CURRICULUM VITAE

Dr. Rouzbeh Ross Nazari
Chair and Professor
Charles G. Templeton Endowed Professor
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ACADEMIC EXPERIENCE

2024-Present Chair and Professor, Department of Civil Engineering, University of Memphis
2024-Present Charles G. Templeton Endowed Professor, Herff College of Eng., The University of Memphis
2019-2024 Director of the Sustainable Smart Cities Research Center (SSCRC), UAB
2019-2024 Associate Professor, Department of Civil, Construction and Environmental Eng., UAB
2019-2024 Associate Professor, School of Public Health, UAB (Joint Appointment)
2022-Present Founder and Chief Technology Officer (CTO), CanAiry, LLC
2018-2024 Founder and Chief Technology Officer (CTO), Planetary Resilience, LLC
2018-Present Affiliation: Associate Professor, Center for Adv. Infra. and Trans. (CAIT), Rutgers University
2017-2019 Associate Professor, Department of Civil and Environmental Engineering, Rowan University ***(Awarded Merit Based Early Tenure and Promotion)***
2014-2017 Assistant Professor, Department of Civil and Environmental Engineering, Rowan University
2012-2014 Research Assistant Professor, New York University, Center for Science and Progress (CUSP)
2009-2010 Research Associate, Columbia University, New York, NY

Patents

Inventor: An Innovative Framework for High-Resolution Quantitative Assessment of Flood Resiliency of Communities, Technology ID: 190701
Inventor: An Innovative Real-Time Environmental Exposure and Respiratory Health Assessment, Connecting Environment, Patients and Health Care Providers ID: FWA00005960

EDUCATION

CUNY Graduate Center, PhD, Civil and Environmental Engineering (2010)
CUNY Graduate Center, M.S., Civil and Environmental Engineering (2008)
CITY College of New York, M.E., Civil and Environmental Engineering (2007)
Isfahan University of Technology, B.S., Natural Resources Engineering (2002)

RESEARCH INTERESTS

Climate Resiliency, Extreme Events and Natural Disasters, Urban Climate, Water and Environmental Modeling and Monitoring, Community Resiliency Planning; Application of Remote Sensing in Environment; Machine Learning in Damage Prediction, Water, Environment Systems and Public Health, Urban Heat Island, Climate Change Impact on Environment and Human Health; Hydrodynamic and Hydroinformatic Simulations

TEACHING EXPERIENCE

Fluid Mechanics; Hydraulics; Water Resources Management; Global Hydrology; Groundwater Hydrology; Hydrometeorology; Environmental Sciences; Environmental Health and Human; Environmental System Process; Earth and Atmospheric Science; Environmental Impact Assessment; Environmental Economics; Environmental Systems Management; Mapping and Geographic Information System (GIS); Remote Sensing of the Environment; Global Hazard of the Environment, Urban and Environmental Monitoring;

Global Hazard of the Environment; Introduction To Sustainable Smart Cities; Big Data and Smart Cities

GRANTS AND PROJECTS

Total Awarded Funding: $19,386,900 (Current Active Grants: $8,152,349)

1. **PI** United States Department of Agriculture (USDA) NIFA: Catalyzing Local Food Value Chain Development through a Cross-functional Alliance and Economic Investment in Birmingham, Alabama, **Rouzbeh Nazari** and Maryam Karimi, July 1st, 2023 – June 30st, 2027, $1,000,000
2. **UAB PI** National Science Foundation (NSF), FII Track-2 FEC: Facilitating Ubiquitous Technology Utilizing Resilient Eco-friendly Sensors, **Rouzbeh Nazari**, Teresa Murray, Maryam Karimi, Harish Subbaraman, Prabhu Arumugam and Shuk-Mei Ho, November 1st, 2022 – October 31st, 2026, $6,000,000
3. **PI** United States Department of Agriculture (USDA), Development of Multi-Scale Non-Invasive In Situ and Remote Sensing Techniques for Proactive Waste Management: Demonstration and Training, **Rouzbeh Nazari**, Maryam Karimi, Wesley Zech and Lisa McCormick, October 1st 2023 - September 30st 2024, $210,449
4. **Co-PI** United States Department of Agriculture (USDA), Solid Waste Management Impact on Soil-Water Resources Across the Underserved Rural Communities of Black-Belt and the Deep South of Alabama and Mississippi. Maryam Karimi and **Rouzbeh Nazari** October 1st 2023- September 30th 2024, $191,900
5. **PI** United States Department of Agriculture (USDA), Development of Multi-Scale Non-Invasive In Situ and Remote Sensing Techniques for Proactive Waste Management: Demonstration and Training, **Rouzbeh Nazari (PI)**, Maryam Karimi (Co-PI), Wesley Zech and Lisa McCormick, October 1st 2022 - September 30st 2023, $250,000
6. **CO-PI** The National Academies' of Science and Engineering, Gulf Research Program (GRP), Coastal Communities Knowledge Development and Technical Assistance, January 2022-December 2025, $450,000
7. **CO-PI** US EPA, Modelling Outdoor Comfort with UAV-based Digitization Technique and a Comfort Tracking System for Underserved Communities. Maryam Karimi and **Rouzbeh Nazari** August 1st, 2023 – July 31st, 2024, $25,000
8. **CO-PI** US EPA, Urban water pollution extent and impact on the Village Creek in Birmingham, AL – Analysis and Mitigation strategies. Maryam Karimi and **Rouzbeh Nazari**, August 1st, 2023 – July 31st, 2024, $25,000
9. **PI** University of Alabama at Birmingham (UAB), Developing a Framework for Infectious Disease Transmission and Spread using SARS, MERS and COVID-19 Data, **Rouzbeh Nazari**, Maryam Karimi, Lisa McCormick, May 1st 2020 - April 30st 2021, $10,000
10. **PI** United States Department of Transportation (DOT), Regional UTC Program. The resiliency of the transportation systems under extreme storm events, **Rouzbeh Nazari**, September 1st 2019-August 31st 2020, $101,800
11. **PI** United States Department of Agriculture (USDA), Development of Multi-Scale Non-Invasive In Situ and Remote Sensing Techniques for Proactive Waste Management: Demonstration and Training, **Rouzbeh Nazari (PI)**, Jess Everett (Co-PI), Nidhal Bouaynaya (Co-PI), Maryam Karimi (Co-PI), October 1st 2019 - September 30st 2020, $191,774
12. **PI** (Institutional) U.S. Department of Transportation, Region 2 University Transportation Center

(UTC), Ali Maher (Rutgers PI), **Rouzbeh Nazari** (Rowan PI), June 2018- June 2021, $7,711,800, Rowan Share, $800,000

