

# RENITA MURIMI

<https://renitamurimi.github.io/>

last updated: Mar 2026

## EDUCATIONAL HISTORY

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**New Jersey Institute of Technology**, Newark, NJ  
Ph.D., Electrical Engineering, May 2009  
Thesis: Clustered Wireless Sensor Networks

M.S., Electrical Engineering, Aug 2005

**Manipal University**, Manipal, India  
B.E., Electrical and Communications Engineering

## EMPLOYMENT HISTORY

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**Associate Professor** Aug 2019 - present  
Gupta College of Business, University of Dallas, Irving, TX

**Associate Professor** Aug 2017 – May 2019  
Dickinson College of Business, Oklahoma Baptist University, Shawnee, OK

**Assistant Professor** Jan 2011 – Aug 2017  
Dickinson College of Business, Oklahoma Baptist University, Shawnee, OK

**Postdoctoral Research Associate** May 2009 – Dec 2010  
Ying Wu College of Computing, New Jersey Institute of Technology, Newark, NJ

## AWARDS AND HONORS

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1. Haggerty Excellence in Teaching Award, University of Dallas, 2022
2. Haggar Scholar Award, University of Dallas, 2022, 2026
3. Provost's Award for Excellence in Research, Oklahoma Baptist University, 2011
4. Provost Fellowship Award, New Jersey Institute of Technology, 2004

## GRANTS

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1. DLT Talents, Frankfurt School Blockchain Center (2020)
  - Chosen as one of 30 women from 225 applications around the world for the FSBC's inaugural DLT Talents program.
2. AT&T Inspire Grant: \$8,000 (2016)
  - Established the first VEX robotics conference in central Oklahoma to promote and advance the robotics skills of middle-school and high-school students.
3. Kirkpatrick Foundation Grant: \$10,000 (2013)
  - Established the first STEM program, Summer Institute at OBU, for middle- and high-school students.
4. Bill and Melinda Gates Foundation Grand Challenges Explorations Grant - \$100,000 (2011)
  - Received a grant to develop a smartphone application to examine the behavior of the *Aedes Aegypti* mosquito for its role in spreading dengue fever and yellow fever.

## TEACHING

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BANA 6360 Programming  
CYBS 6345 Securing the Digital World  
CYBS 7355 Penetration Testing & Vulnerability Management  
CYBS 8396 Strategic Cybersecurity Practicum

Other courses taught at previous institutions include Logic Design, Operating Systems, Computer Architecture, and Data Structures.

## PUBLICATIONS

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Google Scholar Profile: <https://scholar.google.com/citations?user=HN68MpMAAAAJ&hl=en>

### Books

1. Bourbon, B., and Murimi, R.M. *Organized Skepticism in the Age of Misinformation: Surviving the Kingdom of Gossip*. (2025). Routledge.
  - Commended in the December 2025 issue of Choice, a publishing unit at the Association of College & Research Libraries, a division of the American Library Association.

### Book Chapters

1. Landry, B. J. L., Murimi, R., and Bell, G. (2023) Equifinality in Cybersecurity Research: Opportunities and Future Research. *Effective Cybersecurity Operations for Enterprise-Wide Systems*. IGI Global.
2. Murimi, R.K., Blanke, S., and Murimi, R. (2023). A Decade of Development of Mental Models in Cybersecurity and Lessons for the Future. Springer Proceedings in Complexity.
3. Jarjoui, S. and Murimi, R. (2021). A Framework for Enterprise Cybersecurity Risk Management. *Advances in Cybersecurity Management*, Springer.
4. Murimi, R. (2019). Use of Botnets for Mining Cryptocurrencies. *Botnets: Architectures, Countermeasures, and Challenges*, Taylor and Francis CRC, 203.
5. Dumancas, G. G., Bello, G. A., Hughes, J., Murimi, R., Viswanath, L. C. K., Orndorff, C. O. N., ... & O'Dell, J. D. (2018). Visualization Tools for Big Data Analytics in Quantitative Chemical Analysis: A Tutorial in Chemometrics. In *Handbook of Research on Big Data Storage and Visualization Techniques* (pp. 873-917). IGI Global.
6. Crosby, G. V., Chin, C. A., Ghosh, T., & Murimi, R. (2015). Wireless body area networks in mhealth. In *Mobile Health* (pp. 873-915). Springer.

