The Department of Defense (DoD) announced that 59 university researchers at 44 institutions have been selected to receive instrumentation awards to enhance their research and education programs. The awards totaling $23.2 million will be made under the FY 2019 DoD Historically Black Colleges and Universities and Minority-Serving Institutions (HBCU/MSI) Science Program.

FY 2019 DoD HBCU/MSI Research and Education Program (REP) Equipment Awards

Institution	Principal Investigator	Proposal Title	ST	Service	Minority Designation
California State University-Channel Islands	Anderson, Sean	Expanding Capabilities To Characterize, Track And Reduce PollutantsVia Next-Generation Microscope-Based Ftir	CA	ONR	HSI
California State University-Long Beach	Ahmed, Aftab	First Optics and Laser Laboratory at CSULB	CA	ARO	HSI
California State University-Long Beach	Yang, Yu	Acquisition of a laboratory-Scale Steam Power Plant to Advance Thermal Power Systems Research and Education	CA	ONR	HSI
California State University-Monterey Bay	Fernandez, Daniel	High Spatial and Temporal Resolution Characterization of Fog and Effectiveness of Fog Water Capture	CA	ARO	HSI
California State University-Northridge	Hauswirth, Scott	Development of a CSUN GeoAnalytical Center for Research, Teaching, and Outreach in Earth Systems Science	CA	ARO	HSI
California State University-Northridge	Ho, Nhut	Human Swarming Teaming Platform for Research in Human Automation Trust and Reliance	CA	AFOSR	HSI
Cameron University	Miller, Antony	Advancing Genetic and Genomic Research and Education in Southwest Oklahoma	OK	ARO	MSI
Chicago State University	Mardis, Kristy	ExPo: Exploring Polymers in the Undergraduate Chemistry Curriculum at Chicago State University	IL	ARO	MSI
Claflin University	Swinton, Derrick	Acquisition of a High-Resolution Mass Spectrometer to Enhance the Interdisciplinary Research and Education at Claflin University	SC	ARO	HBCU
Clark Atlanta University	Wang, Xiao-Qian	GPU Cluster for Simulations and Machine-learning	GA	ARO	HBCU
CUNY-City College of New York	Meriles, Carlos	Optical/Infrared Microscopy and Spectroscopy System for the Characterization of Point Defects and Carrier Dynamics in 2D and 3D Semiconductors	NY	ARO	HSI
Delaware State University	Lee, Jung-lim	Building a Genomics Core Facility at Delaware State University	DE	ARO	HBCU
Delaware State University	Pati, Gour	Instrument Development For Atom-Based Millimeter Wave Sensing Using Two-Photon Rydberg Spectroscopy	DE	ARO	HBCU
Delaware State University	Rana, Mukti	Acquisition of an X-ray Diffraction (XRD) System for Research and Education Training of Students on Device Characterization	DE	AFOSR	HBCU
Dillard University	Darwish, Abdalla	Instrumentation For The Research And Education In The Field Of Organic- Inorganic Nano-Composite Films	LA	AFOSR	HBCU
Fayetteville State University	Tran, Trung	Integrating Drones into Geospatial Education to Enhance STEM Skillset for Students at Fayetteville State University	NC	AFOSR	HBCU

