

CURRICULUM VITAE

Nirupama Agrawal, Ph.D.
Professor, Disaster and Emergency Management
School of Administrative Studies
Faculty of Liberal Arts & Professional Studies
York University
4700 Keele Street
Toronto, ON M3J 1P3, Canada

nirupama@yorku.ca

ORCID: 0000-0002-9184-4852

EDUCATION

- DEng, Water Resources Engineering, Kyoto University, Japan, 1996
- Master in Hydrology, Indian Institute of Technology Roorkee, India, 1991
- M.Sc. Statistics, Indian Institute of Technology Kanpur, India, 1981

EMPLOYMENT HISTORY

- Professor (Full), Disaster & Emergency Management, School of Administrative Studies, York University, Canada, since 2020.
- Adjunct faculty, United Nations University Institute for Water, Environment and Health, Hamilton, Canada.
- Adjunct faculty, University of Manitoba, National Resources Institute, Winnipeg, MB.
- Associate Professor, tenured, School of Administrative Studies, York University, Canada, 2007–2019.
- Assistant Professor, School of Administrative Studies, York University, Canada, July 2005-June 2007.
- Adjunct Faculty, Institute of Natural Resources, University of Manitoba, Winnipeg, 2004-2006;2020-.
- Assistant Professor (tenure track), Department of Applied Disaster & Emergency Studies, Brandon University, Canada, August 2003 – June 2005.
- Sessional Instructor, Department of Civil Engineering, University of Western Ontario, Canada, 2002.
- Postdoctoral Fellow, Department of Civil & Environmental Engineering, University of Western Ontario, Canada, October 2000 – August 2002.

RESEARCH AREAS

- Disaster risk perception and adaptation
- Natural hazards: physical dynamics and natural science
- Disaster resilience modelling using Geographic Information System (GIS)
- Community resilience to disasters through engagement and empowerment
- Business continuity planning and disaster recovery
- Multi-criteria, multi-objective decision-making support systems using GIS & remote sensing.

HONOURS/AWARDS

- 2019 Dean's Award for Research Excellence, Faculty of Liberal Arts & Professional Studies
- Merit Award, Excellence in Research (Faculty), 2007; 2009; 2014
- 2013 Certificate of Recognition for outstanding contribution to Student Teaching and Learning
- 1997-1998 Research Fellowship, Department of Civil Engineering, University of Newcastle, UK
- 1992-1996 MOMBUSHO Japanese Government Scholarship, Kyoto University, Japan.

PUBLICATIONS

Books

1. Nirupama Agrawal (2018) Natural Disasters and Risk Management in Canada – An Introduction, Springer, Dordrecht, 366 pages. <https://www.springer.com/us/book/9789402412819>
2. Atlantic Ocean Tsunami Travel Time Atlas, York University Publication. Nirupama, N., K. Ponnambalam, I. Nistor, and T. Murty, York University, 160 pages, 2007.

Editorships

1. Guest Editor (with Parera et al.) (2023) Water-related disasters and risks, Special Issue of Sustainability, <http://mdpi.com/si/108031>
2. Guest Editor (with Robin Cox) (2019), Special Issue of *Natural Hazards* on Natural disasters and 150th commemoration of Canada as a country, *Natural Hazards*, Springer (2019) 98: 1.

3. Guest Editor (with Costas Armenakis) (2013). Special Issue on Sociological Aspects of Natural Disasters, *Natural Hazards*, Springer, 66, p140.
4. Indian Ocean Tsunami, Eds: T.S. Murty, U. Aswathanarayana, N. Nirupama, A.A. Balkema Publication, The Netherlands, 398 pages, 2006.
5. Co-editor (with David Etkin and Tetyana Bogutska). (2006). Proceedings of the Canadian Risk and Hazard Network Symposium, Toronto, Canada, Nov 17-19, 2006.
6. Editor (with R. Khanna as co-editor), Proceedings of All India Seminar on Environmental & Social Issues in Water Resources Development, Lucknow, India, June 5-6, 2000.

Book Chapters - Peer Reviewed

1. Agrawal N (2024). Is the Canadian Emergency Management System Prepared for Evolving Threats? *In The Future of Canadian Security: Vital Insights from Women Experts*, Ed. Aisha Ahmad, The University of Toronto Press. 125-137: 291p ***Invited***
2. Rodríguez De Marco D, Porporato M, Agrawal N (2022). Man-made Disaster – A Case of Failed Governance in a Latin American Economy. In: Singh, A. (ed) *International Handbook of Disaster Research*. Springer.
3. Subbotina K., Agrawal N. (2017) Natural Disasters and Health Risks of First Responders. In: Masys A., Lin L. (eds.) *Asia-Pacific Security Challenges*. Springer International Publishing. 85-122. ***Invited***.
4. Nirupama, N. (2013). Disaster Risk Management, *Encyclopaedia of Natural Hazards*, (Ed.) Peter Bobrowsky, Springer, 164-169, 1133p. ***Invited***
5. Ballisario, L, J. McGee and N. Nirupama (2012). Emergency Management Education in Canada: A View from the Crossroads, *In Disaster Risk and Vulnerability: Mitigation through Mobilizing Communities*. Eds.: C.E. Haque and D. Etkin, McGill-Queen's University Press, Canada.
6. Nirupama, N., T.S. Murty, I. Nistor, and A.D. Rao (2006). A Review of Classical Concepts on Phase and Amplitude Dispersion: Application to Tsunamis. In *Indian Ocean Tsunami*, Eds: Murty, Aswathanarayana, Nirupama, A.A. Balkema Publication, The Netherlands, p63-72.
7. Nirupama, N., T.S. Murty, A.D. Rao and I. Nistor (2006). A Partial Explanation for the Initial Withdrawal of the Ocean during the Tsunami. In *Indian Ocean Tsunami*, Eds: Murty, Aswathanarayana, Nirupama, A.A. Balkema Publication, The Netherlands, p73-80.
8. Nirupama, N., T.S. Murty, I. Nistor, and A.D. Rao (2006). The Energetics of the Tsunami of 26 December 2004 in the Indian Ocean: A Brief Review. In *Indian Ocean Tsunami*, Eds: Murty, Aswathanarayana, Nirupama, A.A. Balkema Publication, The Netherlands, p81-90.
9. Nirupama, N., T.S. Murty, I. Nistor, and A.D. Rao (2006). Possible Amplification of the Tsunami through Coupling with Internal Waves. In *Indian Ocean Tsunami*, Eds: Murty, Aswathanarayana, Nirupama, A.A. Balkema Publication, The Netherlands, p91-96.
10. Nirupama, N., T.S. Murty, A.D. Rao and I. Nistor (2006). Normal Modes and Tsunami Coastal Effects. In *Indian Ocean Tsunami*, Eds: Murty, Aswathanarayana, Nirupama, AA Balkema Pub, The Netherlands, p143-150.
11. Nirupama, N., T.S. Murty, I. Nistor, and A.D. Rao (2006). Helmholtz Mode and K-S-P Waves: Application to Tsunami. In *Indian Ocean Tsunami*, Eds: Murty, Aswathanarayana, Nirupama, A.A. Balkema Pub, The Netherlands, p151-158.
12. Nirupama, N., T.S. Murty, I. Nistor, and A.D. Rao (2006). The Cauchy-Poisson Problem: Application to Tsunami Generation and Propagation. In *Indian Ocean Tsunami*, Eds: Murty, Aswathanarayana, Nirupama, A.A. Balkema Publication, The Netherlands, p175-184.
13. Nistor, I., K. Xie, N. Nirupama and T.S. Murty (2006). A Review and Listing of Tsunami Heights and Travel Times for the 26 December 2004 Event. In *Indian Ocean Tsunami*, Eds: Murty, Aswathanarayana, Nirupama, A.A. Balkema Publication, The Netherlands, p185-208.
14. Murty, T.S., N. Nirupama, A.D. Rao and I. Nistor (2006). Possible Detection in the Ionosphere of the Signals from Earthquakes and Tsunamis. In *Indian Ocean Tsunami*, Eds: Murty, Aswathanarayana, Nirupama, A.A. Balkema Publication, The Netherlands, p227-234.

15. Murty, T.S., N. Nirupama, A.D. Rao and I. Nistor (2006). Methodologies of Tsunami Detection. In Indian Ocean Tsunami, Eds: Murty, Aswathanarayana, Nirupama, A.A. Balkema Publication, The Netherlands, p259-272.
16. Murty, T.S., A.D. Rao, N. Nirupama, and I. Nistor (2006). An Ideal Conceptual Tsunami Warning System for the Indian Ocean. In Indian Ocean Tsunami, Eds: Murty, Aswathanarayana, Nirupama, A.A. Balkema Publication, The Netherlands, p455-474.
17. Murty, T.S., N. Nirupama, I. Nistor and A.D. Rao (2006). The Role of Oscillations of the First and Second Class in Tsunami around Andaman & Nicobar Islands, In: Geomatics in Tsunami, Eds.: S.M. Ramasamy, C.J. Kumanan, R. Sivakumar and B. Singh, New India Publishing Agency, India, p11-16.
18. Haque, C.E., N. Nirupama, and T.S. Murty (2006). Nature Itself Does Not Cause a Disaster: The Role of Physical and Socioeconomic Variables in the Catastrophic Loss Due to the Indian Ocean Tsunami of 26 December 2004, In Natural Hazards and Disaster Management: Vulnerability and Mitigation, Ed: R.B. Singh, p79-103.
19. Nirupama, N., T.S. Murty, A.D. Rao and I. Nistor (2005). The Role of Gravid and Elastoid Modes in Tsunami around Andaman and Nicobar Islands. In Indian Ocean Tsunami, Ed: V. Sundar, Indian Institute of Technology Madras, India, p41-52.
20. Nirupama, N., T.S. Murty, A.D. Rao and I. Nistor (2005). Tsunami in Andaman and Nicobar Islands: Oscillations of the First and Second Class. In Indian Ocean Tsunami, Ed: V. Sundar, Indian Institute of Technology Madras, India, p22-30.
21. Ponnambalam, K., Nirupama and H. Venema (2001). Wetlands Management using Geographical Information Systems and Multiobjective Decision Support System, Best Modelling Practices for Urban Water Systems Monograph 10, Ed. William James, 215-224.

