Conferences And Trade Shows Addressing SiC & GaN Power Devices In 2018

With silicon power semiconductor technologies approaching maturity, the power electronics industry is now turning its attention to wide-bandgap semiconductors, particularly SiC and GaN power devices. This technology is now a major topic of discussion at all power electronics conferences as well as a subject garnering attention at various other semiconductor and electronics conferences. A sampling of the conferences where engineers can learn about the latest developments in SiC and GaN power semiconductors is presented here.

March:

**APEC**

Applied Power Electronics Conference and Exposition

March 4-8, 2018

San Antonio, TX

Notes: Discussions of SiC and GaN power devices permeate every aspect of APEC these days from the plenary session to the technical paper sessions to the industry sessions. There are even pre-conference tutorials discussing SiC and GaN devices. Plus there are numerous product displays and demos in the exhibit featuring SiC and GaN devices.

**IRPS**

International Reliability Physics Symposium

Forum for reporting technological breakthroughs in the area of microelectronics reliability

March 11-15, 2018

Burlingame, CA

Notes: Includes tutorials “SiC Power MOSFETs: Application Benefits and Technology Validation Needs” and “Validating the Robustness of GaN Power Transistors”. Technical program includes a session “Wide Bandgap Semiconductors”. Workshops include “Synergies between GaN and SiC for reliability development and standardization.”

**GOMACTech Conference**

Government Microcircuit Applications & Critical Technology Conference

Technologies for Secure Spectrum Access from DC to Light

March 12-15, 2018

Miami, FL

Notes: Call for papers includes “Power Electronics and Emerging Power Technologies” where it states “Submissions are encouraged in the areas of wide and ultra-wide bandgap material development and device results (GaN,SiC, Ga203, AlN, and Diamond), pulsed power, wireless power transfer and novel power distribution architectures.”

**ARPA-E**

Energy Innovation Summit
March 13-15, 2018
Washington, D.C.

Notes: Technology Showcase (the exhibition) includes companies and universities working on SiC and GaN materials, devices and applications.

CIPS
International Conference on Integrated Power Electronics
March 20-22, 2018
Stuttgart, Germany

April:
CS International
Connecting, informing and inspiring the compound semiconductor industry
Co-located with PIC International and IoT International
April 10-11, 2018
Sheraton Brussels Airport Hotel
Brussels, Belgium


May:
CS Mantech Conference
International Conference on Compound Semiconductor Manufacturing Technology
Includes Reliability Of Compound Semiconductors (ROCS) Workshop
May 7-10, 2018
Hyatt Regency Austin
Austin, TX

ISPSD
International Symposium on Power Semiconductor Devices and ICs
Palmer House Hilton Hotel  
Chicago, IL  
May 13-17, 2018  
Notes: Includes short courses on “Sic Device Design & Fabrication,” “Vertical GaN Power Devices” and “AlGaN/GaN Power Device Reliability” plus multiple sessions on SiC and GaN power devices and packaging.

**Compound Semiconductor Week**  
Joint venue for International Symposium on Compound Semiconductors (ISCS) and the International Conference on Indium Phosphide and Related Materials (IPRM)  
May 29- June 1, 2018  
Massachusetts Institute of Technology  
Cambridge, MA  
Notes: Topics include “Power Electronics” and “Wide Bandgap Materials”.

**June:**  
**PCIM Europe**  
June 5-7, 2018  
Nuremberg, Germany  
Notes: Includes numerous talks on SiC and GaN power devices as well as related product displays and demos.

**SCAPE**  
International Wide-Bandgap Power Electronics Applications Workshop  
Previously known as ISiCPEAW and IWBGPEAW  
June 11-12, 2018  
Radisson Blu Royal Park Hotel  
Stockholm, Sweden

**ITEC**  
Components, Systems, And Power Electronics—From Technology To Business And Public Policy  
June 13-15, 2018  
Long Beach, CA  
Notes: Includes talk on “Engine Coolant Power Dense 200 kW 1050 V DC Bus SiC Dual Inverter” and panel on “Power Electronics—Applications of Si, SiC, GaN”.

**COMPEL**
IEEE Workshop on Control and Modeling for Power Electronics
June 25-28, 2018
Padova, Italy
Notes: Workshop places special emphasis on "topologies, modeling methodologies and control techniques for very high-frequency power conversion".

PCIM Asia
June 26-28, 2018
Shanghai (Pudong), China

July:
NSREC
IEEE Nuclear And Space Radiation Effects Conference
July 16-20, 2018
Kona, HI
Notes: Past conferences have included papers discussing radiation hardness of wide-bandgap devices. Exhibit has included one or more GaN power device suppliers.

September:
EPE and ECCE Europe
European Conference on Power Electronics and Applications and Energy Conversion Congress and Expo Europe
Sept 17-21, 2018
Kipsala International Exhibition Centre
Riga, Latvia

ECCE
IEEE Energy Conversion Congress & Expo
September 23-27, 2018
Oregon Convention Center
Portland, OR
Notes: There are talks on SiC and GaN power devices spread across the various conference sessions. For more about this conference see How2Power’s special section on ECCE.

October:
BCICTS
IEEE BiCMOS and Compound Semiconductor Integrated Circuits and Technology Symposium
October 14-17, 2018
Sheraton San Diego Hotel and Marina
San Diego, CA

**WIPDA**
IEEE Workshop on Wide Bandgap Power Devices and Applications
October 31-November 2, 2018
Georgia Tech Hotel and Conference Center
Atlanta, GA

Notes: This workshop is described as a “a forum for device scientists, circuit designers, and application engineers from the IEEE Power Electronics and Electron Devices societies to share technology updates, research findings, development experience, and ideas for novel applications.”

**November:**
**Semicon Europa**
Semiconductors Drive Smart
Co-located with Electronica
November 13-16, 2018
Messe Munchen
Munich, Germany

**December:**
**IEDM**
IEEE International Electron Devices Meeting
December 1-5, 2018
Hilton San Francisco Union Square
San Francisco, CA

Notes: This conference is an established forum for reporting technological breakthroughs in the areas of semiconductor and electronic device technology, design, manufacturing, physics, and modeling. Past conferences have included papers on SiC and GaN devices. The current call for papers mentions “compound semiconductor and high speed devices” and “power devices”.
Know of a conference or tradeshow in 2018 addressing SiC and GaN power devices that is not listed here? Email the editor to tell How2Power about it.

For further reading, see How2Power’s section on Silicon Carbide and Gallium Nitride Power Technology. This section brings you news of SiC and GaN developments along with related design information, supplier data, book reviews, and more.