# **SANJAY GOEL**

School of Business

BB 301, 1400 Washington Avenue, Albany, NY 12222 Email: goel@albany.edu; Phone: 518 956 8323 Web: http://graduatebusiness.albany.edu/sanjay-goel/

## **EDUCATION**

Ph.D., Mechanical Engineering, Rensselaer Polytechnic Institute, Troy, NY (GPA 4.0/4.0) M.S., Mechanical Engineering, Rutgers University, Piscataway, NJ (GPA 3.8/4.0) B.S., Mechanical Engineering, Indian Institute of Technology, New Delhi, India (GPA 3.76/4.0)

# **EDUCATIONAL EMPLOYMENT**

University at Albany, State University of New York:

2016 – present Chair, Information Security & Digital Forensics Department, School of Business	2016 – present	Chair, Information Securit	y & Digital Forensics De	partment, School of Business
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2008 - 2016	Associate Professor, School of Business
2001-2007	Assistant Professor, School of Business

# ADDITIONAL EMPLOYMENT

1996 - 2001	Mechanical Engineer, GE Global Research (Schenectady, NY)
1994 – 1996	Systems Analyst, Keane Inc. (Albany, NY)
1990 - 1994	Consultant, General Electric Consulting Services (Albany, NY)
1988 - 1990	Graduate Research Assistant, Rutgers University (New Brunswick, NJ)

## SELECTED ACADEMIC HONORS AND AWARDS

- 1. SUNY Chancellor's Award for Excellence in Service (2015)
- 2. University at Albany Excellence in Academic Service Award (2015)
- 3. School of Business Excellence in Research Award (2015)
- 4. University at Albany Excellence in Research Award (2010)
- 5. AT&T Industrial Ecology Faculty Fellowship (2009 2010)
- 6. SUNY Chancellor's Award for Excellence in Teaching (2006)
- 7. Dean's Advisory Board Research Award (2006)
- 8. University at Albany Excellence in Teaching (Full-Time) Award (2006)
- 9. Graduate Student Organization Award for Faculty Mentoring (2006)
- 10. Promising Inventors Award from the SUNY Research Foundation (2005)
- 11. Dean W. Warren Haynes Outstanding Graduate Teaching Award, School of Business (2005)

# **GRANTS RECEIVED**

**Title:** NCAE Faculty Development **Investigator:** Sanjay Goel (PI)

**Organization:** National Security Agency / Rochester Institute of Technology

Program: CAE-C in Cybersecurity Education Innovation

**Amount:** \$428,785

**Duration:** 07/17/2023 – 06/30/2025

Title: NSA Faculty Development Grant

Investigator: Sanjay Goel (PI)

**Organization:** Regents of the Colorado State University

Program: CAE-C in Cybersecurity Education Innovation

**Amount:** \$264,126

**Duration:** 03/15/2023 – 09/15/2023

Title: Blackstone Launchpad Continuation Grant

**Investigator:** Sanjay Goel (PI)

Organization: Blackstone Foundation

Program: CAE-C in Cybersecurity Education Innovation

Amount: \$120000

**Duration:** 9/1/2022 – 8/31/2025

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

Investigator: Sanjay Goel (Co-PI)

Organization: Department of Defense - Air Force Research Lab

Program: CAE-C in Cybersecurity Education Innovation

**Amount:** \$ 1,500,000.00

**Duration:** 3/1/2022 – 2/28/2024

Title: Center for Multimodal Threat Assessment and Security

Investigator: Sanjay Goel (co-PI)

Organization: UAlbany Division for Research and the Office of the Provost

**Program: SEED Funding** 

**Amount: \$50,000** 

**Duration:** 4/15/2022 – 4/15/2023 s

Title: Bogging Adversaries through Active Defense Against Cyber Threats

**Investigator:** Sanjay Goel (PI)

Organization: National Security Agency

**Program:** CAE-C in Cybersecurity Education Innovation

**Amount:** \$497281

**Duration:** 08/21/2020 – 09/20/2022

**Title:** Cybersecurity Faculty Development

Investigator: Sanjay Goel (PI)

**Organization:** National Security Agency (Through UCCS) **Program:** CAE-C in Cybersecurity Education Innovation

**Amount:** \$249,154

**Duration:** 09/16/2020 – 09/15/2022

Title: Covid-19 Economic Revitalization Grant

Investigator: Sanjay Goel (PI)

**Organization:** Small Business Administration (FED) **Program:** Economic Development Assistance

**Amount:** \$300,000

**Duration:** 10/01/2020 – 09/30/2022

Title: Thwarting the Malicious Insider Evolution Process: The Theory of Strained Betrayal

Investigators: Sanjay Goel (PI) / Allen Johnson (U. Alabama) (Co-PI)

Organization: National Science Foundation

**Program: Secure** and Trustworthy Computing (SaTC) / SBE

Amount: \$298,000

**Duration**: 09/15/2019 – 09/14/2021

Title: Information Security Research and Education (INSURE)

Investigator: Sanjay Goel (PI)

**Organization:** National Security Agency (through Purdue)

**Amount:** \$12000

**Duration:** 08/01/2018 – 07/31/2019

Title: Partnership to Advance Cybersecurity Education and Training (PACET)

Investigator: Sanjay Goel (PI)

Organization: National Institute of Standards and Technology

Program: NIST RAMPS Amount: \$197,085

**Duration:** 10/01/2016 – 12/31/2017

Title: Cybersecurity Innovation and Research Center for University-Industry

Technologies (CIRCUIT)

Investigator: Sanjay Goel (PI)

**Organization:** Small Business Administration (FED) **Program:** Economic Development Assistance

**Amount: \$583,000** 

**Duration:** 10/01/2016 – 12/31/2021

Title: Privacy Preserving Cooperation among Microgrids for Efficient Load Management on the Grid

**Investigators:** Yuan Hong (PI) / Sanjay Goel (Co-PI)

Organization: National Science Foundation

Program: Secure and Trustworthy Computing (SaTC) / CISE

**Amount: \$477,483** 

**Duration**: 09/01/2016 – 08/31/2018

Title: THE NEW SECURITY CALCULUS: Incentivizing Good User Security Behavior

Investigators: Sanjay Goel (PI) / Kevin Williams (Co-PI)

Organization: National Science Foundation

Program: Secure and Trustworthy Computing (SaTC) / SBE

**Amount: \$497,918** 

**Duration**: 09/15/2016 - 09/14/2018

Title: Insider Threat Detection in Organizations and Enterprises

**Investigators:** Satish Iyengar (GE PI) / Sanjay Goel (UAlbany PI – Overall Co-PI)

Organization: Intelligence Advanced Research Project Activity

Program: Scientific advances to Continuous Insider Threat Detection (SCITE) Program

**Amount:** \$5.4 million - (UAlbany Share: \$1.516 million)

**Duration**: 03/01/16 – 02/28/19

Title: SUNY and the Seamless Education Pipeline

Investigators: Sanjay Goel (PI)

Organization: SUNY Amount: \$50,000

**Duration**: 09/01/15 – 08/31/16

**Title:** UAlbany Blackstone Launchpad **Investigators:** Sanjay Goel (PI)

**Organization:** The Blackstone Foundation

Amount: \$800,000

**Duration**: 09/01/15 - 08/31/18

Title: Estimating Behavior and Attitudes on Energy Conservation and Smart Grid Adoption across Different

Market Segments

Investigators: Goel, S. (co-PI), Williams, K. (PI)

**Organization:** NYSERDA

**Amount:** \$100,000

**Duration:** 06/01/15 – 05/31/15

**Title:** Media Piracy Measures

Investigators: Goel, S. (PI), Gais, T. (Co-PI)

Organization: NBC Universal

**Amount: \$200,000** 

**Duration:** 10/01/13 - 09/30/15

Title: Smart Grid Behavioral Analysis

Investigators: Goel, S. (PI), Williams, K. (Co-PI)

**Organization:** University at Albany, State University of New York (FRAP B)

**Amount: \$4,000** 

**Duration:** 10/13 - 10/14

Title: EDU: Flipping the Online Security Classroom – Improving Retention of Security Student Pipeline

through Early Intervention

Investigators: Goel, S. (PI), Williams, K. (Co-PI) **Program:** Secure and Trustworthy Cyberspace (SaTC)

**Organization:** National Science Foundation

**Amount: \$298,197** 

**Duration:** 09/15/13 – 08/31/15

**Title:** Digital Forensics Major Investigators: Sanjay Goel

Partners: Information Technology Management, Accounting, Criminal Justice, Political Science, Computer

Science

**Program:** NY SUNY 2020 UAlbany Impact Proposal for New Faculty Organization: University at Albany, State University of New York

Amount: 6 faculty hires to support new digital forensics major in School of Business

**Duration:** 01/01/11 - 12/31/14

**Title:** Innovative Information Security Education (P116S100004)

Investigators: Goel, S. (PI), Williams, K. (Co-PI)

Partners: Baumansky Moscow State Technical University

Program: US-Russia Program

Organization: Fund for the Improvement of Post-Secondary Education (U.S. Department of Education)

**Amount:** \$389,777

**Duration:** 01/01/11 - 12/31/15

Title: Understanding the Implications of a Self-Organized Traffic Grid

**Investigators:** Goel, S. (PI)

**Program:** 21st Century Science Initiative Grant: Studying Complex Systems

Organization: James S. McDonnell Foundation

**Amount:** \$378,375

**Duration:** 01/01/11 - 12/31/17

Title: Transatlantic Cyber Intelligence Network

Investigators: Goel, S. (PI) Organization: Palantir Inc.,

**Amount:** \$2.25 M

**Duration:** 06/09 - 06/12

Title: Investigating Complex Systems: Can Communicating Light Signals Reduce Congestion and

Emissions?

