

2017 WIPDA

/ Albuquerque, NM / October 29 – November 01



SPONSORED BY THE IEEE POWER ELECTRONICS AND ELECTRON DEVICES SOCIETIES, THE POWER SOURCES MANUFACTURERS ASSOCIATION, AND SANDIA NATIONAL LABORATORIES



preliminary agenda

Schedule at a Glance: Sunday October 29, 2017

2 PM | 5: 30 PM | ITRW Meeting

Schedule at a Glance: Monday October 30, 2017

9 AM	10 AM	Tutorial James Cooper, Purdue University, "SiC Power Devices: Physics, Current Status, and Future Trends"
10 AM	11 AM	Tutorial Subhashish Bhattacharya, North Carolina State University "HV SiC Devices Enabled MV Power Converters Applications and Circuit Topologies – Opportunities and Challenges"
11 AM	12 PM	Tutorial Brij Singh, John Deere, "200 kW, 1050 V _{DC} SiC Dual Inverter for Heavy-Duty Vehicles"
12 PM	2 PM	Lunch
2 P M	3 PM	Tutorial Andrew Lemmon, University of Alabama, "Special Considerations for Developing Applications for Wide Band-Gap Semiconductors"
3 PM	4 PM	Tutorial Sandeep Bahl, Texas Instruments, "GaN Reliability for Power Devices and Applications"
4 PM	5 PM	Tutorial Qiang Li, Virginia Tech, "GaN-Based High-Efficiency High-Density Power Converters for Future Data Center"
5 PM	6 PM	Tutorial Eric Persson, Infineon Technologies, "The Pros and Cons of Using GaN HEMTs in PFC Circuit Applications"
6 PM	7:30 PM	Vendor Exhibits and Social Reception

Tutorials are scheduled for 50 minutes with 10-minute breaks following each tutorial.

preliminary agenda

preliminary agenda

Schedule at a Glance: Tuesday October 31, 2017

8 AM	8:15 AM	Welcome Address Bob Kaplar, Sandia National Laboratories			
8:15 AM	8:45 AM	Keynote Isik Kizilyalli, Department of Energy ARPA-E, "Current and Future Directions in Power Electronic Devices and Circuits based on Wide Bandgap Semiconductors"			
8:45 AM	9:15 AM	Keynote Andrew Alleyne, University of Illinois, Urbana-Champaign, "Electrical and Thermal Considerations for Wide Bandgap Power Electronics"			
9:15 AM	9:40 AM	Break			
9:45 AM	10:30 AM	Panel Session High Voltage SiC Technology			
10:30 AM	11:15 AM	Panel Session Commercialization of GaN Devices in High-Frequency Power Electronic Applications			
11:15 AM	1:15 PM	Lunch			
1:15 PM	1:45 PM	Keynote Allain Charles, Infineon Technologies, "600V GaN Power Devices: The Long Journey to Market Success"			
1:45 PM	2:15 PM	Keynote Stephanie Butler, Texas Instruments, "Electrifications and Electronification Goes Wide"			
2:15 PM	2:45 PM	Keynote Ronald Green, U.S. Army Research Laboratory, "Enabling the Development of Power Electronics Applications through Advancements in SiC Power Devices"			
2:45 PM	3:15 PM	Break			
3:15 PM	5:20 PM	<table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; border-right: 1px solid black; padding: 5px;">Technical Session 1 SiC Inverters / Converters</td> <td style="width: 33%; padding: 5px;">GaN Technology, Device Optimization, and Reliability</td> <td style="width: 33%; padding: 5px;">Design and optimization</td> </tr> </table>	Technical Session 1 SiC Inverters / Converters	GaN Technology, Device Optimization, and Reliability	Design and optimization
Technical Session 1 SiC Inverters / Converters	GaN Technology, Device Optimization, and Reliability	Design and optimization			
6 PM	9 PM	Conference Banquet and Poster Session			

preliminary agenda

preliminary agenda

Schedule at a Glance: Wednesday November 1, 2017

8 AM	8:30 AM	Keynote Victor Veliadis, PowerAmerica, "TBA"		
8:30 AM	9 AM	Keynote Nick Fichtenbaum, Navitas Semiconductor, "GaN Power ICs: Device Integration Delivers Application Performance"		
9 AM	9:30 AM	Keynote Chingchi Chen, Ford Automotive, "TBA"		
9:30 AM	10 AM	Break		
10 AM	11:30 AM	Technical Session 2 GaN Inverters / Converters	SiC Device/Process Optimization	GaN Characterization
11:30 AM	1 PM	Lunch		
1 PM	2:35 PM	Technical Session 3 Gate Drivers / Overcurrent Protection	SiC Characterization	Wide Bandgap Packaging and Assembly
2:35 PM	3 PM	Break		
3 PM	4:40 PM	Technical Session 4 RF / Wireless Power	SiC Reliability	Wide Bandgap Circuit / Assembly Interaction
4:40 PM	5 PM	Wrap-up Session Bob Kaplar, Sandia National Laboratories		

preliminary agenda