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Florida A&M University	Ramakrishnan, Subramanian	Smart Manufacturing – Photonic Processing of Multifunctional Materials for Defense Applications	FL	ARO	HBCU
Florida International University	Agarwal, Arvind	Acquisition of an Ultra-High Resolution Field Emission Scanning Electron Microscope for Studying Nanostructured Materials and their In-situ Mechanics	FL	ONR	HSI
Inter American University of Puerto Rico-Bayamon	Isham, Brett	Acquisition of a Portable Interferometric Radio Imaging System \\ for Ionospheric and Atmospheric Research and STEM Education	PR	AFOSR	HSI
Johnson C. Smith University	Bai, Ying	Intelligent Mobile Robot System for Designing and Implementing Nested Fuzzy Logic Controllers to Reduce the Effects of Electromagnetic and Environmental Radiations on Military Robots and Manipulators	NC	ARO	HBCU
Johnson C. Smith University	Stukes, Felesia	Data Science Education and Sport: Equipping the DATA Bulls	NC	ARO	HBCU
Norfolk State University	Hsieh, Chung-Chu (George)	Enhancing Cybersecurity Research and Experimentation Infrastructure with Graphics Processing Units	VA	AFOSR	HBCU
Norfolk State University	Olatunbosun, Samuel	Real Time Advanced Persistent Threats (APTs) Simulation, Modeling, Detection and Mitigation Using an Integrated High Performance Machine Learning Platform.	VA	ARO	HBCU
North Carolina A&T State University	Yun, Yeoheung	This Project is to Acquire a State of the Art Cellular Sorting and Monitoring System, a Fluorescence-Activated Cell Sorting (FACS)	NC	ONR	HBCU
North Carolina Central University	Wu, Marvin	Acquisition of a Near Field Microscopy System for Materials Research and Education at North Carolina Central University	NC	ARO	HBCU
Oakwood University	Patel, Darayas	the Field of Nanophotonic Lasers with Parity-Time Symmetry	AL	ARO	HBCU
Old Dominion University	Dean, Anthony	HBCU/MSI Instrumentation/Equipment: Expeditionary 3D Printing Capability To Enhance Naval Readiness And Training	VA	ONR	HSI
Prairie View A&M University	Alam, Shumon	Acquisition of Spirent CF20 CyberFlood for Cybersecurity Research and Teaching for Multidisciplinary Engineering at Prairie View A&M University	TX	ARO	HBCU
Salish Kootenai College	Westbroek, Wendy	Salish Kootenai College: Fluorescence Microscope	MT	ARO	TCU
San Francisco State University	Mahmoodi, Hamid	Acquisition of High Frequency Oscilloscope and Logic Stimulator & Analyzer to Enhance Research and Research Education in Engineering and Physics at SFSU	CA	AFOSR	MSI
San Francisco State University	Swei, Andrea	Acquisition of a Digital Droplet PCR Platform for Pathogen Detection	CA	ARO	MSI

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ONR-Office of Naval Research
AFOSR-Air Force Office of Scientific Research

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FY 2019 DoD HBCU/MSI Research and Education Program (REP) Equipment Awards