Articles - Peer-Reviewed

1. Sipos M, Agrawal N (2023). Climate change, ecosystem loss, and flood risk: Taking stock using Burlington as a Case, Canadian J Emergency Management, 3(2): 76-107.
2. Ahmad K, Haque E, Agrawal N, Sakib S (2023). Nature-triggered disasters and the involvement of armed forces: exploring a civil-military collaborative framework, Canadian J Emergency Management, 3(1): May 2023 <https://cdnjem.ca/v3n1-english/>
3. Unnikrishnan P, Ponnambalam K, Agrawal N, & Karray F (2023). Joint Flood Risks in the Grand River Watershed. Sustainability, 15(12), 9203. <https://doi.org/10.3390/su15129203>
4. Regmi AD, Agrawal N (2022). A simple method for landslide risk assessment in the Rivière Aux Vases basin, Quebec, Canada, Progress in Disaster Science, 16 (2022) 100247 August.
5. Rajabali R, Agrawal N (2022). Taming the flow, then and now: A Canadian case of floodplain management, Front. Water, 08 July 2022 Sec. Water and Human Systems <https://doi.org/10.3389/frwa.2022.931214>
6. Haque CE, Berkes F, Fernández-Llamazares Á, Ross H, Chapin T, Doberstein B; Reed M, Agrawal N, Nayak P, Etkin D, Doré, M, Hutton D (2021). Social learning for enhancing social-ecological resilience to disaster shocks: A policy Delphi approach, *Disaster Prevention and Management*, Emerald, November 2021.
7. Agrawal N, Adhikari I, Yiu N (2021). Disaster risk in Canada – a data-driven discussion, *Canadian J of Emergency Management*, 1(2): 1-19. <https://cdnjem.ca/v1n2i/>
8. Chondol, T., Panda, A.K., Gupta, A.K., Agrawal, N. and Kaur, A. (2020). The role of perception of local government officials on climate change and resilient development: a case of Uttarakhand, India, *Int. J Disaster Resilience in the Built Environment*, 12(2): 184-195 <https://doi.org/10.1108/IJDRBE-01-2020-0003>
9. Etkin D, Agrawal N, McBey K, Jaiswal M, Mamuji A (2020). The future of emergency management, *HazNet*, CRHNet Canada 14(1): 38-40.
10. Agrawal N (2020). COVID-19: A Perspective of a Disaster Management Professional, *eMediHealth*, May 19, 2020 <https://www.emedihealth.com/covid-19-disaster-management.html>
11. Agrawal N, Elliott M, Simonovic SP (2020) Risk and resilience: A case study of perception versus reality for flood management. *Water* 2020, 12, 1254; [doi:10.3390/w12051254](https://doi.org/10.3390/w12051254) ***Editor's Choice Article***

12. Agrawal N, Cox R (2019) Natural disasters and 150th commemoration of Canada as a country, *Natural Hazards*, 98(1): 3-7.
13. Agrawal N, Jahanandish A (2019). Is climate change impacting Rideau Canal Skateway, the world's longest skating rink? Special Issue Natural Disasters and 150th Commemoration of Canada as a Country, *Natural Hazards*, 98(1): 91-101.
14. Tsasis P, Agrawal N, Guriel N (2019). An Embedded Systems Perspective in Conceptualizing Canada's Healthcare Sustainability, *Sustainability* 2019, 11(2), 531; <https://doi.org/10.3390/su11020531>
15. Jahanandish A, Nirupama N (2017). Quantitative analysis of earthquake fatalities: case of Iran, *Natural Hazards*, 87: 567-579.
16. Dumbuya B, Nirupama N (2017). Disasters and long term economic sustainability: a perspective on Sierra Leone, Special Issue on Investments in Disaster Resilience, *Int. J Disaster Resilience in the Built Environment*, 8(1): 58-76.
17. Irwin S, Schardong A, Simonovic SP, Nirupama N (2016). ResilSIM—A Decision Support Tool for Estimating Resilience of Urban Systems. *Water* 8(9): 377.
18. Nirupama, N. (2015). Understanding risk from floods and landslides in the Himalayan region: a discussion to enhance resilience. *planet@risk*, *Global Risk Forum*, 3 (2): 231-235.
19. N. Nirupama T. Popper A. Quirke (2015). Role of social resilience in mitigating disasters, *Int. J Disaster Resilience in the Built Environment*, 6(3): 363 – 377.
20. Guindon, S-M, Nirupama, N. (2015). Reducing risk from urban heat island effects in cities, *Natural Hazards*, 77 (2): 823-831.
21. Daddar, S., Nirupama, N. (2015). The potential of recurrent epidemics and pandemics in a highly mobile global society, *Natural Hazards*, 77 (2): 1395-1403.
22. Agada, S., Nirupama, N. (2015). A serious flooding event in Nigeria in 2012 with specific focus on Benue State, *Natural Hazards*, 77 (2): 1405-1414.
23. Nirupama, N., Sharma, R., Verma, K., Panigrahi, S. (2014). A multi-tier hazard-Part I: description of the event, *Natural Hazards*. 76 (1): 259-269.
24. Sharma, R., Verma, K., Panigrahi, S. Nirupama, N. (2014). A multi-tier hazard-Part II: meteorological Analysis, *Natural Hazards* 76 (1): 271-281.
25. Nirupama, N., Adhikari, I., Sheybani, A. (2014). Natural hazards in Ontario Canada – taking stock for mitigating disasters, *Procedia Economics and Finance*, Elsevier, 18: 55-61.
26. Armenakis, C., Nirupama, N. (2014). Flood risk mapping for the city of Toronto, *Procedia Economics and Finance*, Elsevier, 18: 320-326.
27. Armenakis, C., Nirupama, N. (2014). Urban impacts of ice storm – Toronto 2013, *Natural Hazards*, 74(2): 1291-1298.
28. Nirupama, N., Hafezi, H. (2014). A short communication on school bus accidents: A review and analysis, *Natural Hazards*, 7(3): 2305-2310.
29. Nirupama, N., Armenakis, C., Montpetit, M. (2014). Is flooding in Toronto a concern? *Natural Hazards*, 72(2): 1259-1264.
30. Armenakis, C., Nirupama, N., Zalidid, G., Alexandridis, T. (2014). Degradation of Coastal Wetlands using Examples from Greece and Canada: A Review, *Int. J Ecology and Development*, 29 (3):87-109.
31. Armenakis, C. and Nirupama, N. (2013). Estimating spatial disaster risk in urban environments, *Geomatics, Natural Hazards and Risk*, Taylor & Francis, 4 (4): 289-298.
32. Nirupama, N. (2013). Vertical evacuation during cyclones: suitable for developing countries. *Natural Hazards*. 69:1137-1142.
33. Nirupama, N. (2013). Tsunami versus storm surge: a brief review. *Natural Hazards*. 69:1123-1130.
34. Nirupama, N. (2013). Is it possible to rank hurricanes in a unique manner? *Natural Hazards*. 67: 963-968.
35. Nirupama, N. and Armenakis, C. (2013). Sociological Aspects of Natural Hazards. Editorial, Special Issue, *Natural Hazards*. 66:1-2.

36. Nirupama, N. and Maula, A. (2013). Engaging Public for Building Resilient Communities to Reduce Disaster Impact, Special Issue *Natural Hazards*. 66:51-59.
37. Armenakis, C. and Nirupama, N. (2013). Prioritization of Disaster Risk in a Community using GIS, Special Issue on Sociological Aspects of Natural Disasters Springer, *Natural Hazards*. 66:15-29.
38. Nirupama, N. and Etkin, D. (2012). Institutional Perception and Support in Emergency Management in Ontario, Canada, *Disaster Prevention and Management*, Emerald, 21(5): 599-607.
39. Nirupama, N. (2012). Risk and Vulnerability Assessment – A Comprehensive Approach, *International Journal of Disaster Resilience in the Built Environment*, Emerald, 3:2.
40. Khalafzai, AK and Nirupama, N. (2011). Building Resilient Communities through Empowering Women with Information and Communication Technologies: A Pakistan Case Study, *Sustainability* 3(1): 82-96.
41. Nirupama, N. and D. Etkin (2009). Emergency Managers in Ontario: An Exploratory Study of Their Perspectives, *Journal of Homeland Security and Emergency Management*: 6 (1), Article 38.
<http://www.bepress.com/jhsem/vol6/iss1/38>
42. Kurian, N.P., N. Nirupama, M. Baba, and K.V. Thomas (Feb 2009). Coastal Flooding due to Synoptic Scale, Meso-Scale and Remote Forcings, *Natural Hazards*, 48 (2), 259-273.
43. Nirupama, N. (2009). Socio-economic Implications based on Interviews with Fishermen following the Indian Ocean Tsunami, *Natural Hazards*, 48 (1): 1-9.
44. Nirupama, N. (2009). Analysis of the Global Tsunami Data for Vulnerability and Risk Assessment, *Natural Hazards*, 48 (1), 11-16.
45. Tsasis, P. and N. Nirupama (2008). Vulnerability and Risk Perception in the Management of HIV/AIDS: Public Priorities in a Global Pandemic, *Risk Management and Healthcare Policy*, 1, 7-14.
46. Nirupama, N. and S.P. Simonovic (2007). Increase of Flood Risk due to Urbanization: A Canadian Example, *Natural Hazards*, Springer, 40, 25-41.
47. Nirupama, N., T.S. Murty, I. Nistor, and A.D. Rao (2006). The Energetics of the Tsunami of 26 December 2004 in the Indian Ocean: A Brief Review, *Marine Geodesy*, 29 (1), 39-48.
48. Nirupama, N., T.S. Murty, I. Nistor, and A.D. Rao (2006). Persistent High Water Levels around Andaman & Nicobar Islands following the 26 December 2004 Tsunami, *Science of Tsunami Hazards*, 24 (3), 183-193.
49. Nirupama, N., I. Nistor, K. Ponnambalam and T.S. Murty (2006). Tsunami Travel Time Atlas for the Atlantic Ocean, *Marine Geodesy*, 29 (3), 179-199.
50. Garnett, R.E., N. Nirupama, T.S. Murty, and C.E. Haque (2006). Correlates of Canadian Prairie Rainfall-Implications for Crop Yield, *Climate Research*, 32, 25-33. Citation 14
51. Kurian, N.P., T.N. Prakash, M. Baba and N. Nirupama (2006). Observations of Tsunami Impact on the Coast of Kerala, India, *Marine Geodesy*, 29 (2), 135-145.
52. Murty, T.S., A.D. Rao, N. Nirupama and I. Nistor (2006). Tsunami warning systems for the hyperbolic (Pacific), parabolic (Atlantic and elliptic (Indian) oceans. *Journal of Indian Geophysical Union*. 10 (2), 69-78.
53. Nirupama, N., T.S. Murty, A.D. Rao and I. Nistor (2006). Numerical Tsunami Models for the Indian Ocean Countries and States, *Indian Ocean Survey*, 2 (1), 1-14.
54. Kurian, N.P., M. Baba, K. Rajith, N. Nirupama and T.S. Murty (2005). Analysis of the Tsunami of 26 December 2004 on the Kerala Coast of India -Part I: Amplitudes, *Marine Geodesy*, 29 (4), 265-270.
55. Baba, M., N.P. Kurian, B.T. M. Krishnan, N. Nirupama and T.S. Murty (2005). Analysis of the Tsunami of 26 December 2004 on the Kerala Coast of India-Part II: Arrival Times, *Marine Geodesy*, 29 (4), 271-276.
56. Kurian, N.P., K. Rajith, B.T. Muralikrishnan, N. Nirupama and T.S. Murty (2005). Analysis of the Tsunami of 26 December 2004 on the Kerala Coast of India-Part III: Inundation and Initial Withdrawal, *Marine Geodesy*, 29 (4), 277-281.
57. Murty, T.S., N. Nirupama, I. Nistor, and A.D. Rao (2005). Leakage of the Indian Ocean Tsunami Energy into the Atlantic and Pacific Ocean, *Recorder of Canadian Society of Exploration Geophysicists*, December, 33-36.
58. Murty T.S., A.D. Rao, N. Nirupama and I. Nistor (2005). Numerical Modelling Concepts for the Tsunami Warning Systems, *Current Science*, 90 (8), 1073-1081.

