

**Worcester Polytechnic Institute
Report of Proposals Submitted
October 2006**

Department	PI	Co-PI	Project Title	Sponsor	Total Requested	Cost Sharing
Bioengineering Institute	William Michalson	James Matthews	MANET Protocols for Capacity-Limited Channels	Department of Homeland Security	\$224,822.00	\$0.00
Civil and Environmental Engineering	Rajib Mallick		Modeling of Freeze Thaw Damage of Pavement Materials for Structural Applications with Advanced Nondestructive Testing and Environmental Conditioning System	National Science Foundation	\$350,227.00	\$0.00
	Rajib Mallick		Mix Design Practices for Warm Mix Asphalt	University of Texas, El Paso	\$80,095.00	\$0.00
	Rajib Mallick		Investigation of Use of Heat Flow Through Asphalt Pavements	Novotech, Inc.	\$9,235.00	\$0.00
Electrical and Computer Eng'g.	Fred Looft	Robert LaBonte, Sergey Makarov, William Michalson	Antennas, Navigation and Advanced Communications Satellite	Air Force Office of Scientific Research	\$110,000.00	\$31,653.00
	Wenjing Lou		E-Nose Chip for Hypergolic Fuel Leak Detection	Radiation Monitoring Devices, Inc.	\$14,330.00	\$0.00
Fire Protection Eng'g.	Ali Rangwala		A Proposal for Validation of a Smoke Detection Performance Prediction Methodology	Combustion Science & Engineering, Inc.	\$74,994.00	\$0.00
	Ali Rangwala		Evaluating Vapor Dispersion Models for Safety Analysis of LNG Facilities	FireXplo	\$35,740.00	\$0.00
Mathematical Sciences	Umberto Mosco	Mayer Humi, Bogdan Vernescu	Research on Partial Differential Equations and Fractals	National Science Foundation	\$294,921.00	\$0.00
Mechanical Engineering	Islam Hussein		Coverage Control for Domain Mapping Using Dynamic Sensor Networks	National Science Foundation	\$248,803.00	\$0.00
	Jianyu Liang		Collaborative Research: Synthetic Hierarchical Adhesives: a Batch Design and Fabrication Approach for Biomimetic Nanostructures	National Science Foundation	\$221,934.00	\$0.00
	Jianyu Liang		Fabrication of Metal Nanoelectrodes and Their Integration With Microdevices	National Science Foundation	\$183,147.00	\$0.00
	Jianyu Liang		Phase I: Nano-Engineered Anode Materials for Rapid Recharge High Energy Density Lithium Ion Batteries	Yardney Technical Products, Inc.	\$32,134.00	\$0.00
	Michael Demetriou		Unified Framework for Detection of Moving Sources in Diffusion Processes Using Mobile Sensor Networks	National Science Foundation	\$228,295.00	\$0.00
	Yiming Rong		Fundamental Research on Grinding Technology	Saint Gobain Abrasives	\$12,200.00	\$3,193.00
Total (15 Proposals)					\$2,120,877.00	\$34,846.00