

UNAL TATAR

College of Emergency Preparedness, Homeland Security and Cybersecurity
ETEC 260B – 1400 Washington Ave.
Albany, NY 12222
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(518) 442-1524

EDUCATION

- 2019 **Ph.D.** in Engineering Management and Systems Engineering, Old Dominion University

Dissertation: Quantifying Impact of Cyber Actions on Missions or Business Processes: A Multilayer Propagative Approach.

Doctoral Mentor: Adrian V. Gheorghe, Ph.D.
- 2009 **M.S.** in Cryptography, Middle East Technical University, Institute of Applied Mathematics

Master's Project: Steganography and Steganalysis.

Project Mentor: Ali Doganaksoy, Ph.D.
- 2004 **B.S. in** Computer Engineering, Bilkent University

EDUCATIONAL EMPLOYMENT

- 2018 - Present **Assistant Professor**, College of Emergency Preparedness, Homeland Security and Cybersecurity, University at Albany, State University of New York.

ADDITIONAL EMPLOYMENT

- 2015 - 2018 **Graduate Research/Teaching Assistant**, Department of Engineering Management and Systems Engineering, Old Dominion University.
- 2012 - 2015 **Principal Researcher / Head of the National Computer Emergency Response Team**, National Cyber Security Institute, Ankara, Turkey.
- 2009 - 2012 **Senior Researcher / Unit Head**, National Cyber Security Institute, Ankara, Turkey.
- 2004 - 2009 **Researcher**, TUBITAK UEKAE InfoSec Department, Ankara, Turkey.

OTHER PROFESSIONAL APPOINTMENTS

2014 - Present	Member , Cyber Terrorism Project, Swansea University, UK.
2013 - 2015	Academic Advisor , NATO Center of Excellence – Defense Against Terrorism (COE-DAT), Ankara, Turkey.

HONORS AND AWARDS

Recognition of Junior Faculty Who Won Prestigious Extramural Awards		2021	
Dr. Nuala McGann Drescher Diversity and Inclusion Leave Program Award		2021	
Individual Development Award	New York State/United University Professions Professional Development Committee	2021	\$1,000
Young Scholar Travel Award	Undergraduate Education in Informatics Conference	2020	\$1,000
Innovations in Cybersecurity Education	National CyberWatch Center	2019	
Online Teaching and Learning Initiative Award	The Office of Provost, University at Albany	2019	\$3,000
Diversity and Transformation Award	The Office of Diversity and Inclusion, University at Albany	2019	\$4,000
Young Scholar Travel Award	Society for Risk Analysis	2018	\$1,000
Shining Star Award	Old Dominion University	2018	
Christopher Day Award for Outstanding Graduate Assistant	Old Dominion University	2018	
Member of the Honor Society of Phi Kappa Phi		2018	
Letter of Appreciation	NATO Combined Joint Operations from the Sea Centre of Excellence	2017	
Certificate of Achievement for Outstanding Service	ODU Center for Cybersecurity Education and Research	2017	
Member of Golden Key International Honor Society		2017	
Member of Epsilon Mu Eta - The National Honor Society for Engineering Management		2017	
Endowed Scholarship	Triton International Enterprises	2017	\$500
Ph.D. Tuition Scholarship	Old Dominion University	2015-2018	
Merit in Teaching Certificate	Turkish Ministry of Defense, Defense Industry and Technology Training Center	2011	

PUBLICATIONS

(*indicates undergraduate student co-author, **indicates graduate student co-author)

Edited Books

Tatar, U., Gheorghe, A., **Keskin, O., & Muylaert, J. (2020). *Space Infrastructures: From Risk to Resilience Governance*. Amsterdam: IOS Press.

Tatar, U., *Gokce, Y. & Gheorghe, A. (2017). *Strategic Cyber Defense: A Multidisciplinary Perspective*. Amsterdam: IOS Press.

Peer Reviewed Articles

Sabz Ali Pour, F., **Tatar, U., Gheorghe, A., (*Accepted*) Blockchain Empowered Disaster Recovery Framework. *International Journal of System of Systems*.

Balogun, M., Bahsi, H., **Keskin, O.F., & **Tatar, U. (*Accepted*). A Comparative Framework for Threat Modeling: Case of Healthcare and Industrial Control Systems. *International Journal of Critical Infrastructures*.

Tatar, U., Santos, J., & Thekdi, S. (2021). Managing Physical and Economic Risk for Systems with Multidirectional Network Interdependencies. *Risk Analysis*.

Keskin, O.F., **Tatar, I., **Caramancion, K., *Raza, O., & **Tatar, U. (2021). Cyber Third-party Risk Management: A Comparison of Non-Intrusive Risk Scoring Tools. *Electronics* 10(10), 1168. MDPI AG. Retrieved from <http://dx.doi.org/10.3390/electronics10101168>.

Tatar, U., Nussbaum, B., **Gokce, Y., & **Keskin, O.F. (2021) Digital Force Majeure: The Mondelez Case, Insurance, and the (un)Certainty of Attribution in Cyber Attacks. *Business Horizons* 64(6) pp.775-785. Retrieved from <https://doi.org/10.1016/j.bushor.2021.07.013>.