13. **PI** National Science Foundation (NSF), I-Corp: An innovative framework for high-resolution quantitative assessment of flood resiliency, **Rouzbeh Nazari (PI)**, September 1st 2018-August 31st 2019, $50,000
14. **PI** Armand Corporation: Practical Study of Local and Regional Resilience Planning for Critical Infrastructure Systems and Communities in Coastal Zones, **Rouzbeh Nazari (PI)**, August 15th 2018-November 14th 2020, $152,019
15. **PI** New Jersey DEP, Drone Based Aerial Progress Monitoring of Seawall Repair and Construction Project for Sea Bright and Monmouth Beach, **Rouzbeh Nazari (PI)**, December 13th 2017-November 14th 2020, $72,575
16. **PI** United States Department of Agriculture (USDA), Development of Multi-Scale Non-Invasive In Situ and Remote Sensing Techniques for Proactive Waste Management: Demonstration and Training, **Rouzbeh Nazari (PI)**, Jess Everett (Co-PI), Nidhal Bouaynaya (Co-PI), Peter Romanov (Co-PI), Jordan Howell (Co-PI), Christine Nolan (Co-PI), October 1st 2017 - September 30st 2018, $170,000
17. **PI** New Jersey Department of Community Affairs (NJDCA), Impact-Based Decision-Making Framework for Community-based Resiliency Planning under Extreme Storm Events, **Rouzbeh Nazari (PI)**, Jess Everett (Co-PI), Parth Bhavsar (Co-PI), Beena Sukumaran (Co-PI), Ralph Dusseau (Co-PI), Kauser Jahan (Co-PI), George D. Lecakes Jr. (Co-PI), DeMond S. Miller (Co-PI), Zachary Christman(Co-PI), Amir Iranmanesh (Co-PI), October 1st 2016 - August 31st 2018, $800,052.00
18. **PI** United States Department of Agriculture (USDA), Proactive Waste Management Through Infrared Thermography for Landfill Monitoring and Fire Warning, **Rouzbeh Nazari (PI)**, Jess Everett (Co-PI), Nidhal Bouaynaya (Co-PI), Peter Romanov (Co-PI), Jordan Howell (Co-PI), Christine Nolan (Co-PI), October 1st 2016 - September 30st 2018, $150,000.00
19. **Co-PI** National Science Foundation (NSF), Engaging In Stem Education With Big Data Analytics And Technologies: A Rowan-Cove Initiative, Nidhal Bouaynaya (PI), **Rouzbeh Nazari (Co-PI)**, John D. Moore (Co-PI), Kevin D. Dahm (Co-PI), Ravi P. Ramachandran (Co-PI), October 1st 2016 - September 30st 2019, $299,930.00
20. **PI** University Transportation Research Center (UTRC), Evaluation of Simulation Models for Road Weather Information System, **Rouzbeh Nazari (PI),** Hao Wang (Co-PI, Rutgers University), September 1st 2016 - January 31st 2018, $75,000.00
21. **PI** New Jersey American Water (NJAW), Implementation of Unmanned Aerial Systems (UAS) for Water Resource Management, **Rouzbeh Nazari (PI)**, May 1st 2016 - January 31st 2017, $185,000.00
22. **PI** New Jersey American Water (NJAW), Developing A Geodatabase for Water System Data Collection, **Rouzbeh Nazari (PI)**, May 1st 2016 - January 31st 2017, $135,000.00
23. **PI** Rowan University Seed Funding, Integration of Satellite, Airborne and Ground-Based Infrared Thermography of Landfills for Fire Warning and Monitoring, **Rouzbeh Nazari (PI)**, September 2015- September 2016, $10,000
24. **Co-PI** University Transportation Research Center (UTRC), Risk analysis of autonomous vehicles in mixed traffic streams, Parth Bhavsar (PI), **Rouzbeh Nazari (Co-PI)**, Mashrur Chowdhury (Co-

PI), June 1st 2015 - August 31st 2016, $79,960.00

25. **Co-PI** NJARNG, Rowan University Energy Intern Program & BIM Pilot Program, Everett, J. (PI), W. Riddell (Co-PI), R. Krchnavek (Co-PI), **R. Nazari (Co-PI)**, 2015-2016, $178,601
26. **Co-PI** Assessment of the Air Quality Impact of Traffic Congestion, University Transportation Research Center (UTRC), Masoud Ghandehari (PI), John Falcocchio (PI), Rouzbeh Nazari (PI), September 2012- September 2014, $100,000

Peer Reviewed Journal Publications

1. Mohammad Reza Nikoo, Nafiseh Bahrami, Kaveh Madani, Ghazi Al-Rawas, Sadegh Vanda, **Rouzbeh Nazari**, A robust decision-making framework to improve reservoir water quality using optimized selective withdrawal strategies, Journal of Hydrology, Volume 635, 2024, 131153, ISSN 0022-1694, https://doi.org/10.1016/j.jhydrol.2024.131153.
2. Alireza Shadmani, Mohammad Reza Nikoo, Amir H. Gandomi, Mingjie Chen, **Rouzbeh Nazari**, Advancements in optimizing wave energy converter geometry utilizing metaheuristic algorithms, Renewable and Sustainable Energy Reviews, Volume 197, 2024, 114398, ISSN 1364-0321, https://doi.org/10.1016/j.rser.2024.114398.
3. Mohammad G. Zamani, Mohammad Reza Nikoo, Ghazi Al-Rawas, **Rouzbeh Nazari**, Dana Rastad, Amir H. Gandomi, Hybrid WT–CNN–GRU-based model for the estimation of reservoir water quality variables considering spatio-temporal features, Journal of Environmental Management, Volume 358, 2024, 120756, ISSN 0301-4797, https://doi.org/10.1016/j.jenvman.2024.120756.
4. Shabnam Majnooni, Mahmood Fooladi, Mohammad Reza Nikoo, Ghazi Al-Rawas, Ali Torabi Haghighi, **Rouzbeh Nazari**, Malik Al-Wardy, Amir H. Gandomi, Smarter water quality monitoring in reservoirs using interpretable deep learning models and feature importance analysis, Journal of Water Process Engineering, Volume 60, 2024, 105187, ISSN 2214-7144, https://doi.org/10.1016/j.jwpe.2024.105187.
5. Giglou, A. N., **Nazari, R.,** Karimi, M., Museru, M. L., Opare, K. N., Nikoo, M. R., Future eco-hydrological dynamics: Urbanization and climate change effects in a changing landscape: A case study of Birmingham's river basin, Journal of Cleaner Production, 2024, 141320, ISSN 0959-6526, https://doi.org/10.1016/j.jclepro.2024.141320.
6. Mujungu Lawrence Museru, **Rouzbeh Nazari**, Abolfazl N. Giglou, Kofi Opare, Maryam Karimi, Advancing flood damage modeling for coastal Alabama residential properties: A multivariable machine learning approach, Science of The Total Environment, Volume 907, 2024, 167872, ISSN 0048-9697, https://doi.org/10.1016/j.scitotenv.2023.167872.
7. Abolfazl Nazari Giglou, **Rouzbeh Nazari**, Farhad Jazaei, Maryam Karimi, Numerical analysis of surface hydrogeological water budget to estimate unconfined aquifers recharge, Journal of Environmental Management, Volume 346, 2023, 118892, ISSN 0301-4797, https://doi.org/10.1016/j.jenvman.2023.118892.
8. Samain Sabrin, Maryam Karimi, **Rouzbeh Nazari**, The cooling potential of various vegetation covers in a heat-stressed underserved community in the deep south: Birmingham, Alabama, Urban Climate, Volume 51, 2023, https://doi.org/10.1016/j.uclim.2023.101623.
9. Giglou, Abolfazl Nazari, **Rouzbeh Nazari**, Farhad Jazaei, and Maryam Karimi. "Assessing the effects of increased impervious surface on the aquifer recharge through river flow network, case study of Jackson, Tennessee, USA." The Science of the Total Environment: Volume 872, 2023. https://doi.org/10.1016/j.scitotenv.2023.162203
10. Samain Sabrin, Maryam Karimi, **Rouzbeh Nazari**, Modeling heat island exposure and vulnerability utilizing earth observations and social drivers: A case study for Alabama, USA, Building and Environment, Volume 226, 2022, https://doi.org/10.1016/j.buildenv.2022.109686.
11. Kamali, M.I., Ansari, H. & **Nazari, R.** Optimization of Applied Water Depth Under Water Limiting

