

**Worcester Polytechnic Institute**  
**Report of Proposals Submitted**  
**November 2005**

Department	PI	Co-PI	Project Title	Sponsor	Total Requested	Cost Sharing
Biomedical Engineering	Christopher Sotak		GAANN Support in Biomedical Engineering at WPI	Department of Education	627,330	162,556
Chemical Engineering	David DiBasio	Natalie Mello	Assessing the Peer Review Process at NSF	National Science Foundation	9,940	0
Chemistry and Biochemistry	Venkat Thalladi		Design and Synthesis of Organic and Metal-Organic Octupolar Nonlinear Optical Materials	National Science Foundation	262,886	0
Civil and Environmental Engineering	Jeanine Plummer		Chemical Markers for Tracking Fecal Pollution Sources in Surface Waters	University of Massachusetts Amherst (USGS)	39,216	82,454
	Rajib Mallick		Improved Performance of Longitudinal Joints on Asphalt Airfield Pavements	Federal Aviation Administration	149,943	0
Computer Science	Matthew Ward	Neil Heffernan Emanuel Agu George Heineman	Fellowships in Computer Science to Support the Learning Sciences and Security	Department of Education	627,330	177,610
	Neil Heffernan		Developing Individualized Interventions for Students with Disabilities	Department of Education	973,620	0
	George Heineman		Toward a Formal Model of Composing Systems from Components for Predictable Software Systems with Verifiable Properties	Air Force of Scientific Research	264,703	
Electrical and Computer Engineering	Fred Looft	Sergey Makarov Reinhold Ludwig	Graduate Assistance in Areas of National Need Fellowship Program	Department of Education	376,398	104,947
Mathematical Sciences	Bogdan Vernescu	Suzanne Weekes	GAANN Fellowships in Mathematical Sciences	Department of Education	627,330	177,610
	Konstantin Lurie	Brian King Suzanne Weekes	An Analytical, Numerical and Experimental Study of Dynamic Materials	National Science Foundation	679,395	0
	Mayer Humi		Modeling, Analysis, and Simulation of Stably Stratified Boundary Layers	National Science Foundation	389,570	0
Mechanical Engineering	Jianyu Liang		NER: Innovative Hierarchical Nanomanufacturing of Biomimetic Carbon Nanotubes on Carbon Fibers Array by Sintering	National Science Foundation	95,988	0
	Jianyu Liang		Innovative Nanofabrication of Biomimetic Hierarchical Carbon Nanostructures by Sintering	Society of Manufacturing Engineers (SME) Education Foundation	14,999	7,709
	Nikos Gatsonis		Active Fluidic Nanodevices with Nanopatterned Surfaces of Optically-Switched Wettability	National Science Foundation	1,590,848	0
Physics	Declan DePaor		Music to Their Ears! Developing MP3 Music Players as Geoscience Learning Objects	National Science Foundation	110,243	38,423
<b>Totals November 2005 (16 Proposals)</b>					<b>6,839,739</b>	<b>328,689</b>