

Newsroom

December 19, 2014

Georgia Southern University

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Recommended Citation

Georgia Southern University, "Newsroom" (2014). *Newsroom*. 816.
<https://digitalcommons.georgiasouthern.edu/newsroom/816>

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Herty Launches CRADA with the Nonwovens Institute to Develop Specialty Fibers

DECEMBER 19, 2014

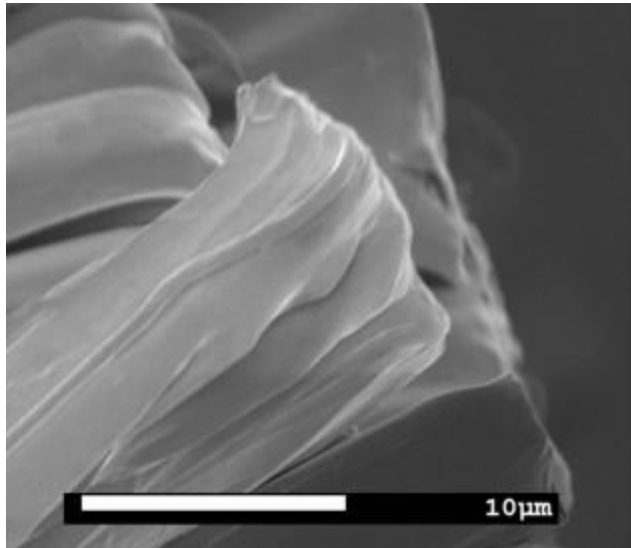


Figure 1. Scanning electron micrograph (SEM) of micro fibers formed from a 37 INS bico fiber.

have particular impact in the medical and filtration industries with 2014 sales of \$1.5 billion and \$3.5 billion, respectively.

The CRADA brings together two world-class research organizations to overcome the technical challenges in commercializing specialty fibers. Specific technical areas that will be addressed include: the continuous spinning of specialty fibers; the chemical and mechanical processes needed to economically utilize INS fibers in both fiber and fabric forms; and rapid prototyping of novel product concepts, such as high performance filtration media and medical fabrics.

“Islands-in-the-sea (INS) fibers represent a game-changing platform for product development ranging from water purification to homeland defense,” said Dr. Walter Chappas, Herty Director of Advanced Material. “Although a small number of these kinds

The Georgia Southern University Herty Advanced Materials Development Center (Herty) and the Nonwovens Institute at North Carolina State University (NWI) announced today the launch of a Cooperative Research and Development Agreement to accelerate the development of novel specialty fibers including islands-in-the-sea and other advanced bi-component fibers.

Specialty, tailor-made fibers could have an immediate impact on technical textiles as global nonwovens sales continue their explosive growth from \$26 billion in 2014 to \$46 billion in 2020. Performance bi-component (bico) fibers could

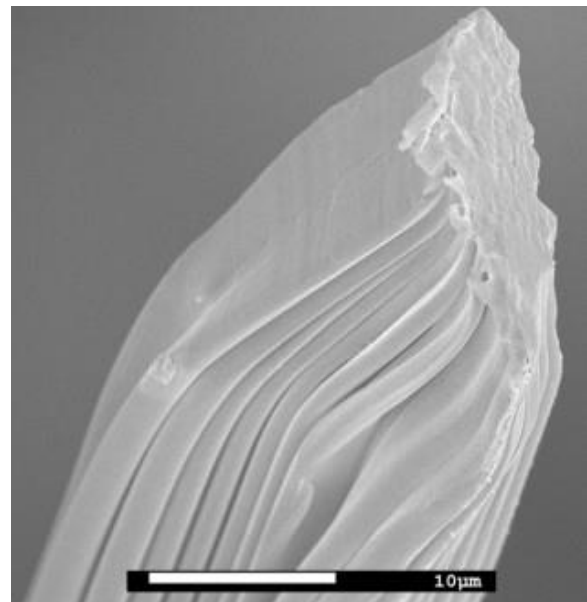


Figure 2. SEM of a high surface area winged fiber with tailored nano-channels.

of fibers have been commercialized, major technical hurdles separate their use from broader applications in large industrial markets.”

“The CRADA allows the two organizations to bring together their unique expertise and capabilities in materials development as well as product development,” said Dr. Behnam Pourdeyhimi, Director of The Nonwovens Institute. “This scale up will bring about novel solutions to address many critical needs. This cooperation will help bridge the gap from bench scale to commercialization.”

The CRADA leverages the unique strengths and capabilities of two leading organizations in an effort to scale up basic research in fiber technology. The NWI will provide the overall approach to polymer processing and Herty will provide for rapid prototyping using Herty’s wetlay capabilities. “This CRADA is a reflection of Georgia Southern University’s commitment to becoming a leader in applied research and development and an excellent example where Herty can translate basic research ideas into commercial reality,” said Herty President Dr. Alexander Koukoulas.