59. Murty, T.S., A.D. Rao, and N. Nirupama (2005). Inconsistencies in Travel Times and Amplitudes of the 26 December 2004 Tsunami, *J. Marine Medicine*, 7 (1), 4-11.
60. Murty, T.S., N. Nirupama, I. Nistor and A.D. Rao (2005). Conceptual Differences Between the Pacific, Atlantic and Arctic Tsunami Warning Systems for Canada, *Science of Tsunami Hazards*, 23 (3), 39-51.
61. Teller, J.T., T.S. Murty, N. Nirupama, and P. Chittibabu (2005). A Possible Tsunami in the Labrador Sea Related to the Drainage of Glacial Lake Agassiz ~8400 Years B.P., *Science of Tsunami Hazards*, 23 (3), 3-16.
62. Murty, T.S., N. Nirupama, I. Nistor, and S. Hamdi (2005). Far Field Characteristics of the Tsunami of 26 December 2004, *J. Indian Society of Earthquake Technology*, 42 (4), 213-217.
63. Murty T.S., N. Nirupama, I. Nistor and S. Hamdi (2005). Why the Atlantic Generally cannot Generate Trans-Oceanic Tsunamis, *J. Indian Society of Earthquake Technology*, 42 (4), 227-236.
64. Simonovic, S. and Nirupama (2005). A Spatial Multi-Objective Decision Making under Uncertainty for Water Resources Management, *Journal of Hydroinformatics*, 7 (2), 117-133.
65. Nirupama, T. Tachikawa, M. Shiiba, and T. Takasao (1996). A Simple Water Balance Model for a Mesoscale Catchment Considering Areal Tension Water Distribution, *Bulletin of the Disaster Prevention Research Institute*, Japan, 45 B-2.
66. Takasao, T., M. Shiiba, T. Tachikawa, A. Fujita and Nirupama (1995). Analysis of a Time Scale on Runoff Phenomena, *Bulletin of the Disaster Prevention Research Institute*, Japan, 38 B-2.

Conferences Presentations

1. Unnikrishnan P, Kumaraswamy P, Agrawal N, Karray F (2023). Joint flood risks in the Grand River Basin, 9th Int. Conf. Flood Management (ICFM), February 20-24, 2023, Tsukuba, Japan.
2. Sipos M, Agrawal N (2022). Climate challenges, ecosystem loss, disaster risk and a case of Burlington, Ontario, Disaster & Emergency Management Conf. November 17-18, 2022, Toronto.
3. Sipos, Megan and Agrawal, Nirupama (2022). Biodiversity Loss and Flood Risk: A Case of Burlington, Ontario, ASFPM Conference, May 15-19, 2022, Florida, USA.
4. Patel S, Agrawal N (2021). Understanding R0 in the context of Covid-19, International E-Conference on Covid-19 Pandemic, United Research Forum, UK, December 14-15, 2021 (Virtual).
5. Agrawal N, Liu N, Adhikari I. (2021). A data-driven discussion on disaster risk and resilience, AFAC21 Conference, Australia, Aug 17-19, 2021 (Virtual)
6. Agrawal N, Wells S, Yasui E (2021). Strengthening the Profession of EM in Canada: Accessing, assessing, and sharing information to develop professional Concepts and Doctrine, 2021 Emergency Management Stakeholder Summit, March 23-24, 2021 (Virtual).
7. Agrawal and Simonovic (2020) Understanding resilience – perception versus reality. CDA 2020 Annual Conference, Winnipeg, Canada, October 24-29, 2020 (postponed due to COVID)
8. Agrawal and McGillivray (2020) Flood risk mitigation through understanding and adaptation – a Canadian case study, 8th Int Conf on Flood Management (ICFM8), Iowa, USA, August 2020. (cancelled due to COVID)
9. Agrawal N, Simonovic SP, Elliott M (2017). A Canadian example of integrating qualitative and quantitative approaches, IDRC Sendai 2017, Japan Nov 25-28, 2017.
10. Agrawal N, Simonovic SP, Elliott M (2017). Disaster adaptiveness, resilience, and capacity building by accounting for people's perception: a Canadian case study, 7th Int. Conference on Flood Management (ICFM7), 05-07 September 2017, University of Leeds, UK.
11. Subbotina K, Nirupama N (2016). Health risk analysis of internationally deploying first responders following a natural disaster, 6th Int. Conf. on Building Resilience, University of Auckland, New Zealand, Sep 7-9, 2016.
12. Nirupama N, Jubril J (2016). Social capital and disaster resilience: A Canadian case study, Proceedings of the 6th International Disaster and Risk Conference, IDRC Davos, Switzerland, Aug 28-Sep 01, 2016, p 464-467.
13. Dumbuya B, Nirupama N (2016). Disasters and Long Term Economic Sustainability: A Perspective on Sierra Leone, Proc. 6th Int. Disaster and Risk Conference, IDRC Davos, Aug 28-Sep 01, 2016, p 191-194.
14. Nirupama, N., Hebert, L., Jubril, J. (2015). Urban heat island effect in metropolitan cities: taking stock, 5th Building Resilience Conference, Newcastle, Australia, 15-17 July 2015.

15. Lee, N.M., Ellis, D., Nirupama, N. (2014). North Atlantic Oscillation and the Variability of Atlantic Tropical Cyclones: Implications for Disaster Risk Management, CRHNet Symposium, Oct 22-24, 2014, Toronto.
16. Dumbuya, B., Nirupama, N. (2014). Understanding community resilience using disaster models in post-conflict Sierra Leone. CRHNet Symposium, Oct 22-24, 2014, Toronto.
17. Khayeri, MS, Nirupama, N. (2014). Are women and children more vulnerable to natural disasters – the case of Chicago heat wave of 1995? CRHNet Symposium, Oct 22-24, 2014, Toronto.
18. McNeil, C., Subbotina, K., Nirupama, N. (2014). Pandemics and emergency management perspectives: understanding historical, environmental, and first responder implications. CRHNet Symposium, Oct 22-24, 2014, Toronto.
19. Nirupama, N., Adhikari, I., Sheybani, A. (2014). Natural hazards in Ontario Canada – taking stock for mitigating disasters, 4th International Conference on Building Resilience, Salford Quays, UK, September 9-11 2014. ***Best paper award.***
20. Armenakis, C., Nirupama, N. (2014). Flood risk mapping for the city of Toronto, 4th International Conference on Building Resilience, Salford, UK, Sep 8-11, 2014.
21. Nirupama, N. (2014). Risk from a three tier multi hazard in Uttarakhand region of India, Global Risk Forum, Davos, Switzerland, Aug 24-28, 2014.
22. Thomson, K., Nirupama, N., Popper, T., Pradhan, S., Higuchi, K. (2014). A qualitative study of the experiences of first responders, International Conference on Disaster Mitigation, Preparedness, Response and Sustainable Reconstruction, Centre for Rebuilding Communities after Disasters, Boston, USA, May 8-9, 2014.
23. Nirupama, N. (2013). Role of Social Resilience in Mitigating Seismic Disasters, International Conference of the International Institute for Infrastructure, Renewal and Reconstruction (IIIRR) Brisbane, Australia, July 7-10, 2013.
24. Armenakis, C. and Nirupama, N. (2013). Spatial risk estimation for technological hazards, Int. Conference on Earth Observation for Global Changes and 2013 Annual Conference of The Canadian Institute of Geomatics (CIG), Ryerson University, Toronto, Ontario, Canada, 5-7 June 2013.
25. Nirupama, N (2012). The Triple Disaster of Japan and People's Resilience. CRHNet Annual Symposium, Vancouver, October 24-26, 2012.
26. Nirupama, N. (2012). A Reasonable Success Story of Vertical Evacuation against Tropical Cyclones in India, Global Risk Forum, Davos, Switzerland August 26-Sep 1, 2012.
27. Nirupama, N. and Murty, TS. (2012). Similarities and Differences in Tsunamis and Storm Surge Mitigation, International Conference on Disaster Resilience, Kumamoto, Japan, August 24-26.
28. Nirupama, N., Nistor, I. And Murty, TS. (2011). Probabilistic versus Deterministic Approaches in Early Warning Systems for Natural Hazards: Coastal Inundation from Tsunamis and Storm Surges, Conference on Probabilistic Methodologies in Water and Wastewater Engineering, Toronto, September 23-24, 2011.
29. Nirupama, N. (2011). Risk and Vulnerability Assessment - A Comprehensive Approach, International Conference on Building Resilience, Kandalama, Sri Lanka, July 20-22, 2011.
30. Armenakis, C and N. Nirupama (2009). Vulnerability Assessment using GIS: Toronto Propane Explosion, CRHNet Symposium, Edmonton Nov 23-26, 2009.
31. Nirupama, N and T.S. Murty (2007). Aliasing and Fuzzy Mathematics in Natural Marine Hazard Mitigation. Fourth Indian National Conference on Harbour and Ocean Engineering, NIT, India, Dec 12-14, 2007.
32. Murty, T.S. and N. Nirupama (2006). Tsunamis and storm surges in Indian Ocean, 12th Pacific Congress on Marine Science and Technology (PACON), Myanmar, Thailand, June 11-15, 2006.
33. Nirupama, N and T.S. Murty (2005). Analysis of the Travel Times of the Tsunami of 26 December 2004 in the Indian Ocean, Canadian Coastal Engineering Conference, Halifax, N.S., Nov 7-9, 2005
34. Murty, T.S., I. Nistor, S. Hamdi and N. Nirupama (2005). Numerical Modelling for the Tsunami Warning System for Atlantic Canada, Canadian Coastal Engineering Conference, Halifax, N.S., Nov 7-9, 2005
35. Logan, L., K. Ponnambalam, N. Nirupama, and H. Belore (2003). Evaluating Performance Sensitivity of a Water Balance Model, Proc. Canadian Society for Civil Engineering Conference, Burlington, Ontario, October 22-24, 2003

36. Nirupama, T. Tachikawa, M. Shiiba, and T. Takasao (1995). Comparison of Water Balance Models Taking Account of Water Storage Distribution, Proc. 50th Annual Conference of Japan Society of Civil Engineers, Tokyo, Japan, October 25-27, 1995.
37. Nirupama, Mathur, B.S. and T. Takasao (1993). A Criterion for Application of Kinematic Wave Modelling, 48th Annual Conference of Japan Society of Civil Engineers, 15-18, 1993.