Conditions. Water Resource Management (2022). https://doi.org/10.1007/s11269-022-03241-x
12. Md Golam Rabbani Fahad, Wesley Zech, **Rouzbeh Nazari**, Maryam Karimi, Developing a Geospatial Framework for Severe Occupational Injuries Using Moran's I and Getis-Ord Gi* Statistics for Southeastern United States, Natural Hazards Review, Volume 23, Issue 3, 2022, https://doi.org/10.1061/(ASCE)NH.1527-6996.0000566
13. Md Golam Rabbani Fahad, **Rouzbeh Nazari**, M.H. Motamedi, Maryam Karimi, A Decision-Making Framework Integrating Fluid and Solid Systems to Assess Resilience of Coastal Communities Experiencing Extreme Storm Events, Reliability Engineering & System Safety, Volume 221, 2022, https://doi.org/10.1016/j.ress.2022.108388.
14. **Rouzbeh Nazari**, Haralambos Vasiliadis, Maryam Karimi, Md Golam Rabbani Fahad, Stanley Simon, Teng Zhang, Qing Sun, Robert Peters, Hydrodynamic Study of the Impact of Extreme Flooding Events on Wastewater Treatment Plants Considering Total Water Level, Natural Hazards Review, Volume 23, Issue 1, 2022, https://doi.org/10.1061/(ASCE)NH.1527-6996.0000531
15. Sun, Q.; **Nazari, R.**; Karimi, M.; Rabbani Fahad, M.G.; Peters, R.W. Comprehensive Flood Risk Assessment for Wastewater Treatment Plants under Extreme Storm Events: A Case Study for New York City, United States. Appl. Sci. 2021, 11, 6694. https://doi.org/10.3390/app11156694
16. Samain Sabrin, Maryam Karimi, **Rouzbeh Nazari**, Md Golam Rabbani Fahad, Robert W. Peters, Alley Uddin, The impact of stay-at-home orders on air-quality and COVID-19 mortality rate in the United States, Urban Climate, Volume 39, 2021, https://doi.org/10.1016/j.uclim.2021.100946.
17. Md Golam Rabbani Fahad, Maryam Karimi, **Rouzbeh Nazari**, Samain Sabrin, Developing a geospatial framework for coupled large scale thermal comfort and air quality indices using high resolution gridded meteorological and station based observations, Sustainable Cities and Society, Volume 74, 2021, https://doi.org/10.1016/j.scs.2021.103204.
18. Sabrin, S., Zech, W.C., **Nazari, R.**, Karimi, M., Understanding occupational heat exposure in the United States and proposing a quantifying stress index. Int Arch Occup Environ Health (2021). https://doi.org/10.1007/s00420-021-01711-0
19. Samain Sabrin, **Rouzbeh Nazari**, Maryam Karimi, Md Golam Rabbani Fahad, Jess Everett, Robert Peters, Development of a Conceptual Framework for Risk Assessment of Elevated Internal Temperatures in Landfills, Science of The Total Environment, 2021, 146831, ISSN 0048-9697, https://doi.org/10.1016/j.scitotenv.2021.146831.
20. Samain Sabrin, Maryam Karimi, **Rouzbeh Nazari**, Joshua Pratt, Joshua Bryk, Assessing the Effects of Different Urban-Vegetation Morphology on the Canopy-level Thermal Comfort and the Cooling Benefits of Shade Trees: Case-study in Philadelphia, Sustainable Cities and Society, 2021, 102684, ISSN 2210-6707, https://doi.org/10.1016/j.scs.2020.102684.
21. Samain Sabrin, Maryam Karimi, Md Golam Rabbani Fahad, **Rouzbeh Nazari**, Quantifying environmental and social vulnerability: Role of urban Heat Island and air quality, a case study of Camden, NJ, Urban Climate, Volume 34, 2020, 100699, ISSN 2212-0955, https://doi.org/10.1016/j.uclim.2020.100699.
22. **Nazari, R.**; Alfergani, H.; Haas, F.; Karimi, M.E.; Fahad, M.G.R.; Sabrin, S.; Everett, J.; Bouaynaya, N.; Peters, R.W. Application of Satellite Remote Sensing in Monitoring Elevated Internal Temperatures of Landfills. *Appl. Sci.* 2020, *10*, 6801. https://doi.org/10.3390/app10196801
23. Sabrin, S.; **Nazari, R.**; Fahad, M.G.R.; Karimi, M.; Everett, J.W.; Peters, R.W. Investigating Effects of Landfill Soil Gases on Landfill Elevated Subsurface Temperature. Appl. Sci. 2020, 10, 6401. https://doi.org/10.3390/app10186401
24. Sabrin, S.; Karimi, M.; **Nazari, R.** Developing Vulnerability Index to Quantify Urban Heat Islands Effects Coupled with Air Pollution: A Case Study of Camden, NJ. *ISPRS Int. J. Geo-Inf.* 2020, *9*, 349. https://doi.org/10.3390/ijgi9060349
25. Fahad, M.G.R., Nazari, R., Motamedi, M.H., Karimi, M., Coupled Hydrodynamic and Geospatial

Model for Assessing Resiliency of Coastal Structures under Extreme Storm Scenarios. Water Resour Manage 34, 1123–1138 (2020). https://doi.org/10.1007/s11269-020-02490-y
26. Golam Fahad, **Rouzbeh Nazari**, Parth Bhavsar, Mohammad Jalayer, Maryam Karimi, A decision-support framework for emergency evacuation planning during extreme storm events, Transportation Research Part D, Volume 77, Pages 589-605, ISSN 1361-9209, https://doi.org/10.1016/j.trd.2019.09.024, 2019
27. Peter Dorofy, **Rouzbeh Nazari**, Peter Romanov, Application of Dynamic Threshold in a Lake Ice Detection Algorithm. American Journal of Remote Sensing. Vol. 6, No. 2, pp. 64-73. doi: 10.11648/j.ajrs.20180602.12, 2018
28. MH Motamedi, A. Iranmanesh, **R. Nazari**, Quantitative Assessment of Resilience for Earthen Structures Using Coupled Plasticity-Damage Model, Journal of Engineering Structures, Volume 172, Pages 700-711, 2018, https://doi.org/10.1016/j.engstruct.2018.06.050
29. Ismaeil Kamali, **Rouzbeh Nazari**, Determination of maize water requirement using remote sensing data and SEBAL algorithm, Agricultural Water Management, Volume 209, Pages 197-205, 2018, https://doi.org/10.1016/j.agwat.2018.07.035
30. Karimi, M. **Nazari, R.** Dutovo, D., Vant-Hull, B., Khanbilvardi, R., A Conceptual Framework for Environmental Risk and Social Vulnerability Assessment in Complex Urban Settings, Journal of Urban Climate, Elsevier, ISSN: 2212-0955, Journal of Urban Climate, Vol. 26, pp. 161-173, 2018, https://doi.org/10.1016/j.uclim.2018.08.005
31. Fahad, Golam, **Nazari, Rouzbeh**, Joseph Daraio, Dot Lundberg, Regional Study of Spatial and Temporal Temperature and Precipitation Patterns Using Bias Corrected RCP and High Resolution Scenarios, Journal of Earth Science and Climate Change, Journal Volume 8, Issue 9, Page 409, 2018, doi: 10.4172/2157-7617.1000409
32. Fahad, Golam, Islam, AKM Saiful, **Nazari, Rouzbeh**, M., Islam, G.M., Bala, Sujit, Regional changes of precipitation and temperature over Bangladesh using bias corrected multi-model ensemble projections considering high emission pathways, International Journal of Climatology, Volume38, Issue4 30, Pages 1634-1648, 2017 https://doi.org/10.1002/joc.5284
33. Hurler, C. Plucinsky, A. Sooy, K. Stenger, J. **Nazari, R.** Impact Assessment of Extreme Storm Events on Southern New Jersey Coastal Communities, Journal of Flood Engineering ISSN : 0976-6219, Vol. 7 No. 2 2017
34. Karimi, M. **Nazari, R.** Vant-Hull, B., Mittenzwei, M., Khanbilvardi, R., Predicting Surface Temperature Variation in Urban Settings Using Real-Time Weather Forecasts, Journal of Urban Climate, Vol. 20, pp. 192-201, Elsevier, 2017 https://doi.org/10.1016/j.uclim.2017.04.008
35. Dorofy, P. **Nazari, R.** Romanov, P. Key, J. Development of a Mid-Infrared Sea and Lake Ice Index (MISI) Using the GOES Imager, Journal of Remote Sensing, *Remote Sens.* 2016, *8*(12), 1015, 2016, https://doi.org/10.3390/rs8121015
36. Mohammadreza Yadollahi, **Rouzbeh Nazari**, Nicholas Joseph Spanos & Nicholas Minner, An application of fuzzy factor analysis for sustainable bridge maintenance and retrofit projects, International Journal of Management Science and Engineering Management, Volume 12, 2017 - Issue 4, Pages 225-236, 2016, https://doi.org/10.1080/17509653.2016.1205528
37. Karimi, M. **Nazari, R**. Vant-Hull, B., Khanbilvardi, R., Urban Heat Island Assessment with Temperature Maps Using High Resolution Datasets Measured at Street Level, The International Journal of the Constructed Environment, Volume 6, Issue 4, pp.17-28, 2015, https://doi.org/10.18848/2154-8587/CGP/v06i04/37455
38. P. Dorofy, J. D. Moore, K. Varghese, **R. Nazari**, Establishing a Geospatial Intelligence Pipeline through Earth SySTEM Education, Journal of The Earth Scientist, ISSN: 1045-4772, Volume XXXI, Issue 2, Summer 2015, DOI: 10.1109/ISECon.2018.8340492
39. Kamali, I. **Nazari, R.** Faridhosseini, A. Ansari, H. Saeid Eslamian, S. The Determination of