Keskin, O.F., *Lopez, B.A., *Gannon, N., & **Tatar, U. (2021) Scoring Cyber Vulnerabilities Based on Their Impact on Organizational Goals. *2021 IEEE Systems and Information Engineering Design Symposium (SIEDS)*, pp. 1-6, doi: 10.1109/SIEDS52267.2021.9483741.

*Portalatin, M., **Keskin, O.F., *Malneedi, S., & **Tatar, U.** (2021) Data Analytics for Cyber Risk Analysis Utilizing a Cyber Incident Datasets. *2021 IEEE Systems and Information Engineering Design Symposium (SIEDS)*, pp. 1-6, doi: 10.1109/SIEDS52267.2021.9483743.

- Gheorghe, A.V., **Sabz Ali Pour, F., **Tatar, U.**, and **Keskin, O. (2021). Blockchain for a Resilient, Efficient, and Effective Supply Chain: Evidence from Cases. In *Proceedings of the 18th Annual Acquisition Research Symposium*
- Tatar, U.**, **Gokce, Y., & Nussbaum, B. (2020). Law versus technology: Blockchain, GDPR, and tough tradeoffs. *Computer Law & Security Review*, 38, 105454.
- Pinto, C. A., **Tatar, U.**, **Kucukkaya, G., **Keskin, O., **Poyraz, O., & Kucukozyigit, A. C. (2020). Cybersecurity Acquisition Framework Based on Risk Management: Economics Perspective. In *Proceedings of the Seventeenth Annual Acquisition Research Symposium*, 17. Calhoun.
- Tatar, U.**, Karabacak, B., Katina, P. F., & Igonor, A. (2019). A complex structure representation of the US critical infrastructure protection program based on the Zachman framework. *International Journal of System of Systems Engineering*, 9(3), 221-234.
- Georgescu, A., Bucovetchi, O., & **Tatar, U.** (2018). Space Systems as Critical Infrastructures. *FAIMA Business & Management Journal*, 6(1), 24-34.
- **Alla, S., **Soltanisehat, L., **Tatar, U.**, & **Keskin, O. (2018). Blockchain Technology in Electronic Healthcare Systems. IISE Annual Conference. Orlando, FL.
- **Sabz Ali Pour, F., **Tatar, U.**, & Gheorghe, A., (2018). Agent-Based Model of Sand Supply Governance Employing Blockchain Technology. In *Proceedings of the 51st Annual Simulation Symposium*. Society for Computer Simulation International. Baltimore, MD.
- **Keskin, O., **Tatar, U.**, **Poyraz, O., Pinto, A., & Gheorghe, A. (2018) Economics-Based Risk Management of Distributed Denial of Service Attacks: A Distance Learning Case Study. In *Proceedings of the 13th International Conference on Cyber Warfare and Security*. Washington DC, USA.
- Bahsi, H., **Udokwu, C., **Tatar, U.**, & Norta, A. (2018) Impact Assessment of Cyber Actions on Missions or Business Processes – A Systematic Literature Review. In *13th International Conference on Cyber Warfare and Security*. Washington DC, USA.
- **Caliskan, E., **Tatar, U.**, Bahsi, H., Ottis, R. & Vaarandi, R., (2017) Capability Detection and Evaluation Metrics for Cyber Security Lab Exercises. In *12th International Conference on Cyber Warfare and Security*. Dayton, USA.
- Tatar, U.**, Bahsi, B., Gheorghe, A. (2016) “Impact Assessment of Cyber Attacks: A Quantification Study on Power Generation Systems”. In *11th IEEE System of Systems Engineering Conference (SoSE)*, Kongsberg, Norway.

Tatar, U., Karabacak, B., Gheorghe, A. (2016) “An Assessment Model of Improving National Cyber Security Governance”. In *11th International Conference on Cyber Warfare and Security*. Boston, USA.

Tatar, U., Calik, O., Celik, M., Karabacak, B. (2014) A Comparative Analysis of the National Cyber Security Strategies of Leading Nations. In *Cyber Warfare and Security, 9th International Conference on* (pp. 211- 218). Indiana, USA.

Tatar, U. (2012, November). Knowledge Economy Assessment of Turkey: Turkey As a European Union Candidate. *Knowledge, Economy and Management, 10th International Conference on*. Istanbul, Turkey.

Tatar, U., & Karabacak, B. (2012). An Hierarchical Asset Valuation Method For Information Security Risk Analysis. In *Information Society (i-Society), 2012 International Conference on* (pp. 286-291). IEEE. London, UK.

Mataracioglu, T., & **Tatar, U.** (2010). Digital Forensics Analysis of Spectral Estimation Methods, In *8th Digital Forensics Conference* (pp. 126-134). Perth, Australia.

Tatar, U., & Mataracioglu, T. (2010). Analysis and Implementation of Distinct Steganographic Methods, *Information Security & Cryptology, In 4th International Conference on* (pp. 298-303). Ankara, Turkey.

Mataracioglu, T., & **Tatar, U.** (2008). Security Principles in *Electronic Trade, Information Security & Cryptology, 3rd International Conference on* (pp. 285-290). Ankara, Turkey.