**Investigators:** Goel, S. (PI) **Organization:** AT&T Foundation

**Amount: \$25,000** 

**Duration:** 06/09 - 05/10

Title: Self-Organized Transport System

Investigators: Goel, S. (PI)

Organization: New York State Energy Research and Development Authority (NYSERDA)

**Amount:** \$142,000 **Duration:** 06/09 – 05/12

Title: Self-Organization and Communication in Nano-Sensors: Analyzing a Network of Random Carbon

Nano-Tubes

**Investigators:** Goel, S. (PI)

Organization: University at Albany, State University of New York, School of Business

**Amount: \$5,000** 

**Duration:** 07/09 - 06/10

Title: NIJ FY08 OST Congressionally Directed Award - NERFI

Investigators: Orokos, D. (PI), Goel, S. (Co-PI), Stzralkowski, T. (co-PI)

Organization: National Institute of Justice

**Amount:** \$514,249 **Duration:** 07/08 – 08/10

Title: Self-Organization of Traffic

**Investigator:** Goel, S. (PI)

Organization: Region II University Transportation Research Center

**Amount: \$25,000** 

**Duration:** 07/08 - 08/08

Title: Information Classification Training

**Investigator:** Goel, S. (PI)

Organization: NYS Office of Cyber Security and Critical Infrastructure Coordination

**Amount:** \$44,244

**Duration:** 05/2008 – 06/2009

Title: Analysis of Malicious Code in an Automated Quarantined Environment

**Investigators:** Goel, S. (PI) **Program:** FRAP (A/B)

**Agency:** University at Albany, State University of New York

**Amount:** ~\$8,000

**Duration:** 06/07 - 06/08

Title: Computing the Exposure of Firms to Security Breaches: Based on Event-Study Methodology

Investigator: Goel, S.

Organization: Center for Institutional Investment Management

**Amount: \$5,000** 

**Duration:** 05/07 - 05/08

Title: Creating Data Classification Policies for New York State.

**Investigators:** Goel, S. (PI)

Organization: NYS Office of Cyber Security and Critical Infrastructure Coordination

**Amount: \$55,000** 

**Duration:** 09/15/06 - 04/30/07

Title: Capital Region Cyber Crime Partnership

Investigators: Goel, S. (PI - UAlbany), Byrne, S. (PI - NYPTI), Stevens. R. (PI NYSP)

Partners: NY Prosecutors Training Institute, NY State Police

Program: Edward Byrne Memorial State and Local Law Enforcement Assistance Discretionary Grants

Program

Organization: Bureau of Justice Assistance

**Amount: \$246,800** 

**Duration:** 10/01/06 – 09/30/07

**Title:** Estimating the Impact of Security Breaches using Stock Valuations

**Investigators:** Goel, S. (PI)

Program: Advisory Board Research Award

Organization: School of Business

**Amount: \$5,000** 

**Duration:** 04/01/06 - 04/01/07

Title: Capital Region Cyber Crime Partnership

Investigators: Goel, S. (PI - UAlbany), Byrne, S. (PI - NYPTI), Stevens. R. (PI NYSP)

Partners: NY Prosecutors Training Institute, NY State Police

Program: Omnibus Appropriations Bill

**Organization:** Commerce, Justice, and State Departments

**Amount: \$225,000** 

**Duration:** 09/01/05 - 08/31/06

Title: Information Security Education in the Public Sector

Investigators: Bloniarz, P. (PI), Goel, S. (Co-PI), and Berg, G. (Co-PI)

**Program:** SFS-Institutional Development **Organization:** National Science Foundation

**Amount: \$200,000** 

**Duration:** 07/01/02 - 07/01/06

Title: The Information Security Academy: A Partnership Model for Building Public Sector Capacity

Investigators: Bloniarz, P. (PI), Gangolly, J. (co-PI), Goel, S. (co-PI), Erbacher, R. (co-PI), Berg, G. (co-PI),

and Bangert-Drowns, R. (co-PI)

**Program:** Fund for Improvement to Post-Secondary Education (FIPSE)

Organization: United States Department of Education

**Amount:** \$485,883

**Duration:** 09/01/02 - 08/31/04

Title: Cyber Security Laboratories

Investigators: Bloniarz, P. (PI), Goel, S. (co-PI), and Berg, G. (co-PI)

Program: Edward Byrne Memorial State and Local Law Enforcement Assistance Grant Program

Organization: U.S. Department of Justice

**Amount:** \$375,000

**Period:** 09/01/02 – 08/31/05

Title: Sharing of Services in Peer-to-Peer Networks: Business Applications, Collaborative Research &

Education.

**Investigator:** Goel, S. **Program:** FRAP (A)

Agency: University at Albany, State University of New York

**Amount:** \$10,000 Period: 06/02 – 06/03

## **PUBLICATIONS**

Articles published in peer-reviewed scholarly journals

- 1. Li, Y., Goel, S., (2025). Artificial Intelligence Auditability and Auditor Readiness for Auditing Artificial Intelligence Systems. Special Issue on Advanced Technology and Decision Support for Auditing in the *International Journal of Accounting Information Systems* (IJAIS), 56. [ABDC A] (Published December 2025)
- 2. Dennis, A. R., Goel, S., Huang, J., & Williams, K. J. (2025). Who Cares If We Get Hacked? The Development and Testing of a Measure of Information Security Apathy. *Information & Management*, 62(7), 104166. [ABDC A\*] (Published November 2025)
- 3. Saluja, S., Sinha, S., & Goel, S. (2024). Loafing in the era of generative AI. *Organizational Dynamics*, 101101. [ABDC A] (Published October 12, 2024)
- 4. Johnston, A. C., Goel, S., & Williams, K. (2024). From cyber benign to cyber malicious: unveiling the evolution of insider cyber maliciousness from a stage theory perspective. *European Journal of Information Systems*, 1-19. [ABDC A\*] (Published October 7, 2024)
- 5. Li, Y., & Goel, S. (2024). On-site or remote? External auditors' self-monitoring of expressive behavior and job satisfaction. *Accounting Horizons*, 39(3), 1-23. [ABDC A\*] (Published October 24, 2024)
- 6. Li, Y., Goel, S., & Williams, K. (2024). Remote audit quality, audit efficiency, and auditors' job satisfaction: Implications for audit firms and external auditors. *Current Issues in Auditing*, 1-9. <a href="https://doi.org/10.2308/CIIA-2023-033">https://doi.org/10.2308/CIIA-2023-033</a> [ABDC B] (Published October 1, 2024)
- 7. Li, Y., & Goel, S. (2024). Making it possible for the auditing of ai: A systematic review of ai audits and ai auditability. *Information Systems Frontiers*, 1-31. [ABDC A] (Published July 2, 2024)
- 8. Alhaji, H.S., Celik, Y., and Goel, S., (2024). An Approach to Deepfake Video Detection Based on ACO-PSO Features and Deep Learning, Electronics 2024, 13(12), 2398. [Impact Factor 2.6]
- 9. Li, Y., Goel, S., & Williams, K. J. (2023). Impact of remote audit on audit quality, audit efficiency, and auditors' job satisfaction. *International Journal of Auditing*, 27(2-3), 130-149. [ABDC A]
- 10. Li, Y., Goel, S., & Williams, K. J. (2023). Exploring Antecedents of Professional Skepticism on Accounting Students' Performance in Cybersecurity. *Journal of Emerging Technologies in Accounting*, 20(1), 147-168. [ABDC B]
- 11. Malik, A., Sinha, S., & Goel, S. (2022). Coping with workplace sexual harassment: social media as an empowered outcome. *Journal of Business Research*, 150, 165-178. [ABDC A]
- 12. Kisekka, V., & Goel, S. (2022). An Investigation of the Factors that Influence Job Performance During Extreme Events: The Role of Information Security Policies. *Information Systems Frontiers*, 1-20. [ABDC Al
- 13. Goel, S., Williams, K. J., Huang, J. Warkentin, M. (2021). Can financial incentives help with the struggle for security policy compliance?, *Information & Management*, (58:4). [ABDC A\*]

