

# BTI Institute

## Borders • Trade • Immigration

A Department of Homeland Security Center of Excellence

Quarterly Newsletter

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### INSTITUTE TEAM

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*Director*

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*Executive Director*

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## Mapping the Impact

New project kicked off with Hunt Institute

The BTI Institute began a new project with Mayra Maldonado, Associate Director of the Hunt Institute for Global Competitiveness at the University of Texas at El Paso. The objective of the project, *Tactical Mapping of Border Security Impacts: El Paso Sector*, is to build a comprehensive map of the impacts that border security deployments and regulatory changes have had, and which future ones could have, on the social and economic conditions of communities in the El Paso Sector.



*Photo credit U.S. Customs and Border Protection*

The mapping is intended to serve a tactical purpose as a decision support tool to optimize the policy and resource deployment for Customs and Border Protection and, in particular, the U.S. Border Patrol, in order to assist with the safeguarding of the southern U.S. border around and between ports of entry.

The Hunt Institute for Global Competitiveness provides a common frame of quantitative and regulatory market analysis of critical sectors in the El Paso del Norte region, whose local, state, and federal jurisdictions all converge upon a strategic transcontinental cross-road. Dr. Maldonado is a Research Economist who leads the Institute's work on binational, comparative commercial and financial analysis. More on the Hunt Institute can be found at [www.utep.edu/hunt-institute/about](http://www.utep.edu/hunt-institute/about). More on the project can be found at [www.uh.edu/bti/research/](http://www.uh.edu/bti/research/).

## Educating the Homeland Security Enterprise

*Introduction to Homeland Security* course developed



The BTI Institute has developed and listed the first new course of the Curriculum Development project. Maria Burns, Instructional Assistant Professor at the University of Houston College of Technology developed the course *Introduction to Homeland Security* which is being offered through the University of Houston. This course is part of a greater project that encompasses the development of two certificate programs, a Bachelor of Science degree, a minor, and a master's degree program. The course was developed in close collaboration with the Department of Homeland Customs and Border Protection Office of Training and Development.

The course introduces participants to a comprehensive study of the homeland security system at the federal, state and local levels. It will analyze the structure of the U.S. homeland security system and operational areas as well as programs aimed at minimizing the nation's vulnerabilities. The course is designed as an intensive technical writing course aimed at developing critical thinking skills and mastering technical writing in the discipline.

Current University of Houston students are eligible to take the course beginning in spring 2020. The online course will be available in February 2020.

The flyer can be [downloaded here](#).

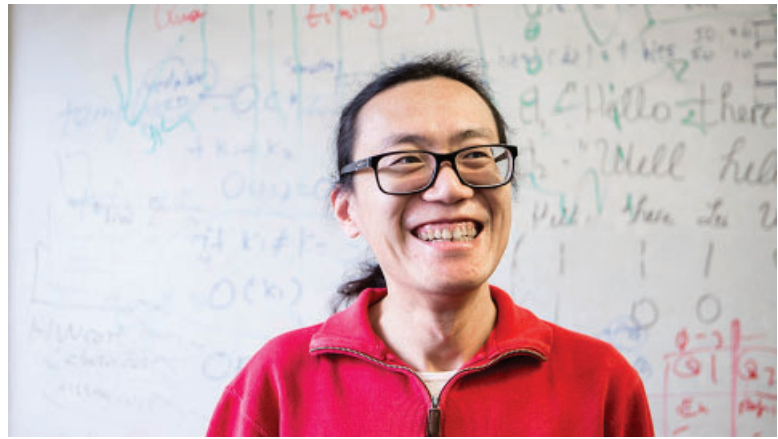
More about the courses and the BTI Institute education initiatives can be found at [www.uh.edu/bti/education/](http://www.uh.edu/bti/education/).



## In the News

### BTI researcher published

Weidong “Larry” Shi, Ph.D., was featured in an article produced by the University of Houston on the promise of Blockchain for securing global supply chains. The article was in response to Dr. Shi’s paper, *Blockchain in global supply chains and cross border trade: a critical synthesis of the state-of-the-art, challenges and opportunities*, co-authored with Yangling Chang, Ph.D., and Eleftherios Iakovou, Ph.D., with Texas A&M. The paper was based on research results



obtained through their BTI Institute project, *Transforming Trade and Ensuring Global Supply Chain Security with Blockchain and Smart Contracts*. The article can be found at [www.uh.edu/news-events/stories/2019/october-2019/10302019shi-blockchain-trade.php](http://www.uh.edu/news-events/stories/2019/october-2019/10302019shi-blockchain-trade.php).