Unrefereed Articles

Nussbaum, B., & **Tatar, U.** (2021). Special Issue on “Decision Making in Cybersecurity”. *International Journal of Cyber Warfare and Terrorism (IJCWT), 11 (3)*.

Tatar, U., Oliva, G., & Moreland Jr, J. (2017). Special Issue on: Cyber Security of Critical Infrastructures: Recent Advances and Future Directions. *International Journal of Critical Infrastructures 13 (2-3), 93-95*

Tatar, U. (2011). Cyber Security Exercises. Turkish Armed Forces Cyber Defense Symposium. Istanbul, Turkey.

Mataracioglu, T., & **Tatar, U.** (2009). History of Cyber Warfare. Cyber Warfare Symposium. Ankara, Turkey.

Bahşi, H., Karabacak, B., & **Tatar, U.** (2009). Cyber Defense and Information Security Road Map for Turkey. 26th National Information Technologies Symposium, Ankara, Turkey.

Edited Book Chapters

- Georgescu, A., **Tatar, U.**, Muylaert, J., & Gheorghe, A. (2020). Critical Space Infrastructures: Perspectives and a Critical Review. *Space Infrastructures: From Risk to Resilience Governance*. Amsterdam: IOS Pres.
- Tatar, U.** & Gheorghe, A. (2017). Cyber Security in Maritime Domain: A Risk Management Perspective. In *Issues in Maritime Cyber Security*, Westphalia Press/PSO.
- Tatar, U.**, Georgescu, A., & Geers, K. (2017). Strategic Approach to A Fierce Domain: Findings from the Advanced Research Workshop. In *Strategic Cyber Defense: A Multidisciplinary Perspective*. Amsterdam: IOS Press.
- Karabacak, B. & **Tatar, U.** (2017). From the National Cyber Maturity to the Cyber Resilience: An Assessment of the Strategic Efforts of Turkey. In *Strategic Cyber Defense: A Multidisciplinary Perspective*. Amsterdam: IOS Press.
- Tatar, U.**, & Celik, M. (2015). Hacktivism as an Emerging Cyber Threat: Case Study of a Turkish Hacktivist Group. In *Terrorism Online: Politics, Law and Technology*, (pp. 54-71). London: Routledge.
- Karabacak, B. & **Tatar, U.** (2014). Strategies to Counter Cyberattacks: Cyber threats and Critical Infrastructure Protection. *Critical Infrastructure Protection*, (pp. 63-73). Amsterdam: IOS Press.
- Tatar, U.** (2013). Cyber Warfare in Future Wars. In *Future War Arena and Warfare Technologies*, (pp. 42-51). Istanbul: Turkish War Academy Press.

Technical Reports

- Pinto, C.A., **Tatar, U.**, **Keskin, O.F., **Kucukkaya, G., **Poyraz, O., **Alfaqiri, A., & Kucukozyigit, A. (2021). "Cybersecurity Investment Planning Framework: An Economic Business Process View Perspective." Final Report for Naval Postgraduate School's Acquisition Research Program.
- Tatar, U.**, **Keskin, O.F., Bahsi, H., & Pinto, C.A. (2020). "Quantification of Cyber Risk for Actuaries." Final Report for Society of Actuaries. Available at (<https://www.soa.org/globalassets/assets/files/resources/research-report/2020/quantification-cyber-risk.pdf>)
- Turetsky, D., Nussbaum, B., & **Tatar, U.** (2020). "Success Stories in Cybersecurity Information Sharing." Final Report for the Cyber Initiative at the William and Flora Hewlett Foundation. Available at (<https://www.albany.edu/sscis>)

Public Writing

Nussbaum, B., **Tatar, U.**, Yankson, B., Ackerman, G., & Behlendorf, B. (2021). “The Internet of Very Cold Things.” Lawfare. <https://www.lawfareblog.com/internet-very-cold-things>

Turetsky, D., Nussbaum, B., & **Tatar, U.** (2020). “Cybersecurity Information Sharing Success Stories.” Lawfare. <https://www.lawfareblog.com/cybersecurity-information-sharing-success-stories>

GRANT FUNDING

Federal

Role: Principal Investigator

Project: Virtual Institute of Cyber Operation and Research (VICOR)

Source: Department of Defense – Air Force Research Lab

Time Period: 07/2022 – 06/2024

Total Funding: \$1,500,000

Role: Principal Investigator

Project: CRII: SaTC: Graph-based Probabilistic Cyber Risk Modeling

Source: NSF

Time Period: 04/01/2020 – 03/31/2022

Total Funding: \$191,000

Role: Co-Principal Investigator (with Principal Investigator Adrian Gheorghe)

Project: Integration of Blockchain Technology into Supply Network for Resilient and Efficient Acquisition

Source: Department of Defense

Time Period: 05/01/2020 – 12/31/2021

Total Funding: \$120,000

Role: Co-Principal Investigator (with Principal Investigator Ariel Pinto)

Project: Cybersecurity Acquisition Framework Based on Risk Management: Economics Perspective

Source: Office of Naval Research

Time Period: 08/01/2018 – 05/31/2020

Total Funding: \$120,000

Role: Co-Principal Investigator (with Principal Investigator Adrian Gheorghe)

