

CBTS NEWSLETTER

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Head to cbts.tamu.edu to check out our reorganized website, and browse a selection of all ongoing CBTS projects, open RFPs and opportunities for students.

Developing technology to detect harmful polycyclic aromatic hydrocarbons, PAHs, in shrimp supplies



CBTS funds Summer Research Team at Prairie View A&M

CBTS is supporting a DHS Summer Research Team effort to detect harmful chemicals in shrimp supplies. The Summer Research Team is led by Harshica Fernando, Ph.D., assistant professor of chemistry at Prairie View A&M University. Fernando and her students are using advanced tools to detect polycyclic aromatic hydrocarbons, PAHs, in shrimp. More than 100 PAH compounds are known, and the U.S. Environmental Protection Agency has identified 16 to be harmful to human health...

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Attracting Students with Cutting-edge Cyber Intelligence Training

A program to meet growing demands for cybersecurity professionals has received new resources from CBTS to stimulate additional interest and opportunities for domestic undergraduate students in the field. The Department of Electrical Engineering and Computer Science at Texas A&M University-Kingsville houses the Cybersecurity and Cyber Intelligence Training Program.

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CBTS Summer Research Institute



Students learn biothreat defense, cybersercurity tactics across Texas A&M-College Station, A&M RELLIS, A&M Commerce, and AgriLife Weslaco

The CBTS Summer Research Institute was envisioned to provide onsite laboratory experience for promising undergraduate students in Science, Technology, Engineering, and Mathematics (STEM) fields with Texas A&M University System faculty mentors conducting DHS mission-relevant research. Additional program elements included interactions with DHS stakeholders, professional development seminars, and field trips to DHS Ports of Entry. Two topical areas were chosen for this first year, **Biothreat Defense** and **Cybersecurity**, due to faculty mentor strengths and pre-existing relationships with DHS customer stakeholders at Customs and Border Protection (CBP), the U.S. Coast Guard (USCG), and the DHS Science and Technology (DHS S&T) Directorate.

[FULL STORY AND SRI OVERVIEWS ONLINE](#)

Globalization and North America 2.0



Remarks by Alan Bersin, Esq., former Commissioner of U.S. Customs and Border Protection, CO-PI of the CBTS-funded Borders of the Future project

The fall of the Soviet Union in 1989 and China's entry into the World Trade Organization in 1993 materially shaped an international environment conducive to the rise of globalization. However, it was the North America Free Trade Agreement (NAFTA) in 1992 that first produced at a regional level an existence proof of the actual globalization proposition. The idea of North America as an economic entity unfolded in tandem with globalization which it both defined and by which it was defined.

[FULL REMARKS AND BORDERS OF THE FUTURE PROJECT OVERVIEW ONLINE](#)



Asylum policies and the decision-making border: Game Theory Application

The U.S. Department of Homeland Security Center of Excellence for Cross-Border Threat Screening and Supply Chain Defense, CBTS, led by Texas A&M AgriLife Research, worked with a Summer Research Team at the University of North Texas (UNT) to examine how game theory tools could be used to examine alternative processes for adjudicating asylum requests by foreign nationals who are unable to return or fear returning to their home countries due to past persecution or a well-founded fears of being harmed. The University of North Texas team included the Principal Investigator Dr. Michel Fathi in the Department of Information Technology & Decision Sciences, and one of his students, Ramkumar Santhanam.

[FULL STORY ONLINE](#)

Extending Auditability to Known and Unknown Endpoints Using Distributed Ledger Technology

Following a 10-week survey of literature on blockchain distributed ledger technologies (DLT), a research team at John Jay College of Criminal Justice produced a set of best practices and a vision for business-to-government cases where DLT can help enforce regulation compliance across global supply chains. The project was funded as part of a U.S. Department of Homeland Security Summer Research Team (SRT) administrated by ORISE with mentorship from experts at CBTS. The research took place as blockchain DLTs became a global hot topic in the aftermath of COVID-19, which exposed vulnerabilities in supply chains. In particular, the SRT found compliance with the US Forced Labor Protection Act (USFLPA)

[FULL STORY ONLINE](#)