

# APEC 2026, March 22 – 26, Henry B. Gonzalez Convention Center, San Antonio, TX Call for Technical Session Papers

**Be a Prominent Part of the Most Exciting Event in Power Electronics:** Are you ready to showcase your groundbreaking work, learn from industry leaders, and connect with fellow professionals in an inspiring setting? APEC 2026 offers an expanded window for digest and final manuscript submissions, making it easier for you to participate. Submitting your work is a strategic investment in your professional future — contribute to the evolution of power electronics, engage with a dynamic and influential community, and make a lasting impact. The Call for Papers will be posted at <a href="https://www.apec-conf.org">www.apec-conf.org</a>. We look forward to your contributions!

## Why Submit to APEC 2026 Technical Sessions?

- 1. **Showcase Your Research and Gain Recognition**: Share your innovative work with power electronics professionals worldwide. Highlight its impact, advance the field, and spark innovation. Gain recognition, unlock opportunities, and tackle real-world challenges.
- 2. **Networking and Professional Growth**: Engage with peers, industry leaders, and potential collaborators to forge meaningful connections that support career growth and future partnerships. Explore diverse sessions and visit the Expo Hall for valuable, relevant insights.

**Submission Requirements:** Review the list of topics when planning your digest, ensure your work is original, not previously published, and include evidence of completed experimental work. The principal criteria in selecting digests will be the usefulness of the work to the practicing power electronic professional. Reviewers value evidence of completed experimental work. Authors should obtain any necessary company and governmental clearance prior to submission of digests. Visit APEC 2026 <u>Technical Sessions webpage</u> for more details on the digest and final manuscript format and submission guidelines.

**Once Accepted:** A detailed letter will be sent to all accepted submissions, but you don't have to wait—visit the conference website now to explore your next steps and prepare for an incredible experience!

#### **Key Dates for Submission and Acceptance**

- May 29, 2025: Digest submission site opens
- August 15, 2025: Deadline for digest submissions
- October 14, 2025: Author decision notifications
- December 8, 2025: Final manuscripts and author registrations due

## What to expect at APEC 2026

- Premier Exposition: Explore cutting-edge innovations and products in power electronics.
- Expert-Led Sessions: Series of professional development courses taught by leading experts.
- Plenary Session Presentations: Thought provoking and forward-thinking power electronics talks.

**Reviewer Participation:** Contribute to the quality of APEC 2026 by becoming a paper reviewer. Register at APEC Reviewer Sign-up starting May 29, 2025.

**APEC Sponsors** 

Power Sources Manufacturers Association IEEE Industry Applications Society IEEE Power Electronics Society 2026 Chairs

Jin Wang, 2026 General Chair Dhaval Dalal, 2026 Program Chair Deepak Veereddy, 2026 Assistant Program Chair

# **APEC 2026 Topics of Interest**

#### 1. AC-DC Converters

- a. Single-Phase and Three-Phase Input
- b. Power Factor Correction
- c. Embedded AC-DC Power Supplies
- d. External AC-DC Adapters
- e. Bidirectional Converters (AC-DC Focus)

#### 2. DC-DC Converters

- a. Hard- and Soft-Switched
- b. Resonant Converters
- c. Point-of-Load (POL) and Multi-Phase Converters
- d. Voltage Regulator Modules (VRM)
- e. Bidirectional Converters (DC-DC Focus)

#### 3. DC-AC Inverters

- a. Single and Multi-Phase Inverters
- b. Multilevel Inverters
- c. PWM Strategies
- d. Power Quality and EMI
- e. Bidirectional Converters (DC-AC Focus)

#### 4. Devices and Components

- a. Power Silicon MOSFETs, BJTs, IGBTs, etc.
- b. GaN and SiC Devices and Modules
- c. WBG Integration and Reliability
- d. Ultra-Wide Bandgap Devices
- e. Capacitors, Supercapacitors
- f. Interconnects, Busbars and Fuses

#### 5. Magnetics

- a. Advanced Magnetic Materials and Geometries
- b. Winding Techniques
- c. High-Frequency Magnetics
- d. Additive Manufacturing for Magnetic Materials
- e. Magnetics Modeling and Simulations

#### 6. Power Electronics Integration and Manufacturing

- a. Power Electronics Packaging
- b. Power Modules / High Density Design
- c. Thermal Management
- d. Quality and System Reliability Including EMI/EMC
- e. Embedded Technologies, 3D Packaging, and Additive Manufacturing
- f. Production Processes and Design for Manufacturability

## 7. Control

- a. Control of Power Electronic Converters
- b. Current-Mode and Voltage-Mode Control
- c. Digital Control-MCUs, DSPs, FPGAs, ASICs
- d. Sensor and Sensor-less Control
- e. Gate Drive Circuits and Fault Protection
- f. Control ICs

#### 8. Modeling and Simulation

- a. Circuits and Systems
- b. Device and Component Modeling
- c. Parasitics Extraction and Optimization
- d. Software Tools
- e. Hardware-in-the-Loop, Digital Twins and Rapid Prototyping

#### 9. Motor Drives

- a. AC, DC, BLDC Motor Drives
- b. Actuators
- c. Integrated Motor Drives
- d. Modeling and Control Techniques for Motor Drives
- e. Power Quality and EMI for Motor Drives

#### 10. Power Electronics for Utility Applications

- a. FACTs Devices and HVDC
- b. Solid-State Transformers
- c. Energy Storage Systems
- d. Distributed Energy Systems
- e. Microgrid Systems
- f. Power Quality, UPS, Active Power Filters
- g. Smart Grid and Metering

# 11. Renewable Energy Systems

- a. Photovoltaic (PV) Inverters and Micro Inverters
- b. Wind Energy Conversion Systems
- c. Fuel Cells and Other Emerging Renewable Energy Systems

## 12. Transportation Power Electronics

- a. Vehicular Power Electronic Circuits and Systems
- b. Power Electronics for Hybrid and Electric Vehicles
- c. On-board and Off-board Charging Systems
- d. Power Electronics for Aerospace Including eVTOL and electric aircraft
- e. Power Electronics for Shipboard and Other Transportation Applications

## 13. Wireless Power Transfer

- a. Wireless Charging
- b. Safety and Reliability
- c. Non-contact Sensors for Power Electronics

# 14. Power Electronics Applications

- a. Datacenter (including AI) / Telecom Power Architecture and System Considerations
- b. Solid State and Hybrid Circuit Breakers
- c. Defense and Military Power Electronics
- d. AC-DC-AC Applications and Matrix Converters
- e. Energy Harvesting and Power for IoT
- f. Medical Equipment / Tools
- g. Other Niche and Emerging Applications