

**GRANTS AWARDED  
FISCAL YEAR 2003-2004**

**March 26, 2004 – June 30, 2004**

**June 1 Through June 30, 2004**

Homer D. Kemp, English (Upper Cumberland Institute), “Tennessee Historical Commission Architectural Survey , 04-05”, \$19,000, Tennessee Historical Commission

Homer D. Kemp, English (Upper Cumberland Institute), “Tennessee Historical Commission Computerization Project, 04-05”, \$15,000, Tennessee Historical Commission

Ying Zhang, Mechanical Engineering, “Aluminide Coatings for Power-Generation Applications(Renewal)”, \$78,000, Oak Ridge National Laboratory (through the Manufacturing Center).

Chunsheng Wang, The Manufacturing Center,”Advanced Lithium Ion Polymer Batteries for Aerospace Applications-Amendment of Subrecipient Agreement”, \$48,667, Texas A. and M. University.

Jiahong Zhu, Mechanical Engineering, REU Supplement to NSF Grant DMR-0238113 Novel Conductive Oxide Coatings”, \$5,600, The National Science Foundation (through the Manufacturing Center).

Dean Richey, Curriculum and Instruction, “Tennessee’s Early Intervention System Upper Cumberland District Plus: Amendment”, \$100,000, State Department of Education.

Stephen Canfield, Mechanical Engineering, “Capture Concepts and Model Development for MXER Tether System With Model Development”, \$369,000, National Aeronautics and Space Administration (through the Manufacturing Center).

Stephen Canfield, Mechanical Engineering, “Development of Prototype Robot for Pendant Section Inspections”, \$34,500, ARF, Inc./EPRI I & C Center (through the Electric Power Center).

Stephen Canfield, Mechanical Engineering, “NDE Testing Boiler Water Wall Inspection Robot”, \$14,600, ARF, Inc./EPRI I. & C. Center (through the Center for Electric Power).

Sastry Munukutla, et al, Civil and Environmental Engineering, Mechanical Engineering and Chemical Engineering, “Power-Test-Service Account Projects”, \$55,032, Various Agencies.

Kenneth Currie, Manufacturing Center, Workshop Agency Account, \$6,200, Various Industries.

Stephen Stedman, English, “Bird Inventory for Appalachian Highlands and Cumberland Piedmont Networks”, \$12,000, National Park Service (through the Water Resources Center).

Francis O. Otuonye, Research and Graduate Studies, “Earth Sciences Institute”, \$25,659, The National Science Foundation (through the Center for Electric Power and the Water Resources Center).

Sastry Munukutla, The Electric Power Center, “Advanced Control Design and Implementation Support(Amendment 2 to EP-P10017/c5090)” \$5,000. Electric Power Research Institute (Taft Engineering).

Kenneth Currie, The Manufacturing Center, “Testing and Design, \$22,323, Various

Industries

Kenneth Currie, The Manufacturing Center, “General Work Study”, \$213,291, Various Industries

P. K. Rajan, Electrical and Computer Engineering, “Shipboard Wireless Networking Techniques-Continuation Naval Surface Warfare Center (NSWC)”, \$34,517, The Naval Surface Warfare Center..

Dennis B. George, The Water Resources Center, “Water Center Analytical and Computer Services”, \$51,816, Various Industries.

James B. Layzer, The Fisheries Research Unit, “Recovery of the Endangered Ringpink Obovaria Refusa”, \$18,957, U. S. Departments of Geological Survey and the Interior(through the Water Resources Center).

Donald Visco, Chemical Engineering, “UTSI-TTU Graduate Program Collaboration”, \$8,752, UT Space Institute (through the Manufacturing Center)

Douglas Airhart, Agriculture, “Evaluation of Trunk Flare Planting Depth of Field Grown Trees From Tennessee Nurseries”, \$6,975, Tree Research and Education Endowment Fund.

Stephen Canfield, Mechanical Engineering, “Developing Scale Models for Solar Sails and Assessments of the Required Measurement and Model Resolution”, \$20,180, Universities Space Research Association(USRA) Visiting Researcher Exchange and Outreach Program.

Sastry Munukutla, et al, Civil and Environmental Engineering, Mechanical Engineering and Chemical Engineering, “Power-Test-Service Account Projects, #2”, \$5,000, Various Industries(through the Center for Electric Power).

### **May 3 through May 28, 2004**

Satish Mahajan, Electrical and Computer Engineering, “Explosive Vapor Detection Using Microcantilevers”, \$7,300, Oak Ridge National Laboratory (through the Electric Power Center).

Guillermo Ramirez, Civil and Environmental Engineering, “Intergovernmental Personnel Act Agreement (#4)”, \$16,000, Naval Postgraduate School (through the Center for Electric Power).

Sastry Munukutla and Robert Craven, Center for Electric Power, “Inclusion of Moisture Sensor Data With Real-Time Heat Rate Calculations”, \$10,000, Tennessee Valley Authority.

Margaret Phelps and Rafal Ablamowicz, rural Education and Mathematics, “Middle Grades Math Partnership”, \$8,500, Putnam County Schools

Nasir Ghani, Electrical and Computer Engineering, “Unified End-to-End Provisioning in Multi-Domain Metro-Core Networks”, \$47,466, University of Houston (via Sprint) (through the Manufacturing Center).

Sastry Munukutla and Robert Craven, Center for Electric Power, “Installation of Carbon Dioxide Monitor and the Incorporation of Generated Data Into the Performance Monitoring Software at NTPC-DADRI”, \$49,155, Energy and Environmental Solutions, LLC.

John Shriner, Physics, “Proton Resonance Spectroscopy”, \$46,000, United States Department of Energy.

### **March 29 through April 30, 2004**

M. Abdelrahman and Kenneth Currie, Electrical and Computer Engineering and the Manufacturing Center, “In-Situ Real Time Monitoring and Control of Mold Making and Filling Processes”, \$243,000, Department of Energy(through the Manufacturing Center).

Jiahong Zhu, Mechanical Engineering, “Alloying Effects on Alloy Preparation and Microstructural Features in TbFe<sub>2</sub>”, \$23,791, Oak Ridge National Laboratory (through the Manufacturing Center).

Joseph Biernacki, Chemical Engineering, “International: Indo-US Workshop on High Performance Cement Based Concrete Composites”, \$24,000, The National Science Foundation (through the Manufacturing Center)

Martha J. M. Wells, The Water Resources Center, “An Assessment of the Occurrence of Chemicals Causing Endocrine Disruption in Fish in the South Branch of the Potomac River”, \$65,000, U. S. Geological Survey.

Curtis Armstrong, Decision Sciences and Management,” Governor’s School for Information Technology Leadership”, \$91,000, State of Tennessee.

Glen E. Johnson, College of Engineering, “College of Engineering Equipment Grant Fund”, \$27,779, State of Tennessee Department of Commerce and Insurance State Board of Architectural and Engineering Examiners.

Xubin He, Electrical and Computer Engineering, “High Performance and Reliable Storage Support for Clusters” (Collaborative with Oak Ridge National Laboratory), \$10,588, Oak Ridge Associated Universities – POWE Award.

Phillip Bettoli, Cooperative Fishery Research Unit, “Bycatch in a Commercial Paddlefish Fishery”” \$52,900, United States Geological Survey (through the Water Resources Center).