Project: Blockchain and Cybersecurity: Course Development

Source: National Security Agency

Time Period: 09/01/2017 – 09/01/2019

Total Funding: \$178,787

Role: Senior Researcher (with Principal Investigator Ariel Pinto)
Project: Multidisciplinary Risk Management in CyberSecurity: Course Development
Source: National Security Agency
Time Period: 03/01/2017 – 08/31/2018
Total Funding: \$115,000

International

Role: Project Director
Project: NATO SPS award for editing a book entitled “Strategic Cyber defense: A Multidisciplinary Perspective”
Source: NATO
Time Period: 03/01/2016 – 04/30/2017
Total Funding: €2,500

Role: Project Director
Project: Advanced Research Workshop: “A Framework for a Military Cyber Defense Strategy”
Source: NATO
Time Period: 11/01/2014 – 04/01/2016
Total Funding: €42,000

Foundations

Role: Principal Investigator
Project: A Systematic Review and Compendium of Cyber Risk for Actuaries
Source: Society of Actuaries
Time Period: 01/15/2021 – 07/15/2021
Total Funding: \$19,180

Role: Co-Principal Investigator (with Principal Investigator Jean-Robert Hountomey)
Project: Guidance for CSIRT Capacity Building in Low-Income Countries
Source: Global Forum on Cyber Expertise
Time Period: 03/08/2021 – 09/07/2021
Total Funding: \$50,000

Role: Principal Investigator
Project: Quantification of Cyber Risk for Actuaries: An Economic-Functional Approach
Source: Society of Actuaries
Time Period: 01/01/2019 – 12/31/2020
Total Funding: \$55,000

University at Albany

Role: Co-Principal Investigator (with Principal Investigator Tolga Soyata)
Project: Pain Detection and Support through Community Oriented IoT Sensing Network
Source: SUNY Research Foundation
Time Period: 08/01/2019 – 07/31/2020

Total Funding: \$25,000

Role: Principal Investigator

Project: FRAP-B Erasing the Borders between the Digital and Physical: A Predictive Analysis of Cyber Conflicts and Political Disputes

Source: University at Albany Office of Research

Time Period: 06/01/2019 – 06/30/2021

Total Funding: \$4,000

Proposals under Review

Role: Co-Principal Investigator (with Principal Investigator Brian Nussbaum)

Project: Remote Environment Vulnerabilities to the Internet of Things (REV-IoT): Horizon Scanning for Insight into Arctic IoT Risk

Source: Department of Homeland Security

Time Period: 1 year

Total Funding: \$200,000

PUBLISHED ABSTRACTS AND PRESENTATIONS AT SCHOLARLY CONFERENCES

(*indicates undergraduate student co-author, **indicates graduate student co-author)

Tatar, U., Santos, J., & Thekdi, S., (2021). Economic Risk for Physical System Disruptions: A Case of Transportation Systems. Society for Risk Analysis 2021 Annual Meeting. (Virtual)

****Caramancion, K., **Tatar, I., **Keskin, O., & Tatar, U.** (2021). Demystifying the variations in non-intrusive cyber risk scores: a comparative analysis on vendors. Society for Risk Analysis 2021 Annual Meeting. (Virtual)

****Keskin, O., & Tatar, U.** (2021). Cyber Vulnerability Prioritization: A Cost-Benefit Analysis Through Attack and Impact Graph Integration. Society for Risk Analysis 2021 Annual Meeting. (Virtual)

Thekdi, S., Tatar, U., Santos, J., & Chatterjee, S. (2021). Balancing artificial intelligence and risk: How the risk and decision-making fields can address the new technological frontiers. Decision Making for Emerging Risks - A virtual min-conference, Informs. (Virtual).

****Keskin, O.F., *Gannon, N., *Lopez, B., & Tatar U.** (2021). Vulnerability Evaluation and Prioritization for Cyber Resilient Systems. HotSoS '21: Proceedings of the 8th Annual Symposium on Hot Topics in the Science of Security. (Virtual)

***Capollari, B., **Knight, T., & Tatar U.** (2021). Analyzing Ethical Risks of Artificial Intelligence Empowered Products. New York Celebration of Women in Computing (NYCWIC '21)

