NC State University

Academic Partner

Project Title: High Bandwidth, Flexible SiC Testbed for Education and EV Industry Workforce Training

Objectives: To design, fabricate and validate the hands-on SiC testbed using flexible motor emulator with high bandwidth digital control

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WBG Technology Impact

- Digital SiC power converter with 5-10 times higher switching frequency and control bandwidth over Silicon approaches
- Market segments: Education, research and industrial rapid prototyping at EV industry
- Demonstrate a modular 50 kW SiC testbed with efficiency > 97%, control bandwidth > 20 kHz, and switching frequency > 100 kHz



Accomplishments/Outcomes

- Establish the starting point of commercialization of a new product line for SiC power devices with high efficiency, high bandwidth, and system flexibility
- Accelerate the skilled workforce development for power electronics industry and electric vehicle industry using high power hands-on SiC testbed

PowerAmerica

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