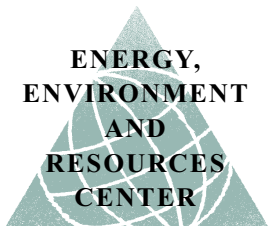


# HIGHLIGHTS and INITIATIVES



## EERC

**Jack Barkenbus**  
Executive Director

**Center for Clean Products and Clean Technologies**  
Jack Geibig, Acting Director

**Office of Communications**  
David Brill, Director

**Community Partnership Center**  
Tim Ezzell, Director

**Center for Geography and Environmental Education**  
Rosalyn McKeown, Director

**Oak Ridge Technology Research and Development Program**  
Sheila Webster, Director

**Southeast Water Policy Initiative**  
David Feldman, Director

**Water Resources Research Center**  
Tim Gangaware,  
Assistant Director

**Waste Management Research and Education Institute**  
Policy Research

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The EERC conducts unbiased, analytical, and multidisciplinary research designed to promote real-world solutions to problems in the fields of energy, environment, technology, and economic development.

**TRAINING.** In June, Senior Research Associate **Greg Harrell** and associates from North Carolina State University conducted a Certified Energy Manager Training Program for members of Alcoa's worldwide Energy Efficiency Network. The five-day program, which drew 30 participants from six countries, covered energy-related equipment and systems and presented information gleaned from site visits to Alcoa's facilities around the world. The Energy Efficiency Network has identified more than \$60 million in potential energy saving per year at Alcoa facilities. Savings of more than \$15 million a year have already been captured at these facilities. Economic payback on energy-efficiency investments is less than two years, says **Harrell**, who has performed energy assessments for more than 15 major industrial clients. His work has led him to 20 countries and 30 U.S. states.

**GRANTS.** Executive Director **Jack Barkenbus** has been awarded a Fulbright Scholar Grant under the 2004-2005 Aegean Initiative Program. **Barkenbus** will reside in both Greece and Turkey from March through May 2005, working with universities in the region to build sustainable development capacity collectively. **Barkenbus** is one of approximately 800 U.S. faculty and professionals who will travel abroad to some 140 countries for the 2004-2005 academic year through the Fulbright Scholar Program. Established in 1946 under legislation introduced by the late Senator J. William Fulbright of Arkansas, the program's purpose is to build mutual understanding between the people of the United States and other countries.

**CONFERENCES.** In October, **Jack Geibig**, acting director of EERC's Center for Clean Products and Clean Technologies (CCPCT), and **Catherine Wilt**, CCPCT policy directory, attended the North American Electronics Recycling Conference in Minneapolis. The conference drew more than 500 participants from government, industry, and the environmental community to discuss issues related to the safe management of used electronics. Wilt served as plenary session presenter, speaking on U.S. efforts to forge consensus on a national plan for electronics recovery.

**PUBLICATIONS.** CCPCT's **Jack Geibig** and Denis Barbini, advanced technologies manager for Vitronics Soltec, a global developer and supplier of soldering technologies, published "The Relationship between Reflow Soldering Processes and Power Consumption" in the October 2004 edition of *Surface Mount Technology* (SMT) magazine. The article addresses the challenges faced by electronics assemblers using lead-free alloy solders and suggests ways to optimize the process to produce quality connections using environmentally preferable metals. You can view the article here: <[http://smt.pennnet.com/Articles/Article\\_Display.cfm?Section=Articles&Subsection=Display&ARTICLE\\_ID=214388](http://smt.pennnet.com/Articles/Article_Display.cfm?Section=Articles&Subsection=Display&ARTICLE_ID=214388)>.

**SYMPOSIUM.** In October, EERC and UT's Center for Environmental Biotechnology hosted a day-long symposium devoted to the exploration of nanoscience and nanotechnology, the development of new machines and materials at an atomic or macromolecular level. The symposium—which attracted nearly 100 scientists and researchers from UT and Oak Ridge National Laboratory, economic-development specialists, policy experts, and students—included a dedication of UT's new Center for Nanomaterials Science, Imaging and Nanomanipulation. You can view the archived Webcast of the event here: <<http://oit.utk.edu/dst/nanotechday.html>>.

