

**REPORT OF PROPOSALS**  
**For the Month of January/2004**

<u>Department</u>	<u>Investigator</u>	<u>Sponsor</u>	<u>Title</u>	<u>Amount</u>
<b>CHEMICAL ENG'G.</b>	Ma, Y.	Shell Int. E&P	Pd-Alloy Membrane Supported on Porous Metal for Low Cost Modular Hydrogen Separation and Purification	\$ 1,812,795
<b>CHEMISTRY &amp; BIOCHEMISTRY</b>	McGimpsey, G.	U.S. Army	Development of a Portable Microfluids-Based Sensor Instrument for Monitoring Troop Physiological Status	\$ 383,818
	Arguello, J.	USDA	Functional Role of Copper Transport ATPases in Arabidopsis Thaliana	\$ 499,090
<b>CIVIL &amp; ENVIRONMENTAL ENGINEERING</b>	Plummer, J.	UMASS Amherst	Quantifying Land Use Impacts on Water Quality Using Monitoring and GIS	\$ 108,232
	Mallick, R.	NSF	MRI: Acquisition of Non Destructive Testing Instrument for Pavement Engineering Research and Education	\$ 283,353
	Mallick, R. *Bergendahl, J.	Chase Corporation	A Proposal for Evaluation of Rutting and Shoving Potential of, and Chloride Diffusion Through HMA with Rosphalt	\$ 3,646
<b>COMPUTER SCIENCE</b>	Rundensteiner, E. *Mani, M	NSF	Automaton Meets Algebra: Towards an XML-Centric Stream Query System	\$ 478,548
	Rundensteiner, E,	NSF	Collaborative Research: Motion Queries in Location-Aware Mobile Services	\$ 258,754
	Rundensteiner, E. *Heineman, G.	NSF	CAPE: Constraint-Aware Adaptive Stream Processing System	\$ 497,300
	Ruiz, C.	NSF	Mining Complex Associative Patterns over Datasets with Set-Valued and Sequential Attributes	\$ 290,593

	Rundensteiner, E.	NSF	RAINBOW: An Integrated Management System Using XML	\$ 428,137
	Ward, M. *Rundensteiner, E.	NSF	Quality-Aware Visual Exploration Tools	\$ 475,907
<b>ELECTRICAL &amp; COMPUTER ENGINEERING</b>	Cyganski, D.	Raytheon Company	Application of Multi-Level Precedence and Preemption (MLPP) to IP-ABR with Emphasis on Government Security Protocols	\$ 74,961
<b>MATHEMATICAL SCIENCES</b>	Tang, D.	NSF	MRI-Based Computational Modeling for Carotid Plaque Rupture and Stroke	\$ 1,500,954
	Tang, D. *Hoffman, A. *Sotak, C.	NIH	Assessing Plaque Vulnerability with MRI and Biomechanics	\$ 79,783
	Heinricher, A. *Weekes, S.	Arizona State University	Mathematics at Work: Integrating Authentic Applications from Real-World Business/Industry Problems into High School Mathematics	\$ 275,047
	Tang, D. *Hoffman, A. *Sotak, C.	NIH	Multi-Modality Approach for Atherosclerotic Plaques	\$ 1,502,574
<b>MECHANICAL ENG'G.</b>	Rong, Y.	Kettering University	Adaptation of Vertical and Horizontal Integration Between Courses Offered at Different Locations	\$ 42,431
	Moon, Y.	NSF	Reconfigurable Machine Tool Design	\$ 267,143
<b>PHYSICS</b>	Lew Yan Voon, L.	NSF	Beyond the Standard Model in k.p. Theory	\$ 340,832
	<b>*CPI</b>		<b>Total</b>	<b>\$ 9,603,898</b>