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
- Malware identification, classification, and mitigation
- Wireless key generation and wireless reactive jamming
- Mobile / desktop user authentication
- Data mining and identity theft
- Security for cyber-physical systems
- Software security and reverse engineering
- Multimedia forensics and anti-forensics
- Privacy and security
- Hardware security
- Sentiment analysis
- Computer crime
- Trust management systems and fraud
- National security policy

Drexel cybersecurity research funding includes support from the following agencies:

- NSF Secure and Trustworthy Computing (SaTC)
- NSF Division of Advanced Cyber Infrastructure (ACI)
- NSF Cyberscorps Scholarships for Service (SFS)
- NSF Faculty Early Career Development Program (CAREER)
- DARPA Active Authentication Program
- DARPA Integrated Cyber Analysis Systems (ICAS)

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
- Information Security Solutions Europe (ISSE)
- Intl. Conf. on Quality, Reliability, & Security (QRS)

Recent Ph.D. theses in cybersecurity include:

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

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.

Steven Weber, Ph.D. – Director (Professor in the College of Engineering)
Email: sweber@coe.drexel.edu
Phone: (215) 895-0254
Office: Bossone Research Enterprise Center, 413b
3126 Market St., Philadelphia, PA 19104