- 14. Malik, A., Sinha, S., & Goel, S. (2021). A qualitative review of 18 years of research on workplace deviance: New vectors and future research directions. *Human Performance*, 34(4), 271-297. [ABDC A]
- 15. Malik, A., Sinha, S., & Goel, S. (2020). The "Screen" ing of you and me: Effects of COVID-19 on counterproductive work behaviors. *IEEE Engineering Management Review*, 48(3), 37-43. [CiteScore 7.4]
- 16. Goel, Sanjay. (2020). National Cyber Security Strategy and the Emergence of Strong Digital Borders. Connections: The Quarterly Journal 19, no. 1 (2020): 73-86. CiteScore 1.2
- 17. Goel, Sanjay. (2020). How Improved Attribution in Cyber Warfare Can Help De-Escalate Cyber Arms Race. Connections: The Quarterly Journal 19, no. 1 (2020): 87-95. [CiteScore 1.2]
- 18. Kam, HJ., Mattson, T. & Goel, S. (2019). A Cross Industry Study of Institutional Pressures on Organizational Effort to Raise Information Security Awareness, *Information Systems Frontiers*, <a href="https://doi.org/10.1007/s10796-019-09927-9">https://doi.org/10.1007/s10796-019-09927-9</a>. [ABDC A]
- 19. Goel, Sanjay & Cagle, Seth & Shawky, Hany, 2017. "How vulnerable are international financial markets to terrorism? An empirical study based on terrorist incidents worldwide," *Journal of Financial Stability*, Elsevier, vol. 33(C), pages 120-132.
- 20. Warkentin, Merrill; Goel, Sanjay; and Menard, Philip (2017) "Shared Benefits and Information Privacy: What Determines Smart Meter Technology Adoption?," *Journal of the Association for Information Systems*: 18:11(3). Available at: http://aisel.aisnet.org/jais/vol18/iss11/3
- 21. Goel, Sanjay; Williams, K. W.; and Dincelli, E. (2017). Got Phished? Internet Security and Human Vulnerability, *Journal of the Association for Information Systems*: 18:1(2). Available at: http://aisel.aisnet.org/jais/vol18/iss1/2
- 22. Giboney, J. S., Proudfoot, J. G., Goel, S., & Valacich, J. S. (2016). The Security Expertise Assessment Measure (SEAM): Developing a scale for hacker expertise. *Computers and Security*, 60, 37-51.
- 23. Goel, Sanjay (2015): Anonymity vs. Security: The Right Balance for the Smart Grid," *Communications of the Association for Information Systems*, 36(2), Available online at http://aisel.aisnet.org/cais/vol36/iss1/2
- 24. Hong, Y., Sanjay Goel and Wen Ming Liu, (2015) "An Efficient and Privacy Preserving Scheme for Energy Exchange among Smart Microgrids", *International Journal of Energy Research*, Wiley, 2015.
- 25. Hong, Y., Vaidya, J., Lu, H., Karras, P., and Goel, S., (2014). Collaborative Search Log Sanitization: Toward Differential Privacy and Boosted Utility", *IEEE Transactions on Dependable and Secure Computing (TDSC)*, IEEE Computer Society,
- 26. Bush, S. F. & Goel, S. (2013). Persistence length as a metric for modeling and simulation of nanoscale communication networks. *IEEE Journal of Selected Areas in Communication 2013 Special Issue on Emerging Technologies in Communications*. 31 (12), 815-824.
- 27. Goel, S., & Shawky, H. (2014). The Impact of Federal and State Notification Laws on Security Breach Announcements. *Communications of the AIS*, 34(3).
- 28. Goel, S., (2011, Aug.). Cyber Warfare: Connecting the dots in cyber intelligence. *Communications of the ACM*, *54*(8), 132-140.
- 29. Goel, S., & Chengalur-Smith, I-N. (2010, Dec.). Metrics for Characterizing the Form of Security Policies. *Journal of Strategic Information Systems*, 19(4), 281-295.
- 30. Goel, S., Miesing, P., and Chandra U. (2010). The Impact of Illegal Peer-to-Peer File-Sharing on the Media Industry, *California Management Review*, *52*(3), 6-33.
- 31. Goel, S., & Lauría, E.J.M. (2010). Quantification, Optimization, and Uncertainty Modeling in Information Security Risks: A Matrix Based Approach. *Information Resources Management Journal*, 23(2), 33-52.
- 32. Goel, S. & Shawky, H. (2009). Estimating the Impact of Security Breaches on Stock Valuations of Firms, *Information & Management*, 46(7), 404–410.
- 33. Rosenkrantz, D., Goel, S., Ravi, S.S., & Gangolly, J. (2009). Resilience Metrics for Service-Oriented Networks: A Service Allocation Approach. *IEEE Transactions on Services Computing*, 2(3), 183-196.
- 34. Goel, S. (2009). Turbine Airfoil Optimization Using Quasi-3D Analysis Codes, *International Journal of Aerospace Engineering*, 2009, Article ID 531358, 13 pages. Doi:10.1155/2009/531358.
- 35. Goel, S., Talya, S.S., Sobolewski, M. (2008). Mapping Engineering Design Processes onto a Service-Grid: Turbine Design Optimization. *International Journal of Concurrent Engineering: Research & Applications*, 16(2), 139-147.

- 36. Goel, S., & Chen, V. (2008). Can Business Process Reengineering Lead to Security Vulnerabilities: Analyzing the Reengineered Process. *International Journal of Production Economics*, 115(1), 104-112.
- 37. Goel, S., & Chen, V. (2008). Integrating the Global Enterprise Using Six Sigma: Business Process Reengineering at General Electric Wind Energy. *International Journal of Production Economics Special Section on Advanced Modeling and Innovative Design of Supply Chain, 113*(2), 914-927.
- 38. Goel, S., Brown, C., & Shawky, H. (2007). Complexity and the Performance of Investment Portfolios. *Advances in Investment Analysis and Portfolio Management*, 3(2007), 83-102.
- 39. Goel, S., Pon, D., & Menzies, J. (2006). Managing Information Security: Demystifying the Audit Process for Security Officers. *Journal on Information Systems Security (JISSEC)*, 2(2), 25-45.
- 40. Goel, S., & Gangolly, J. S. (2006). On Decision Support for Distributed Systems Protection: A Perspective Based on the Human Immune Response System and Epidemiology. *International Journal of Information Management*, 27(4), 266-278.
- 41. Goel, S., Pon, D., & Bloniarz, P., Bangert-Drowns, R., Berg, G., Delio, V., Iwan, L., Hurbanek, T., Schuman, S., Gangolly, J., Baykal, A., and Hobbs, J., (2006). Innovative Model for Information Assurance Curriculum: A Teaching Hospital. *ACM Transactions on Computing Education (TOCE)*, 6(3), Article 2.
- 42. Goel, S., Baykal, A., & Pon, D. (2006). Botnets: The Anatomy of a Case. *Journal of Information Systems Security (JISSEC)* 1(3), 45-60.
- 43. Bush, S. F., and Goel, S. (2005). An Active Model-Based Prototype for Predictive Network Management. IEEE Journal on Selected Areas in Communications, Special Issue on Recent Advances in Managing Enterprise Network Services, 23(10), 2049-2057.
- 44. Goel, S., Talya, S.S., & Sobolewski, M. (2007). Service-Based P2P Overlay Network for Collaborative Problem Solving. *Decision Support Systems*, *43*(2), 547-568.
- 45. Goel, S., & Bush, S. F., (2003). Kolmogorov Complexity Estimates for Detection of Viruses in Biologically Inspired Security Systems: A Comparison with Traditional Approaches. *Wiley Interscience Complexity Journal* 9(2), 54-73.
- 46. Tam, K., Goel, S., & Gangolly, J. (2003). On the Design of an XML-Schema Based Application for Business Reporting: An XBRL Schema. *International Journal of Digital Accounting Research*. 2(1), 83-118.
- 47. Goel, S., & Hajela, P. (2002). A Classifier Based Optimization Technique for Designing Turbine Airfoils. *Engineering Optimization*, *34*,195-218.
- 48. Goel, S., & Hajela, P. (1996). Identification of Parameter Couplings in Turbine Design using Neural Networks, *AIAA Journal of Propulsion and Power, 12*(3), 75-102.