Institution	Principal Investigator	Proposal Title	ST	Service	Minority Designation
San Jose State University	Brook, David	Acquisition of an X-ray Diffractometer for Research and Teaching in the Physical Sciences	CA	ONR	MSI
San Jose State University	White, Brandon	Acquisition of SeaHorse XFe96 Instrumentation for Metabolomics Research Efforts at SJSU	CA	ARO	MSI
Tennessee State University	Williams, Frances	Acquisition of Equipment for Processing of Micro- and Nano-Scale Devices	TN	ONR	HBCU
Texas A&M International University	Tobin, Kenneth	TAMIU STEM High-End Computational Resource	TX	ARO	HSI
Texas State University	Rhodes, Christopher	Equipment for Unitized Regenerative Fuel Cells Research and Education	TX	ONR	HSI
Tuskegee University	Poozesh, Sadegh	Acquisition of a Lab-scale Spray Dryer and a Particle Size Analyzer for the Improvement of Undergraduate and Graduate Research and Education Capabilities at Tuskegee University	AL	AFOSR	HBCU
University of Arizona	Craig, Stuart	A Mach 5, Quiet Wind Tunnel Nozzle for Hypersonic Transition Research	AZ	ONR	HSI
University of Arizona	Little, Jesse	Extending the 15in x 15in Arizona Supersonic Wind Tunnel to Transonic Conditions	AZ	ARO	HSI
University of Arkansas-Pine Bluff	Ghetmiri, Seyed Amir	Acquisition Measurement System and Components for Development of Middle-IR Integrated Microwave Photonics	AR	AFOSR	HBCU
University of California-Merced	Lee, Min Hwan	X-ray Photoelectron Spectroscopy for Multi-Disciplinary Research and Training	CA	ONR	HSI
University of California-Merced	Nobile, Clarissa	High Dimensional Flow Cytometer for Microbiological Analysis and Education	CA	ARO	HSI
University of California-Riverside	Cybart, Shane	Furthering STEM In the Inland Empire Through Thin Film Electronic Materials Research	CA	AFOSR	HSI
University of Central Florida	Ahmed, Kareem	Ultra-Fast Laser Diagnostics for Hypersonics	FL	AFOSR	HSI
University of Central Florida	Neider, Mark	Building Laboratories Without Limits: Bringing Behavioral and Neurophysiological Measurement to Real and Virtual Environments	FL	ARO	HSI
University of Illinois-Chicago	Brezinsky, Kenneth	Acquisition of Ultraviolet Laser Diagnostic System and Ignition Quality Tester for Ignition Characterization in Defense Relevant Fuels	IL	AFOSR	HSI
University of Nevada-Las Vegas	Kim, Kwang	Establishment of a Volumetric 3-Component Velocimetry System and Flow Channel	NV	ONR	MSI
University of North Carolina-Greensboro	Rathnayake, Hemali	DOD HBCUMI Instrumentation: Acquisition of a High-Resolution Transmission Electron Microscope for Graduate Research and Educational Training in Nanoscience and Nanoengineering	NC	ONR	HSI
University of Puerto Rico-Mayaguez	Lysenko, Sergiy	Femtosecond Laser System for Ultrafast Spectroscopy of Quantum Materials	PR	ARO	HSI

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University of Texas at Arlington	Zhou, Weidong	Time-Resolved Photoluminescence Spectroscopy and Imaging for Hybrid Materials and Nanophotonic Devices	TX	ARO	HSI
University of Texas-Arlington	Huang, Haiying	Acquisition of a Laser Ultrasound System for Studying Adhesive Effects on Surface Bonded Ultrasound Transducers and Material Damage Monitoring	TX	ONR	HSI
University of Texas-El Paso	Ramana, Chintalapalle	HBCU/MI: Acquisition of Atomic Layer Deposition System to Realize Advanced High Electrical Strength Materials for Extreme Environment Applications	TX	AFOSR	HSI
University of Texas-Rio Grande Valley	Kim, Myoung-Hwan	Acquisition of an Electron Beam Lithography System for Enhancing Research and STEM Education in Nanophotonics and Biophysics	TX	ARO	HSI
University of Texas-Rio Grande Valley	Mao, Yuanbing	DoD HBCU/MI: Acquisition of an Electron Paramagnetic Resonance Spectroscopy System for Interdisciplinary Research and Education in Advanced Materials at the University of Texas Rio Grande Valley	TX	AFOSR	HSI
University of the District of Columbia	Shahirinia, Amir	Acquisition of Advanced Robotics and Autonomous Vehicle Technology (ARAVT) for Research in Smart Grid Systems, Teaching, and K-12 Outreach at the University of the District of Columbia	DC	ARO	HBCU
Virginia State University	Samantaray, Diptirani	Acquisition of X-ray Computed Tomography Machine	VA	AFOSR	HBCU
Virginia State University	Wu, Zhenhua	Acquisition of Advanced Manufacturing System for Smart Manufacturing Research	VA	ONR	HBCU
Xavier University of Louisiana	Ratnayaka, Harish	Photosynthesis System, Desktop Scanning Electron Microscope and Leaf Absorptance Meter for Plant Ecophysiology Research and Botany Lab with Undergraduates	LA	ARO	HBCU
Xavier University of Louisiana	Watt, Terry	Enabling High-Throughput Analytical Workflows at Xavier University of Louisiana	LA	ARO	HBCU

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