## A SEMESTER for the ENVIRONMENT



Each *Highlights and Initiatives* back page presents a closer look at one of our current projects or activities. This edition focuses on the University's Semester for the Environment 2005.

(continued on back)

# A SEMESTER *for the* ENVIRONMENT

*Spring events will foster environmental awareness, feature major public speakers, and celebrate the richness of UT's homegrown resources.*

By Elise LeQuire

“To underscore the reputation of university faculty in environmental research, education, and outreach, and to foster environmental stewardship on the UTK campus, the university has established an Environmental Semester for spring 2005.”

WITH NEARLY 200 COURSES across almost 40 disciplines, the University of Tennessee Knoxville (UTK) offers an impressive array of academic routes for students interested in environmental studies, from fish physiology to philosophy.

To underscore the reputation of university faculty in environmental research, education, and outreach, and to foster environmental stewardship on the UTK campus, the university has established an Environmental Semester for spring 2005 and is planning a host of activities across campus. The effort was spearheaded by an interdisciplinary steering committee, with the full support of the administration.

“We are situated in one of the most environmentally diverse regions in the world from which to consider environmental issues,” says Loren Crabtree, chancellor of UTK. “This is a wonderful opportunity to make a difference among students, faculty, and staff on environmental concerns.” The university is backing the program with a \$100,000 budget.

The idea for the semester sprang from a UT President’s Salon, under the aegis of University Studies, in 2003. The brainstorming sessions quickly revealed the wealth of existing resources that could be tapped to further environmental awareness on campus.

The activities for Environmental Semester 2005, including lectures, gallery exhibits, conferences, and competitions, will center around seven priority areas: energy sources, oil and national security, the Clean Air Act, global climate change, species conservation, bioengineering, and Earth Day, says EERC Research Leader Mary English, co-coordinator of the Environmental Semester’s steering committee.

“We have the backbone of the semester in place,” says Neil Greenberg, professor of Ecology and Evolutionary Biology, who co-coordinates the steering committee with English.

To kick off the celebration in January, Robert F. Kennedy Jr., an environmental lawyer with the Natural Resources Defense Council and UTK’s Environmental Semester Distinguished Lecturer, will speak on the environmental destiny of the United States.

February 18-20, Students Promoting Environmental Action in Knoxville (SPEAK) and the Southern Alliance for Clean Energy (SACE) will co-sponsor the Second Annual Southeast Student Renewable Energy Conference, a collaborative effort to promote sustainable energy use on campuses in the region.

The Clean Air Act Conference, March 8-10, will provide a retrospective look at how the Clean Air Act (CAA) came about and how it has evolved in the decades since its enactment in 1970. Co-sponsored by EERC, the Howard H. Baker Jr. Center for Public Policy, and the Joint Institute for Energy and Environment, the conference will host a colloquy consisting of key policy players in the creation and evolution of the CAA.

“We hope to attract some heavy hitters in terms of how the Clean Air Act has been implemented and where it is today,” says Jack Barkenbus, EERC executive director.

The College of Architecture and Design will host a retrospective of the work of environmental artist and conceptual designer Agnes Denes at the Ewing Gallery of Art and Architecture from January 10 to March 7. The Ewing Gallery is also working with the American Institute of Architects to bring an exhibit titled “Top Ten Green Projects,” spotlighting the best of the nation’s sustainable architectural designs.

In addition, Career Services will hold a major conference for students interested in environmental careers, inviting potential employees from a number of sources, including the U.S. Forest Service, the U.S. Environmental Protection Agency, and big business.

*For more information:*

Visit the Environmental Semester 2005 Web site at <<http://environmentalsemester.utk.edu/>>.●

