PowerAmerica And Lockheed Martin Partner To Accelerate The Development Of Energy Efficient Electronics

Researchers across government, industry and academia are turning their attention to what comes next after silicon-based power electronics

RALEIGH, N.C., Aug. 3, 2015 /PRNewswire/ -- PowerAmerica, the Next Generation Power Electronics Manufacturing Innovation Institute, and Lockheed Martin (NYSE: LMT) are partnering to develop a new generation of power-efficient microelectronic devices that will reduce energy loss across the power grid and enhance the performance of future aerospace systems.

Led by NC State University, PowerAmerica is one of five institutes established to date under the National Network for Manufacturing Innovation (NNMI), a nationwide network aimed at revolutionizing American manufacturing. As one of the institute's sustaining members, Lockheed Martin will partner on projects to accelerate the commercialization of wide bandgap power electronics technologies, which allow for electronic components to be smaller, faster and more efficient than their current silicon-based counterparts.

"Wide bandgap semiconductors have huge potential for aerospace and defense, especially in embedded power systems and high-power radio frequency applications," said Jeff Wilcox, vice president of engineering for Lockheed Martin. "For example, next-generation power electronics could significantly reduce the size of an aircraft's cooling system. Just as important, this technology will reduce operating costs in large data centers and decrease energy use across the entire power grid."

Through partnerships with industry, academia and government, PowerAmerica will establish a workforce development program and apply next-generation technology to develop new design tools, provide data, and improve processes, manufacturing techniques and packaging solutions.

"At PowerAmerica, we are capturing the most promising technical solutions in power electronics to accelerate the commercialization of wide bandgap semiconductor technologies," said Gen. Nick Justice, executive director at PowerAmerica. "Right now, these technologies are too expensive to get into products to reap the advantages, but thanks to partners like Lockheed Martin, we can bring costs down and open the door to electronic devices that will perform better, be more efficient and cost less."

For more information, visit www.poweramericainstitute.com or www.lockheedmartin.com.

About PowerAmerica
PowerAmerica, also called the Next Generation Power Electronics Manufacturing Innovation Institute, is part of a network of institutes initiated by the U.S. Department of Defense to revolutionize American manufacturing. Led by NC State University with offices on the university's award-winning Centennial Campus, the institute will develop new advanced manufacturing processes built around wide bandgap technologies and provide educational opportunities for students from middle school to college.

About Lockheed Martin
Headquartered in Bethesda, Maryland, Lockheed Martin is a global security and aerospace company that employs approximately 112,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services. The Corporation's net sales for 2014 were $45.6 billion.

Logo - http://photos.prnewswire.com/prnh/20141118/159313LOGO

SOURCE Lockheed Martin
