

**GRANTS AWARDED  
FISCAL YEAR 2003-2004**

**September 20, 2003 – January 13, 2004**

**(December 15, 2003 - January 13, 2004)**

Joseph Ojo (Electrical & Computer Engineering), "Fault Tolerance and High Performance Control of Generators and Induction Motor Drives in Shipboard Power Systems," \$124,604, Office of Naval Research (through Electric Power Center)

Jessica O. Matson (Industrial & Manufacturing Engineering), "Independent Analysis of Cost Saving Projects for the Reindustrialization, Facilities and Materials Reuse Program," \$5,336, Bechtel Jacobs Company

Dennis B. George (Water Resources Center), "Center for the Management, Utilization and Protection of Water Resources--Addendum," \$1,500, Tennessee Higher Education Commission

**(November 24, 2003 - December 12, 2003)**

John Gunderson and James B. Layzer (Biology and Cooperative Fishery Research Unit), "Genetic Analysis of the Bluemask Darter in the Upper Caney Fork River Drainage," \$24,000, Tennessee Wildlife Resources Agency (through Water Resources Center)

Margaret Phelps, Suellen Alfred, Homer Kemp, and Michael Birdwell (Rural Education, Curriculum & Instruction, Upper Cumberland Institute, and History), "Teaching Reading Across Literature and Social Studies," \$72,968, Tennessee Higher Education Commission

Chunsheng Wang (Manufacturing Center), "Advanced Lithium Ion Polymer Batteries for Aerospace Application," \$26,500, Texas A&M University/Texas Engineering Experiment Station

Glenn Binkley and Marilyn Musacchio (Facilities & Business Services and Nursing), "New Nursing and Health Services Building," \$1,081,924, Health Resources and Services Administration

Stephen Robinson (Physics), "Professional Development Materials for Constructing Physics Understanding (CPU) Among Elementary Teachers," \$30,945 (two activations), San Diego State University Foundation

Glenn T. Cunningham (Mechanical Engineering), "Energy Star Certification Program," \$15,000, The University of Memphis (through Electric Power Center)

Stephen Canfield and James Beard (Mechanical Engineering and Electric Power Center), "Developing Scale Models for Solar Sails and Assessments of the Required Measurement and Model Resolution," \$40,750, Universities Space Research Association (through Electric Power Center)

Sastry Munukutla and Stephen Idem (Electric Power Center and Mechanical Engineering), Private Industry Project, \$10,000 (through Electric Power Center)

**(November 10 - 21, 2003)**

Yvette Clark (Water Resources Center), "Development of a GIS Template for the Kanawha and Monongahela Rivers," \$5,000, West Virginia Division of Natural Resources

Kenneth Currie (Manufacturing Center), "Fleetguard Study/Work Program," \$6,899, Fleetguard, Inc.

Ghadir Radman (Electrical & Computer Engineering), "Graduate Student Support in Electrical and Computer Engineering," \$44,121, Tennessee Valley Authority (through Electric Power Center)

Ben L. Byler (Agriculture), "Agricultural Education Inservice Program," \$13,827, Tennessee Department of Education

Patricia B. McGee and Michael Birdwell (Library & Media Center and History), "The Sixties: America's Decade of Crisis and Change," \$300, National Video Resources

**(October 22, 2003 - November 7, 2003)**

Doug Talbert, Dennis George, Xubin He, Michael Rogers, and Kwun-Lon Ting (Computer Science, Water Resources Center, Electrical & Computer Engineering, and Manufacturing Center), "High Performance Network Connection for Tennessee Technological University," \$128,000, National Science Foundation (through Water Resources Center and Manufacturing Center)

Jiahong Zhu (Mechanical Engineering), "Alloying Effects on Alloy Preparation and Microstructural Features in TbFe<sub>2</sub>," \$20,000, Oak Ridge National Laboratory (through Manufacturing Center)

James B. Layzer (Cooperative Fishery Research Unit), "Recruitment of Mussels in a Regulated River," \$10,000, U.S. Geological Survey (through Water Resources Center)

Sue Bailey (Human Ecology), "Family and Consumer Sciences Teacher Education Contract," \$4,413, Tennessee Department of Education

Stephen Stedman and Barbara Stedman (English), "Bird Inventory for Appalachian Highlands and Cumberland Piedmont Networks," \$34,726, National Park Service (through Water Resources Center)

**(September 22, 2003 - October 10, 2003)**

Gail Gentry, Kim Winkle, and Lisa Klakulak (Craft Center), "Hands-on Art/Craft Experience for Elementary Students," \$4,400, Tennessee Arts Commission

Douglas Airhart (Agriculture), "2004 Tennessee Urban Forestry Directory," \$10,430, Tennessee Department of Agriculture

Brad Cook, Dan Combs, Ginger Ensor, and Hayden Mattingly (Biology), "Assessment of Stream Habitat and Biological Communities Associated with Bridges and Culverts in Tennessee," \$94,300, University of Tennessee/Tennessee Department of Transportation (through Water Resources Center)

Dennis George, Brad Cook, and Yvette Clark (Water Resources Center and Biology), "A Comparative Study of the Historical and Present Ecological State of the Emory River Watershed," \$15,000, U.S. Fish and Wildlife Service (through Water Resources Center)

Sakir Ayik (Physics), "Studies of Fluctuation Processes in Nuclear Collisions," \$33,000, U.S. Department of Energy

Patricia B. McGee and Michael Birdwell (Library and History), "The Sixties: America's Decade of Crisis and Change," \$1,000, National Endowment for the Humanities

Hong Zhang (Chemistry), "Assessment of Natural Sources (Geological and Vegetation) Mercury Emissions: Speciation, Mechanisms, and Significance," \$15,000, University of Nevada at Reno (through Water Resources Center)

Francis Otuonye (Research & Graduate Studies), "U.S.-Brazil Higher Education Consortia Program," \$24,830, New Mexico Institute of Mining & Technology (through Water Resources Center)

Ken Currie (Manufacturing Center), "UT-CIS Contract for Employee Services 2003-2004," \$50,000, University of Tennessee Center for Industrial Services

Martha J. M. Wells (Water Resources Center), "Ohio River Fish Passage and Winter Habitat Needs: Fatty Acid Profiles of Selected Fish Species," \$5,000, West Virginia Department of Natural Resources

Tom Roberts and Ken Morgan (Biology), "Wetland Delineation for the King's Mountain National Military Park," \$109,056, National Park Service (through Water Resources Center)

Michael J. Harvey (Biology), "Endangered Bats of Arkansas: Distribution, Status, and Ecology," \$15,000, Arkansas Game & Fish Commission (through Water Resources Center)