Presentations/Panels/Workshops

1. Agrawal N (2025). Moderator, Panel on Canada's Civil Defence, Canadian International Council, Canadian Forces College, Toronto, Nov 25, 2025.
2. Agrawal N (2024). Workshop Host: Domestic Operations: Re-centering Disaster Response in Canada using the Systems Approach. Networking Workshop host, CDSN-MINDS (Mobilizing Insights in Defence and Security Network), Nov 24, 2023, Toronto.
3. Agrawal N (2025). How to succeed in Disaster & Emergency Management Practicum, Y-EMERGE, York University, Oct 9, 2025.
4. Agrawal N (2023). Policy Workshop on The Future of Emergency Management in Canada, Organized by Canadian J Emergency Management, Sep 24, 2024, Ottawa, **Invited**.
5. Agrawal, N. (2024). Role of people's perception in flood management, Science Talk Series, UNU-INWEH, Sep 18, 2024. Virtual.
6. Agrawal, N. (2024). Impacts of hurricanes and floods on maternal-child health, York University's 7th LMW Maternal-Child Health Learning Academy, July 15, 2024 (virtual), **Invited panellist**.
7. Agrawal N (2023). Workshop Host: Domestic Operations: Unlocking Insights for Paradigm Shift, CDSN-MINDS (Mobilizing Insights in Defence and Security Network), Nov 24, 2023.
8. Agrawal N (2023). Domestic Operations in Canada, Year-end conference, Canadian Defence & Security Network, Carleton U, Ottawa, Oct 20, 2023. **Invited Panellist**.
9. Agrawal N (2023). The Future of Domestic Operations: Rethinking the role of the CAF in emergency response, Webinar, Canadian Defence Institute, June 22, 2023. **Invited**
10. Agrawal N (2023). Emergency Management Thinktank, Canadian J Emergency Management and Public Safety Canada, June 6-7, 2023, Ottawa, Canada. **Invited**
11. Agrawal N, Haque E, Ahmad K (2023). Nature-triggered extreme events: who might/could respond? Workshop co-host, Mobilizing Insights in Canadian Defence and Security Network (CDSN), Mar 16-17, 2023.
12. Agrawal N, Haque E, Ahmad K (2023). Nature-triggered disaster management: Ethics and inclusion, Webinar organization and moderation, Mobilizing Insights in Canadian Defence and Security Network (CDSN), Jan 30, 2023.
13. Agrawal N (2023). Moderator, Rethinking Vulnerability, Y-EMERGE, York, January 19, 2023.
14. Agrawal N, Haque E, Ahmad K (2022). A Multi-stakeholder collaborative approach to nature-triggered emergency management: reflections from the field, Co-organizer/host, Mobilizing Insights in Canadian Defence and Security Network (CDSN), Dec 5-6, 2022.
15. Agrawal N, Haque E, Ahmad K (2022). Webinar organization and moderation, Mobilizing Insights in Canadian Defence and Security Network (CDSN), July 19, 2022.
16. Agrawal N (2022). Managing the retreat: Never too late, Int. Conf. Flood Management Webinar series, April 27, 2022. **Invited**
17. Agrawal N (2022). Navigating Adaptation to Climate-Activated Risks, International Conf. Tackling Climate Change through Urban Resilience, IIT Tirupati – Shastri Indo-Canadian Institute, March 24-25, 2022. **Invited**
18. Agrawal N (2021). Canadian military and disaster assistance, Annual Conference of Canadian Defence and Security Network (CDSN), Ottawa, Dec 3, 2021.
19. Agrawal N (2021). Risk perception and assessment, Water Without Border, UN Institute for Water, Environment, and Health, McMaster University, October 19, 2021 (Virtual).

20. Agrawal N (2021). Hazard Identification and Risk Assessment workshop, Summer Institute, Canadian Defence and Security Network, August 26, 2021. (Virtual)
21. Sipos M, Agrawal N (2021). Biodiversity Loss and Flood Risk: A Case of Burlington, Ontario, ASFPM Conference, Florida, May 15-18, 2021.
22. Panelist, Building Momentum for Transformative Disaster Risk Governance Symposium, York University, Feb 12, 2021.
23. Agrawal N (2020), Climate Resilience & Disaster Safe Development, Science & Technology Research - Policy - Practice Interface for Climate Risk Management, Virtual Conference, National Institute of Disaster Management, India, August 25-27, 2020. **Invited**
24. Agrawal N (2019). Climate resilience – reflections from the Canadian context, Centre for Excellence on Climate Resilience, New Delhi, India, Nov 25, 2019. **Invited**
25. Agrawal N (2019). Climate Change Adaptation, Guest speaker, Canadian Red Cross, Edithvale Community Centre, North York, April 29, 2019. **Invited**
26. Agrawal N (2019). **Keynote**: Climate change resilience through innovation, Keynote address at the Climate Change Mitigation and Adaptation Strategies to Promote Resiliency, Ryerson University, Toronto, 18 March 2019. **Invited**
27. Agrawal N (2019). Expert Panel, 'Dragons Den' Plenary Session, CatIQ Connect conference, Toronto, Feb 4-6, 2019. **Invited**
28. Agrawal N (2019). Urban water issues of the 21st century, Asian Business and Management Program, York University, Jan 21, 2019. **Invited**
29. Agrawal N (2018). Incorporating people's perspectives into disaster resilience assessment, ADERSIM workshop, Oct 31, 2018, York University.
30. Agrawal N (2019). Disasters for Dummies, Workshop for New College students, York University, Jan 23, 2019.
31. Nirupama N (2016). What do you need to know about natural hazards and why? New College Seminar Series, Faculty of Liberal Arts and Professional Studies, York University, March 9, 2016.
32. Session Chair report presentation (2016). Session 16: Awareness and Preparedness in Integrative Risk Management, IDRC Davos, Switzerland, Aug 28-Sep 01, 2016.
33. Irwin S, Simonovic SP, Nirupama N (2016). ResilSIM, CREATE ADERSIM Workshop, May 2016, York University.
34. Nirupama, N. (2015). Community partnership in building resilience for dam related emergencies, Canadian Dam Association Workshop on Emergency Management, Ottawa, Feb 24-25, 2015. **Invited**
35. Nirupama, N. (2014). Defining risk and its role in disaster management, FIDS Symposium, University of Western Ontario, London, Canada, May 11-12, 2014.
36. Nirupama, N. (2014). Personal statement on science & technology towards the Post 2015 framework for Disaster Risk Reduction. IDRC Davos Switzerland, p177. **Invited**
37. Nirupama, N. (2014). Red Chair Session statement, IDRC Davos Switzerland. <http://idrc.info/outcomes/red-chair-statements/>
38. Guindon, S. and Nirupama, N. (2013). Natural hazards and economic development and planning in the Caribbean, 8th Caribbean Conference on Comprehensive Disaster Management, Jamaica, December 2-6, 2013.
39. Nirupama, N. (2012). Tsunamis and Hurricanes – Difference in Mitigation Strategies. Invited talk at the Department of Civil Engineering, Kyoto University, Japan, July 27, 2012.
40. Nirupama, N. (2012). Encouraging Public Participation for Furthering Community Resilience in Time of Crisis, Research Celebration Week, York University, March 12-15.
41. Nirupama, N. (2011). Disaster Risk and Vulnerability, Research Buffet Seminar Series, School of Administrative Studies, York University, November 24, 2011.
42. Nirupama, N. and Armenakis, C. (2011). Use of GIS in Disaster Management, GIS Day presentation, York University, November 16, 2011.
43. Nirupama, N. (2011). Risk and Vulnerability to Indian Railways due to Natural Hazards, Indian Railways, Kolkata, India, Feb 19, 2011.

44. Nirupama, N. (2011). Vulnerability Reduction using Stress Management Techniques, Educare, Lucknow, India, Jan 21, 2011.
45. Speaker, New College Seminar Series, Faculty of Liberal Arts and Professional Studies, York University, 2010.
46. Invited speaker at Disaster Recovery Information Exchange (DRIE) meeting, Toronto, March 3, 2009.
47. Nirupama N (2008). Disaster risk management – theory, practice and policy, Public Safety and Emergency Preparedness Canada, Ottawa, December 1, 2008. **Invited**
48. Brown bag seminar speaker at Atkinson School of Administrative Studies, York University, February 2007.
49. Flood control options and cost-benefit analysis, Emergency Management Ontario Learning Series, Toronto, December 2006. **Invited**

Other Publications and Contributions

1. Contributor to "Technical guideline: Inundation mapping", sub-working group inundation mapping, CDA August 2016.
2. Contributor to the report, "Canadian Dam Safety and Emergency Management: A Need for Regulation, Canadian Dam Association, August 2016.
3. Foreword *In Disaster Risk Management - Conflict and Cooperation*, (Eds) S.R. Sensarma and A. Sarkar. Concept Publishing Company Private Ltd., New Delhi, India (2012).
4. Nirupama, N. Disaster Risk Management: Theory, Practice and Policy. Report prepared for Public Safety Canada, Government of Canada, Ottawa, December 2008.
5. Web content (quiz questions and cases-in-point) for *Natural Hazards and Disasters*, First Canadian Edition, Nelson, 526pp, May 2008.
6. Murty T.S., N. Nirupama and A.D. Rao Why the Earthquakes of 26 December 2004 and the 27th March 2005 Differed so Drastically in their Tsunamigenic Potential, Newsletter: Voice of the Pacific, 21 (2), 2005.
7. Murty T.S., N. Nirupama and A.D. Rao. Tsunami Warning System for the Indian Ocean, Proc. Brain Storming Session, Department of Science and Technology, New Delhi, India, Jan 21-22, 2005.
8. Murty T.S., N. Nirupama and A.D. Rao Historical Tsunami Data for the Indian Ocean with Special Reference to India, Proc. Brain Storming Session, Department of Science and Technology, New Delhi, India, Jan 21-22, 2005.
9. Nirupama, and S.P. Simonovic. A Spatial Fuzzy Compromise Approach for Flood Disaster Management, Institute of Catastrophic Loss Reduction, London, Ontario, 2002.
10. Nirupama, and S.P. Simonovic. Role of Remote Sensing in Disaster Management, Institute for Catastrophic Loss Reduction, London, Ontario, 2002. **Second most downloaded report as of Apr 2019.**