Reference Evapotranspiration for Spatial Distribution Mapping Using Geostatistics, Water Resources Management, ISSN: 0920-4741, Volume 29, 2015, https://doi.org/10.1007/s11269-015-1037-4

40. Vant-Hull, B. Karimi, M. Sossa, A. **Nazari, R**. Khanbilvardi, R., "Fine Structure in Manhattan's Daytime Urban Heat Island: a New Dataset", J. Urban and Env. Eng. vol. 8, núm. 1, pp. 59-74, 2014, doi: 10.4090/juee.2014.v8n1.059074
41. Dobler, G. Ghandehari, M. Koonin, S. **Nazari, R.** Patrinos, A. Sharma, M. Tafvizi, A. Vo, H. Wurtele, J. Dynamics of The Urban Lightscape, Journal of Information Systems, ELSEVIER, Volume 54, 115-126, 2015, https://doi.org/10.1016/j.is.2015.06.002
42. Mahani, S. **Nazari, R**. and Khanbilvardi, R. Evaluation of Remotely-Sensed Rainfall Algorithms for Strong Hurricanes, International Journal of Hydrology Science and Technology, ISSN : 0976-6219, Pp. 1–18, 2013
43. **Nazari, R.** Clark, V. and Khanbilvardi, R. Assessment of Sea Surface Temperature (SST) and Normalized Difference Sea Ice Index (NDSI) Derived from MSG SEVIRI Satellite for Sea Ice Applications, Journal of Flood Engineering, 3(1); Pp. 39–47, ISSN: 0976-6219, 2012
44. **Nazari, R.** and Khanbilvardi, R. 'Application of dynamic threshold in sea and lake ice mapping and monitoring', Int. J. Hydrology Science and Technology, Vol. 1, Nos. 1/2, pp.37–46. 2012
45. **Nazari, R.** Rychtecka, M. Ghedira, H. and Khanbilvardi, R. Stepwise Linear Regression for mapping and monitoring sea and lake ice for the future GOES-R, International Journal of Terraspace Science and Engineering, Volume I, Issue 2, ISSN: 1943-3514 June 2009

BOOKS AND BOOK CHAPTERS

1. **Rouzbeh Nazari**, Md Golam Rabbani Fahad, Maryam Karimi, Saeid Eslamian, Continuous Large-Scale Simulation Models in Flood Studies, Flood Handbook, CRC Press ISBN 9780429463938, 2022
2. Maryam Karimi, **Rouzbeh Nazari**, Samain Sabrin, Extreme Heat Events and Public Health, Public Health Emergencies, Springer Publishing Company, ISBN: 978-0-8261-4902-2, 2021
3. Alireza Gohari, Mohammad Javad Zareian, Saeid Eslamian and **Rouzbeh Nazari**, Inter-basin Transfers of Water: Zayandeh-Rud Basin, Handbook of Drought and Water Scarcity, Taylor & Francis Publishing Group (CRC Press), 2017
4. Dinara Abbasova, Saeid Eslamian, **Rouzbeh Nazari**, Paleo-Drought: Measurements and Analysis, Handbook of Drought and Water Scarcity, Taylor & Francis Publishing Group (CRC Press), 2017
5. Khanbilvardi, R. Lakhandkar, T. **Nazari**, R. Krakauer, N. Powel, A. Remote Sensing Data and Information for Hydrological Monitoring and Modeling, Handbook of Engineering Hydrology, Modeling Climate Changes and Variability. Taylor & Francis Publishing Group (CRC Press), 2013
6. **Nazari, R.** De Hoyos, S. Khanbilvardi, R. Freshwater Demands and Shortages, Encyclopedia of Crisis Management. ISBN: 9781452275956, Publisher: SAGE Publications, 2013
7. **Nazari, R.** Karimi, M. Mahani, S. Environmental Contamination, Encyclopedia of Crisis Management. ISBN: 9781452275956, Publisher: SAGE Publications, 2013
8. Fakhri, M., Farzaneh, M. R., EslamianS. and **Nazari, R.,** Wind Speed Regionalization Under Climate Change Conditions, New Developments in Renewable Energy, ISBN 978-953-51-1040-8, Publisher: INTECH, 2013
9. **Nazari, R.**, S. Eslamian and R. Khanbilvardi, Water Reuse and Sustainability, Chapter 11, in Ecological Water Quality-Water Treatment and Reuse by K. Voudouris & D. Vousta, 241-254, Intech., ISBN 979-953-307-745-0, 2012

