DREXEL UNIVERSITY Cybersecurity Institute

OUR MISSION

The Drexel University Cybersecurity Institute will address national cyber-based threats, and help prepare the next generation of cybersecurity leaders to meet industry, government, and military challenges. The Institute will foster collaborative partnerships among industry and academia to facilitate the advancement of critical infrastructure protection and incident response affecting the nation today.
Learn More

WELCOME TO THE GRAND OPENING

As we were snowed in for the original grand opening, we are now holding the grand opening on Monday, Feb. 24 at 10:30AM.

A special thank you to our guest speakers:

Representative Patrick Meehan (R-Pa.), Chairman, Subcommittee on Cybersecurity, Infrastructure Protection and Security Technologies, Committee on Homeland Security, U.S. House of Representatives. Rep. Meehan is leading the National Cybersecurity and Critical Infrastructure Protection Act which is designed to strengthen the nation's critical infrastructure networks by bolstering partnerships between private industry and the federal government.

Representative Chaka Fattah (D-Pa.), Senior Member of the House Appropriations Committee, Ranking Member of Subcommittee on Commerce, Justice and Science, and Chair of the Congressional Urban Caucus

Drexel University President John Fry

Drexel University Provost Mark Greenberg

INVITATION TO COLLABORATE

Drexel faculty, researchers, professional staff, and students as well as researchers from other universities are invited to collaborate on research, education, and critical issues surrounding cybersecurity.

The Institute is also seeking collaboration partners within government and industry. For more information on partnership opportunities, please contact Norm Balchunas, Interim Director of the Institute, at njb67@drexel.edu.

A small sample of featured faculty, research staff, and students at Drexel focusing on cybersecurity problems:

Dr. Murugan Anandarajan, Professor, Lebow College of Business

Murugan focuses his research on cyber crime, identity theft, computer forensics, and strategic management of information technology. His research has been sponsored by the U.S. Department of Justice, the National Institute of Justice, NSF, and various industry sponsors.

Patricia Q. Connolly, Director, Center for Corporate Governance, Lebow College of Business

Patricia develops strategic partnerships with public, private, and not-for-profit boards of directors address best practices in board governance. She works closely with the Center's Advisory Board of key corporate executives on addressing the "real world" needs of today's Boards including cyber security.

Dr. Kapil Dandekar, Associate Professor, Electrical and Computer Engineering Department

Kapil's current research interests involve MIMO ad hoc networks, reconfigurable antennas, software defined radio, free space optical communications, ultrasonic communications, and sensor networks. He is also the Director of the Drexel Wireless Systems Laboratory (DWSL). DWSL has been supported by the NSF, Army CERDEC, NSA, Office of Naval Research, and private industry.

Dr. Robert D'Ovidio, Associate Professor of Sociology and Criminal Justice, College of Arts & Sciences

Robert's research and teaching interests lie in the intersection of computer technology, crime, and the criminal justice system. In the past, Rob has worked with the New York City Police Department and Philadelphia Police Department on research projects involving computer crime.

Dr. Christopher Geib, Associate Professor, CCI

Christopher applies probabilistic plan recognition methods from artificial intelligence to recognize the actions and plans of computer network users. The objective is to identify system misuse both by authorized insiders as well as unauthorized hackers.

Thomas Heverin, Ph.D. Candidate, CCI

Thomas, a former Navy Surface Warfare Officer, focuses his research on the intuitive decision making and information seeking behaviors of cyber security experts when forming situation assessments of cyber attacks.

Dr. Spiros Mancoridis, Professor & Senior Associate Dean for Computing and CCI Academic Affairs, CCI

Spiros works in the area of anomaly detection for software systems that are failing due to implementation flaws or the execution of malware. He also works on real-time automatic malware classification and mitigation using techniques from detection and control theory as well as computational geometry.

Gaurav Naik, Applied Informatics Group, CCI

Gaurav, a research scientist with the Applied Informatics Group (AIG), is working on mobile operating system security. This work, funded by US Army CERDEC, investigates the computer network operations (CNO) capabilities of popular smartphone operating systems such as Android, iOS, and Symbian.

Harvey Rishikof, Law Professor, Earle Macke School of Law

Harvey is the Director of Cybersecurity and Law at the Earle Macke School of Law, the Co-Chair of the American Bar Association National Task Force on Cyber and the Law, and the Chair of the ABA Advisory Committee on Law and National Security.

Dr. Steven Weber, Associate Professor, Electrical and Computer Engineering Department

Steven's research interests in cybersecurity include: i) applications of machine learning tools for network anomaly detection, ii) economic models for incentivization security protocol adoption, and iii) efficient collection of data from distributed network monitoring systems. He is also the primary investigator for a project funded by the National Science Foundation Secure and Trustworthy Computing Program (SaTC).

Dr. Chris Yang, Associate Professor, CCI

Chris' research focuses on intelligence-related knowledge discovery, criminal data mining and network analysis, web-based intelligence monitoring and analysis, terrorist social network analysis, and terrorism informatics.

MARCH LUNCHTIME SEMINAR

Each month guest speakers will be invited to lead a discussion about current issues in cybersecurity ranging from predicting the insider threat to security issues with big data.

Seminar on the Training of Cybersecurity Professionals

In late March (date TBD), participate and challenge a panel of military, government, and industry members on the training requirements for future cybersecurity leaders in 2020. Panel speakers will come from a range of organizations such as the Department of Homeland Security, National Security Agency, and industry thought leaders.

The panel speakers will address topics such as:
- How can higher education, industry, and government experts work together to train the next cadre of cyber security experts?
- How should cyber security education be delivered?
- How do we contribute to the ongoing education of cyber security professionals?

All talks will be held in the Institute at 3401 Market Street (Corner of Market and 34th Streets), Philadelphia, PA 19104. **Please sign up at the Institute launch event to learn more about upcoming events.**

CYBERSECURITY SNIPPET: BITCOINS

Background

Bitcoin is a decentralized, peer-to-peer payment system that employs cryptography to create and transfer money. Bitcoins are obtained by mining or in exchange for products or services. Individuals can exchange bitcoins via mobile devices, web applications, or software on personal computers. Bitcoins are being used more and more by businesses as an alternative form of payment.

Cybersecurity Threat

Currently there is no regulatory authority over Bitcoin and there is concern over the lack of safeguards available to protect users. The popularity and increasing value of bitcoins make bitcoins high value items to steal. Additionally, the high level of anonymity of bitcoins has made them a preferred currency for such criminal activities as money laundering, illegal gambling, drug trafficking, and illegal weapons.

Additional Information

Bitcoin Price Plunges as Mt. Gox Exchange Halts Activity - Bloomberg Technology, 2/7/14

Our New Report Looks at Bitcoin in 40 Countries - U.S. Library of Congress, 2/4/14

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http://www.drexel.edu/cci/cybersecurity