### Peer-Reviewed Journal Articles

1. Jarjoui, S., Fulmore, J., Pinkney, M. L., Murimi, R. (2026). The role of business and IT alignment in cybersecurity risk management. (Forthcoming) *Journal of Operational Risk*.
2. Bourbon, B. and Murimi, R. (2024). Decentralization, blockchain, and the development of smart communities in economically challenging environments. *Ledger*.

3. Jarjoui, S., Murimi, R.M., and Murimi, R. K. (2024). Communities, agency, and resilience: a perspective addressing tragedy of the cyber commons. 9(1), *The Cyber Defense Review*, 113-131.
4. Conger, S., Murimi, R., and Blanke, S. (2024). An exploration of factors influencing work effectiveness during COVID-19 work from home. *Information Systems Management*.
5. Yao, W., Deek, F., Murimi, R., and Wang, G. (2023). SoK: A Taxonomy for Critical Analysis of Consensus Mechanisms in Consortium Blockchain. *IEEE Access*.
6. Murimi, R., Bell, R.G., Rasheed, A., and Beldona, S. (2023). Blockchains: A Review and Research Agenda for International Business. *Research in International Business and Finance*.
7. Murimi, R. (2022). Governance in DAOs: Lessons in Composability from Primate Societies and Modular Software. *MIT Computational Law Report's Collected Works on Composable Governance*.
8. Murimi, R. (2021) On the Complexity of Assimilation in Urban Communities. *Applied Network Science*.
9. Murimi, R. (2021). When Humans Judge Other Humans Using Machines. *MIT Computational Law Report*. Release 3.1.
10. Murimi, R. (2021). A Framework for Contractual Graphs. *Frontiers in Big Data*, Special Issue on Representation Learning for Graph Mining and Generation.
11. Murimi, R. and Wang, G. (2020). On Elastic Incentives for Blockchain Oracles. *Journal of Database Management*, Special Issue on Blockchain and Smart Contracts.
12. Murimi, R. (2020). On the Design of Social Robots Using Sheaf Theory and Smart Contracts. *Frontiers in Robotics and AI*.
13. Green, D.D., Murimi, R., Matheson, T. Roach, C, Stafford, R. (2019) Disruptive change in today's innovation: A case study analysis of OptimalPlus. *Management and Economics Research Journal*, Vol. 5.
14. Dumancas, G. G., Bello, G., Hughes, J., Murimi, R., Viswanath, L., Orndorff, C. O., ... & Setijadi, C. (2019). Chemometrics: From Data Preprocessing to Fog Computing. *International Journal of Fog Computing (IJFC)*, 2(1), 1-42.
15. Murimi, R. (2019). A Blockchain Enhanced Framework for Social Networking. *Ledger*.
16. Crosby, G. V., Ghosh, T., Murimi, R., & Chin, C. A. (2012). Wireless body area networks for healthcare: A survey. *International Journal of Ad Hoc, Sensor & Ubiquitous Computing*, 3(3), 1.
17. Machado, R., Ansari, N., Wang, G., & Tekinay, S. (2010). Adaptive density control in heterogeneous wireless sensor networks with and without power management. *IET Communications*, 4(7), 758-767.
18. Machado, R., Zhang, W., Wang, G., & Tekinay, S. (2010). Coverage properties of clustered wireless sensor networks. *ACM Transactions on Sensor Networks (TOSN)*, 7(2), 1-21.
19. Machado, R., He, H., Wang, G., and Tekinay, S. (2010). Redundancy estimation and adaptive density control in wireless sensor networks. *Ad Hoc & Sensor Wireless Networks*, 10(2-3), pp. 153-176, 2010.
20. Machado, R., & Tekinay, S. (2009). Towards developing attentive wireless sensor networks. *International Journal of Multimedia and Ubiquitous Engineering*, 4(1), 59-68.
21. Machado, R., Tekinay, S., Zhang, W., & Wang, G. (2010). Diffusion-based approach to deploying wireless sensor networks. *International Journal of Sensor Networks*, 8(3-4), 222-232.
22. Machado, R., & Tekinay, S. (2008). A survey of game-theoretic approaches in wireless sensor networks. *Computer Networks*, 52(16), 3047-3061.