CONFERENCE PROCEEDINGS

1. Aishwarya Kaushal, **Maryam Karimi**, Rouzbeh Nazari, Kofi Opare, Mujungu Museru, M.R. Nikoo, Unveiling Geospatial Patterns: Analyzing COPD prevalence and TRI facilities with Fuzzy Analytic Hierarchy Process (FAHP), SOPH 2024
2. Kofi Opare, Rouzbeh Nazari, **Maryam Karimi**, Developing Future Projected Intensity-Duration-Frequency (IDF) Curves for Alabama, AWRA 2024 Spring Conference
3. Abi N. Giglou, Rouzbeh Nazari, **Maryam Karimi**, Integrating SWAT Modeling and Machine Learning for Enhanced Rainfall–Runoff Analysis in Birmingham, Alabama, AWRA 2024 Spring Conference
4. Mujungu Museru, Rouzbeh Nazari, **Maryam Karimi**, Spatially-Informed Deep Learning for Enhanced Flood Damage Prediction on Residential Properties: A Case Study for Coastal Alabama, AWRA 2024 Spring Conference
5. **Rouzbeh Nazari**, Bob Martin, Maryam Karimi, Vanessa Marie Escobar, Thanh Vo, Leveraging NOAA Data and the Pathfinder Initiative for Flood Resiliency Planning and Evacuation in Coastal Communities: Translating Complex Data into Usable Products, 104th AMS Annual Meeting, Baltimore 2024
6. Abi N. Giglou, **Rouzbeh Nazari**, Maryam Karimi, Anthropogenic Impacts on Future Hydrological Processes in the Village Creek Watershed: Implications for Water Resources Management under Climate Change, 104th AMS Annual Meeting, Baltimore 2024
7. Khaushal, A., Karimi, M., **Nazari, R.**, and Dransfield, M., Examining the Relationship between Geographic Proximity to Toxic Chemica Release Sites and COPD Prevalence in Vulnerable Communities in Birmingham, AL, Tri National Conference US EPA- Tri, Arlington, VA, October 2023
8. **Nazari, R.**, Karimi, M, High-Resolution hydrodynamic modeling and flood damage assessment in complex urban systems, IUGG23, Berlin, Germany, July 2023
9. **R. Nazari** and M. Karimi, An Innovative Decision-Making Framework For Assessing Resilience And Vulnerability of Urban Coastal Communities, 14th Ecocity World Summit, London, June 2023
10. **R. Nazari,** Disaster Resilience Solutions for Sustainable Smart Cities of Tomorrow, Stockholm Smart City Conference and Expo, May 2023
11. Karimi, M., Sabrin, S., Kaushal, A., and **Nazari, R**., Disparities in Environmental equity and Respiratory Symptoms of COPD patients in terms of Proximity to National Priorities List (NPL) sites, SOPH Conference, April 2023
12. Karimi, M., Sabrin, S., and **Nazari, R**., Assessing the Impact of Urban Canopy Thermal Level on Pedestrian Comfort and the Benefits of Vegetation in Colling, Earth Science 2023 Congress, UAE, April 2023
13. Karimi, M., **Nazari, R.**, High-Resolution Flood Modeling and Resiliency Planning in Urban Coastal Environment, AMS Conference, Colorado, January 2023
14. Karimi, M., Sabrin, S, and **Nazari, R.**, Effects of Different Urban-Vegetation Morphology on the Canopy-level Thermal Comfort and the Cooling Benefits of Shade Trees: Case-study in Philadelphia, FOREM, Budapest, Hungary, March 21-23, 2023
15. Karimi, M., Sabrin, S, and **Nazari, R.**, Modeling Heat-Exposure and Heat-Risk Vulnerability Utilizing Earth Observations and Social Drivers of Heat Island Effects: A Case Study for Eight Cities in Alabama, USA, American Meteorological Society Annual Meeting (13th Conference on Environment and Health), Texas, Houston, January 2022
16. Karimi, Maryam; **Nazari, Rouzbeh**; Mirbozorgi, Abdollah; Sabrin, Samain; Kaushal, Aishwarya; Standalone Wearable Lung Performance and Air Quality Monitoring Device for Chronic Respiratory Diseases, 20th IEEE NEWCAS, Quebec, Canada, June 2022

17. **Rouzbeh Nazari**, Maryam Karimi, Samain Sabrin, Md Golam Rabbani Fahad, Developing a Framework for Infectious Disease Transmission and Spread Using SARS, MERS and COVID19 Data, GSPHPM2022, Munich, Germany, May 2022
18. **R. Nazari,** Advanced Decision-Making Framework and Flood Resiliency Planning Through Integration of Fluid and Solid Systems, AWRA Geospatial Water Technology Conference, Austin, TX, May 2022
19. **R. Nazari**, Challenges and Opportunities of Flood Risk Management in Alabama, American Water Resources Association Conference on Water Risk Under a Rapidly Changing World - Evaluation and Adaptation, Tuscaloosa, AL, April 2022
20. Karimi, M., Sabrin, S, and **Nazari, R.**, Understanding the Importance of Thermal level Comfort and Impact of Cooling Vegetations, American Water Resources Association, 2022 Geospatial Water Technology Conference, Urban and Climate, Houston, Texas, March, 2022
21. **R. Nazari** and Golam Fahad, Application of SWAT and LSTM-RNN for Large-Scale Hydrological Modeling to Predict the Instantaneous Peak Flow: A Case Study for the Black-Warrior River Basin, Alabama, 36th Conference on Hydrology, American Meteorological Society 102nd Annual Meeting, January 2022
22. **R. Nazari** and Golam Fahad, Integrated Resilience and Vulnerability Solutions for Coastal Communities at Risk, Alabama, 20th Symposium on the Coastal Environment, American Meteorological Society 102nd Annual Meeting, January 2022
23. M. Karimi, Samain Sabrin and **R. Nazari,** Modeling Heat-Exposure and Heat-Risk Vulnerability Utilizing Earth Observations and Social Drivers of Heat Island Effects: A Case Study for Eight Cities in Alabama, 13th Conference on Environment and Health, American Meteorological Society 102nd Annual Meeting, January 2022
24. **R. Nazari** and M. Karimi, An Innovative Decision-Making Framework For Assessing Resilience And Vulnerability of Urban Coastal Communities, 14th Ecocity World Summit, Ecocity 2022
25. **R. Nazari** Application of Hydrodynamic Modeling and Flood Planning in Resilience Assessment of Urban Coastal Regions, 32nd Alabama Water Resources Conference, September 2021
26. **R. Nazari,** A Decision Making Framework Based on Coupled Plasticity-Damage Model for Structural Flood Resiliency Analysis of Earthen Structures, ASCE Birmingham Branch, May 2021
27. **R. Nazari** and Golam Fahad, Assessing Resilience and Vulnerability of Coastal Communities through Multi Scale Hydrodynamic Modeling, The New Jersey Association for Floodplain Management (NJAFM), October, 2019
28. **Rouzbeh Nazari**, A Decision Making Framework for High Resolution Flood Resiliency Assessment of Coastal Communities Alabama Water Conference September 2019
29. M. Hosein Motamedi, M.G.R. Fahad, **R. Nazari**, An innovative framework for high resolution quantitative assessment of flood resiliency of communities, AGU, Washington DC, AGU Dec. 2018
30. M. Hosein Motamedi, M.G.R. Fahad, **R. Nazari**, Flood Vulnerability Assessment and Data Visualization for Lifeline Transportation Network, the 20th Annual Research Showcase West Windsor, NJ, October 17, 2018
31. **R. Nazari** and M. Hosein Motamedi, An Innovative Framework for High-Resolution Quantitative Assessment of Flood Resiliency of Coastal Communities, The New Jersey Association for Floodplain Management (NJAFM), Oct. 25, 2018
32. Karimi, M., Shaman, J., and Nazari, R., "Quantifying the impacts of built environment and surface properties on Temperature Extremes", Environmental Pollution and Health Hazards, 2nd Annual Conference, Osaka, Japan, 2018
33. Motamedi and **R. Nazari**, Quantitative Assessment of Resilience for Earthen Structures using

Coupled Plasticity-Damage Model, MH Super Storm Sandy: Five Years Later, October 26-27, 2017

