



POWERAMERICA

Next Generation Power
Electronics Manufacturing
Innovation Institute

2021 Wide Bandgap Summer Workshop
“The Roadmap to the Future of SiC and GaN”
August 3-5, 2021
All Times Eastern Daylight (New York) Time
Link to Virtual Meeting to be Provided

Tuesday, August 3	
11:00 a.m.	Introduction to Tutorials Victor Veliadis, PowerAmerica’s Executive Director and CTO
11:05 a.m. – 3:15 p.m.	Tutorials <ul style="list-style-type: none">• Introduction to Power Electronic Technologies in Distributed Energy Resources, Liuchen Chang, U. of New Brunswick, Canada and Sudip Mazumder, U. of Illinois-Chicago (11:05 a.m.)• Wide-Bandgap Power Semiconductors and the Future of Integrated Motor Drives, Thomas Jahns, U. of Wisconsin-Madison (12:45 p.m.)• Power Electronics Power Distribution System (PEPDS) enabled by Navy Integrated Power Electronics Building Block (NiPEBB) and through Navy Integrated Power and Energy Corridor (NIPEC), Captain Lynn Petersen, U.S. Navy Office of Naval Research (2:30 p.m.)
3:15 – 3:30 p.m.	Networking Break sponsored by Applied Materials and General Electric
3:30-4:30 p.m.	Membership Advisory Committee Meeting (<i>Members only</i>)
4:30-5:30 p.m.	Virtual Happy Hour

Wednesday, August 4	
11 a.m. - 11:15 a.m.	Opening Remarks Victor Veliadis, PowerAmerica Executive Director and CTO
11:15 a.m. – 12 noon	Keynote Speaker: Peter Friedrichs, Senior Director -- Silicon Carbide, Infineon
12 noon to 1 p.m.	Member Initiated Project: “Module Challenge” Updates <ul style="list-style-type: none">• Demonstration of Advanced Power Packaging Technology for Near Term Commercialization, Doug Hopkins, North Carolina State University (teamed with Transphorm and UnitedSiC)

	<ul style="list-style-type: none"> ● SiC-based Module Building Block with Integrated Inductor and Gate Driver, Christina DiMarino, Virginia Tech (teamed with Infineon and Lockheed-Martin)
1 – 1:30 p.m.	Networking Break sponsored by Applied Materials and General Electric
1:30 – 2:30 p.m.	<ul style="list-style-type: none"> ● Silicon Carbide Power Modules for Medium Voltage Applications, Alan Mantooth, University of Arkansas-Fayetteville (teamed with Microchip and NREL) ● Embedded GaN Power Module for High Frequency 400V/>20A Operation with Double-Sided Cooling and Integrated Gate-Drive Circuit, Helen Cui, University of Tennessee-Knoxville (teamed with GaN Systems and NREL)
2:30 – 3 p.m.	Networking Break sponsored by Applied Materials and General Electric
3 – 3:05 p.m.	Introduction of Keynote Speaker (Victor Veliadis)
3:05 -3:50 p.m.	Keynote Speaker: Jim Witham, CEO of GaN Systems
3:50 – 4:20 p.m.	Overview of Thursday’s Roadmap Breakout Sessions
4:20 p.m. – 5 p.m.	New Member Presentations <ul style="list-style-type: none"> ● GlobalFoundries ● Oxford Instruments ● Epiluvac ● University of Nebraska-Lincoln ● Revasum

Thursday, August 5

11- 11:05 a.m.	Introduction of Keynote Speaker (Victor Veliadis)
11:05 – 11:50 a.m.	Wide Bandgap Engineered Substrates Paving a New Way for the Power Electronics Industry , Thomas Piliszczyk, Executive Vice President of Global Strategy, SOITEC
11:50 a.m. – 1 p.m.	Panel: SiC Substrates: Quality, Quantity, Cost and Size Needed to Support Industry Growth <ul style="list-style-type: none"> ● Wolfspeed -- Warren Weeks ● SK Siltron -- Ed Sanchez ● X-FAB -- John Ransom ● Applied Materials -- Llew Vaughan-Edmunds
1 – 1:30 p.m.	Networking Break Sponsored by Applied Materials and General Electric

1:30 - 2:15 p.m.	The Silicon Carbide and Gallium Nitride Power Semiconductor Market: Applications, Forecasts and Key Players, Richard Eden, Omdia
2:15 - 3:15 p.m.	Updating PowerAmerica's Technology Roadmap--Breakout Sessions
3:15 - 3:45 p.m.	Networking Break (or additional time if breakouts go long)
3:45 - 4:45 p.m.	Roadmap Breakout Sessions Report Out and Discussion
4:45 p.m.	Closing Remarks, Victor Veliadis

July 19, 2021 preliminary agenda