

Overview: Isaac L. Auerbach Cybersecurity Institute was established to foster cybersecurity research, education, and community engagement at Drexel. Our 19 faculty affiliates (pictured on reverse) come from four Colleges (Computing & Informatics, Engineering, Arts & Sciences, Business) with collective expertise spanning a wide range of cybersecurity topics:

Network anomaly detection Multimedia forensics and anti-forensics

Malware identification, classification, and mitigation
Wireless key generation and wireless reactive jamming
Mobile / desktop user authentication
Data mining and identity theft
Privacy and security
Hardware security
Sentiment analysis
Computer crime

Security for cyber-physical systems

Trust management systems and fraud

Software security and reverse engineering National security policy

## Drexel cybersecurity **research funding** includes support from the following agencies:

NSF Secure and Trustworthy Computing (SaTC) Defense Forensics and Biometrics Agency (DFBA)

NSF Division of Advanced Cyber Infrastructure (ACI)

NSF Cybercorps Scholarships for Service (SFS)

Air Force Research Labs (AFRL)

NSF Faculty Facility Carron Division of Action (CARFER)

National Security Agree (NSA)

NSF Faculty Early Career Development Program (CAREER)

National Security Agency (NSA)

DARPA Active Authentication Program

Department of Justice (DoJ)

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Department of Justice (DoJ)

National Institute of Justice (NIJ)

These grants comprise more than \$10M in research funding over the past nine years, for more than 25 projects supporting more than 15 faculty. Recent **cybersecurity publications** by Drexel faculty have appeared in:

ASIS Security Journal IEEE Transactions on Information Forensics and Security

Information Security Solutions Europe (ISSE)

Usenix Security Symposium

Intl. Conf. on Quality, Reliability, & Security (QRS)

Intl. Conf. on Malicious & Unwanted Software (MALCON)

IEEE Intl. Wkshp. on Info. Forensics & Security (WIFS)

IEEE Intl. Symp. on Software Reliability Eng. (ISSRE)

## Recent Ph.D. theses in cybersecurity include:

Name	Advisor	Employer	Thesis
B. Katz	Kapil Dandekar	-	Enabling Real-Time Wireless Channel Based Encryption Key Generation
T. Huang	Sethu/Kandasamy	Akamai	Adaptive sampling & statistical inference for anomaly detection
A. Caliskan	Greenstadt	Princeton	Stylometric fingerprints and privacy behavior in textual data
R. Canzanese	Mancoridis/Kam	Sift Security	Detection & classification of malicious processes using system call analysis
A. Stolerman	Greenstadt	Google	Authorship verification
L. Fridman	Kam/Weber	MIT	Learning of identity from behavioral biometrics for active authentication
S. Afroz	Greenstadt	Berkeley	Deception in authorship attribution
M. Brennan	Greenstadt	Ford Found.	Managing quality, identity & adversaries in public discourse with machine

## Drexel faculty are actively engaged with the cybersecurity research community; examples include:

M. Stamm	General Chair	2017 ACM Workshop on Information Hiding and Multimedia Security
C. Yang	General Chair	2015 IEEE ICDM Workshop on Intelligence and Security Informatics
R. Greenstadt	General Chair	2015 Privacy Enhancing Technologies Symposium
C. Yang	Associate Editor-In-Chief	Springer Security Informatics
R. D'Ovidio	Member	Intl. Association of Chiefs of Police, Computer Crime and Digital Evidence Committee

## Drexel offers a full suite of cybersecurity-related academic degree programs, including:

Masters of Science in Cybersecurity

BS in Computer Science – Computer Security Concentration

Bachelor of Science in Computing and Security Technology

Certificate in Computing and Security Technology

Contact us for more information – whether you are a company, government agency, potential student, or just curious.



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Rob D'Ovidio (CoAS)



David Gefen (LeBow)



Christopher Geib (CCI)



Rachel Greenstadt (CCI)



Naga Kandasamy (CoE)



Constantine Katsinis (CCI)



Geoffrey Mainland (CCI)



Spiros Mancoridis (CCI)



Gaurav Naik (CCI)



Ioannis Savidis (CoE)



Harish Sethu (CoE)



James Shackleford (CoE)



Matthew Stamm (CoE)



Baris Taskin (CoE)



Kristene Unsworth (CCI)



Steven Weber (CoE)



Chris Yang (CCI)