About Herty

The Herty Advanced Materials Development Center, an applied research center of Georgia Southern University, is a world-class research, development, and demonstration facility. Herty is a new product and process accelerator providing technical, market, and development expertise in short-fiber composites, biomaterials, and biomass processing. Herty’s expertise and extensive pilot-scale capabilities for prototyping new products help companies de-risk the commercialization process. Visit: www.herty.com.

About NWI

The Nonwovens Institute (NWI) is the world’s first accredited academic program for the interdisciplinary field of engineered fabrics. Based at NC State University in Raleigh, NC, the NWI is an innovative global partnership between industry, government and academe. Operating on an “Open Innovation” platform, the Nonwovens Institute engages experts from industry and higher education in building next-generation nonwoven applications while also providing training and guidance to the field’s future leaders. www.thenonwovensinstitute.com

About NC State University

Through teaching, research and industry partnerships, NC State University advances knowledge in science, technology, engineering, math, textiles, design, veterinary medicine and the humanities and social sciences. A land-grant university dedicated to creating economic, societal and intellectual prosperity, NC State is home to 34,000 students and 2,000 faculty members.

For more information about Herty's capabilities and how we can assist in your business needs, contact Dr. Walter Chappas, Ph.D., Director, Advanced Materials, 912-963-2625 or at wchappas@herty.com.

About Georgia Southern University

Georgia Southern University, a public Carnegie Doctoral/Research University founded in 1906, offers more than 125-degree programs serving more than 20,500 students. Through eight colleges, the University offers bachelor's, master's and doctoral degree programs built on more than a century of academic achievement. Georgia Southern is recognized for its student-centered and hands-on approach to education.

University's Student Sustainability Fee Funds \$198K in Sustainability Projects

DECEMBER 19, 2014



Georgia Southern University's Center for Sustainability recently announced that the Sustainability Fee Committee has allocated \$198,997 in funding for 11 sustainability projects at Georgia Southern University in its second funding cycle.

The Sustainability Fee committee received 25 proposals requesting \$725,836 and funded 11 of these proposals for \$198,997. Fifteen academic departments in six colleges, as well as the Garden of the Coastal Plain, Campus Recreation and Intramurals, and the Division of Facilities Services submitted proposals.

"I was impressed with the quality of the proposals and the diversity of sustainable solutions presented," said Lissa Leege, Ph.D., director of the Center for Sustainability. "I look forward to the sustainability advancements that these projects will offer our campus."

The winning projects represent a range of sustainable solutions from instant savings with LED lighting upgrades, to high-speed computer networks that are designed to reduce energy consumption and carbon emissions, water bottle filler installations, a green wall for the City Campus, and solar powered trash and recycling compactors.

Students can expect to see some of these projects up and running before the end of the academic year.

The \$10 Student Sustainability Fee was approved in Fall 2012 by a 75 percent student majority vote, and approved by the Board of Regents in April 2013. The fee was collected for the first time in August 2013. This represents the second cycle of funding for Sustainability Fee project proposals.

The award recipients and their proposals are listed below:

James Grigg, Director of Facilities Operations, *BigBelly solar powered compacting trash cans and recycling cans, \$18,300.*

Dr. Danda B. Rawat, assistant professor in the Department of Electrical Engineering, *Design of High Speed Computer Networks Aimed at Reducing Energy Consumption and Carbon Emission at Georgia Southern University, \$31,065.40.*

Patrick Reinhardt, golf course superintendent, *Georgia Southern University Golf Course Operation Pollinator, \$2,378.80.*

Dr. Ji Wu, assistant professor, Department of Chemistry, Dr. Shaowen Xu, assistant professor, Department of Mechanical Engineering, *High Capacity Lithium Ion Battery for Self-powered and Sustainable Street Light Unit on Campus, \$13,344.*

David Faircloth, director of Facilities Planning, Design, and Construction, Division Facilities Service, *LED Lighting Upgrade Parking Lot: Hanner Fieldhouse, \$32,800.*

Carolyn Altman, garden director, *Safe and Spectacular Smart Energy Lighting for Georgia Southern's Green Jewel: Sustainable LED lighting at the Garden of the Coastal Plain, \$17,900.*

Dr. Dominique Halaby, Bureau of Business Research and Economic Development, Katie Reams & Abbie Pelech, student leaders, *Living Wall Downtown, \$19,650.*

Chuck Taylor, campus landscape architect, Facilities Services
Stormwater Improvements: Bioswales at Akins Boulevard, \$16,600.

Stormwater Improvements: Bioswales at Fair Road, \$33,400.

Dr. Frank Gross, chair and professor, Department of Electrical Engineering, Dr. Rami Haddad, assistant professor, Department of Electrical Engineering, Dr. Youakim Kalaani, associate professor, Department of Electrical Engineering, *Sustainable Wind Energy Harvesting from Campus AC Cooling Towers/ Chillers, \$11,014.88.*

Jason Schmidt, facility coordinator for Physical Operations, CRI, *Water Bottle Filler Installation: RAC and CRIBB, \$2,543.70.*

For more information, contact Lissa M. Leege, director for the Center for Sustainability at leege@georgiasouthern.edu.