HERNDON, VA -- The **International Electronics Manufacturing Initiative, Purdue University** and **Tuskegee University** are teaming on an international effort to replace conventional electronics with more sustainable technologies and train a workforce to make the transition possible.

The Global Traineeship in Sustainable Electronics program is funded with a five-year, $3.2 million grant from the National Science Foundation's Integrative Graduate Education and Research Traineeship (IGERT) program. The Purdue-led program combines education and training of future engineers with research to develop new, more environmentally friendly and sustainable materials. Carol Handwerker, professor of materials engineering at Purdue and co-chair of the iNEMI Research Committee, is principal investigator for the project.

"The rapid proliferation of smart phones, laptops, tablets and other electronic devices connects the world in positive ways, but the electronic waste is piling up," said Handwerker. "We want to create materials that will allow computer components to be disassembled, recycled and reused. There is a growing realization that the traditional model of consumption — design it, build it, use it, throw it away — has long ceased being viable for electronics. That is why we proposed this program to educate and train a Ph.D. workforce with an unprecedented capacity for analyzing complex dynamic systems."

iNEMI and six industry partners – iNEMI members **Alcatel-Lucent, Celestica, Cisco, Dell** and **Intel,** plus **Heritage Environmental Services** – will participate throughout the IGERT program, providing, for example, sponsorship of cross-disciplinary project topics for the IGERT student teams and industrial internship experiences.

"Working with industry is critical to the program's success, and programs like these are critical to industry," said Bill Bader, CEO of iNEMI. "As industrial research continues to shrink, it is important to aggressively encourage and support academic research programs such as this one that focus on innovation to meet technology needs. This is exactly the kind of collaborative opportunity we are looking for on behalf of our members."

The Sustainable Electronics program will focus on three areas of research: creation of polymers from nature for construction and disassembly, development of methods and metrics to support sustainable product design and manufacture and system and supply chain issues.