# Articles under review/revision/development in peer-reviewed scholarly journals

- 1. Kwak, D., Kuem, J.; Goel, S. (2023) How to Enhance Antiphishing Training Performance? The Roles of Organizational Training Characteristics and Message-Specific Responses. Under review at the Information Systems Journal.
- 2. Kuem, J., Kwak, D., Goel, S., Sung S. How to Enhance Antiphishing at Work? The Roles of Organizational Training Affordances, Individual Characteristics, and Message-Specific Responses, Under review at the Decision Sciences Journal.
- 3. Goel, S. and Li, Y. (2023) On-site or Remote? Impact of Remote Audits and Self-Monitoring of Expressive Behavior on External Auditors' Job Satisfaction, Revised Submission for Accounting Horizons. (August 2023)
- 4. Goel, S., Huang, J., Williams, K.J. (2023) I Don't Care: Information Security Apathy and Security Decisions. Revised Submission at *Journal of Management Information Systems*.
- 5. Goel, S., Zhuang, W, Johnston, A., Williams, K.J., (2023). Understanding the Malicious Insider: A Model of Strained Betrayal. Submission to Journal of Association of Information Systems (May 2023)
- 6. Goel, S., and Williams, K.J. (2023) Stopping Insiders Before They Attack: Active Indicators for Assessing Malicious Intentions, Revised Submission for Information & Management (May 2023)
- 7. Goel, S., Huang, J., Dennis, A.R., Williams, K.J. (2023). Personality Facets and Behavior: Security Decisions with Task Overload. Revised submission to European Journal of Information Systems. (May 2023)

- 8. Johnston, A., Goel, S., Zhuang, W. (2023) Insider Cyber Maliciousness: A Conceptual Framework for Future Exploration, Revised submission to *Information Systems Journal* (May 2023)
- 9. Goel, S., Huang, J., Dennis, A.R., Williams, K.J. (2023) Personality, Knowledge, and Security Decisions under Competing Priorities. Revised Submission to *Journal of Management Information Systems* (June 2023)
- 10. Malik, A., Goel, S., Sinha, S. A self-regulatory framework of security fatigue, Submission to MISQ (August 2023)

# Articles published in editor-reviewed practitioner journals

1. Goel, S., & Bush, S.F. (December 2004). <u>Biological Models of Security for Virus Propagation in Computer Networks</u>. *;login: The Usenix Magazine*, 29(6), 49-56.

# Scholarly Peer-Reviewed Books

- 1. Goel, S., Hong, Y., Papakonstantinou, V., and Kaloza, D., (2015). Security Challenges in Smart Grid Implementation, Springer, London, ISBN 978-1-4471-6662-7, pp. 1-110, 2015.
- 2. Goel, S., Bush, S. F. & Bakken, D. (Eds.). (2013). *IEEE Vision for Smart Grid Communications: 2030 and Beyond.* IEEE Press, pp. 1-390.
- 3. Bush, S. F., Goel, S., & Simard, G. (Eds.), (2013). *IEEE Vision for Smart Grid Communications: 2030 and Beyond Reference Model*," IEEE Press, pp.1-11 (Extension for Book in #2).

## Peer-Reviewed Book Chapters

- 1. Goel, S., and Hong, Y., (2015). Cyber War Games: Strategic Jostling Among Traditional Adversaries (Chapter 1)" in "Cyber Warfare: Building the Scientific Foundation", Jajodia, S., Shakarian, P., Subrahmanian, V.S., Swarup, V., Wang, C. (Eds.), Springer, Berlin, ISBN 978-3-319-14038-4, 2015.
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## Papers in Refereed Conference Proceedings

- 1. Saluja, S., Sinha, S. & Goel, S. (2025). GenAI Dependence at Work: What and Why We Need to Know More, 1st India Conference on Information Systems (INCIS). March 7 9, 2025.
- Singh, Sakshi and Goel, Sanjay, "Cognitive Load and Its Influence on Fake and Real News Perception" (2025). AMCIS 2025 Proceedings. 33. https://aisel.aisnet.org/amcis2025/sig\_sec/sig\_sec/33
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- 6. Saluja, S., Sinha, S., & Goel, S. (2024). Exploring Usage Patterns and Responsible Implementation of Generative AI, 19th Annual Symposium on Information Assurance 2024.

- 7. Malik, A., Goel, S., and Sinha, S., (2024, June). Influence of Cynicism and Exhaustion on Security Compliance Behavior: the moderating role of work experience and self-regulation, 19th Annual Symposium on Information Assurance, Empire State Plaza, Albany NY.
- 8. Kalra, T., Sinha, S., and Goel, S., (2024, June). Exploring Deviance in Gig Work: Role of Job Demands-Resources and Financial Needs, 19th Annual Symposium on Information Assurance, Empire State Plaza, Albany NY.
- 9. Saluja, S., Sinha, S., and Goel, S., (2024, June). Exploring Usage Patterns and Responsible Implementation of Generative AI, 19th Annual Symposium on Information Assurance, Empire State Plaza, Albany NY.
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- 12. Goel, S., Huang, J., and Dennis, A. (2023, July). Personality Facets and Behavior: Security Decisions Under Competing Priorities, In 15th *Devald Roode Workshop on Information Systems Security Research. IFIP Working Group 8.11/11.13*.
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- 14. Malik, A., Sinha, S., and Goel, S., (2023, June). Creating a Balance between Monitoring Practices and Flexible Work Arrangements, 18th Annual Symposium on Information Assurance, Empire State Plaza, Albany NY.
- 15. Goddard, J., Celik, Y., and Goel, S., (2023, June). Comprehensive Approaches to AI Text Detection, 18<sup>th</sup> Annual Symposium on Information Assurance, Empire State Plaza, Albany NY.
- 16. Celik, Y., Alhaji, H.S., and Goel, S., (2023, June). Deepfake Detection by Using Hierarchical Temporal Memory (HTM), 18th Annual Symposium on Information Assurance, Empire State Plaza, Albany NY.
- 17. Li, Y., & Goel, S. (2024, January). Will Auditors Become Obsolete? Large Language Models and Future Role of External Auditors. 2024 AAA Joint Midyear Meeting of the Accounting Information Systems (AIS), and Strategic Emerging Technologies (SET) Sections, Atlanta, GA.
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- 24. Johnston, Allen C., Sanjay Goel, and Kevin Williams. "Toward a Theory of Strained Betrayal," Proceedings of the 2020 International Federation for Information Processing (IFIP) WG8.11/11.13 Dewald Roode Workshop, October 2020, Ames, IA.
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- 27. Malik A., Sinha S. and Goel, S. (2020). Victim's response to fight, flight or suffer: Does social media come to the rescue? Paper presented virtually at 36th EGOS Colloquium, Universität Hamburg, Germany, July 2020.
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- 1. Goel, S., (2017). Proceedings of the 12th Annual Symposium on Information Assurance (ASIA), Albany, NY, June 7-8, Empire State Plaza, Albany, NY
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- 7. Goel, S., (2011). Proceedings of the 6<sup>th</sup> Annual Symposium on Information Assurance (ASIA), Albany, NY, June 7-8 Empire State Plaza, Albany, NY
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# Professional Articles and Reports

 Carr, J. Goel, S., [Principal Investigators] Himley, M., Lasko, A., Saly, T.J., [Researchers] (2010). Project Grey Goose Report on Critical Infrastructure: Attacks, Actors, and Emerging Threats. *Greylogic*. Available at: http://dataclonelabs.com/security\_talkworkshop/papers/25550091-Proj-Grey-Goose-report-on-Critical-Infrastructure-Attacks-Actors-and-Emerging-Threats.pdf

# Presentations at Conferences, Symposiums, & Workshops

- 1 Goel, S. Twentieth IFIP WG 11.9 International Conference on Digital Forensics New Delhi, India January 4-5, 2024
- 2 Goel, S. Artificial Intelligence and Society: The Beautiful Promise and the Dystopian Threat, Invited Talk, Hudson Institute, December 13, 2023.
- 3 Goel, S. Future of Artificial Intelligence, Keynote Talk, International Conference on Digital Forensics and Cyber Crime, November 30 December 1, 2023, New York City.