- *Portalatin, M., & **Tatar U.** (2021). Data Analysis on Impact of Cyber Incidents within Institutions Using VERIS Database. New York Celebration of Women in Computing (NYCWIC '21)
- **Keskin, O.F., **Caramancion, K., **Tatar, I., *Raza, O., & **Tatar U.** (2021). Benchmarking Vendor Cyber Risk Scoring Approaches in Practice. 16th International Conference on Cyber Warfare and Security. (Virtual)
- **Park, S. & **Tatar, U.** (2020). Turning Crisis into Celebration: Organizational Resilience in Responding to a Cyber Threat to Healthcare Critical Infrastructure. 13th Annual Homeland Defense & Security Education Summit. Online.
- Tatar, U.**, Santos, J., & Thekdi, S., (2020). Network-Based Input-Output Modeling of Disruptions to Critical Infrastructure Systems. Society for Risk Analysis 2020 Annual Meeting. (Virtual)
- **Knight, T., *Capollari, B., & **Tatar, U.** (2020). Assessment of Post-Development AI Ethical Risks. (Poster Presentation) Society for Risk Analysis 2020 Annual Meeting. (Virtual)
- *Portalatin, M., **Keskin, O., *Malneedi, S., *Raza, O., & **Tatar, U.** (2020). Data Analytics for Cyber Risk Analysis: Utilizing Cyber Incident Datasets. (Poster Presentation) Society for Risk Analysis 2020 Annual Meeting. Austin, TX.
- **Keskin, O. & **Tatar, U.** (2020). Probabilistic Cyber Risk Quantification by Using Bayesian Networks. Society for Risk Analysis 2020 Annual Meeting. Austin, TX.
- Turetsky, D., Nussbaum, B., & **Tatar, U.** (2020). Panelist at “Success Stories in Information Sharing: Lessons for ISAOs.” International Information Sharing Conference. San Antonio, TX.
- Tatar, U.**, Rorissa, A., & Demissie, D. (2020). Cybersecurity and Information Science: Towards a more holistic and interdisciplinary approach. Southern Association for Information Systems Conference. Myrtle Beach, SC.
- Tatar, U.**, Rorissa, A., & **Keskin, O. (2020). Cybersecurity Education in iSchools. (Poster presentation) Undergraduate Education in Informatics. Austin, TX.
- Tatar U.** & **Keskin, O. (2020). Resilience Informed Cybersecurity Decision Making. (Poster presentation) 15th International Conference on Cyber Warfare and Security.
- Tatar, U.** (2019). Cyber Resilience Analysis: A Functional Dependency Approach. Society for Risk Analysis 2019 Annual Meeting. Arlington, VA.

- **Keskin, O. & Tatar, U.** (2019). Attack Graph Based Probabilistic Cyber Risk Analysis. Society for Risk Analysis 2019 Annual Meeting. Arlington, VA.
- Rorissa, A. & **Tatar, U.** (2019). Cybersecurity and Information Assurance in Information Science Curricula. Association for Library and Information Science Education Conference. Knoxville, TN.
- Poyraz, O., Serttas, O., Keskin, O., Pinto, A., & **Tatar, U.** (2018). Calculating Impact of Cyber Incidents and Threats on Business Processes. International Conference on Complex Systems. Cambridge, MA.
- Tatar, U.** (2018). Calculating Impact of Cyber Incidents and Threats on Business Processes. Society for Risk Analysis 2018 Annual Meeting. New Orleans, LA.
- Tatar, U.** (2018). How to Manage Cybersecurity Risks: An Educational Perspective. 11th Annual Homeland Defense & Security Education Summit. Albany, NY.
- Tatar, U.** (2017). Multidisciplinary Risk Management in Cybersecurity: Course Development. Society for Risk Analysis 2017 Annual Meeting. Arlington, VA.
- Tatar, U., **Poyraz, O.I., **Keskin, O.F., Gheorghe, A.V., Pinto, C.A.** (2017). Quantification of Cyber Risk from Insurers' Perspective: An Economic-Functional Approach. Swarmfest 2017: 21st Annual Meeting on Agent-Based Modeling & Simulation. Suffolk, VA.
- Tatar, U.** (2017). Blockchain Technology and Cyber Security. (Poster Presentation) ODU CyberOps 2017 Cybersecurity Education & Research Expo. Norfolk, VA.
- Tatar, U.** (2017). Maritime Cyber Security: Risks and Strategies. Mission Engineering and Analysis, and Integration and Interoperability. Dahlgren, VA.
- Tatar, U.** (2017). Decision Making on Cyber Security: What Do Strategic Level Decision Makers Need? (Poster Presentation) 12th International Conference on Cyber Warfare and Security. Dayton, OH.
- **Poyraz, O.I., Tatar, U., **Keskin, O.F., & Pinto, C.A.** (2017). Cybersecurity Risk Management Curriculum Development. 8th Annual National Initiative for Cybersecurity Education (NICE) Conference and Expo. Dayton, OH.
- Tatar, U.** (2016). Cyber Risk Analysis of Critical Energy Infrastructures: A Case Study. SEDC Conference. Washington DC, USA.
- Tatar, U.** (2009). Panelist at "Peace and Security in the Cyberspace Workshop." United Nations Internet Governance Forum. Sharm el Sheikh, Egypt.

INVITED PRESENTATIONS

Tatar, U. Information Sharing Success Stories. Automotive Information Sharing and Analysis Center (Auto-ISAC) Community Meeting. Online, 2021

Turetsky, D.S. & **Tatar, U.** Girl Scouts Cyber Fair. Girl Scouts, JCC in Albany. 2019.

Tatar, U. (Moderator), State of Grace. Women in Cybersecurity Panel. University at Albany. Albany, NY. 2019.

Tatar, U. Cyber Security from a Managerial Perspective” NATO Advanced Research Workshop on Terrorist Use of the Internet – Assessment and Response. Dublin, Ireland. 2016.

Tatar, U. Academia Panel discussion on Growing the Cyber Workforce. Joint Information Operations Range Users Conference. Suffolk, VA, USA. 2016.

