

**REPORT OF PROPOSALS**

For the Month of October/2002

<b><u>Department</u></b>	<b><u>Investigator</u></b>	<b><u>Sponsor</u></b>	<b><u>Title</u></b>	<b><u>Amount</u></b>
<b>BIOMEDICAL ENG'G.</b>	Shonat, R.	University of Illinois	Noninvasive Imaging of Chorio-Retinal Oxygen Tension	\$ 12,203
<b>CHEMICAL ENG'G.</b>	Camesano, T.	NSF	NER: Feasibility of Fingerprinting Polysaccharides on a Microbial Cell Surface Using Single-Molecule Force Spectroscopy	\$ 99,516
	Dixon, A.	Synetix, Co.	Catalyst Design for Improving Heat Transfer Near the Wall of a Fixed Bed Reactor Tube	\$ 5,607.00
	Wyslouzil, B.	NSF	NER: SAXS-A New Quantitative Tool for Aerosol Research	\$ 100,000.00
	Ma, Y.	DOE	Development of Sulfur-Tolerant Palladium-Copper Alloy Membranes for Hydrogen Separation from Coal Gases	\$ 754,532.00
<b>CHEMISTRY &amp; BIOCHEMISTRY</b>	Thalladi, V.	NSF	NER: Nanofabrication Using Self-Assembly: Surface Supported Nanostructures with Controllable Size, Shape and Connectivity	\$ 99,739
<b>CIVIL &amp; ENVIRONMENTAL ENGINEERING</b>	Plummer, J.	UMASS Amherst	Development of Water Quality Impact Assessment Tools Using GIS	\$ 150,561
	Ray, R.	Lehigh University	Drop Tower Tests of Composite Concrete Beams	\$ 3,751
	Bergendahl, J. *Thompson, R.	NSF	NER: TCE Removal from Water Utilizing Coupled Sorption & Fenton's Oxidation	\$ 100,000
<b>COMPUTER SCIENCE</b>	Heffernan, N.	Carnegie Mellon University	Cognitive Tutor Tools for Advanced Instructional Strategies	\$ 10,716
<b>ELECTRICAL &amp; COMPUTER</b>	Pahlavan, K.	NSF	An Integrated Multi-Layer Wireless LAN Testbed	\$ 284,342

<b>ENGINEERING</b>	*Agu, E.				
<b>IGSD</b>	Davis, P. *Clements, K.	MIT Lincoln Laboratories	Implementation of a WPI Project Center at MIT Lincoln Laboratory	\$	19,384
<b>MANAGEMENT</b>	Gerstenfeld, A.	Department of Education	Building a Bridge of Knowledge to Africa for Business & International Education	\$	182,759
<b>MATHEMATICAL SCIENCES</b>	Larsen, C.	NSF	Interaction Between Bulk & Surface Energies & Applications to Materials Science	\$	188,886
	Yakovlev, V.	CRC Wood Innovations	Modeling & Optimization of Resonator Components of Microwave Applicators for Timber Processing	\$	20,206
	Wilbur, J.	Purdue University	Identification of Soil Microbial Populations Impacting Productivity of Zea Mays L. (corn)	\$	133,625
<b>MECHANICAL ENG'G.</b>	Brown, C. *Fofana, M.	University of Kentucky	IGERT: Life-Cycle Design & Manufacture of Advanced Materials and Devices for Biomedical Applications	\$	350,000
	Demetriou, M. *Kazantzis, N.	NSF	Performance Enhancement of Nonlinear Transport Processes by Moving Actuators	\$	332,296
	Demetriou, M.	NSF	Supervisory Control Flexible Structures with Switching Actuators	\$	168,772
	Rencis, J.	NSF	GOALI: Simulation of Thermo-Mechanical Deformation & Microstructure Evolution in High Speed Rolling of Long Products for U.S. Steel Industry	\$	396,644
	Fofana, M.	NSF	Integrating Stochastic Dynamical Systems to Stability Bifurcations of Mechanical Systems	\$	554,177
<b>PHYSICS</b>	Burnham, N.	NSF	NUE: Further Development of a Course on Atomic Force Microscopy for Undergraduates	\$	60,856
	<b>*CPI</b>		<b>Total</b>	<b>\$</b>	<b>4,028,572</b>