- 4 Goel, S. Artificial Intelligence and Society: The Beautiful Promise and the Dystopian Threat, Keynote Talk, European Alliance for Innovation Smart Life Summit, 24-26 October 2023, Bratislava, Slovakia
- 5 Goel, S., The Promise and Challenge of Artificial Intelligence, Cybersecurity Across Disciplines, Illinois, August 1-2, 2023.
- Goel, S., Emergence of Digital Forensics: Current Challenges and Future Research Directions, Keynote Talk, 11th International Symposium on Foundations & Practice of Security, November 13-15, 2018, Montreal, Canada
- Goel, S., The Evolution of Cyber Security with the Emergence of Internet of Things, Keynote Talk, International Conference on Cyber Security and Computer Science (ICONCS 2018), Safranbolu, Turkey.
- 8 Goel, S., Keynote Talk, The Evolution of Cyber Security with the Emergence of Internet of Things, UCIENCIA, September 24-26, Havana, Cuba.
- 9 Goel, S., Hacktivism, Invited Talk, Capital Area Technology Association, Italian American Community Center, January 20, 2016.
- 10 Depaula, N., and Goel, S., An Evaluation of Security Breach Evolution and Financial Impact on Firms: Developing an Attack Sophistication Index, Poster Presentation at the Workshop on Information Security and Privacy (Pre-ICIS workshop), December 13, Fort Worth Texas.
- 11 Goel, S., Hartley, J., and Hong, Y. (2015). Securing Against Malicious Hardware Trojans, 10th Annual Symposium On Information Assurance (Asia '15), June 2-3, 2015, Albany, NY.
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- 17 Goel, S. (October 24, 2013). Confidence-building Measures in Cyber Space. *Eighth Scientific Conference International Information Security Research Consortium (IISRC)*. Baku, Azerbaijan.
- 18 Goel, S. (May 20-24, 2013). Data Analytics for Security. *National Expert Workshop. Sponsored by the Office of Security Cooperation in Europe (OSCE)*. Yerevan, Armenia.
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- 20 Goel, S. (April 22-25, 2013). Internet censorship and filtering approach. Seventh International Forum Partnership of State Authorities, Civil Society and the Business Community in Ensuring Information Security and Combating Terrorism, Garmisch-Partenkirchen, Munich, Germany.
- 21 Goel, S., Khargonekar, P., McCaugherty, D., Simard, G. & Lorico, A. (December 5, 2012). IEEE Vision Panel Smart Grid panel session with long term vision projects from some IEEE societies. 2012 IEEE Smart Grid World Forum, Geneva, Switzerland, December 5-7, 2012.
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- 23 Goel, S. (September 24, 2012). Information Security Risk Assessment. *National Expert Workshop. Sponsored by the Office of Security Cooperation in Europe (OSCE)*. Yerevan, Armenia.
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- 26 Goel, S. (Moderator), Andrea Cavina, Kenneth Geers, Anna-Maria Taliharm (Panelists). (December 8, 2010). Threats to Critical Infrastructure / Other Threats Countermeasures, Legal Frameworks, Best Practices and PPPs [Panel]. National Expert Workshop. Sponsored by the Office of Security Cooperation in Europe (OSCE). Yerevan, Armenia.
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- 29 Goel, S. Carr, J., Bavisi, J. (May 19, 2010). Future Challenges I Cyber Security Panel. Reporting on International Security and Terrorism. A seminar for journalists. Reuters. New York, NY.
- 30 Goel, S. (April 12-15, 2010). Connecting the Dots in Cyber Intelligence: How Real is the Threat to the Critical Infrastructure? Fourth International Forum Partnership of State Authorities, Civil Society and the Business Community in Ensuring Information Security and Combating Terrorism, Garmisch-Partenkirchen, Munich, Germany.
- 31 Goel, S. (October 29 31, 2009). Tracking Cyber Criminals and Terrorists Looking for Hidden Clues on the Internet. *Fifth International Scientific Conference on Security and Counter Terrorism Issues.* Lomonosov Moscow State University, Moscow, Russia.
- 32 Goel, S. (October 26, 2009). Tracking Cyber Criminals and Terrorists Looking for Hidden Clues on the Internet. Universidad Autonoma de Madrid. Madrid, Spain.
- 33 Goel, S. (September 15, 2009). Learning from Birds and Bees: Can Traffic Lights be Taught to Tango? UTRC-NJDOT Lecture Series, New Jersey Department Of Transportation, Trenton, NJ.
- 34 Goel, S., & Pon, D. (June 3, 2009). Cyber Warfare X-Men: Hacking Underground. 12th Annual NYS Cyber Security Conference, Empire State Plaza, Albany, NY.
- 35 Goel, S. (April 20 23, 2009). Cyber Warfare: The New Frontier of International Conflict. Third International Forum "Partnership of State Authorities, Civil Society and the Business Community in Ensuring Information Security and Combating Terrorism", Garmisch-Partenkirchen, Munich, Germany.
- 36 Goel, S., & Pon, D. Internet Security and Safety. (March 17, 2009). 11th Annual Adirondack Technology Showcase. Adirondack Community College, Queensbury, NY.
- 37 Goel, S. (February 26-27, 2009). Cyber Warfare: The New Frontier of International Conflict. *National Expert Workshop on Combating Terrorist Use of the Internet / Comprehensively Enhancing Cyber-Security*. Belgrade, Serbia.
- 38 Goel, S. (October 30 November 1, 2008). Scientists Innovate and the Terrorists Appropriate: Are Scientists Unconsciously Facilitating Terrorism? Fourth International Scientific Conference on Security and Countering Terrorism Issues. Lomonosov Moscow State University, Moscow, Russia.
- 39 Goel, S., Pon, D., Niebour, R., Essel K., (June 4, 2008). Emergence of Technology: New Threats on the Horizon. [Plenary Address]. 11th Annual NYS Cyber Security Conference, Empire State Plaza, Albany, NY.
- 40 Goel S. (April 7-10, 2008). The Governance of Internet Does the U.S. have Undue Control? [Plenary Address] Second International Forum: Partnership among State, Business Community and Civil Society in Ensuring Information Security, Garmisch-Partenkirchen, Germany.
- 41 Goel, S. (December 29, 2007). Creating Security Policies for Information Protection. [Plenary Address]. 5<sup>th</sup> International Conference on e-Governance (ICEG-2007). University of Hyderabad, Hyderabad, India.
- 42 Goel, S., & Baykal, A. (November 4-7, 2007). Information Theoretic Approach for Characterization of Network Traffic. INFORMS Annual Meeting. Seattle, WA.
- 43 Goel, S. (October 26, 2007). The Governance of Internet Problems of Internationalization. *Third International Scientific Conference on Security and Counter Terrorism Issues.* Lomonosov Moscow State University, Moscow, Russia.
- 44 Goel, S. (July 18, 2007). Patrolling the Internet. [Plenary Address]. *Conference on Information Science, Technology, and Management (CISTM '07)*. Osmania University Campus, Hyderabad, India.