Tatar, U. An Assessment Model for Improving National Cybersecurity Postures. Terrorists’ Use of the Internet: A Symposium. Swansea, UK. 2014.

Tatar, U. Cyber Security Trends and Turkey. e-Crime Turkey Conference. Istanbul, Turkey. 2012.

Tatar, U. Information Systems Risk Perspective for Energy Critical Infrastructure Security. NATO Advanced Research Workshop on Critical Energy Infrastructure Protection. Ankara, Turkey. 2012.

MEDIA APPEARANCES

Featured. “Cyber Disruptions of Infrastructure Networks Can Cost Millions in a Day.” Insurance Journal 2021. <https://www.insurancejournal.com/news/national/2021/12/21/646679.htm>

Featured. “Cybersecurity Professor Analyzes Economic Cost of Critical Infrastructure Disruptions.” Times of News. 2021. <https://israel.timesofnews.com/political/cybersecurity-professor-analyzes-economic-cost-of-critical-infrastructure-disruptions.html>

Featured. “Cyber disruption to infrastructure networks can cost millions a day.” The New Zealand Times 2021. <https://www.thenewzealandtimes.com/cyber-%e2%80%8b%e2%80%8bdisruption-to-infrastructure-networks-can-cost-millions-a-day/>

Featured. “Highway Delays Can Cause Economic Losses of Up to \$250 Million in a Single Day.” SciTechDaily 2021. <https://scitechdaily.com/highway-delays-can-cause-economic-losses-of-up-to-250-million-in-a-single-day/>

Featured. “In a single day, highway delays can cost up to (dollar) 250 million in economic losses.” Brinkwire 2021. <https://en.brinkwire.com/science/in-a-single-day-highway-delays-can-cost-up-to-dollar250-million-in-economic-losses/>

Featured. “Cyber disruption to infrastructure networks can cost millions a day.” The Us Express News 2021. <https://www.theusexpressnews.com/cyber-%E2%80%8B%E2%80%8Bdisruption-to-infrastructure-networks-can-cost-millions-a-day/>

Featured. “Highway Delays Can Cause Economic Losses of Up to \$250 Million in a Single Day.” 24HTECH 2021. <https://24htech.asia/highway-delays-can-cause-economic-losses-of-up-to-250-million-in-a-single-day-s340508.html>

Featured. “Cybersecurity Professor Analyzes Economic Cost of Critical Infrastructure Disruptions.” NewsWise. 2021. <https://www.newswise.com/politics/cybersecurity-professor-analyzes-economic-cost-of-critical-infrastructure-disruptions>

Featured. “Study Finds that Highway Delays Can Cause Economic Losses of \$8 Million To \$250 Million in a Single Day.” PreventionWEB. 2021. <https://www.preventionweb.net/news/study-finds-highway-delays-can-cause-economic-losses-8-million-250-million-single-day>

Featured. “Six Junior Faculty are Recognized for Auspicious Beginnings to Careers.” University at Albany News Center. 2021. <https://www.albany.edu/news-center/news/2021-six-junior-faculty-are-recognized-auspicious-beginnings-careers>

Featured. “Episode 86: Quantification of Cyber Risk for Actuaries” 2021. <http://cia-ica.cast.rocks/>

Quoted in Charlie Mitchel. “Defense supply chain, info-sharing and disinformation on the agenda for policymakers.” Inside Cybersecurity. 2020. <https://insidecybersecurity.com/daily-news/week-ahead-defense-supply-chain-info-sharing-and-disinformation-agenda-policymakers>

Quoted in Liz Young. “How this Schenectady County manufacturer dealt with a ransomware attack.” Albany Business Review. 2019. <https://www.bizjournals.com/albany/news/2019/07/30/small-businesses-ransomware-attack-recovery.html>

Featured. “CEHC Course Featured in NSA’s National Cybersecurity Curriculum Program.” University at Albany News Center. 2019. <https://www.albany.edu/news/91984.php>

Mentioned. “ODU engineering cybersecurity curriculum to support president’s Cybersecurity National Action Plan.” WYDAILY. 2019. <https://wydaily.com/local-news/2019/02/01/odu>

[engineering-cybersecurity-curriculum-to-support-presidents-cybersecurity-national-action-plan/](https://www.albany.edu/news/87970.php)

Mentioned. “UAlbany’s College of Emergency Preparedness, Homeland Security and Cybersecurity Remains in High Demand.” University at Albany News Center. 2018. <https://www.albany.edu/news/87970.php>

TEACHING

Undergraduate Courses Taught, University at Albany

CINF 124X – Cybersecurity Basics (F21)

CINF 306 – Information Security and Assurance (F20, S21).

CEHC 242 – Cybersecurity (F18, S19, F19, S20, F20, S21, F21).

CINF 496 – Special Topics in Informatics: Economics of Cybersecurity (F19).

CEHC 391 Research Internship (S20, F20, W21).

Graduate Courses Taught, University at Albany

CINF 596 – Special Topics in Informatics: Economics of Cybersecurity (F19).

CIST – 677 Intelligence Analysis Research Seminar (S21)

CIST – 678 Internship Information Science (F19, F20).

