



POWERAMERICA

Next Generation Power
Electronics Manufacturing
Innovation Institute

Wide Bandgap Devices and Applications Short Course November 12 - 14, 2024

All times are Eastern Daylight Time (EDT)

The course will be presented online in real-time, with opportunity for Q&A with the instructors

Link to join the live course will be sent to registered attendees
To register or learn more: PowerAmericaInstitute.org/shortcourse

Tuesday, November 12	
10:50 – 11:00	Welcome Victor Veliadis, PowerAmerica Executive Director & CTO
11:00 – 12:15	Electrical Screening of Commercial SiC Power Devices: An Urgent Issue Presenter: Prof. Anant Agarwal Affiliation: Ohio State University
12:15 – 1:30	How SiC Power Devices Shape The Future of Power Electronics Presenter: Peter Friedrichs Affiliation: Infineon
1:30 – 2:45	Potential Applications of SiC MOSFETs in Electric Power Distribution Systems Presenter: Juan Carlos Balda & Dr. Yue Zhao Affiliation: Univ. of Arkansas
2:45 – 3:00	Break
3:00 – 4:15	EV Inverter and Applications of Power Electronics in Hybrid Powertrain Presenter: Brij Singh Affiliation: John Deere
4:15 – 5:30	Reliable GaN FETS for Power Supply Applications Presenter: Sandeep Bahl Affiliation: Texas Instruments

Wednesday, November 13

11:00 – 12:15	GaN Power Devices: From Technology to Reliability-Limiting Processes Presenter: Matteo Meneghini Affiliation: Univ. of Padova
12:15 – 1:30	Optimizing SiC MOSFET Chip and Packaging Design to Match Specific Application Requirements Presenter: David Levett Affiliation: Consultant
1:30 – 2:45	SiC Epitaxy Basics Presenter: Michael MacMillan Affiliation: Consultant
2:45 – 3:00	Break
3:00 – 4:15	Topologies for High-Voltage GaN Applications Presenter: Tushar H. Dhayagude Affiliation: Transphorm, a Renesas Company
4:15 – 5:30	SiC Fabrication in a SiC Fab Presenter: Victor Veliadis Affiliation: PowerAmerica

Thursday, November 14

11:00 – 12:15	Bidirectional SiC and GaN Switch Presenter: Victor Veliadis Affiliation: PowerAmerica
12:15 – 1:30	Silicon Carbide Substrates: Advantages, Challenges and Solutions Presenter: Elif Balkas Affiliation: Wolfspeed
1:30 – 2:45	Next generation, High Power Density AI Data Center PSUs Enabled by GaN Power ICs Presenter: Jason Zhang Affiliation: Navitas
2:45 – 3:00	Break
3:00 – 4:15	SiC Power MOSFET Design from the Ground Up Presenter: Dallas Morisette Affiliation: Purdue University
4:15 – 5:30	Advanced Packaging and Optimization for High Power WBG Modules Presenter: Fang Luo Affiliation: Stony Brook University