RESEARCH GRANTS

External Grants

- 2024-2027 Assessing the Accessibility of Proactive and Reactive Emergency Management Standards, Co-PI with PI Drs Patterson and Vukovic, Carleton University, Funder: Accessibility Standards Canada, 4/24-3/27.
- 2022-2024 Nature-Triggered Emergencies and Domestic Operations, DND MINDS (Mobilizing Insights in Defence and Security) Grant, Co-Applicant (PI Prof. Saideman, Carlton U), \$450,000.
- 2022 A community-based approach to improve weather-related warnings in Ontario, SSHRC Explore Grant, as PI (with Co-I, Spinney and Kennedy), \$6,952
- 2020 The Interplay of Accounting-Based Information Systems and Transparency to Curb Corruption, CPA Ontario PSI Funding, Collaborator with PIs Professors Maharaj and Porporato, \$13,700
- 2019 A Smart Approach to Build Resilience to Climate Change-Induced Disasters in Canada SSHRC Explore \$1,700
- 2019 Shastri Mobility Programme grant (with Dr. Sabuj Chaudhuri), Shastri Indo-Canadian Institute, India, all expenses paid for Dr. Chaudhuri to visit York from India in August 2019

- 2016-2017 Integrated Approach for Resilience Estimation and Disaster Risk Reduction, *Natural Sciences and Engineering Research Council of Canada (NSERC) - Collaborative Research and Training Experience (CREATE)* - Advanced Disaster, Emergency and Rapid-response Simulation (ADERSIM). (with Slobodan Simonovic, Western University – Principal Investigator), \$32,000.
- 2015 Quantitative Resilience Simulator – ResilSIM, *NSERC CREATE ADERSIM* (with Slobodan Simonovic, Western University – Principal Investigator), \$8,500.
- 2015 Advanced Disaster, Emergency and Rapid-response Simulation (ADERSIM), Canada Foundation for Innovation (CFI) grant (team applicant with J. Wu as PI), \$1.65 million over six years for the development of a disaster simulation facility at York University.
- 2014 *Social Science and Humanities Research Council of Canada (SSHRC)* Partnership Grant, Co-applicant (David Etkin as PI), \$25,000.
- 2012 Engaging public for building community resilience, *SSHRC Small Grants*, \$1,500.
- 2012 *Canadian Institute of Health Research (CIHR)*, (Collaborator with Dr. Brian Schwartz as Principal Investigator), Public Health Ontario, \$25,000.
- 2009 Prioritization of disaster risks in a community using GIS techniques: propane explosion case study, *SSHRC Small Grants* (with Costas Armenakis as co-PI), \$1,000.
- 2008 Disaster and Emergency Management in Canada: Taking Stock, *SSHRC Research Development Initiative* (with David Etkin as co-PI), \$37,950.
- 2005 The Emergency and Disaster Management Community in Canada: Barriers to Effective Disaster Management, *SSHRC Small Grants* (with David Etkin as co-PI), \$3,100.

Internal Funding

- 2022 Minor Research Grant (with Spinney as PI and Kennedy as Co-I), York University \$5000
- 2021 Team member, York Emergency Mitigation, Engagement, Response, and Governance Institute (Y-EMERGE), funded 2021.
- 2021 COVID-19 pandemic – A paradigm shift from response to adaptive capacities. Minor Research Grant, York University, \$5,000, July 2021
- 2019 DARE Dean's Award for Research Excellence – Undergraduate student - Nathan Yiu, Disasters and their impact in Canada – a smart approach to build capacity, York University, \$5,000
- 2019 A smart approach to build resilience to climate change-induced disasters in Canada, Minor Research Grant \$1,915
- 2017 Climate change impact on Rideau Canal, *Minor Research Grant*, York University, \$2,245
- 2013 Hazard risk mitigation through community engagement, *Minor Research Grant*, York University, \$4,165
- 2012-2013 Geoinformation-based disaster & emergency management training facility – Prototype set-up, *Academic Innovation Fund*, York University (with Prof. Costas Armenakis), \$26,700
- 2009 Exercising the Business Continuity plan: A Learning Workshop, Teaching Research, Experiments, Engagement and Sharing, York University, \$1,010
- 2009 Linking the Stats Canada 2006 Census DA profile (attribute) data to DA polygon data (.shp files) for the GTA, *RAY student support*, York University, \$2,040
- 2005 Atkinson Start-up Research Funds, \$50,000

Conference Travel Funding

- 2005-2019 National and international conference travel grants, \$18,500

Projects and Research Proposals

- International PI with Birla Institute of Technology & Science India, Scheme for Promotion of Academic and Research Collaboration (SPARC) application, February 2024
- Co-applicant, NFRFE, Resilient Electric Power Infrastructure: Adapting to Extreme Atmospheric and Space Weather, PI Rezaei, A, York U, submitted 2024. Unsuccessful.

- Co-PI, NFRFT, Resilient Societies and Technological Infrastructures Against Extreme SpaceWeather, PI Rezaei, A, York U, 2024 (unsuccessful)
- Nominated PI, NFRF – International, with partners (UK, Sri Lanka, Indonesia), submitted Sep 2023 (unsuccessful)
- Team Member, Organised Research Unit Application, York University, 2021 – granted in 2022.

INTERNATIONAL COLLABORATIONS

1. Co-PI (with Dr. Sivaraman et al.), Topic: Quick evacuation of humans in low vision and nighttime during floods, Oman University, Grant value OMR 17,700, Oct 2024.
2. Disaster preparedness, Government of Uttar Pradesh, India - 2022
3. BML Munjal University, Haryana, India – 2020
4. Vellore Institute of Technology, Centre for Disaster Mitigation & Management, Tamil Nadu, India (IDRC grant collaborator).
5. Indian Institute of Technology, Tirupati, Andhra Pradesh, India (Shastri Indo-Canadian Institute grant)
6. University of Calcutta through the Shastri Indo-Canadian Institute grant 2019.
7. National Institute for Disaster Management, New Delhi, India – since 2018.
8. Shastri Indo-Canadian Institute, New Delhi, India, August 2019.
9. Academic Network for Disaster Resilience to Optimize (ANDROID) (with Drs. R. Haigh and D. Amaratunga). Centre for Disaster Resilience, School of the Built Environment, The University of Salford, UK, 2013-15.

Scholarly Activities and Service to the Profession

- Working Group, Technical/Advisory Committee, Session Chair –
 - Technical committee, 10th International Conference on Flood Management, May 21-24, 2026, London, Canada
 - Technical Committee Lead, Emergency Management and Business Continuity Programs, Canadian Standards Association 2025-2026.
 - Planning Committee, Disaster & Emergency Management Conference (2023-24)
 - Represented the DEM program on the collaboration and screening of the Plastic People documentary with the Sustainability Office and OneWater, York University, October 8, 2024.
 - Review and feedback provided to British Columbia Ministry of Emergency Management and Climate Readiness, Sep-Oct 2024.
 - Review and feedback provided to Heat-Health Messages, Materials and Resources: A Consultation Process with Canadian Experts, Health Canada, July – Sep 2024.
 - Review and feedback provided to Hazard Identification & Risk Assessment (HIRA) Renew Program, Emergency Management Ontario, Jul – Sep 2024.
 - Planning Committee Member, Disaster & Emergency Management Conf (DEMCON), 2023-24.
 - Representative, DEM York U, Silver Sponsor, Disaster & Emergency Management Conf, Toronto, Oct 24-25, 2023.
 - Disaster Resilience and Security Advisory Table, Public Safety Canada, Ottawa, 2021
 - Ad Hoc Committee, 9th International Conference of Flood Management (ICFM9), Japan 2022
 - Founding Editorial Board Member, Canadian Journal of Emergency Management, since 2020
 - BML Munjal University, India, since 2020
 - National Institute for Disaster Management (NIDM), New Delhi, India, since 2018
 - PEASI Public Emergency Alerting System, Calgary, 2019
 - Canadian Dam Association (CDA), Emergency Management and Preparedness, since 2014.
 - Canadian Dam Association (CDA), Inundation Mapping, since 2015.
 - Sheridan College's Community Safety Degree Working Group, Toronto, July 2015.
 - 1ST International Conference on Water Resources, Coastal and Ocean Engineering ICWRCOE'15, Mangalore, India, March 2015.
 - Canadian Risk and Hazards Network (CRHNet) Symposium, Toronto, Oct 2014.

- Session Chair, 4th Int. Conference on Building Resilience, Salford Quays, UK, September 9-11, 2014.
- Emergency Management Forum, Ontario, since Sep 2013.
- Education committee, Ontario Association of Emergency Managers (OAEM), since 2012.
- Academic Network for Disaster Resilience to Optimise Educational Development (ANDROID), University of Salford, UK (2013-2015).
- 5th GiT4NDM conference, Toronto, Oct 9-11, 2013.
- CIG 2013, Ryerson University, Toronto, June 5-7, 2013.
- Session Chair, 1st Anniversary of the Tohoku Earthquake, Conference, Faculty of Liberal Arts & Professional Studies, York University, March 9, 2012.
- International Institute for Infrastructure Renewal and Reconstruction (IIIRR), since 2011.
- IEEE Toronto International Conference – Science and Technology for Humanity, Toronto, September 27-29, 2009.
- Grant Reviewer –
 - Strategic Japanese-Swiss Science and Technology Programme (SJSSTP), September 2022.
 - Dutch Grant proposal, DE-RISC - Digital Emergency Response Infrastructure for Social and Physical Safety, ISSAC, December 2021.
 - CRC Pres/Taylor & Francis – book proposal review – Practical measures of flood management, Oct 2020
 - Sustainability Science Program, Academia Sinica, Taiwan, August 2020
 - Shastri Research Student Fellowship (SRSF), since 2011.
 - Social Science and Humanities Research Council (SSHRC), since 2007.
 - Economic and Social Research Council (ESRC) and NERC, UK, since 2018.
- Scholarly Journal Peer Reviewer –
 - Progress in Disaster Science, Applied Geography, Applied Geomatics, Canadian Water Resources, Civil Engineering and Environmental Systems, Geomatics, Hazards and Risks, Int. J Disaster Resilience in the Built Environment, J Canadian Foreign Policy, J Flood Risk Management, J Int. Development, J Rural and Community Development, J Water Resources Management, Marine Geodesy, Natural Hazards, Natural Hazards Review, Regional Science, Policy and Practice, US Geological Survey.
- Contributor to –
 - York University stakeholder group feedback on the Emergency Management Strategy of Canada, Public Safety Canada, 2018.
 - Technical Bulletin on Inundation Mapping, Canadian Dam Association (CDA), 2016.
 - 20th World Congress for Disaster and Emergency Medicine Toronto Feb 2015.
- Editorial board member of the *Natural Hazards* journal, Springer, the Netherlands, since 2005.