CINF – 899 Doctoral Dissertation (S21, F21, S22)

Undergraduate Course Teaching Assistant, Old Dominion University

ENMA 670 – Cyber Systems Engineering (F16, F17).

Teaching Experience, Turkish Army War College

Cyber Warfare Course (Instructor, 2013-2014).

Teaching Experience, NATO Center of Excellence – Defense Against Terrorism

An Emerging Cyber Threat: Hacktivism – Technical Countermeasures (Instructor, 2013-2014).

Computer Emergency Response Teams (Instructor, 2011-2012).

Digital Forensics (Instructor, 2012-2014).

Teaching Experience, Turkish Ministry of Defense, Defense Industry and Technology Training Center

Establishment and Management of Computer Emergency Response Team (Instructor, 2009-2012).
Information Security Management for Military Decision-Makers (Instructor, 2009-2012).
Information Security Awareness (Instructor, 2012).

Doctoral Dissertation Committees

Thora Knight (in progress) University at Albany, **Chair of the Dissertation Committee**
Mehdi Barati (in progress) University at Albany, **Member of the Doctoral Program Committee.**
Omer Faruk Keskin (defended) *Quantifying cyber risk by integrating attack graph and impact graph.*
Old Dominion University, **Member of the Dissertation Committee**
Vishwa Rao (in progress) University at Albany, **Member of the Dissertation Committee**
Farinaz Sabz Ali Pour (in progress) Old Dominion University, **Member of the Dissertation Committee**
Xiaomai Liu (in progress) University at Albany, **Member of the Doctoral Program Committee.**
Kevin Caramancion (in progress) University at Albany, **Member of the Doctoral Program Committee.**
Reece Lumsden (in progress) Old Dominion University, **Member of the Dissertation Committee**

Graduate Internships Supervised

Reyhan Guner (2019). *The Relation of Cyber Incidents and Tensions Between nations.* CEHC Internship Supervisor.
Thora Knight (2020). *Privacy by Design.* CEHC Internship Supervisor.

Undergraduate Students Mentored

Bariela Capollari (2020). *Assessing Ethics and Safety of AI.* CEHC. Undergraduate internship. Supervisor.
Brian Lopez (2020). *Building a Cyber Range for Attack Graph Generation.* CEHC. Undergraduate internship. Supervisor.
Nick Gannon (2020). *Building a Cyber Range for Attack Graph Generation.* CEHC. Undergraduate internship. Supervisor.
Owais Raza (2020). *Cybersecurity Data Analytics.* CEHC. Undergraduate internship. Supervisor.
Melissa Portalatin (2020). *Cybersecurity Data Analytics.* CEHC. Undergraduate internship. Supervisor.

Yasmine Sahawneh (2019). *Cybersecurity Data Analytics*. CEHC. Undergraduate internship. Supervisor.

High School Students Mentored

Ansh Gang (2021). *Cybersecurity Data Analytics for Risk Management*. Guilderland High School

Emily Lamb (2021). *Cybersecurity Data Analytics for Risk Management*. Shenendehowa High School

Satvik Malneedi (2021). *Cybersecurity Data Analytics for Risk Management*. Shaker High School

Maddeline Bisceglia (2021). *Cybersecurity Data Analytics for Risk Management*. Troy High School

Sneha Malneedi (2020). *Analysis of VERISDB Cybersecurity Dataset*. Shaker High School. Summer internship. Supervisor.

Sneha Malneedi (2019). *Cyber Crisis Management*. Shaker High School. Summer internship. Supervisor.

Sophia Lenigk (2019). *Maritime Cybersecurity*. High School. Summer internship. Supervisor.

Awards Students Received

Melissa Portalatin (2021) Women in Science, Technology, Engineering and Math (STEM) Award, CEHC Student Recognition Awards

Owais Raza (2021) Excellence in Published Works Award, CEHC Student Recognition Awards

Melissa Portalatin (2021) “*Data Analytics for Cyber Risk Analysis: Utilizing Cyber Incident Datasets*,” Presidential Award for Undergraduate Research at the University at Albany

Bariela Capollari (2021) “*Analyzing Ethical Risks of Artificial Intelligence Empowered Products*,” Presidential Award for Undergraduate Research at the University at Albany

Melissa Portalatin (2021) “*Data Analytics for Cyber Risk Analysis: Utilizing Cyber Incident Datasets*,” Presidential Award for Undergraduate Research at the University at Albany

Yasmine Sahawneh (2019). *An investigation of Cybersecurity Curricula at i-Schools*. Undergraduate award: CEHC outstanding research project award.