## Peer-Reviewed Conference and Workshop Proceedings

1. Gutierrez, M. and Murimi, R. (2026). When Privacy Feels Weak, Patients Opt Out: A Comparative Approach of Healthcare Privacy in the United States and El Salvador. In *Proceedings of the 1<sup>st</sup> Annual NEXUS Cybercrime & Social Behavior Research Conference*.
2. Murimi, R. (2026). A Governance Framework for the Generative AI Commons. In *Proceedings of the 2nd International Conference on Artificial Intelligence Systems (AIS 2026)*.
3. Murimi, R. (2026). Popularity, quality, and protection in Wikipedia's most-read articles. *Wiki Workshop 2026 Research Track*.
4. Toby, I., Murimi, R., Juguilon, L. (2025). Exposing AI Harms in Re-Emerging Infectious Diseases: A Framework for Equity-Centered Public Health Modeling. Presented at the *2025 Intelligent Systems for Molecular Biology (ISMB)/ European Conference on Computational Biology, Liverpool*.
5. Hadipour, N., and Murimi, R. (2024). Medical Advisories as Deterrents in Healthcare Cybercrime. In *Proceedings of the 4<sup>th</sup> IEEE Cyber Awareness and Research Symposium (CARS)*.
6. Murimi, R. (2024). Alternative Pathways: Higher Education Institutions as Entry-Level Cybersecurity Employers. Lightning Talk presented at the 2024 NICE Conference and Expo.
7. Jarjoui, S., Murimi, R. (2023). A framework for building cognitive knowledge management systems. In *Proceedings of the 34th Annual Conference of the International Information Management Association (IIMA)*.
8. Murimi, R. Landry, B. J. L., Bell, G. (2023). Equifinality in blockchain resilience: The Role of Organizational, Environmental, and Cybersecurity Factors. In *Proceedings of the 2023 European DSI Annual Conference*.
9. Murimi, R. (2022). What makes AI addictive? The role of discounting, risk aversion and self-regulation. In *Proceedings of the 7th International Conference on Big Data Intelligence and Computing*.
10. Murimi, R.K., Blanke, S., and Murimi, R. (2022). A Decade of Development of Mental Models in Cybersecurity and Lessons for the Future. In *Proceedings of the 2022 Cyber Science Conference*.
11. Hoang, A., and Murimi, R. (2022). DeFi Primitives Without Parallels: An Overview of AMMs, Consensus Algorithms, and Flash Loans. In *Proceedings of the 35<sup>th</sup> Annual Meeting of the Academy of Finance*.
12. Ayinala, S., and Murimi, R. (2022). On a Territorial Notion of a Smart Home. In *Proceedings of the 1st ACM International Workshop on Cybersecurity and Social Sciences (CySSS)*.
13. Jarjoui, S., Murimi, R.K., and Murimi, R. (2021). Hold My Beer: A Case Study of How Ransomware Affected an Australian Beverage Company. In *Proceedings of IEEE Cyber Science*.
14. Conger, S., Blanke, S., and Murimi, R. (2021). Before-after COVID-19 work. In *Proceedings of the Session on PLSAS Multidisciplinary Research Applications at 25th Annual Western Hemispheric Trade Conference (WHT), April 2021*.
15. Bourbon, B. and Murimi, R. (2021). The Gossip Economy of Online Social Media. In *Proceedings of the 2021 ACM CHI Misinformation Workshop*.
16. Blanke, S. and Murimi, R. (2021). A New Normal in the COVID-19 Pandemic for Remote Workers. In *Proceedings of the Southwest Academy of Management (SWAM-2021) Track on Entrepreneurship, Small Business and Family Business*.