TEACHING

Certificates Acquired

- University Teaching and Learning, University of Western Ontario, Canada, August 2002.
- Japanese Language, Kyoto University, Japan, March 1993.

CURRICULUM DEVELOPMENT

- New course proposal GS/DEMS Emergency Management Legislation – developed, revised, resubmitted, approved, and first offering in SU24.
- As a founding member of the Disaster and Emergency Management (DEM) at York University, I was given the opportunity to fully develop and teach original courses that covered a diverse range of DEM topics, namely, disaster risk management, business continuity planning, natural disasters, research methods, research seminar, and field experience.
- Designed, developed, and approved by FGS, DEMS 6040: Hazard Risk Analysis: Practical Experience Abroad.

- Contributed to revising and overhauling the "Professional Certificate in Emergency Management" curriculum.
- Lead on Bachelor of DEM (BDEM) curriculum development (successfully launched in 2010), from conception to development, including learning objectives and calendar descriptions for all courses.
- Business Continuity Plan Testing Exercise developed under the Teaching Research, Experiments, Engagement and Sharing (Funded), May 2009.
- Developed and taught CEE 471 at Western University - the first of its kind in the department at the time.

GRADUATE teaching at York University, Canada

- DEMS 7701 Research and Practice in Disaster & Emergency Management, upcoming W26
- DEMS 5080 Practicum in Disaster & Emergency Management, since 2016.
- DEMS 5040 Natural Disasters, since 2007.
- DEMS 5081 Applied Topics in Disaster & Emergency Management, 2012.
- DEMS 5031 Topics in Business Continuity, 2011.
- DEMS 5050 Qualitative Research Methods in Disaster Management, 2007.

Graduate teaching at Western University, Canada

- CEE (Civil & Environmental Engineering) 471: Remote sensing and Geographic Information System (GIS) techniques for Civil Engineers, Civil & Environmental Engineering, University of Western Ontario, 2002.

UNDERGRADUATE teaching at York University, Canada

- ADMS 4708 Seminar in Disaster & Emergency Management, 2013-2023
- ADMS 3701 Disaster Risk Management - in class and online, 2005-2020
- ADMS 3703 Business Continuity Planning, 2007-2010.

Brandon University, Canada (2003-05)

- 40:253 (2nd Year) Hazard and Risk Assessment
- 40:391 (3rd Year) Environmental Disasters
- 40:251 (2nd Year) Natural Disasters: Causes and Physical Dynamics
- 40: 498 (4th Year) Disaster modelling
- 40: 398 (3rd Year) Organisational Responses to Disasters and Emergencies
- 40:499 (4th Year) Directed readings: Disaster relief-related logistics and supply chain
- 40:399 (3rd Year) Directed studies: Hazardous materials research and implications
- 40:499 (4th Year) Directed readings: Chemical Biological Radiological & Nuclear (CBRN) Response

Supervision – Major Research Paper/Thesis

Note: (*) Tri-Council funded High Quality Professional Training

1. 2021 Joseph Sedi Dirisu, Topic: Community experience of environmental pollution in Niger Delta, Nigeria, MDEM program, York University.
2. 2020 Amar Deep Regmi, Topic: landslide risk in the Rivière aux Vases basin, Quebec. Master of Disaster & Emergency Management (MDEM), York University.
3. 2019-2020 Abeal Biruk, Topic: Narratives of Environmental Disaster in Ethiopia: Anthropogenic Famines, Faculty of Environmental Studies, York University.
4. 2017 Colleen Kennedy, Topic: Recovering from natural disasters in developed communities: a disability perspective, Graduate Program in Critical Disability Studies, York University.
5. 2015 Judith Jubril, Topic: Social capital, public education, and community outreach: effective tools for emergency managers, MDEM York University.

6. 2015 Lauren Hebert, Topic: Are teachers concerned with school-based emergencies? MDEM York U, Canada.
7. 2015 Yassin Oleiwan, PhD candidate, Northcentral University, Hawaii. Supervised her research survey questionnaire based on my work.
8. 2014 Katie Subbotini, Topic: Natural disaster and health of internationally deployed responders, MDEM York U.
9. 2014 Agada, Susan, Topic: The failure of sovereignty as responsibility and the making of disaster: A case study of the 2012 flooding disaster in Nigeria, MDEM, York U.
10. 2013 Sarah-Maude Guindon, Topic: Integration of disaster risk reduction approach to urban planning, MDEM, York University.
11. 2013 Alicia Benton, Topic: Emergency Management and Health Emergencies, MADEM, Royal Roads University, Canada.
12. 2013 Claire McDonald, Topic: Hazard Prediction and Responsibility, MDEM, York University, Canada.
13. 2012 Timothy Walshaw. Topic: Evacuation plans for the pre-disaster homeless in the event of a catastrophe, MADEM, Royal Roads University, Canada.
14. 2012 Daddar, Sabrina. Topic: The potential of recurrent epidemics & pandemics in a highly mobile global society, MADEM, York University, Canada.
15. 2012 Gentles, Charmaine. Topic: A comparative analysis of the Disaster Preparedness Public Education programs in Jamaica and Canada, MADEM, York University, Canada.
16. (*) 2011 Ashton, Daniela, Topic: Emergency Management and First Nations in James Bay, Ontario, MA-DEM, York University. Research Assistant, Topic: Emergency Management in Canada: Taking Stock
17. 2010 Khan, Arshad, Topic: Disaster Risk Reduction and Development Planning in Pakistan: An Analysis, MA-DEM, York University.
18. 2009 Olanubi, Timilehin, Topic: Crisis Management and Psychosocial Intervention: Perception of Immigrants, MA in Disaster & Emergency Management (DEM), York University.
19. 2009 Haford, Shereen, Co-supervisor, Master's Thesis, Coastal Disasters, Masters in Geomatics, York University.
20. 2008 Ituen, Ima. Graduate Thesis, co-Supervisor, Topic: Vegetation maintenance for powerline systems towards effective risk management: A case study, Faculty of Environmental Studies, York University.
21. 2005 Wainright, R. Undergraduate Practicum, Co-supervisor, Title: Ensure E2 Compliance at Many Locations and Update Emergency Plans, Department of Applied Disaster & Emergency Studies, Brandon University.
22. 2005 Dykstra, S. Undergraduate Practicum, Co-supervisor, Title: Ensure E2 Compliance at Many Locations and Update Emergency Plans, Department of Applied Disaster & Emergency Studies, Brandon University.

Examiner

1. 2025 Suganya, K, PhD, external examiner, Topic: Enhanced Crude Oil Biodegradation Through Sisal Fibre Immobilized Indigenous Microbial Consortia and Iron Oxide Nanoparticles – The Laboratory and Field Scale Perspective, DMGR Educational and Research Institute, Chennai, India, Aug 2025.
2. 2025 Sabrina Daddar, PhD, external examiner, Topic: Ki uta ki tai/From Land to Sea: Māori Forms of Organising and Responding to the Waitaha/Canterbury Earthquake Sequences, University of Canterbury, New Zealand, June 2025.
3. 2025 Banu, JF, PhD, external examiner, Topic: Assessment of Air Pollution Status and Its Impact on Urban Environment and Health with Management Planning Strategies Using Remote Sensing and GIS for Tiruchirappalli, Tamil Nadu, India, Feb 2025.
4. 2024 Parham, M, PhD thesis, Internal examiner, Topic: Analysis of solar storm in power systems, Lassonde, York U, July 25, 2024.
5. 2024 Jithamala Caldera, PhD, External, Topic: Innovative universal severity classification system for natural disasters, University of Calgary, June 10, 2024.

6. 2024 Sabbir A Khan, Master's thesis, External, Topic: Role of innovation and adaptation technologies in reducing climate-induced disaster impact and enhancing resilience in coastal Bangladesh. Natural Resources Institute, University of Manitoba, February 2024.
7. 2023 Laxmipriya, S. PhD thesis, External Examiner, Topic: Study of particulate matter pollutants and their impacts on Covid-19 using In situ data and Aermid modelling in parts of Greater Chennai, India, Jul 7.
8. 2022 Alvira Ria, master's thesis, Supervisor: Dr. Emdad Haque, Topic: Climate change impacts, responses and adaptation measures in coastal communities in Bangladesh: Gender and women perspectives. Natural Resources Institute, University of Manitoba, May 16, 2022.
9. 2020 Swati Singh, PhD External Examiner, Topic: Assessment of water-energy-food inter linkages in urban areas: a case study, TERI School of Advanced Studies, New Delhi, India, October 2020.
10. 2020 Aiesha Aggarwal, MSc Thesis exam. Topic: Bypassing barriers: Surface-groundwater exchange between a wetland, sandur, and lava field in Southeastern Iceland, York University, Oct 7, 2020
11. 2020 Susan Agada, PhD defence. Topic: Flooding in Benue State (Nigeria): A profile of Institutional Neglect, Faculty of Environmental Studies, York University, Sep 18, 2020.
12. 2019 Angela Peck, PhD defence. Topic: Coastal cities at risk: methodology for assessing dynamic resilience of coastal cities to climate change influenced hydrometeorological disasters, Dept. of Civil and Environmental Engineering, Western University, Canada, August 15, 2019.
13. 2019 Patricia Martel, PhD defence. Topic: The social construction of a disaster typology to enhance operational emergency planning for K-8 public schools in southern Ontario. Dept. of Geography, Wilfred Laurier University, Canada, May 3, 2019.
14. 2018 Xuefen, Liu, PhD exam. Topic: City-scale evacuation management in flood scenarios, implementation and comparison of a multi-agent based approach and a traffic assignment approach, School of Civil and Environmental Engineering, UNSW Australia, April 2018.
15. 2015 Amin Owangi, PhD exam. Topic: An approach to developing a spatio-temporal composite measure of climate change related human health impacts in urban environments, Dept. of Civil Engineering, Western University, Canada.
16. 2014 Durage, Samanthi, PhD exam. Topic: Mitigation of the Impact of Tornadoes in the Canadian Prairies. Civil Engineering, University of Calgary, Canada.
17. 2009 Mohopatra, Romasa. PhD exam. Topic: Effective theories and models of post-disaster reconstruction, School of Planning, University of Waterloo.
18. 2009 Olanubi, Timilehin, MRP, Topic: Crisis Management and Psychosocial Intervention: Perception of Immigrants, MA in Disaster & Emergency Management (DEM), York University.
19. 2009 Zuo, Jie. Summer Research Assistant, Topic: Propane Explosion, Graduate Geomatics Engineering, York University.
20. 2009 Mohopatra, Romasa. PhD Defence External examiner, Topic: Effective theories and models of post-disaster reconstruction, School of Planning, University of Waterloo.
21. 2008 Westland, Scott. Graduate thesis, External examiner. Topic: Use of Geomatics in disaster management, Environmental Studies, University of Manitoba.
22. 2008 Bhutia, Sangay. MSc thesis, Chair, exam committee. Topic: Importance of the fire-induced circulations on brand propagation, Faculty of Science and Engineering, York University.
23. 2007 Mohopatra, Romasa. PhD Comprehensive, External examiner, Topic: Effective theories and models of post-disaster reconstruction, School of Planning, University of Waterloo, External Examiner.
24. 2007 Jinsong Xie. Graduate thesis, External examiner, Title: Numerical modelling of tsunami waves, University of Ottawa, Ottawa.
25. 2007 Stewart, RM, PhD examiner. Title: Sustainable Floodplain Management, Natural Resources Institute, University of Manitoba, Winnipeg.