- 45 Goel, S., Brown, C., & Shawky, H. (June 24, 2007). Measuring the Impact of Security Breaches on Stock Valuations of Firms. 27th International Symposium on Forecasting. Marriott Marquis, Times Square, New York, NY.
- 46 Goel, S., & Pon, D. (June 6, 2007). The Changing Face of Hacking: Live Hacking Demonstration. [Plenary Address]. 10th Annual NYS Cyber Security Conference, Empire State Plaza, Albany, NY.
- 47 Goel S. (April 9-11, 2007). Patrolling the Internet: Monitoring the Dark Space. *Advanced Research Workshop: Patrolling versus Controlling: a New Paradigm for Monitoring Information Networks*, Garmisch-Partenkirchen, Germany.
- 48 Goel, S., & Bush, S.F. (November 1-2, 2006). A Model for Computer Network Pathway Analysis: Analogy from Cellular Regulatory Pathway, *SFI Workshop on Adaptive and Resilient Computing Security (ARCS)*, Santa Fe Institute, Santa Fe, NM.
- 49 Goel, S., Pon, D., & Brown, C. (June 14, 2006). Hacking in the Air: Is Wireless Secure? NYS Cyber Security Conference, Empire State Plaza, Albany, NY.
- 50 Goel, S., & Bush, S.F. (November 2-3, 2005). RNAi Inspired Model of Computer Network Security, SFI Workshop on Adaptive and Resilient Computing Security (ARCS), Santa Fe Institute, Santa Fe, NM.
- 51 Dale, M., Bloniarz, P., & Goel, S. (July 15, 2005). Latest Trends and Developments in Forensic Science. *DAASNY Summer Conference 2005*, Otesaga Hotel, Cooperstown, NY.
- 52 Goel, S., Pon, D., & Brown C. (June 15, 2005). Hackers on the Move: Threats to Wireless Security. 8th Annual NYS Cyber Security Conference, Empire State Plaza, Albany, NY.
- 53 Goel, S. (June 13, 2005). Botnets: Cyber Drone Armies of the Unscrupulous. *SUNY Technology Conference*, Hudson Valley Resort & Spa, Kerhonkson, NY.
- 54 Goel, S., Lodin, S., Soloman, J. (March 24, 2005). Shifting Assets [Panel Discussion]. 6th Annual CERIAS Symposium: Security in Motion, Purdue University, Purdue, IN.
- 55 Goel, S. (March 23, 2005). Botnets: Cyber Drone Armies of the Unscrupulous. 6th Annual CERLAS Symposium: Security in Motion, Purdue University, Purdue, IN.
- 56 (Also presented at the SUNY Technology Conference)
- 57 Goel, S., & Dark, M. (March 23, 2005). Teaching Hospital: Reaching the Masses through Distance Delivery. 6th Annual CERIAS Symposium: Security in Motion, Purdue University, Purdue, IN.
- 58 Goel, S., & Prazak, S.(December 2004). Cyber Security: Are We Ready? Korean Executive Program, University at Albany, Albany, NY.
- 59 Goel, S., & Bush, S.F. (November 3-4, 2004). Network Security Inspired by Biological Regulatory Networks. *SFI Workshop on Adaptive and Resilient Computing Security (ARCS)*, Santa Fe Institute, Santa Fe, NM.
- 60 Goel, S., Prazak, S., & Pon, D. (September 2004). Cyber Threats! Live Demonstrations. *Sixteenth Annual Government Technology Conference (GTC East 2004)*, Security Boot Camp, Empire State Plaza, Albany, NY.
- 61 Goel, S., Prazak, S., & Pon, D. (June 2004). Information Systems Vulnerability and Protection. *SUNY Technology Conference*, Hudson Valley, NY.
- 62 Goel, S., Brophy, M., and Prazak, S. (April 21-22 2004). Cyber Attack! Threats and Vulnerabilities. *New York State Cyber Security Conference*, Empire State Plaza, Albany, NY.
- 63 Goel, S., & Bush, S.F. (November 5-6 2003). Kolmogorov Complexity Estimates for Detection of Viruses in Biologically Inspired Security Systems. *SFI Workshop on Adaptive and Resilient Computing Security*, Santa Fe Institute, Santa Fe, NM.
- 64 Goel, S. (February 24-25 2003). Immune/Epidemiology Models for Security. New York State Cyber Security Symposium, Utica, NY.

## **TEACHING**

# **NEW PROGRAMS DEVELOPED**

1. 2017. Creator of Digital Forensics Masters (MS) Program: (In progress) Developing proposal for a masters program in Digital Forensics for approval at the University at Albany and the State Education Department. The goal is to start the classes in the fall of 2018.

- 2. 2014. Creator and Director of Digital Forensics Undergraduate Program: Currently in its third year, Digital Forensics is one of the most successful launches of an undergraduate program at UAlbany. Enrollments have exceeded initial projections despite a threshold GPA of 3.25 for entry. The program collaborates with three other schools, and has built articulation agreements with six community colleges to streamline the flow of transfer students.
- 3. 2012. Creator and Director of the Graduate Certificate in Information Security: Created as an advanced graduate certificate primarily to support existing professionals, and improve their career prospects. The program has become very popular among University students who complete their masters program and add this certificate to their credentials. The number of courses offered as a part of the certificate has doubled since its creation, allowing students to specialize in technical or management tracks.

## **CURRICULA AND COURSES DEVELOPED**

2016 - 2017

1. Cyber Offense: Course to teach offensive side of cyber-attacks for penetration testing, cyber defense, and security analytics.

2015 - 2016

- 1. Experiential Learning: Participated in a pilot project with iQ4 to explore the possibility of creating virtual internships reflective of the Trajectory Program scaled to the entire campus. Incorporated experiential learning as a part of regular curriculum in junior year
- 2. BFOR 412 / BITM 643: Developed Cyber Incident Analysis course as an elective for the Digital Forensics Undergraduate Program and the Graduate Certificate in Information Security.
- 3. UFSP 100: Created a Freshman Seminar course for Digital Forensics students.

2014 - 2015

1. <u>Digital Forensics Major Launch:</u> Led effort to launch the first new undergraduate major in the School of Business since its inception. Coordinated with admissions, advisement, media and marketing in the launch. Procured space for the lab, and equipped the labs with software and tools necessary for the dissemination of the curriculum.

2013 - 2014

- 1. Digital Forensics Undergraduate Major Proposal: Continued to shepherd the B. S. in Digital Forensics program through the governance process with the University Councils (UPPC, UAC, SEC), SUNY, and State Education Department. Finalized articulation agreements with 5 colleges; worked on recruitment of faculty members.
- 2. Capgemini Study Abroad and Internship Program: Fostered relationship with Capgemini (#4 software company in the world) to develop a 15-week, 15-credit study abroad and internship program in India for Info. Tech. Mgt. majors.

2012 - 2013

- 1. Digital Forensics Major: Led effort to create SUNY 2020 proposal that resulted in approval for six faculty lines and the development of an undergraduate Digital Forensics major.
- 2. ITM 210: Information Technology Practicum: Created and act as faculty mentor for an innovative class where students serve as IT consultants, working closely with EY professionals to solve a business case for a fictional client.
- 3. ITM 644: Introduction to Information & Cyber Security: Adapted traditional format to an online course format incorporating live discussions and presentations via Google Hangout.

2011 - 2012

- Information Assurance Graduate Certificate Program: Received approval for the program starting Fall 2011. Created new courses for certificate program: ITM 644: Introduction to Cyber & Information Security, ITM 645 Psychology and Information Security, ITM646 Mathematical Methods for Information Security, and ITM 647 Security Implementation.
- 2. ITM 644: Introduction to Information & Cyber Security: Developed as part of the Information Assurance Certificate program, course offered to UAlbany and Russian exchange students in Summer, 2012.
- 3. Cloud Computing: Worked with Information Technology Services on requirements for cloud computing for academic use.
- 4. <u>ITM 640: Information Security Risk Assessment:</u> Created additional course content on probability, decision trees, and security auditing.

# 2010 - 2011

- 1. ITM 685: Information Security: Created new course for weekend MBA program that focuses on information security for managers.
- 2. FIPSE US-Russia Program Grant: Created joint online and in-class curriculum in information security with Baumansky Moscow State Technical University, including an exchange program and multilingual class materials.

# 2009 - 2010

- 1. Information Assurance Certificate Program: Revised proposed program to foster collaboration with partner universities in Spain and Moscow; certificate embedded in joint-curriculum across collaborating universities.
- 2. <u>School of Business Ph.D. Program:</u> Participated on a committee to rejuvenate the Organizational Studies Ph.D. Program into a general Business Administration doctoral program with multiple specializations.

### 2008 - 2009

1. <u>Information Classification:</u> Developed and delivered 4 hours of Information Classification training for the NYS Office of Cyber Security and Critical Infrastructure Coordination. The lecture and exercise material will be incorporated into other ITM classes.

## 2007 - 2008

- 1. ITM 692: Added a Business Intelligence component to ITM 692 course.
- 2. INF 723: Developed Information Theory and Decision Analysis components of the curriculum
- 3. of the INF 723 Ph.D. proseminar class in the INF Doctoral Program.

## 2006 - 2007

- 1. <u>BITM 641 (Security Policies):</u> Developed online distance-delivery version of the two-day immersion course.
- 2. <u>BITM 642 (Computer Forensics):</u> Created two-day immersion class on computer forensics with NYS Police and New York Prosecutor's Training Institute and NYS Office for Critical Infrastructure Coordination.
- 3. <u>Disaster Recovery:</u> Created a one-day class on Disaster Recovery focused on computing-related disasters.

## 2005 - 2006

- 1. <u>Information Assurance Certificate Program:</u> Developed an Information Assurance Certificate program with other faculty from School of Business and Computer Science Department. Designed to train the workforce in skills required for practice in information assurance; a critical mission for the University at Albany.
- 2. <u>Information Assurance Ph.D. Concentration:</u> Developed the Ph.D. concentration in the joint Ph.D. program offered through the College of Computing and Information. Joint director of the Ph.D. concentration along with Neil Murray.