17. Murimi, R. (2021). A Subsidy Model for Social Media Interventions. In *Proceedings of the 35<sup>th</sup> AAAI Workshop on AI for Behavior Change*.
18. Murimi, R. Bell, G. Beldona, S., and Rasheed, A. (2020). Public or private blockchain? The role of institutional and firm-level factors. In *Proceedings of the Journal of International Management – PDW Workshop for Special Issue on The Impact of Digital Technologies on Firms' International Strategies*.
19. Murimi, R. On the Complexity of Assimilation in Urban Communities. In *Proceedings of the Conference on Complex Systems (CCS) Workshop on Urban Complex Systems. (CCS-2020)*
20. Bourbon, B. and Murimi, R. (2020) The Vagaries of Online Trolls. In *Proceedings of the 6<sup>th</sup> International Conference on Computational Social Science (IC2S2)*.
21. Murimi, R. (2019) On the Design of Social Robots Using Sheaf Theory and Smart Contracts. In *Proceedings of the Symposium on Blockchain for Robotics and AI Systems (BRAIS 2019), MIT Media Lab, December 2019*.
22. Murimi, R. (2018). A Blockchain-enhanced framework for social networking sites. Symposium on Blockchain for Robotic Systems (*BROS 2018*), MIT Media Lab.
23. Murimi, R. (2018). To Share or Not to Share: Is Your Social Network Verbose or Reticent? *Proceedings of the 49th Annual Meeting of the Decision Sciences Institute*.
24. Murimi, R. and Bales, D. (2018). Confessions of an Anonymous Mind: An Analysis of Parenting and Family Conversations in Anonymous Networks. In *Proceedings of the 49th Annual Meeting of the Decision Sciences Institute*.
25. Murimi, R. (2018). Online Social Networks for Meaningful Social Reform. In *Proceedings of the World Engineering Education Forum-Global Engineering Deans Council (WEEF-GEDC)* (pp. 1-6). IEEE.
26. Murimi, R. and Flint, R. (2016). Operations of a Game Show: Dynamic Programming Analysis of Family Feud. In *Proceedings of the Annual Meeting of the Decision Sciences Institute (DSI)*.
27. Murimi, R. M. (2016). An Analysis of Trimming in Digital Social Networks. In *Thirtieth AAAI Conference on Artificial Intelligence*.
28. Murimi, R. (2013). Sparking creativity in computer science for interdisciplinary students. In *Proceedings of the IEEE Frontiers in Education Conference (FIE)* (pp. 1111-1112).
29. Chin, C. A., Crosby, G. V., Ghosh, T., & Murimi, R. (2012). Advances and challenges of wireless body area networks for healthcare applications. In *Proceedings of the IEEE International Conference on Computing, Networking and Communications (ICNC)* (pp. 99-103).
30. Machado, R., Zhang, W., & Wang, G. (2009). Network planning for heterogeneous wireless sensor networks in environmental survivability. In *Proceedings of the 21st IEEE International Conference on Tools with Artificial Intelligence* (pp. 814-821).
31. Machado, R. and Tekinay, S. (2008). Entropy of establishing connectivity to cluster-heads in wireless sensor networks. In *Proceedings of the IEEE Sarnoff Symposium*, April 2008.
32. Machado, R., & Tekinay, S. (2008). Neural network-based approach for adaptive density control and reliability in wireless sensor networks. In *Proceedings of the 2008 IEEE Wireless Communications and Networking Conference* (pp. 2537-2542).
33. Machado, R., & Tekinay, S. (2007). Cognition and attention in wireless sensor networks. *IEEE Upstate NY Workshop in Communications, Sensors and Networking*, 2007.

34. Machado, R., & Tekinay, S. (2007, October). Bounds on the error in estimating redundancy in randomly deployed wireless sensor networks. In *Proceedings of the 2007 International Conference on Sensor Technologies and Applications (SENSORCOMM 2007)* (pp. 319-324).
35. Machado, R., & Tekinay, S. (2007, August). Diffusion-based approach to deploying wireless sensors to satisfy coverage, connectivity and reliability. In *Proceedings of the 2007 Fourth Annual International Conference on Mobile and Ubiquitous Systems: Networking & Services (MobiQuitous)* (pp. 1-8).
36. Machado, R. (2006). Reading a book through the eyes of reality. In *Proceedings of the Canadian Symposium on Text Analysis (CaSTA '06)*.

