## Office of University Programs (OUP) Minority Serving Institutions (MSI) Program

The Office of University Programs (OUP) Minority Serving Institutions (MSI) Program provides opportunities that foster and cultivate a diverse university-based research capability and talented workforce and prepares motivated students to launch successful homeland security-related careers. MSI Program offerings are designed to:

Science and Technology

- Advance the research capabilities of students and faculty that contribute to MSI capacity building.
- ✓ Cultivate scientific leadership in areas of study critical to homeland security.
- ✓ Recruit and diversify the next generation of the Homeland Security Workforce.
- Yerovide opportunities for students and junior faculty to directly engage with professionals in their areas of interest.

## Scientific Leadership Award (SLA)

Grants up to \$1M are competitively awarded to MSIs to help build institutional capacity through research and collaboration. Grants enable awardees to establish homeland security-related curricula and/or courses of study while supporting the development of student mentorship and recruitment activities, science and engineering research, and teaching initiatives. These awards significantly contribute to the development and cultivation of relationships and networks across private industry, university, federal and local government, and DHS Centers of Excellence (COE). *(Next anticipated release in Spring 2025. Available to faculty).* 

Border protection is inherently dangerous for those on the front lines. To help ensure the safety of those charged with protecting U.S. borders, the Scientific Leadership Award (SLA) research team at the University of Texas Rio Grande Valley developed a system of wheeled ground robots and flying drones capable of working together to search, patrol, and detect threats. These cutting-edge vehicles are autonomous and incorporate the latest advances in machine learning and computer vision to maximize their adaptability which allows them to intelligently navigate challenges without human operators having to constantly oversee and intervene. In addition to being a game-changer on the front lines, this project also advanced research, resulting in five publications and conference presentations, four student graduations, and helped students in the Rio Grande Valley secure jobs in the security and defense fields.

## **Current MSI Partners**

Arizona State University Bethune-Cookman University **Bowie State University** California State University San Marcos City University of New York **CUNY/Baruch College** CUNY/John Jay College of Criminal Justice CUNY/New York City College of Technology Diné College Eastern New Mexico University Elizabeth City State University Fayetteville State University Florida International University Georgia State University Ilisagvik College Jackson State University Johnson C. Smith University Lincoln University Mercy College Morgan State University Norfolk State University North Carolina Agricultural and Technical State University North Carolina Central University Prairie View A&M University **Rutgers University** San Diego State University San Jacinto College Southern University and A&M College St. Mary's University Sul Ross State University **Tennessee State University** Texas A&M University - College Station Texas A&M University - Corpus Christi Texas A&M University - Kingsville **Texas State University Texas Southern University** Texas Tech University **Trinity Washington University** Tougaloo College University of Alaska Anchorage University of Alaska Fairbanks University of Alaska Northwest Campus University of California - Davis University of California - Irvine University of Central Florida University of the District of Columbia University of Houston University of Nevada Las Vegas University of New Mexico University of North Texas University of Puerto Rico at Mayaguez University of Texas at Arlington University of Texas Austin University of Texas El Paso University of Texas Rio Grande Valley University of Texas San Antonio Virginia Commonwealth University Virginia Polytechnic Institute and State Universitv





## Summer Research Team Program (SRT)

A team of early career faculty and up to two students are paired with a DHS COE to conduct full-time collaborative summer research and one of 10 DHS COEs. Over the course of 10 weeks during the summer, this opportunity increases and enhances scientific leadership at MSIs in research areas that support the mission and goals of DHS. Upon successful completion of the summer session, teams are eligible to receive up to \$100k of follow-on funding to continue their research for an additional year. (Applications accepted September - December. Available to faculty, graduate, and undergraduate students. Stipend, housing, and transportation provided).

Cross-Border Threat Screening and Supply Chain Defense (CBTS), a DHS COE led by Texas A&M, supported a Summer Research Team (SRT) effort to detect harmful chemicals in shrimp supplies. Dr. Harshica Fernando and her students used gas-chromatography, an analytical technique used to separate, detect, and quantify chemical components of a given sample, to detect polycyclic aromatic hydrocarbons in shrimp. This SRT opportunity has substantially contributed to both science and student development. The findings will help ensure the integrity of shrimp imports - the most popular seafood in the U.S. - while training a new generation of skilled researchers.