34. Iranmanesh, A., Clark, U., Fahad, G., Lundberg, D., Motamedi, M., and **Nazari, R.** (2018) "Resilience Assessment of Bridges Subjected to Hurricanes" Transportation Research Board (TRB), 97th Annual Meeting, January 7-11, Washington D.C., USA
35. Iranmanesh, A. Clark, U., **Nazari, R.**, & Dusseau, R. (2017) "Resilience Assessment of Bridges Subjected to Hurricanes", *Super Strom Sandy: Five Years Later*, Lyndhurst, New Jersey, USA
36. John Moore, Peter Dorofy, **Rouzbeh Nazari**, Michael Jabot, Nidhal Bouaynaya, Brian Hagerty, Earth SySTEM: Investigating Earth from Space, IEEE Integrated STEM Conference (ISEC), Princeton, NJ, March 10, 2018
37. **Rouzbeh Nazari**, Applications of High Resolution Enhanced Hydrodynamic Modeling for Coastal Community Resiliency, Interfaces in the Critical Zone, AGU-SEG Hyrdrogeophysics, Stanford, CA 2017
38. P. Awolumate, M. Rudy, R. Ramachandran, N. Bouaynaya, K. Dahm, **R. Nazari**, U. Thayasivam, A Pattern Recognition Approach To Signal To Noise Ratio Estimation Of Speech, American Society for Engineering Education (ASEE) Conference, NSF Grantees Session, Columbus, Ohio 2017
39. P. Dorofy, J. A. Yuhas and **R. Nazari**, Evaluating GLOBE Data to Calibrate a Satellite Product for Snow and Ice Discrimination, American Meteorological Society (AMS) Conference, 26th Symposium on Education, Seattle, WA 2017
40. Katie Miller, **Rouzbeh Nazari**, Joseph A. Daraio, Community Based Resiliency Planning Through Green Infrastructure, 14th Urban Watershed Management Symposium, ASCE-EWRI, Sacramento, CA 2017
41. **Rouzbeh Nazari**, A Decision Making Framework in Assessing Climate Resilience and Vulnerability of Southern New Jersey Coastal Communities Through Multi-Scale Hydrodynamic Modeling, ASCE-EWRI, West Palm Beach, FL 2016
42. **R. Nazari,** P. Dorofy, P. Romanov, and R. Khanbilvardi, Sea Ice Mapping Algorithm for Future Operational Geostationary Satellites, American Meteorological Society (AMS) Conference, New Orleans, LA 2016
43. R. Nazari, M. Karimi, C. Goins, A. Musilli, M. Ghandehari, and R. Khanbilvardi, A Framework to Conceptualize Environmental and Social Vulnerability to High Temperatures in Urban Landscapes, American Meteorological Society (AMS) Conference, Seventh Conference on Environment and Health, New Orleans, LA 2016
44. Karimi, M. Vant-Hull, B. **Nazari**, **R.** and Khanbilvardi, R., Surface Temperature Variation Prediction Model Using Real-Time Weather Forecasts, American Meteorological Society (AMS) Conference, Seventh Conference on Environment and Health, New Orleans, LA 2016
45. P. Dorofy, M. Mooney and **R. Nazari**, Pixel Classification for Pre-College Students Using GOES-R Proxy Data, American Meteorological Society (AMS) Conference, 12th Annual Symposium on New Generation Operational Environmental Satellite Systems, New Orleans, LA 2016
46. **Rouzbeh Nazari**, Katie Miller and Collin Hurler, Hydrodynamic Based Decision Making Framework for Impact Assessment of Extreme Storm Events on Coastal Communities, AGU, San Francisco, 2015
47. Karimi, M. Vant-Hull, B. **Nazari**, **R.** and Khanbilvardi, R., Surface Temperature Variation Prediction Model Using Real-Time Weather Forecasts, AGU, San Francisco, CA 2015
48. Dorofy, P. **Nazari, R.** Establishing a Geospatial Intelligence Pipeline through Earth SySTEM Education, NOAA/NESDIS Cooperative Research Program (CoRP), Univeristy of Maryland,

September 16-17, 2015

49. **Nazari, R.** Hurler, C. Plucinsky, A. Sooy, K. Stenger, J., Impact Assessment of Extreme Storm Events on Southern New Jersey Coastal Communities, International Conference on Coastal Cities and their Sustainable Future, New Forest, UK, 7 - 9 July, 2015
50. Musilli, A. **Nazari, R.**, Application of Big Data in Landfill Fire Management and Risk Assessment, New Jersey Big Data Alliance 2015 Symposium, April 29, 2015
51. Nazari,R. Musilli, Candelaria, K. Cohen, R. Davidson, T., Assessment of Land Surface Properties Impact on Near Surface Air Temperature in Urban Environments, 9th International Conference on Urban Climate, Toulouse, France 2015
52. Karimi, M., Vant-Hull, B., Nazari, R., and Khanbilvardi, R., (2015), "Land Surface and Climate Change Impacts on Temperature Variation in New York City", ICUC, 9th Annual Meeting, Toulouse France, 2015
53. **Nazari, R.** Urban Microclimate Assessment and Neighborhood Temperature Variations Due to the Urban Heat Island, American Meteorological Society (AMS) Conference, Phoenix, AZ 2015
54. Karimi, M. Vant-Hull, B. **Nazari**, **R.** and Khanbilvardi, R. Impact of Environmental Factors in Variation of Temperature in Respect to Urban Heat Island, American Meteorological Society Conference, Phoenix, AZ 2015
55. Vant-Hull, B. Karimi, M. **Nazari**, **R.** Sossa, A. and Khanbilvardi, R. A Simple Statistical Model for Predicting Fine Scale Spatial Temperature Variability in Urban Settings, American Meteorological Society Conference, Phoenix, AZ 2015
56. Sossa, A. Vant-Hull, B. **Nazari, R.** and Karimi, M. Landsat Retrieved Surface Properties Effects on the Day Time Temperature Pattern in New York City, American Meteorological Society Conference, Phoenix, AZ 2015
57. **Nazari, R.** Vasiliadis, H. Flooding Impacts on New York State Wastewater Infrastructures in the Light of Extreme Events, SHPE Conference, Detroit, MI, November 2014
58. **Nazari, R.** New York City Thermal Cycle Assessment and Neighborhood Temperature Variations Due to the Urban Heat Island, Fifth International Conference on The Constructed Environment, University of Pennsylvania, Philadelphia, 16–17 October 2014
59. **Nazari, R.** Ghandehari, M. Gholitabar, S. Thurston, G. Assessment of the Air Quality Impact of Traffic Congestion in Urban Environment, AGU Fall Meeting, San Francisco, California, 9-13 December, 2013
60. **Nazari, R.** Ghandehari, M. M. Karimi, M. Vant-Hull, B. Khanbilvardi, R. Assessment of Urban Infrastructure Impact on New York City Neighborhoods Thermal Variations, The 94th AMS Annual Meeting, Atlanta, Georgia from 2-6 February, 2014
61. **Nazari, R.** De Hoyos, S. and Khanbilvardi, R. Monitoring Humidity Over Land Using Satellite Based Data, IEEE International Geoscience & Remote Sensing Symposium, Munich, Germany, July 22-27, 2012
62. Karimi, M. Vant-Hull, B. **Nazari, R.** and Khanbilvardi, R. Thermal Neighborhood Observations and Effects on Human Health Neighborhood Variations in Urban NorthEast Urban Heat Island, IEEE International Geoscience & Remote Sensing Symposium, Munich, Germany, July 22-27, 2012
63. **Nazari, R.** and Speight, B. The Effects of Temperature, Humidity, and Pollution on Asthma-Related Emergency Department Visits at Two Hospitals in Bronx, New York, The Sixth Education and Science Forum, NOAA Educational Partnership Program, Florida A&M University, March 26-28, 2012
64. **Nazari, R.** De Hoyos, Land Surface Humidity Monitoring Using Satellite Based Data, The Sixth

Education and Science Forum, NOAA Educational Partnership Program, Florida A&M University, March 26-28, 2012