SERVICE

College of Emergency Preparedness, Homeland Security and Cybersecurity at UAlbany

Co-Organizer, Non-Academic Career Options for PhD. Graduates, Webinar, 2021

Member, Policy Committee, 2021-2022

Member, Information Science Ph.D. Program Admission Committee, 2019-2021

Member, College Graduate Committee, 2019-2021

Co-Chair, The Certificate of Advanced Study Comprehensive Examination Committee, 2019

Member, Ad-Hoc Cybersecurity Committee, 2018-2019

Member, Search Committee, 2018-2019

University at Albany, State University of New York

Member, Search Committee for Associate Vice Provost for Faculty Development, 2021

Member, Search Committee for Associate Vice Provost for Faculty Success, 2021

Member, University's Curriculum and Honors Committee, 2020-2021

Co-organizer, Capital Cyber Clash Online Cyber Defense Competition, 2020

Organizer, Diversity in Cybersecurity Talk Series, 2019-2020

Old Dominion University

Senior Judge, 32nd and 33rd Great Computer Challenge and scenario preparation leader for Cybersecurity Challenge, 2017-2018

Founder and President, Cyber Security Student Association, 2016-2018

Professional Service

Conference Program Chair, International Conference on Cyber Warfare and Security, 2022, Albany, NY

Symposium Chair, "Economics of Cybersecurity Risk", Society for Risk Analysis Annual Meeting. Virtual. 2021

Symposium Chair, "Economics of Supply Chain and Disaster Risk Management", Society for Risk Analysis Annual Meeting. Virtual. 2021

Technical Program Committee Member and Reviewer, ACM SIGSIM Conference on Principles of Advanced Discrete Simulation (PADS), Suffolk, VA, 2021

Secretary and Treasurer, Economics and Benefits Specialty Group of the Society for Risk Analysis, 2021

Associate Editor, Data Analytics for Business and Societal Changes Track of ICIS, Austin, TX, 2021

Associate Editor, *Information Security Journal: A Global Perspective*, 2019 - present

Guest Editor, *International Journal of Cyber Warfare and Terrorism (IJCWT)*, *Special Issue on: Decision Making in Cybersecurity*, 2020 - 2021

Guest Editor, *International Journal of Critical Infrastructures*, *Special Issue on: Cyber Security of Critical Infrastructures Recent Advances and Future Directions*, 2016 - 2017

Editorial Board Member, *International Journal of Cyberwarfare and Terrorism*, 2019 - present

Mini Track Chair, Analytic and Behavioral Approaches for Cybersecurity Decisions in the 16th International Conference on Cyber Warfare and Security, Tennessee, 2021

Mini Track Chair, Economics of Cybersecurity in the 15th International Conference on Cyber Warfare and Security, Norfolk, VA, 2020

Symposium Chair, "Risk Analysis of Cybersecurity in Critical Infrastructure Systems", Society for Risk Analysis Annual Meeting. Arlington, VA. 2019

Mini Track Co-Chair, Cyber Attacks and their Implications to National Security and Economic Strategies in the 13th International Conference on Cyber Warfare and Security, Washington DC, 2018

Technical Program Committee Member and Reviewer, IEEE System of Systems Conference, 2017 - present

Technical Program Committee Member and Reviewer, 14th Annual Symposium on Information Assurance, 2018 - present

Technical Program Committee Member and Reviewer, European Conference on Cyber Warfare and Security, 2015 - present

Technical Program Committee Member and Reviewer, International Conference on Cyber Warfare and Security, 2014-present

Co-Director, NATO Advanced Research Workshop, "A Framework for A Military Cyber Defense Strategy", Norfolk, VA, USA, 2016

Organization Committee Member and Session Chair, NATO Advanced Research Workshop, "Critical Space Infrastructure: From Vulnerabilities and Threats to Resilience", Norfolk, VA, USA, 2019

Organization Committee Member, NATO Advanced Research Workshop, "Terrorists Use of the Internet: Assessment and Response", Dublin, Ireland, June, 2016

Reviewer, *Risk Analysis*, 2021 - present

Reviewer, *Security and Communication Networks*, 2021 - present

Reviewer, *IEEE Security and Privacy*, 2019 - present

Reviewer, *Information Security Journal: A Global Perspective*, 2018 - present

Reviewer, *Journal of Defense Modeling and Simulation*, 2018 - present

Reviewer, *Journal of Information Systems Education*, 2018 - present

Reviewer, *International Journal of Critical Infrastructures*, 2017 - present

Reviewer, *International Journal of Sustainable Development*, 2017 - present

Reviewer, *Engineering Management Journal*, 2017 - present

Reviewer, *International Journal of Planning and Scheduling*, 2017 - present

Reviewer, *International Journal of Cyber Warfare and Terrorism*, 2017 - present

Reviewer, *International Journal of System of Systems*, 2017 - present

Reviewer, *Defence Against Terrorism Review*, 2014

Reviewer, IEEE Systems and Information Engineering Design Symposium, 2020 – present

Reviewer, the 23rd Multi-conference on Systemics, Cybernetics and Informatics, 2019

Reviewer, Institute of Industrial and Systems Engineers Annual Conference, 2017

Judge, Virginia Beach Public Schools Cyber Innovation Challenge, 2016 - 2017

Executive Committee Member, 2nd International Cyber Warfare and Security Conference, Ankara, 2014

Program Committee Member, NATO Symposium on “Analysis Support to Decision Making in Cyber Defence and Security” (SAS-106), Tallinn- Estonia, 2014

Steering Committee Member, 1st International Cyber Warfare and Security Conference, Ankara, 2013

Planning Group Member, NATO Cyber Defense Exercise, Brussels, 2011

National representative, NATO Cyber Defense Exercise, Brussels, 2010

Professional Affiliations

Society for Risk Analysis, September 2017 - Present.

International Risk Management Society, March 2019 - Present.