

**FY 2011 DoD HBCU/MI Research and Educational Program
Award Recipients**

Institution	ST	Principal Investigator	Proposal Title	Selecting Agency
Alabama A&M University	AL	Budak, Satilmis	Development of Thermoelectric Power Generation and Peltier Cooling Properties of Materials for Thermoelectric Cryocooling Devices	AFOSR
Alabama State University	AL	Mishra, Manoj	Multifunctional Polymeric Scaffolds for Bone-Tissue Regeneration	ONR
Alcorn State University	MS	Zheng, Yufeng	A Dual Face Recognition System for Human Identification Applications	ONR
Bowie State University	MD	Choi, Seonho	Resource Efficient Multi-source Authentication with Split-Join One-Way Key Chain for Wireless Ad Hoc Networks	ARO
California State University - Long Beach	CA	Abate, Yohannes	Near-field Nanoscopy of Metal-Insulator Phase Transitions Towards Synthesis of Novel Correlated Transition Metal Oxides and Their Interaction With Plasmon Resonances	ONR
California State University - Los Angeles	CA	Xu, Hao	Discovery of Antibacterial Natural Product Compounds Using Target-specific Sensitized Acinetobacter baumannii Strains	ARO
California State University - Northridge	CA	Chattopadhyay, Somnath	SiC/GaN Based Optically Triggered MESFET for High Power Efficiency and High Radiation Resistance Solid State Switch Application for Actuator System	ARO
California State University - Northridge	CA	Lu, Gang	A New Computational Tool for Understanding Light-Matter Interactions	AFOSR
California State University - San Bernardino	CA	Usher, Timothy	Materials Research of Novel Organic Piezoelectric/Ferroelectric Compounds at a H.S.I.	AFOSR
California State University - San Bernardino	CA	Williams, Peter	Using Game Play to Diagnose and Remediate Student's Misconceptions in Solving Equations	ONR
Clark Atlanta University	GA	Khan, Ishrat	Graphene Oxide Nanoribbons (GONRs) Based Heterophase Elastomeric Conductive Composites: Preparation, Characterization, Modeling and Property Evaluation	ARO
Clark Atlanta University	GA	Mintz, Eric	Incorporation of Nanomaterials in Phenylethynyl Terminated Imide (PTI) Resins for Improved Properties and Processing	AFOSR
Fort Lewis College	CO	Collins, William	Design, Synthesis, and Applications of Carbon Nanohoops	AFOSR
Florida A&M University	FL	Mochena, Mogus	Electrophoretic Infiltration of Colloidal Nanomaterials Into Porous Media and Fabrics	ARO
Florida International University	FL	Choi, Wonbong	A New Route Toward Systematic Control of Electronic Structures of Graphene and Fabrication of Graphene Field Effect Transistors	AFOSR
Hampton University	VA	Hommerich, Uwe	Laser-Induced Fluorescence Spectroscopy for Applications in Optical Refrigeration and Chemical Sensing	ARO
Howard University	DC	Owolabi, Gbadebo	Dynamic Failure of Aluminum-Based and Polymer Matrix Composites at High Strain Rates	ARO
Institute of American Indian Arts	NM	Bach, Ethan	Full Dome Development for Interactive Immersive Training Capabilities	ARO
New Mexico State University	NM	Cho, Sang Yeon	Development of Plasmon-assisted Quantum Dot Sensors for Multispectral and Polarization Selective Imaging	ARO
Norfolk State University	VA	Hsieh, Chung-Chu (George)	Self-Protecting Security for Assured Information Sharing	AFOSR
North Carolina A&T State University	NC	Sundaresan, Mannur	Prognostic Health Management of DoD Assets	ARO
Prairie View A&M University	TX	Qian, Lijun	Interoperable Communications for Hierarchical Heterogeneous Wireless Networks	ARO

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Tennessee State University	TN	Malkani, Mohan	Heterogeneous VM Replication: A New Approach to Intrusion Detection, Active Response, and Recovery in Cloud Data Centers	AFOSR
Texas State University	TX	Lu, Yijuan	Large-Scale Partial-Duplicate Image Retrieval and Its Applications	ARO
Tuskegee University	AL	Hosur, Mahesh	Investigations on Dynamic Characterization of Nanophased Fiber Reinforced Polymeric Composites Subjected to Naval Environmental Conditions	ONR
University of New Mexico - Albuquerque	NM	Balakrishnan, Ganesh	Mode-locking of an InAs Quantum Dot Based Vertical External Cavity Surface Emitting Laser Using Atomic Layer Graphene	AFOSR
University of Puerto Rico - Rio Piedras	PR	Chen, Zhongfang	Theory-guided Innovation of Noncarbon Two-dimensional Nanomaterials	ARO
University of Texas - Brownsville/Texas Southmost College	TX	Jenet, Fredrick	LoFASM: A Low Frequency All Sky Monitor for Radio Transients and Student Training	ONR
University of Texas - El Paso	TX	Evgeny, Shafirovich	Efficient and Safe Chemical Gas Generators with Nanocomposite Reactive Materials	ONR
University of Texas - Pan American	TX	Dong, Wenjie	Distributed Cooperative Control of Multiple Nonlinear Systems with Nonholonomic Constraints and Uncertainty	AFOSR
University of Texas - San Antonio	TX	Guo, Ruyan	Piezoelectric Resonance Defined High Performance Sensors and Modulators	ONR
Xavier University of Louisiana	LA	Blake, Robert	Optimizing the Electron Transfer Reactions at the Cathode of Microbial Fuel Cells	ARO
Xavier University of Louisiana	LA	Zhang, Kun	An Integrated Framework to Access and Mine Distributed Heterogeneous Data Streams with Uncertainty	ARO