65. Karimi, M. Vant-Hull, B. **Nazari, R.** and Khanbilvardi, R. Characterizing Environmental Factor for Climate Health Impacts and Asthma, The Sixth Education and Science Forum, NOAA Educational Partnership Program, Florida A&M University, March 26-28, 2012
66. **Nazari, R.** and Khanbilvardi, R. Development of an Advanced Technique for Mapping and Monitoring Sea and Lake Ice in Preparation for GOES-R Advanced Baseline Imager (ABI), Eighth Annual Symposium on Future Operational Environmental Satellite Systems, AMS, New Orleans, LA, January 22-26 2012
67. **Nazari, R.** and Khanbilvardi, R. Mapping and Monitoring of Sea and Lake Ice in Preparation for GOES-R Advanced Baseline Imager (ABI), American Geological Union Fall Meeting, San Francisco, CA, December 6-10, 2011
68. **Nazari, R.** Impact of Flood and Sea Level Rise on Coastal Areas and Damages in Long Island, NY, Pilot Study for the US Coastal Regions, 9th Annual New York City College of Technology Faculty and Student Research Poster Session, November 17, 2011
69. **Nazari, R.** Ghedira, H. Temimi, M. Romanov, P. and Khanbilvardi, R. Development and validation of a BRDF model for ice mapping for the future GOES-R Advanced Baseline Imager (ABI) using Artificial Neural Network, The AMS 88th Annual Meeting, New Orleans, LA, 20-24 January 2008
70. **Nazari, R.** Temimi, M. Ghedira, H. and Khanbilvardi, R. NOAA- CREST, New York City, New York, An automated approach for sea ice mapping and ice fraction determination for the future GOES-R Advanced Baseline Imager (ABI), 2008 IEEE International Geoscience & Remote Sensing Symposium, Boston, MA, July 6-11, 2008,
71. **Nazari, R.** Mahani, S. and Khanbilvardi, R. Climate Changes Interaction with Tropical Storm (Hurricane), Fourth Annual NOAA-CREST Symposium, Puerto Rico, Mayaguez, February 23-25 2006
72. Eslamian, S. S., Ghoudarzi, A. and **Nazari, R.** Investigation of the Changes of Permeability, Physical and Chemical Characteristics of Sediment Basins for Artificial Recharge In Bagh-E-Sorkh Region, Shahreza, Isfahan, 22nd Annual International Conference on Soils, Sediments and Water, University of Massachusetts at Amherst, 2006
73. **Nazari, R.** Mahani, S. and Khanbilvardi, R. Changes in Sea Surface Temperature and North Atlantic Hurricane Activities, AGU Joint Assembly, Baltimore, Maryland, May 23-25 2006,
74. **Nazari, R.** Mahani, S. and Khanbilvardi, R. Impacts of Climate Change and Tropical Storms (Hurricanes) on Coastal regions, 27th Conference on Hurricanes and Tropical Meteorology, Monterey, California, 2006
75. **Nazari, R.** and Eslamian, S. S., Management, Optimization and Simulation for an Optimum Distribution of Water in Kalamarz Multi-Reservoir System, Mianeh Basin. 6th International Conference on Hydro science and Engineering (ICHE-2004), Australia, May 30-June 2, 2004.
76. **Nazari, R**., Tabatabaei H., Abedi Koupai, J., A Mathematical & Management Model of Ground Water with Emphasis on Artificial Recharge for Damaneh Plain, The Second International Conference on Salt Water Intrusion and Coastal Aquifers, Mirada, Mexico, 2003
77. Eslamian, S. S., Khatoonabadi, S. A., Hamadani, A. and **Nazari, R.**, Water Resources Mismanagement and Desertification of a Semiarid Region, Gahavand Plain, Seventh International Conference on Dry Land Development: Sustainable Development of Dry Lands in the 21st Century, The International Dry Lands Development Commission (IDDC), Tehran, Iran. 2003
78. **Nazari, R**. and Eslamian, S. S. Hydrological Homogeneity Test of Catchments Using L-moments Diagram, International Conference on the Rational Use and Conservation of Water Resources in a Changing Environment, Yerevan, Armenia, 2003
79. Eslamian, S. S. and **Nazari, R.**, Economic Evaluation of an Iranian Water Resources Project, Third

Conference on Agriculture and Natural Resources, Iran and Russia, Moscow. 2002

80. Eslamian, S. S., Ashtari A. and **Nazari, R.**, A Traditional System of Water Harvesting, Turkey Nest, International Conference of Human and Water, Ramsar, Iran. 2002

STUDENT PRESENTATIONS

81. Zimmerman, T., McKane, I.H., Martin, R.A., Nguyen, T.T.T, Principato, R.L., Wagner, S.M. and Nazari, R. The Role of Drones in Mapping Models, The Role of Drones in Mapping Models, Rowan University STEM Research Symposium, April 21, 2017
82. Principato, R.L., Zimmerman, T., McKane, I.H., Martin, R.A., Nguyen, T.T.T, Wagner, S.M. and Nazari, R. Flood Modeling for the Measurement of Resiliency, Rowan University STEM Research Symposium, April 21, 2017
83. Martin, R.A., Principato, R.L., Zimmerman, T., McKane, I.H., Nguyen, T.T.T, Wagner, S.M. and Nazari, R. Development of a Resiliency and Vulnerability Index for community usage during storm events, Rowan University STEM Research Symposium, April 21, 2017
84. Dorofy, P.T., Conroy, M.S., Grosmick, M.A. and Nazari, R. Remote Sensing of Sea Ice, Rowan University STEM Research Symposium, April 21, 2017
85. Stacker, M.E., Karsiotis, A.M., Dvorak, G.J. and Nazari, R. Proactive Waste Management Through Infrared Thermography for Landfill Monitoring and Fire Warning, Rowan University STEM Research Symposium, April 21, 2017
86. Minner, N., Nazari, R. and Spanos, N.J. Road Weather Information System, Rowan University STEM Research Symposium, April 21, 2017
87. Fasolo, A.J., Getler, A.M., Heaning, K.G., Sohail, S. and Nazari, R. Storm Resiliency Visualization, Rowan University STEM Research Symposium, April 21, 2017
88. Ross, A., T. Paronich, A. Musilli, and Nazari, R. Remote Sensing of Land Surface Temperature of Landfills and Risk Assessment, Rowan University STEM Research Symposium, April 22, 2016
89. Dorofy, P., Nazari, R., Joyner, G. and Plucinsky, A. Remote Sensing of Sea Ice: Satellite Reflectance over the Great Lakes, Rowan University STEM Research Symposium, April 22, 2016
90. Musilli, A. Tyler S. Ross, A. Ledig, J. Woodruff, I. Haskell, A. Motto, M. Bouaynaya, N. **Nazari, R.**. Remote Sensing of Land Surface Temperature of Landfills and Risk Assessment, Rowan University STEM Research Symposium, April 24, 2015
91. Candelaria, K. Cohen, R. Davidson, T. Musilli, A. Austen, M. Cetrullo, N. **Nazari, R.** Understanding Thermal Neighborhoods, Rowan University STEM Research Symposium, April 24, 2015
92. C. Hurler, A. Plucinsky, K. Sooy, J. Stenger, **Nazari, R.** Application of Hydrodynamic Modeling in Extreme Storm Assessment Scenarios, Rowan University STEM Research Symposium, April 24, 2015
93. Varghese, K. Dorofy, P. **Nazari**, **R.** Establishing a Geospatial Intelligence Pipeline through Earth SySTEM Education, Rowan University STEM Research Symposium, April 24, 2015