## OTHER SCHOLARLY ACTIVITY

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### Invited Talks and Seminars

1. Guest Speaker, *Shared Paths to Resilience: Community, Agency, and the Cyber Commons*. 40<sup>th</sup> Annual Conference of the Information Systems Security Association (ISSA) Cyber Executive Forum, Sept 2025.
2. Guest Speaker, *Blockchain for Good*. Annual Conference of Women in STEM Leadership (WISL), Sept 2025.
3. Panelist, Dallas Cyberjutsu Unplugged: Women Leaders in Cybersecurity, Sept 2025.
4. Panelist, MidSouth Computational Biology and Bioinformatics Society (MCBIOS) Annual Conference, Mar 2023.
5. Guest Speaker, Business Faculty Research Association, 2022.
6. *Blockchain for Transforming Global Seafood Distribution*. Global Seafood Digital Trade Symposium at the Korea Maritime Institute, Dec 2021.
7. *Botnets for Mining Cryptocurrencies*. NSA Center for Academic Excellence (CAE) Forum Talk Dec 2020.
8. *The Importance of Cybersecurity in the Education Industry*. EC- Council Cyber Gurus Career Talk, Aug 2020.
9. *Wireless Sensor Networks for Ecological Monitoring*. Rutgers Federated Department of Biological Sciences, May 2009.
10. *Developing Networks for Bio-inspired Computing*. New York University Langone Medical Center, New York, Apr 2009.
11. *Clustered Wireless Sensor Networks*. Lehigh University, Lehigh, PA, Nov 2008.

### Professional Society Memberships

1. Senior Member, Institute of Electrical and Electronics Engineers (IEEE)
2. Member, Information Systems Security Association (ISSA)
3. Member, International Information System Security Certification Consortium, (ISC)2
4. Member, Women in Cybersecurity (WiCys)

### Professional Service

1. Member and Co-chair, IEEE Society for Social Implications of Technology (SSIT)'s Subgroup

- on Policy.
2. Member, SACSCOC Group for Developing Guidelines Regarding Use of AI in the Accreditation Process. 2024-2025.
  3. Member and Academic Chair of the ISSA Cyber Resilience SIG, Jul 2022 – Jan 2024
  4. Co-chair of the National Institute for Standards and Technology (NIST) subgroup on Best Practices in Training and Certifications (T&C) Subgroup, 2020.

### **Editorial Board**

International Journal of Business Intelligence Research (IJBIR), 2022 – present.

### **Conference Program Committees**

- IEEE Cyber Physical Social Intelligence (ICCPS 2024)
- IEEE High Performance Switching and Routing (IEEE HPSR 2022).
- IEEE International Conference on Cyberphysical Social Intelligence 2021.
- 8<sup>th</sup> Annual Women in Cybersecurity Conference (WiCys 2021).
- IEEE High Performance Switching and Routing (IEEE HPSR 2020).
- 17<sup>th</sup> IEEE International Conferences on Mobile Adhoc and Smart Systems – (MASS 2020)
- 1<sup>st</sup> ACM Quantum Computing and Engineering Conference – (QCEC 2020)
- IEEE Sarnoff Symposium 2020, 2019, 2018
- 7th IEEE International Symposium on Security, Privacy and Anonymity in Internet of Things - SpaIoT 2014- 2018.
- International Conference on Networking and Network Applications, 2017, 2018.
- Wireless Body Area Networks at the International Conference on Computing, Networking and Communications, (ICNC 2012).

### **External Reviewer for 20+ conferences**

#### **Journal Reviewer**

Journal of Operational Risk

International Journal of Human Computer Interaction (IJHCI)

Law, Ethics, and Technology (LETE)

Journal of Risk and Financial Management (JRFM)

Journal of Marketing Analytics (JRMA)

IEEE Access

Ledger

Automatika

Ad Hoc Networks Journal

BMC Health

AI and Ethics

Springer AI Review

Online Social Networks and Media (OSNEM)

Cyber Defense Review

### **Grants Review**

Hong Kong Research Grants Council (2022- present)

### **Additional Certifications**

Certified Information Systems Security Professional (CISSP), June 2019 – present.

1. Vikas Kochhar (Spring 2024 – present). Dissertation Title (tentative): Development and Implications of a Multidimensional Cybersecurity Index for Small and Medium Enterprises.
2. Annette Bolding (Spring 2024 – present). Dissertation Title: ESG and Financial Performance in the Oil and Gas Industry: The Impact of Industry Segment, Board Diversity and Renewable Energy. *Role*: Committee Member.
3. Samir Jarjoui (2022). Dissertation Title: A Framework for Enterprise Cybersecurity Risk Management, University of Dallas. *Role*: Dissertation Committee Chair.