embedded AI; MEMS/NEMS devices; Microfluidics and BioMEMS; CMOS on MEMS; RF MEMS; Micro-optical and opto-chemical devices; MEMS for energy harvesting and on-chip energy storage; Bio-sensors

**11. Flexible and Wearable Electronics:** Flexible devices for wearable applications; Materials for flexible electronics.

**12. Nanotechnologies:** Advances in nanomaterials, nanoelectronics, 2D materials and devices, nanophotonics, nanofabrication, nanoenergy, nanobiomedicine, nanosensors, and related techniques.

**13. Neuromorphic, Quantum Computing and Disruptive Technologies:** Metaverse; Neuromorphic Computing; Quantum Computing; in-memory, neuromorphic and bio-inspired computing; AI/ML for next-generation computing; Quantum machine learning; Logic-in-memory.