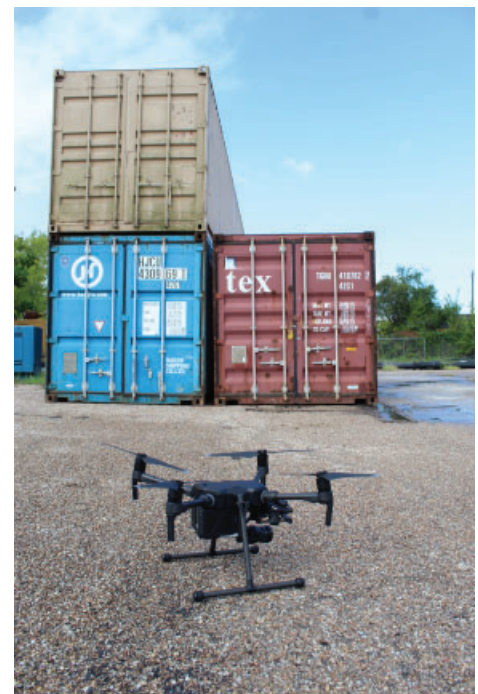
### Field tests and interviews

Mr. Ben Rohrbaugh, Mr. David Hansell, and Rustam Niyazov, Ph.D., were featured in *Your UH Moment* through the University of Houston and TV 8 KUHT Houston Public Media. The Lantern UAS team was conducting a field test of their Unmanned Aerial System-based radiological detection sensor at the UH Technology Bridge on 24 October 2019. The *UH Moment* is available at [https://www.youtube.com/watch?v=2DjijKbd6\\_E&feature=emb\\_title](https://www.youtube.com/watch?v=2DjijKbd6_E&feature=emb_title).





Mr. Rohrbaugh and Anthony Ambler, Ph.D., Director of BTI Institute and Dean of the College of Technology at UH, were also featured in a news story by Steffi Lee at KXAN Austin on 8 November 2019. The news story focused on the use of technology at ports of entry, including maritime ports, to facilitate commerce but also combat human trafficking and drug smuggling. Lantern UAS is conducting a project with the BTI Institute titled *Exploring Homeland Security Applications for Unmanned Autonomous Systems at Maritime Ports*. The news story and video are available at <https://www.kxan.com/news/project-looks-into-whether-drones-could-help-with-port-security/>.



## Engagement and Outreach

### Customs Trade Partnership Against Terrorism



The BTI Institute hosted the CTPAT Houston Field Office over four days on 1, 2, 15, and 16 October 2019 as they presented a Minimum Security Workshop to over 800 representatives from businesses related to import and export. The BTI Institute hosted the workshops on the University of Houston campus at the UH Alumni Center and the TDECU stadium Club Area. The interaction with the Houston Field Office and the businesses gave the Institute an opportunity to share our research and education initiatives.



## Consul General of Costa Rica in Houston

The BTI Institute hosted the Honorable Herbert Espinoza, Consul General of Costa Rica in Houston, at the University of Houston on 15 November 2019. The BTI Institute Director and Executive Director met with Hon. Espinoza in order to continue developing the relationship between BTI and Costa Rica initiated by the Honorable Consul General Carlos Pacheco in 2016 and more recently with the Honorable Ambassador of the Republic of Costa Rica, Fernando Vicente Llorca Castro in June 2019 in Washington, D.C. The meeting with Hon. Espinoza involved an exchange of information including the role of the Consul General in Houston and the region and the history and current portfolio of activities of the BTI Institute.



## Homeland Security Week



Homeland Defense for the College of International Security Affairs at the National Defense University and the assistant group leader for Counter-WMD systems at the MIT Lincoln Laboratory.

The Manager, Communications and Operations, and the Manager, Research and Development, traveled to Washington, D.C., to participate in the 2019 Homeland Security Week conference from 20 – 22 November 2019. BTI Institute representatives met with multiple industry-leading commercial providers to DHS as well as educators that could partner with the Institute on our Curriculum Development initiative. The Institute also hosted a vendor booth to discuss our education and research initiatives. The conference themed around biometrics and identity science, cyber and critical infrastructure security, and the security nexus between DHS and the Department of Defense. A few booth visit highlights included the chair of the Department of

Transportation Studies, Texas Southern University



The BTI Institute Research Committee Chair, the Manager, Research and Development, and the Manager, Education and Training, met with the Department Chair of Transportation Studies with the College of Science, Engineering and Technology at Texas Southern University on 5 December 2019 to discuss education collaboration opportunities. The team discussed the curriculum development program and the opportunities to share coursework, subject matter experts, and students. TSU currently has a Department of Homeland Security Scientific Leadership Award Program to prepare professionals for maritime transportation security. The BTI team met with Yi Qi, Ph.D., Department Chair, Mehdi Azimi, Ph.D., Assistant Professor with the College of Science, Engineering and Technology, and Mr. Robert Morgan Jr., Visiting Professor of Transportation Studies.



Additionally, Dr. Qi visited during a field test of the Lantern UAS team at the UH Technology Bridge on 11 December 2019. Dr. Qi was very interested in the applications for unmanned aerial systems at maritime ports. She invited the Lantern UAS team to collaborate on teaching and research opportunities for her students.