Research Assistant

Note: (*) Tri-Council funded High Quality Professional Training

1. 2024 Fortunate Ahimbisibwe, Research Assistant, Topic: Domestic Operations, DND-CDSN-MINDS funded project, Sep-Dec 2024.
2. 2024 Karen Kowalski, Research Assistant, Topic: Domestic Operations, DND-CDSN-MINDS funded project, Sep-Dec 2024.
3. 2024 Domini Baldasaro, Research Assistant, Topic: Domestic Operations, DND-CDSN-MINDS funded project, Oct-Dec 2023.
4. 2023 Amar D Regmi, Research Associate, Topic: Geospatial database of Canadian Forces' domestic operations, DND-CDSN-MINDS funded project, Sep 2023 – Feb 2024.
5. (*) 2022-23 Iana Shatilova, Graduate Assistant, Topic: MINDS conference, MDEM, York University.
6. (*) 2023 Jacob Ploszaj, Topic: Gaps in risk communication for extreme weather in Canada, BDEM, York U.
7. (*) 2022 Jennifer Sze, Topic: Extreme weather warning communication, BDEM, York University.
8. (*) 2022 Trevor Doak, Topic: A community-based approach to improve weather-related warnings in Ontario, BDEM, York University.
9. (*) 2022 Abdullah Ba Wazir, Topic: Nature-triggered disasters and domestic operations, BDEM, York University.
10. (*) 2021 Cecilia Paras, Research Assistant, BDEM program, York University, topic: A community-based approach to improve weather-related warnings in Ontario.
11. 2021 Shay Patel, Topic: The role of reproductive number R_0 in the context of Covid-19, BSc student, University of Ottawa.
12. (*) 2017-18 Mark Elliott, Research Assistant, Integrated approach for resilience estimation and disaster risk reduction, NSERC CREATE funded project (Nov 2016-Aug 2017)
13. (*) 2016 Victoria Stevens, Research Assistant, Integrated approach for resilience estimation and disaster risk reduction, NSERC CREATE funded project (Nov 2016-Jan 2017)
14. (*) 2015 Sarah Irwin, Research Assistant, Quantitative Resilience Simulator, NSERC CREATE funded project (with Slobodan Simonovic, Western University).
15. 2015 Colleen Simpson, Graduate Assistant. Tornado response in Vaughn. Oct 2015
16. 2014 Ali Sheybani, Graduate Assistant, topic – Natural hazards of Ontario.
17. 2014 Indra Adhikari, Graduate Assistant, topic - Explaining the role of expert analysis in the 2013 Toronto flooding using chaos theory.
18. 2014 Harshita Mathur, Graduate Assistant, topic: New students' handbook and organizing a job fair for disaster and emergency management students.
19. 2014 Sarah Jacob, Graduate Assistant, topic –. New students' handbook and organizing a job fair for disaster and emergency management students.
20. 2014 Barlu Dumbuya, Poster competition, 2nd annual Undergraduate Research Fair, York University.
21. 2013 Sarah-Maude Guindon, Graduate Assistant: Geoinformation-based disaster management training facility – prototype set-up.
22. 2013 Sarah Oberholzer, Graduate Assistant, topic –Geoinformation-based disaster management training facility – prototype set-up.
23. 2013 Tammy Popper, Graduate Assistant, topic – Response/intervention dynamics on scene during disasters. Supervised with Prof. K. Thomson.
24. 2012 Marina Kompaniyets, Graduate Assistant, topic: Is York prepared for the 2015 games? MDEM York U.
25. 2011 Cheung, Gilda, Graduate Assistant, topic: natural hazards, 2010 summer.
26. 2011 Brasche, Hart. Graduate Assistant. Worked on preparing disaster scenarios for undergraduate class on disaster risk management.
27. (*) 2010 Maula, Amanda. Research Assistant, Topics: (i) Building Resilient Communities, (ii) Emergency Management in Canada: Taking Stock, MA-DEM, York University.
28. 2009 Zuo, Jie. Summer Research Assistant, Topic: Propane Explosion, Graduate Geomatics Engineering, York University.

29. 2009 Girin, Ignat. RAY student, Topic: Demographics of neighbourhood of Toronto propane explosion.
30. 2007 Dave, Tanmay. Independent Studies, Co-supervisor, Topic: AIDS: Slow onset disaster, Faculty of Health, York University.

Supervisory Committee Member

1. 2024 Sabbir Khan, Master's thesis, with Advisor Emdad Haque and committee member Dr. D. Walker, University of Manitoba, Feb 28, 2024.
2. 2022-2023 Poornima Unnikrishnan, Postdoc, co-advisor (with Profs. Kumaraswamy and Kharey, U Waterloo), Topic: joint flood risk in Grand River watershed, Ontario, Canada.
3. 2019 – 2023 Balikisu Osman, PhD committee (with Prof. Ellie Perkins). Topic: Security in uncertainty: analyzing food security and climate risks in agrarian societies of West Africa, Faculty of Environmental Science, York University. In progress
4. 2014 Nicole Wilson, MRP committee. Topic: The mitigation of stress in business organizations, MDEM York University.
5. 2013 Wendel Chan, Graduate thesis committee. Topic: 3D environment for simulation of emergencies and decision-making training, Master's in Geomatics Engineering, York U.
6. 2011 Latendresse, Lori, MRP Committee. Topic: Professional & Personal Emergency Preparedness: Assessing the Need for the Development of a National Employee & Family Preparedness Program for the RCM, MADEM, York University.
7. 2011 Anjum, M.I., MRP Committee. Topic: The 2010-Flood and Small Businesses in Pakistan: Impact and Recovery Issues, MADEM, York University.
8. 2011 Shah, Abdulla, MRP Committee. Topic: interagency logistical cooperation among disaster relief agencies in the preparedness phase, MADEM, York University.
9. 2007 Stewart, RM, PhD Advisory Committee. Topic: Sustainable Floodplain Management, Natural Resources Institute, University of Manitoba, Winnipeg.

Directed Readings

1. 2024 Addressing Challenges of Encampments on City-Owned Property in Brampton: Perspectives and Interventions at the Lower-Tier Municipal Level, MDEM, York University.
2. 2024 David Formentini, Topic: Identifying and Addressing Emergency Management Deficiencies: A Comprehensive Analysis, MDEM, York University.
3. 2024 Nur Qase, Topic: Disaster Resilience through Community Planning, MDEM, York University.
4. 2021 Megan Sipos, Topic: Nature-based Solutions for Disaster Risk Reduction, DEMS 5000, MDEM, York University. August 2021.
5. 2020 Sefatullah Rahimi, Topic: Coronavirus-caused pandemics and their social impacts – cases of Spanish Flu, SARS, and COVID-19, DEMS 5000, MDEM, York University.
6. 2020 Masoud Popalzai, Topic: Media coverage of major outbreaks – taking stock of 100 years, from Spanish Flu to Covid-19, DEMS 5000, MDEM, York University.
7. 2017 Imran Aslam Khan, topic: Earthquake protection in urban and rural environment – case of Pakistan.
8. 2016 Zaheer Zia, topic: World Risk Index – a review
9. 2014 McNeil, Cheryl, topic: Business continuity planning for the police, MDEM, York U.
10. 2013 Zoe Kavanagh, topic: Slow-onset Disasters in Emergency Management: HIV/AIDS, MDEM York U.
11. 2013 Hedieh Hafezi, topic: School bus accidents – taking stock: The case of North American accidents, MDEM, York U.
12. 2013 Tammy Popper, topic: First respondents' experiences, MDEM, York University.
13. 2013 Sarah-Maude Guindon, topic: Disaster risk reduction and resilient communities, MDEM, York University.
14. 2012 Rana, Marriyam, topic: From Terrorist Activities, Socio-Economic Troubles to Regional Destabilization: The High Price of a Refugee. MADEM, York University.

15. 2012 Hoque, Waheed, topic: Community disaster perception and preparedness study, MADEM, York University, Canada.
16. 2009 McArthur, Allison, topic: Business Continuity, SAS, York University.
17. 2008 Storm Sarah, topic: Terrorism, Risk Assessments & Counterterrorism, SAS, York University.
18. 2007 Dave, Tanmay, topic: AIDS: Slow onset disaster, Faculty of Health, York University.

