

### **Dr. Jon Zhang Biography:**

Dr. Jon Zhang is currently the director of power device technology at the PowerAmerica Institute. He reviews the technical proposals and manages wide bandgap power devices, modules and power electronics projects in order to accelerate the adoption of next generation wide bandgap SiC and GaN power electronics. He also serves as an associate member of graduate faculty and adjunct professor at the Department of Electrical and Computer Engineering at NC State University. He received his B.S. and M.S. degrees from Tsinghua University, China, respectively, and Ph.D. degree from the University of South Carolina. He has spent the last 16 years post-Ph.D innovating in all-SiC power devices. Before joining NCSU, he was the Senior Scientist at Wolfspeed, a Cree company, leading various projects in both R&D and production in SiC power devices; inventing all-new generation concepts for SiC Schottky diode productions and playing a critical role in the commercialization of all generations of SiC MOSFETs and Schottky diodes. Among his many milestones are demonstrating the industry's first reported SiC trench MOSFET, 12 kV IGBTs, trench Schottky diode, drift-free BJT with high current gain, 12 kV GTO, 12 kV optically triggered GTO, 1.2 kV SiC CIMOSFETs with the record device performance, latest generation of 650V and 1700V SiC MOSFETs for power modules, etc. He has one book chapter on SiC devices, is the co-author of over 100 technical papers and conference presentations, and is the first or co-inventor on more than 75 US patents. He serves as the technical committee member of ISPSD conferences and SiC track committee chair of ISPSD 2019, reviewer of various journals, and IEEE member, co-chair of International Technical Roadmap Workshop on Wide Bandgap Devices and Materials.