- 3. INF 710 (Information Security Risk Analysis): Developed a multimedia distance delivered course for Information Security Risk Analysis for students and state employees through funding from National Science Foundation (NSF) and Department of Education. The inaugural module was offered through WebCT in November, 2005, and was attended by state government employees and University students.
- 4. <u>INF 711 (Security Policies)</u>: Developed a course in Security Policies offered in a two-day immersion class format in December, 2005.
- 5. <u>Business and Information Decision Systems (BIDS) Ph.D. Concentration:</u> Worked on development of the Decision Systems modeling track of the BIDS concentration in the Information Science Ph.D. program.
- 6. Social, Security, and Privacy Implications of Computing Workshop: Developed full-day class for state employees from OSC, OFT, OMH, etc. regarding preventing computer crimes.
- 7. <u>Business Intelligence Course: Collaborated on development of undergraduate course in database management, statistical analysis, as well as data mining.</u>

#### 2004 - 2005

- 1. Payne, G., Trapp, R., & Goel, S. (2004). Performing a Cyber Security Risk Assessment: Why? When? and How? National Webcast Initiative Retrieved from http://www.cscic.state.ny.us/msisac/webcasts/8\_04/8\_26.htm
- 2. Created curriculum on Security Risk Analysis and Security Policies in collaboration with CERIAS at Purdue University for dist courses will be offered using WebCT Vista hosted at Purdue University.
- 3. Developed a joint MBA program in collaboration with College of Nanoscale Science and Engineering (CNSE), with Paul Leonard from the School of Business (SOB) and Pradeep Haldar from CNSE.

## 2003 - 2004

- 1. Developed new course on information security risk analysis for students at the university and professionals from state agencies.
- 2. Developed concept of teaching hospital where live problems from industry and the state are brought into security laboratories and abstracted into teaching cases.
- 3. Developed teaching laboratories for security education in MIS curriculum. Created a network environment in the computer lab to support the exercises in computer security.
- 4. Participated in a webcast development for information security risk analysis with Computer Associates and EY consulting firms.

## 2002 - 2003

- Developed a graduate level Communications, Networking, and Computer Security course as part of core MSIS curriculum. Introduced students Network Security Risks, Hacker Attacks, Cryptography & Steganography.
- 2. Developed a new format in which classroom teaching is coupled with immersion classes on specific topics at an advanced level. This allows the more progressive students to reach their full potential and provides choices to students. Taught immersion classes on Security Programming and Network Penetration Testing.
- 3. Teamed up with OSC security lab to offer Network Penetration Testing labs for SUNY students and members of state agencies, including officers from the NY State Police Forensics Division. Devised plan to offer a series of courses on penetration testing, security auditing and protection.
- 4. Redesigned and taught course on Enterprise-wide Application Development, with XML and P2P architecture.
- 5. Designed a lecture series on critical thinking for improving the reading, writing and presentation skills of MBA students in boot camp and lecture formats.

## 2001 - 2002

- 1. Developed Enterprise Application Module (50%) for the MSI 602 course..
- 2. Developed a module (33%) on Computer Security as a part of graduate core course.

- 3. Developed a combined Networking and Security module for the MSI 416 undergraduate course.
- 4. Developed the MSI 572 course for Java Programming.
- 5. Revised the existing MSI 520 Database Course to cover database theory and applications.

# <u>Student Advisement and Mentorship</u> (If Dissertation: C= Chair, M= Committee Member) **Doctoral Students:**

Nicholas Rizzo Topic: TBD

Progress: Completing Course Work

William Augustine

Topic: Memory Forensics using System Call Graphs to Detect Intrusions (C) Progress: Completed Candidacy Requirements / Proposal Defense Spring 2017

Ethan Sprissler (Ph.D. Student)

Topic: Information Privacy in Connected Vehicles (C)

Progress: Completed Candidacy Requirements / Proposal Defense 2015 – 2016

Damira Pon (Ph.D. Student)

Topic: Impact of Crafted Messages on Security Behavior of Individuals (C) Progress: Proposal Defended Successfully / Dissertation Defense Spring 2017

Vicki Chen (Ph.D. Student)

Topic: Information Security Risk Analysis (C)

Graduated: May 2012

Prahalad Rangan (Ph.D. Student)

Topic: Immune System Modeling of Security (M)

Graduated: May 2010

# **Undergraduate Students:**

Elisabeth Dubois

Topic: Constructing Cyber Innovation Laboratory

Results: In Progress

Richelle Oakley (Now an Assistant Professor)

Topic: Research on Complexity Reduction in Optimization Problems.

Program: Ronald McNair Program (Summer 2002)

Results: Paper written and presented at the McNair Symposium

Daren Pon

Topic: Dirty Money (Spring 2007- Spring 2010) **Program:** Undergraduate Research Initiative Results: Paper presented at conference

Christian Ramson

Topic: Terrorism and Financial Markets (June – July 2013)

Program: UAlbany Collegiate Science Technology Entry Program (CSTEP) Summer Research Program

Results: Paper presented at the CSTEP conference

## **SERVICE**

**University Service** 

Research Centers/ Laboratories Started

- 1. Cyber Innovation Lab (2017) In Progress
- 2. Blackstone LaunchPad, Founder and Principal Investigator (2015)
- 3. Digital Forensics Lab II (2015)
- 4. Digital Forensics Lab I (2014)
- 5. Forensics Analytics Complexity Energy Transportation and Security Center (2014), Founder and Director
- 6. NYS Center for Information Forensics and Assurance (2006) (Founding Member and Director of Research)
- 7. Cybersecurity Lab (2006)

# University Board and Committee Memberships

- 2013 2017 Chair, Digital Forensics Search Committee (Hired 6 faculty, search for 3 more in progress)
- 2015 2017 Member, University Auxiliary Services Board
- 2015 present Member, Search Committee for four faculty hires in CEHC
   2015 2016 Member, Search Committee, Chief Information Officer
- 2014 2015 Member, Search Committee for Director of Community & Economic Development
- 2014 present Director of Digital Forensics Program
- 2013 2014 Member, VP Finance and Business Search Committee
- 2013 Member, Director for Emerging Technology and Entrepreneurship Complex (E-TEC) Search Committee
- 2012 2013 Chair, Digital Forensics Lecturer Search Committee
- 2012 2013 Chair, Digital Forensics ITM/Accounting aP Search Committee
- 2011 Member, President's, Chancellor's Awards for Excellence in Research Committee
- 2007 present Member, Parking Appeals Board
- 2010 Member, Senate Executive Committee
- 2009 2010 Member, Strategic Planning Committee
- 2009 School of Business MBA Orientation Case Analysis
- 2009 Member, President/Chancellor Awards for Excellence in Teaching Committee
- 2007 2009 Speaker at University Freshmen Orientation Luncheon (for parents)
- 2007 2010 Volunteer, UAlbany Fountain Day
- 2002 2010 School of Business Commencement Marshall Ceremony
- 2002 2010 University Commencement Marshall (Undergraduate and Graduate Ceremonies)
- 2007 2009 Member, School of Business Commencement Speaker Selection Committee
- 2004 present Director of Research, NYS Center for Information Forensics & Assurance
- 2008 Speaker, UAlbany Weekend
- 2007 2008 Member, Senate Executive Committee, Member Senate, Chair,

Committee Academic Freedom, Freedom of Expression and Community Responsibility (CAFFECoR) of University Senate.

- 2007 Member, Honorary Degree Selection Committee
- 2007 Member, Search Committee, Information Security Officer
- 2007, 2009 Member, University at Albany Excellence in Teaching Award Review Committee.
- 2004 2008 Member and Chair, School of Business Research Committee
- 2004 2005 Member, Search Committee, University at Albany Information Security

## Officer

- 2004 2005 Member, Search Committee for Director of NYS Center for Information Forensics and Assurance
- 2004 2005 Member, University Life Council
- 2004 2005 At Large Member, University Personnel Committee
- 2004 2005 Member, School of Business Teaching and Computing Committee
- 2002 2003 Chair, School of Business Teaching and Computing Committee