SERVICE

YORK UNIVERSITY (July 2005 – Present)

Department Level

- DEM Coordinator 2007-2010; 2012-2013; 2022 – June 2023.
- Member T&P Committee, July 2021-present
- Search Committees (**Five**) as AA representative/Director's representative/Member 2021-2023
- T&P FPC member on multiple files
- Chair, Research Committee, 2018-2020.
- Chair, T&P File Preparation Committee (FPC) for full professor; and Service, 2019.
- Chair, T&P File Preparation Committee (FPC); and Teaching, 2018.
- Coordinators (C&C) Committee, SAS, 2007-2010; 2012-13; 2022-2024
- Lead on achieving registration of BDEM with Public Service Canada <https://www5.psc-cfp.gc.ca/coop/noitcatlusermargorphcraeswohs.do>
- Host, DEM Orientation 2008-2010.
- Member, Communication and External Relations Committee, 2006-2008
- Member, Committee on Teaching and Learning (2006-2008)

Faculty Level

- GPD, Master of Disaster & Emergency Management, 2013-2015; 2022-2024
- Member, Academic Planning and Policy Committee (APPC), 2018 – 2021.
- Dean's Representative, faculty search committees in Humanities and Politics 2020, 2021
- Academic Planning and Policy Committee (APPC), 2018 – 2021.
- Mentor, New Faculty, Dr. Spinney, 2020
- Mentor, New Faculty, Dr. Kennedy, 2018.
- Member, LA&PS T&P Committee, 2016-2018.
- Member, Committee on Research Policy and Planning, 2011-2013.
- Member, T&P File Preparation Committee, School of Human Resources, Full Professor, 2012-2013.
- Interim Chair, Committee on Research Policy and Planning (CRPP), Sep-Dec 2012.
- Member, Grant Adjudication Sub-committee, Committee on Research Policy and Planning, 2011-2012.
- Member, Curriculum Committee, 2008-2010.
- Chair, Hiring Committee, Disaster and Emergency Management, 2007-2008.

University Level

- Member, Tenure and Promotion Appeals Committee, Jan 2025 – June 2027.
- Executive Member, One Water ORU, York, 2023 – present.
- Lead Faculty, Cyclical Program Reviews of 2014-2015 and 2022-2023 for the Bachelor of Disaster & Emergency Management (BDEM) and the Master of Disaster & Emergency Management (MDEM).
- Senator, 2019-2022
- Chair, Vice-Chair, Member, Senate Appeals Committee, 2021-2022; 2020-2021
- Senate Rep and Chair, Lassonde School of Engineering T&P file, Feb 2019.
- Member, Senate T&P Committee, 2018-2019.
- Member, T&P Appeals Committee 2016.

- Member, Search Committee, Civil Engineering, York University, 2013 and 2015.
- Member, Academic and Administrative Program Review (AAPR), BDEM, MDEM, 2014.
- Member, Senate Committee on Academic Standards, Curriculum & Pedagogy (2012-2014)
- Member, Senate Subcommittee on Quality Assurance (2012-2014)
- Member, Emergency Preparedness Advisory Committee, 2005-2017
- DEM Representative, Ontario Universities Fair, 2006-2010.
- DEM Rep, Spring Open House, 2008-2015.
- DEM Rep, Fall Campus Day, 2008-2015.
- YUFA Steward, School of Administrative Studies, 2007-2008.
- Donor to York Foundation for Student Award, 2006-2011.

Service to the Local Community

- Same Track, Different Path: Reserve Force Readiness, Reserve Force Academic Symposium, Hosted by the Chief of Reserves and Canadian Forces College, Oct 24-25, 2025. By invitation.
- Engagement luncheon with Director General Engagement and Director General Issues, Department of National Defence, Royal Canadian Military Institute, Oct 3, 2025. By invitation.
- Provincial Government engagement. Interview with the Deputy Minister and Commissioner of Emergency Management Ontario for engagement on the future of disaster response in Ontario. May 9, 2024, Toronto.
- Emergency Response Simulation observer, York's DEM representative, Invited, May 7-9, 2024.
- Advisor on flood mitigation, Journalism students, Humber College, Feb 15, 2023, Virtual.
- Panellist, ENSO El Niño Southern Oscillation, CRHNet Student Initiative, Mar 29, 2023, Virtual.
- Interview with Climate Crisis Connect Hub, founded by Maham Dar, with young university students across Ontario. August 2021
- Board Chair, South Asian Women's Centre (SAWC), Toronto, 2017-2020.
- Essencia Art Collective for social change and community empowerment, Toronto, Aug 2014.
- Student Award, annual, "Nirupama, Nita, Nandita Award" to a BDEM student, since 2013.
- Lesson on natural hazards to Grade 7 students, Skype (Lady of Lourdes School, Brampton), March 21, 2014.
- Public engagement, Senior Centres in Brampton and Mississauga for community resilience, 2013-2014.
- Consulted by Ryerson University students (project InNEED) - a localized system for natural disaster management at the community level, 2010.
- Canadian Agencies for Serving South Asians (CASSA), Toronto, since 2006.
- Salvation Army Shelter, Downtown Toronto, Hazard Risk Identification and Vulnerability Assessment carried out (with David Etkin) and published for the benefit of the staff and residents of the shelter, 2006.

Brandon University, Canada (2003-05)

Faculty Level

- Department Chair (May-June 2005)
- Graduate Studies Committee, 2003-2005.
- Scholarships Committee: Involved in candidate nomination and selection processes, 2003-2005.

University Level

- Committee to Administer Knowles Douglas Visiting Professorship, 2003-2005.
- Senate Award for Excellence in Research Committee, 2003-2005.
- Senate By-Laws Revision Committee, 2004-2005.
- Canada Research Chair Tier 2 Selection Committee, 2004-2005.
- International Activities Committee, 2004-2005.

Local Community

- Rotary International, a member, participated in the Literacy Program by weekly tutoring 2nd Grade students of the Beverly Park Primary School on reading skills, 2003-2005.
- Participated in various community service programs initiated by Rotary International.

MEDIA

- Discovery Channel, The Mightiest, pre-interview with Irada Seli, Nov 25, 2024.
- Should Canada have a national emergency response agency? The Vassy Kapelos Show, 580 CFRA https://omny.fm/shows/580-cfra/vks-should-canada-have-a-national-emergency-respon?in_playlist=the-vassy-kapelos-show July 29, 2024.
- Asia First Radio CNA938 Interview on the topic of India floods, Aug 1, 2024.
- CBC National pre-interview by Exan Auyoung. July 16, 2024.
- CBC Marketplace pre-interview, Aug 25, 2023.
- CBC Cross Country Check-up pre-interview, Aug 23, 2023.
- CTV National News, June 15, 2024, topic: Calgary water main break. Interview by Christina Tenaglia.
- CityNews, Readiness for potential spring flooding in Canada, May 6, 2024. Nick Westoll
- Globe and Mail, Niagara Region pre-emptively declares state of emergency ahead of solar eclipse, March 2024. Mark Rendell.
- Global News Radio Network, August 28, 2023.
- Globe and Mail, Wildfires in Canada, August 21, 2023.
- Toronto Star, Wildfires in Yellowknife, August 19, 2023.
- CBC Radio One, 13 stations across the country, 6-9 am EDT, Topic: Evacuation concerns of 20 thousand Yellowknife residents due to the wildfire, Canadian Broadcast Corporation. August 18, 2023,
- CBC Radio North, Yellowknife Emergency Preparedness Framework, July 31, 2023.
- CBC Radio One, Does Canada need a Disaster Response Agency? Nine Stations across Canada, 6-9 am EDT, June 12, 2023.
- CityNews, Pakistan floods, September 10, 2022
- CTVNews on Extreme Weather, April 22, 2022
- CBC Radio One CBT on Extreme Heat Report by U Waterloo, April 24, 2022
- The Hill Times on Splitting Public Safety, Emergency Preparedness, November 8, 2021
- Excalibur on COP26, November 2021 <https://www.excal.on.ca/news/2021/11/12/a-world-to-move-forward-in-the-outcome-of-cop26/>
- CTV on Florida Condo Building collapse, June 29, 2021
- York researchers speak on flood and wildfire management during a pandemic <https://yfile.news.yorku.ca/2020/04/29/york-researchers-speak-on-flood-and-wildfire-management-evacuation-during-a-pandemic/>
- York University Dean's Award recipient <http://yfile.news.yorku.ca/2019/09/22/laps-faculty-receive->
- York University <http://laps.yorku.ca/2019/05/special-lecturer-discusses-challenges-of-disaster-relief-and-humanitarian-efforts/>
- NJ Advance Media, communication on school bus accidents with Erin Petenko, Mar 8, 2019.
- Toronto Life interview with Mark Mann, Flood risk and resilience in Toronto, Jan 18, 2019.
- FYile on textbook – Sep 3, 2018. <http://yfile.news.yorku.ca/2018/09/03/new-textbook-examines-natural-disaster-and-risk-management-in-canada/>
- CBC "The Current" March 2018, post-Grand River flooding - Unavailable.
- Sendai, Japan, BOSAI Global Risk Forum conference, Nov 24-27, 2017. Press interview for Japanese media November 26, 2017.
- AM640 Radio live on Hurricane Harvey's impact in Texas and climate change in Canada, August 2017.
- CBC interview, Carly Thomas on Hurricane Harvey in Texas, USA, Aug 28, 2017.
- DeSmog magazine published an article on climate change with my expert opinion included <https://www.desmog.ca/2017/09/21/what-canada-needs-do-now-isn-t-prevent-worst-impacts-climate-change-0>
- CBC Phone interview on Toronto Island flooding in April 2017.
- Toronto Observer – on urban infrastructure amid disasters in Toronto, with Paul Hantiuk, Feb 20, 2014.
- IDRC https://www.youtube.com/watch?v=eytyFw1_vFk

- Humber media on Typhoon Haiyan in the Philippines, Nov 2013.
- University Affairs: <http://www.universityaffairs.ca/bc-makes-free-online-textbooks-available.aspx#comments>
- Y-File, "Visualizing an Emergency in Three Dimensions", Jan 30, 2012
<http://yfile.news.yorku.ca/2013/01/29/aif-visualizing-an-emergency-in-three-dimensions/>
- Featured research in the e-magazine, The Drum Beat.
http://www.comminit.com/global/drum_beat_623.html
- Toronto Star, Interview Dec 1, 2012.
- Global News <https://globalnews.ca/news/83272/step-around-stray-voltage-toronto-hydro-warns/>
- Nib and Page Media of Toronto on Mitigation and Preparedness, July 2008.
- Encore, York University's magazine, interview, 2006.
- Asian Chapter of Toronto on "Strong Canadian presence" at the Federation of Indian Chambers of Commerce and Industry conference, Chennai, India, July 3-5, 2006.
- Brandon Sun, Brandon, Manitoba, on the 2004 Indian Ocean Tsunami, 2005.
- Quill, Brandon University magazine, Spring/Summer 2005.
<https://www.brandonu.ca/alumni/files/.../2005SS.AlumniNews.pdf>