



# Cybersecurity at MIT Sloan

formerly the Interdisciplinary Consortium for Improving Critical Infrastructure Cybersecurity (IC)<sup>3</sup>

SEC Commissioner Luis A. Aguilar ... *warned that “boards that choose to ignore, or minimize the importance of cybersecurity oversight responsibility, do so at their own peril ...”* v17

## PROSPECTUS

**PURPOSE:** Cybersecurity at MIT Sloan (CAMS), is headquartered in the MIT Sloan School of Management. In collaboration with other parts of MIT, CAMS intends to address the important need to improve the cybersecurity of critical infrastructure through an interdisciplinary approach **focused on the strategic, managerial, and operational issues related to cybersecurity**. Cybersecurity at MIT Sloan brings together thought leaders from industry and government with MIT faculty, staff, and students, working in multiple relevant areas. CAMS conducts a variety of, meetings, workshops, conferences, and educational activities, and produces reports which can be used to improve critical infrastructure cybersecurity.

**FOCUS:** Based on initial feedback from prospective members, some important initial issues to be addressed are developing metrics and models that can be used by organizations to better protect themselves, and prevent cyber incidents, including: risk analysis, ROI calculations, process improvements, simulation of cybersecurity resilience, more effective information sharing, and increasing corporate (cultural) adoption and top-management commitment to cybersecurity efforts.

**BROAD SCOPE OF MIT TEAM:** The team participating in CAMS activities are drawn from across MIT and include: Sloan School of Management (Information Technologies, Financial Engineering, International Trade), School of Engineering (Computer Science, Civil and Environmental Engineering, and Aeronautics and Astronautics), and School of Humanities and Social Sciences (Political Science.)

### Robust CAMS Research Program



#### Strategy

- Board-level cyber education
- Cybersecurity Impact on International Trade
- Framework for types of cyber education throughout the organization
- Ethics of cybersecurity
- Cyber warfare

#### Governance

- Cyber risk evaluation & metrics
- Board governance of cyber
- Cybersecurity leadership in the organization
- Role of cyber insurance in risk mitigation

#### Management

- Impact of cyber risk concerns on innovations
- Comparing national cybersecurity frameworks
- Usability vs security
- Cyber safety: applying research in accident prevention
- Cybersecurity of Industrial Control Systems (ICS)/Cyber-physical
- Cybersecurity for Cloud-based systems
- Cybersecurity of IoT Using Blockchain
- Autonomous Vehicles

#### Organizational

- House of Security
- Organizational Cybersecurity Culture
- Bridging the IT/OT Culture Gap
- Success factors for cybersecurity
- Cyber information sharing
- Vulnerability research
- Security workforce

RESEARCH PRIORITIES (*continuously evolving based on sponsor recommendations*)

1. Developing Operational Approaches to Cyber Risk Management
2. Using Knowledge of Attacker Business Models to Improve Cybersecurity
3. Developing, Managing and Maintaining a Vibrant Cybersecurity Culture
4. Providing IoT and End Point Cybersecurity
5. Providing Cyber-Physical Security Using a Systems Approach

Download the one-page CAMS Priorities Overview at <https://cams.mit.edu/research>.

MEMBER RELATIONSHIP AND BENEFITS: It is recognized that the strength of the relationship between MIT and the Member will depend on the efforts that both put into developing and maintaining the relationship. ECO U intends to become a unique opportunity for its Members, providing a window into relevant activities at MIT.

Members (\$45,000 per year, or \$35,000 per year if three year commitment)

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Partner Members (\$120,000 per year), All of the above, plus

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Patron Members (\$450,000 per year), All of the above, plus

- Invitation to participate on the CAMS Advisory Board.
- Specified faculty contact, with quarterly consultations.

For more information, please see <https://cams.mit.edu>  
or contact Stuart Madnick [smadnick@mit.edu](mailto:smadnick@mit.edu)  
Keri Pearlson [kerip@mit.edu](mailto:kerip@mit.edu) or Michael Siegel [msiegel@mit.edu](mailto:msiegel@mit.edu)