## **Professional Service**

- Co-Chair, Security and Privacy Track, Americas Conference on Information Systems, New Orleans, LA, August 16-18, 2018.
- General Chair, Annual Symposium on Information Assurance, Albany, NY, June 6-8, 2018.
- Co-Chair, Workshop on Information Security and Privacy, Seoul, South Korea, December 2017.
- Track Co-Chair, Cyber Security Track (sigsec), 2017 Americas Conference on Information Systems, Boston August 10-12, 2017.
- Member, IEEE 1906.1 Standard on Nanoscale and Molecular Communication Committee
- Co-editor, Intelligent Transportation Society Magazine, Special Issue on Connected Vehicles, 2015
- Program co-chair International Conference on Connected Vehicles and Expo, October 19-23, Shenzhen, China.
- Co-editor, Intelligent Transportation Society Magazine, Special Issue on Connected Vehicles, 2014
- General Chair, 10th Annual Symposium on Information Assurance (ASIA '15) June 2-3, Empire State Plaza, Albany, NY.
- General Chair, 9th Annual Symposium on Information Assurance (ASIA '14) Empire State Plaza, June 3-4, 2014, Albany, NY.
- Workshop Chair, 2013 Workshop on Internet Governance & Cyber Conflicts: Models, Regulations and Confidence Building Measures. October 31 November 1, 2013, New York, NY.
- General Chair, 8th Annual Symposium on Information Assurance (ASIA '13– academic track of the NYS Cyber Security Conference, June 4-5, 2013, Albany, NY.
- General Chair, 7th Annual Symposium on Information Assurance (ASIA '12) / Secure Knowledge Management (SKM 2012), Empire State Plaza, June 5-6, 2011, Albany, NY.
- Symposium Chair, 6th Annual Symposium on Information Assurance (ASIA '11) academic track of the NYS Cyber Security Conference, June 7-8, 2011, Albany, NY.
- Lead Editor, Smart Grid Communications Vision Committee Sponsored by IEEE
- Symposium Chair, 5th Annual Symposium on Information Assurance (ASIA '10) Empire State Plaza, June 16-17, 2010, Albany, NY.
- Editor, Proceedings of the First International ICST Conference on Digital Forensics and Cyber Crime (ICDF2C), September 30 October 2, 2009, Albany, NY. *Lecture Notes in ICST*, 31, 1-171, Springer.
- Technical Program Chair, 4th International ICST Conference on Nano-Networks (Nano-Net 2009), October 18-21, 2009, Luzern, Switzerland.
- Conference Chair, International Conference on Digital Forensics and Cyber Crime (ICDF2C), September 30 October 1, 2009. Holiday Inn Albany on Wolf Rd, Albany, NY.
- Technical Program Committee Chair, IEEE Workshop on Nano, Molecular, and Quantum Communications (NanoCom 2009) in conjunction with the International Conference on Computer Communications and Networks (ICCCN 2009), August 2-6, 2009, San Francisco, CA.
- Symposium Chair, 4th Annual Symposium on Information Assurance, Empire State Plaza, June 3-4, 2009, Albany, NY.

- Workshop Chair, Workshop on Nanosensors: Self-Organization and Swarm Robotics (held as a part of the 3rd International ICST Conference on Nano-Networks (Nano-Net 2008), September 14, 2008, Boston, MA.
- Conference Chair, Conference on Information Science Technology and Management (CISTM '08), July
   31 August 2, 2008. Indian Institute of Technology Delhi (IITD), New Delhi, India.
- Symposium Chair, 3<sup>rd</sup> Annual Symposium on Information Assurance Empire State Plaza, June 4-5, 2008, Albany, NY.
- Session Chair, Information and Security, The 27th International Symposium on Forecasting, June 24-27, 2007. Marriott Marquis, Times Square, New York, NY.
- Symposium Chair, 2<sup>nd</sup> Annual Symposium on Information Assurance Empire State Plaza, June 6-7, 2007, Albany, NY.
- Track Chair (Economics of Security), The 6th Annual Security Conference, April 11-12, 2007, Las Vegas, NV.
- Symposium Chair, Symposium on Information Assurance Empire State Plaza, June 14-15, 2006, Albany, NY.
- Co-Chair (Goel, S., Talya, S., Sampath, R.), Special Session on Architectures for Collaborative Engineering Design, CE2005, July 25-29, 2005, Fort Worth/Dallas TX.
- Session Chair, International Resources Management Association Conference, May 2005, San Diego, CA.
- Track Chair (Security and Assurance: Behavior and Security), International Conference on Information Systems (ICIS '05), Dec 11-14, 2005, Las Vegas, NV.
- Associate Editor, 2005 International Conference on Information Systems (ICIS '05), Dec 11-14, 2005, Las Vegas, NV.
- Co-Guest Editor (Tayi, G., Ramanathan, R., Ravi, S.S., Goel, S.), Information Systems Frontiers: Mobile Computing and Communications: Systems, Models and Applications, 7(2).

# Reviews (Journals/Conferences)

- Academy of Management Learning & Education (AMLE)
- ACM Journal of Educational Resources in Computing
- Communications of the ACM (CACM)
- Communications of the AIS
- Computer Networks
- COMNET
- Decision Sciences
- Decision Support Systems (DSS)
- IEEE Systems Man and Cybernetics: Special Issue on Secure Knowledge Management
- Information Systems Research
- International Journal of Ecommerce Research
- International Journal of Electronic Commerce
- International Journal of Production Economics
- Journal of Data and Information Quality
- Journal of Electronic Commerce Research
- Journal of Information System Security
- Journal of Management Information Systems (JMIS)
- Journal of Network and System Management
- Journal of Strategic Information Systems
- Journal on Information Quality
- WEB 2009
- Wiley Interscience Wireless Communications and Mobile Computing Journal

## Conferences

- 2015 Dewald Roode Workshop
- Artificial Neural Networks in Engineering
- Globecom
- Hawaiian International Conference on Systems Sciences (HICSS)
- IEEE Information Assurance Workshop at West Point
- IEEE International Conference on Communications
- International Conference on Information Systems
- NYS Cyber Security Conference

# Professional Memberships

- Secretary, IEEE COM/Nanoscale and Molecular Communications Working Group (2011 Present)
- Member, Institute of Electrical Electronics Engineers (IEEE)
- Member, IEEE Standards Association
- Member, Association of Computing Machinery (ACM)
- Member, Association for Information Systems (AIS)
- Past Member, Information Systems Security Association (ISSA)
- Past Member, USENIX- The Advanced Computing System Association
- Past Member, Internet Society (ISOC)
- Past Member, Information Resources Management Association (IRMA)
- Past Member, American Society of Mechanical Engineers (ASME)
- Past Member, American Institute of Aeronautics and Astronautics (AIAA)

## **Community Service**

# Corporate and Non-Profit Board Memberships

- Member, Schenectady Greenmarket Board (2008-2013)
- Member, Board of Directors, Cornell Cooperative Extension Association (2008-2012)
- Member, Computer Information Systems Advisory Board, Hudson Valley Community College (2004present), 80 Vandenburgh Ave., Troy, NY 12180
- Member, Public/Private Sector Cyber Security Workgroup for Education and Awareness Sector (2005present), NYS CSCIC
- Principal Investigator, University Transportation Research Center, Region II (2005 Present), City University of New York, 138th Street and Convent Avenue, New York, NY 10031

# **MISCELLANEOUS**

# **Industry Awards**

- Management award for initiating and participating in a team to develop metrics to evaluate e-Business activities (2000)
- Management award for creating training for server side implementation of PDM for multiple GE businesses (2000)
- Best Six Sigma Award from GE Corporate Research and Development (1999)
- Award for initiating web information security policy and leading a team for developing it (1999)
- Three Power awards for best projects from GE Power Systems (1999)
- Power Award from Steam Turbines for TADS development (1995)
- Technical Performance award from Keane Inc. (1994)
- Technical Performance award from GE consulting services (1991)

Management Award from GE Corporate Research and Development (1991)

# **Industry Projects**

- 2015-2016: Computer Science Corporation
- 2014-2015: UthisMe / Office of State Comptroller
- 2013-2014: Towers Watson Inc.
- 2012-2011: Tech Valley Communication
- 2011-2012: Schenectady GreenMarket / AG & Markets
- 2010-2011: New York State Research and Development Authority (NYSERDA)
- 2009-2010: New York State Research and Development Authority (NYSERDA)
- 2007-2008: Office of Budget and Finance
- 2006-2007: NYS Center for Information Forensics and Assurance
- 2005-2006: NYS Center for Information Forensics and Assurance
- 2004-2005: New York State Police Computer Crime Laboratory
- 2002-2003 GE Global Research Center (P2P Computing / Information Theory)

# Professional Development

- Leadership Workshop, University at Albany, State University of New York, May 28 30, 2008.
- Grants Workshop: "Funding Your Scholarly Work: A workshop on getting grants", Albany NanoTech/School of NanoSciences and NanoEngineering, April 2-3, 2004
- Attended Master Teacher Program, 2003

## **REFERENCES**

- 1. Kevin Williams, Dean of Graduate Studies, University at Albany, SUNY.
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- 2. Fabio Auffant, Lecturer, Information Security & Digital Forensics, University at Albany, SUNY.
  - Email: <u>fauffant@albany.edu</u> Phone: (518) 755 0471
- 3. Donald Siegel, School Director & Professor, School of Public Affairs, Arizona State University (ex-Dean
  - University at Albany, School of Business)
  - Email: Donald.Siegel.1@asu.edu
  - Phone: (602) 543 6217