INVITED TALKS AND KEYNOTE SPEECH

1. Building Resilient Sustainable Smart Cities: a Multidimensional Approach to Flood Damage and Community Resilience, Georgia Institute of Technology, 2023
2. Proactive Waste Management and Landfill Fire Monitoring, ASCE Alabama Annual Meeting, 2023
3. Coastal Flooding from Hurricane Sandy: Demonstrating Resiliency Planning and Evacuation in Urban Coastal Environments Translating Complex Data into Usable Products, National Oceanic and Atmospheric Administration (NOAA) Pathfinder, 2023
4. Disaster Resilience Solutions for Sustainable Smart Cities of Tomorrow, Stockholm Smart City Conference and Expo, 2023
5. High-Resolution Hydrodynamic Modeling And Flood Damage Assessment In Complex Urban Systems, Jupiter Intelligence, 2022
6. Natural Hazard Resiliency in the Face of Climate Change for Coastal Communities at Risk, University of Hawaii, Manoa, 2022
7. A Scientific Approach To Global Warming And Climate Change, Rutgers Environmental Steward, Sponsored by Cape May City, November 2021
8. A Decision-Making Framework Based on Coupled Plasticity-Damage Model for Structural Flood Resiliency Analysis of Earthen Structures, ASCE Birmingham Branch, May 2021
9. Sustainable and Smart Urban Resilience, Oak Ridge Associated Universities (ORAU), Smart Cities and Communities Conference 2020
10. Coastal Community Resilience in the Face of Growing Extreme Storm Events, New Jersey Department of Environmental Protection, August 2019
11. Quantifying Community Resilience through Multi Scale Modeling and incorporation of Satellite Data, UAB School of Public Health 2019
12. An Innovative New Tool for Damage and Resilience Assessment of Earthen Structures Threatened by Extreme Storm Events, American Society of Civil Engineers, South Jersey Chapter, 2019
13. Application of Drone Based Thermal Sensing for Landfill Management, New Jersey Meadowlands Environmental Research Institute, Rutgers, 2018
14. Structural Damage and Resilience Assessment of Urban Coastal Communities, Pennoni Engineering, Philadelphia, 2018
15. Big Data Analysis Application for Coastal Resiliency Planning, NJMedia/NJ.com, New Jersey, 2018
16. Parcel Based Damage and Casualty Assessment, Wright Flood Insurance Company, New Jersey, 2018
17. Application of High Resolution Data in Coastal Structural Damage and Resilience Assessment, The Mott MacDonald Engineering Group, Iselin, NJ 2018
18. Assessing Resilience and Vulnerability of Woodbridge Township Coastal Communities Through Multi-Scale Hydrodynamic Modeling, Woodbridge, NJ 2018
19. Development of a Resilience and Vulnerability Assessment for Brick Township Coastal Community, Brick, NJ 2018
20. High Resolution Parcel Based Damage and Resilience Index for Casualty Assessment, Brown and Brown Company, New Jersey, 2018
21. Keynote Speaker, Resiliency Symposium, Rowan University, June 16th, 2017
22. Invited Speaker, Application of Drones and Satellite Based Remote Sensing in Solid Waste Management and Landfill Monitoring, SWANA New Jersey Chapter 2017 Annual Spring Conference, Sustainability Through Innovation & Technology, April 2017
23. Keynote Speaker, Application of Satellite and Drone Based Sensing In Water Resources

Management, First Imaginovation Session of 2017, I spy with my little eye, American Water, April 2017

24. Keynote Speaker, Application of Remote Sensing and Drone Technologies in Advance Water Resources Management, Utility of The Future, American Water Symposium IV, 2016
25. Keynote Speaker, Effective Applications of an Enhanced Fine-Scale Hydraulic Model for Coastal Community Resiliency, NJAFM 12th Annual Conference, 2016
26. Keynote Speaker, Monitoring Harmful Algae Bloom (HABs) Using Remote Sensing Platforms, Second Imaginovation Conference, 2016
27. Keynote Speaker, Enhanced Hydrodynamic Modeling for Resiliency Planning, New Jersey Coastal Coalition Meeting, 2016
28. Keynote Speaker, Extreme Storm Events Impact on Southern New Jersey Coastal Communities, American Water Symposium, 2015
29. Resiliency Planning in the Light of Extreme Storm Events, American Society of Civil Engineers, South Jersey Chapter, 2015
30. Sea-Level Rise And Extreme Storm Events Impacts on The Transportation Infrastructures, Rutgers University, 2014
31. Urban Heat Island Assessment Using High Resolution In Situ and Satellite Datasets, Drexel University, 2014
32. Coping With Climate Change In Urban Environments, New York University, Center For Urban Science And Progress (CUSP), 2014
33. Energy Production From Urban Runoff And Grey Water, University Of Rhode Island
34. Characterizing Environmental Factor For Climate Health Impacts And Asthma In Urban Environment, Columbia Presbyterian Hospital, 2013
35. Global Water Security, Florida Atlantic University, 2013
36. Climate Change And Water In Semi-Arid Regions Water Resources, California State University, 2012
37. Applications of Remote Sensing In Water Resources And Environment, Florida International University, 2012
38. Development Of An Advanced Technique For Mapping And Monitoring Sea And Lake Ice, University Of Madison Wisconsin, 2012
39. Coastal Flood Risk Analysis For The Urban And Coastal Areas, Today And Future Sea Levels, Steven Institute of Technology, 2011
40. Invited Speaker, NASA Jet Population Laboratory (JPL), California Institute of Technology, 2013
41. Invited Speaker, National/Naval Ice Center, Washington D.C., 2013
42. Invited Speaker and Visiting Scientist at University of Wisconsin-Madison, Space Science and Engineering Center, 2012
43. Invited Speaker at Earth Institute of Columbia University, The International Research Institute for Climate and Society, 2012
44. Jacobi Medical Center, Albert Einstein College of Medicine, Yeshiva University (2010) Consultant on Environmental Impact of Air Pollution and Aerosol Mapping and Modeling for Asthma Research Center
45. Invited Speaker at NASA Goddard Institute for Space Studies (GISS), 2010
46. Visiting Fellow, Exploring the Atmosphere: Observational Instruments and Techniques at

NCAR-Advance Study Program, Boulder, Colorado, 2009

47. Visiting Scholar at NOAA- Cooperative Institute for Research in the Atmosphere (CIRA), Colorado State University, Fort Collin, Colorado, 2008
48. Visiting Scholar at NOAA- NESDIS Center for Satellite Applications and Research (STAR), College Park, Maryland, 2007

HONOR AND AWARDS

- The University of Alabama at Birmingham Nominee for the Blavatnik National Awards
- Research and Teaching Award, Civil and Environmental Engineering, Rowan University 2018
- ASCE ExCEED Fellow, 2016
- American Society of Civil Engineers, South Jersey, 2015
- FEMA Academic Recovery Team, 2014 and 2015
- The National Center for Atmospheric Research (NCAR) Advanced Study Program (ASP) Summer Colloquia Fellowship (2012)
- Space Science and Engineering Center/ University of Wisconsin-Madison Collaboration Grant (2011)
- American Geological Union Conference Grant (2010)
- First-place Award, Engineering Graduate Symposium, City University of New York (2009)
- City University Graduate Teaching Fellowship (2008)
- City University Research Travel Fellowship (2008)
- American Meteorological Union Conference Grant (2007)
- City University Tuition Fellowship (2008-2010)
- The Mott Hall-CCNY STARS Award (2006)
- Graduate Center of CUNY Science Fellowship (2004-2008)

PROFESSIONAL AFFILIATIONS

- American Society of Civil Engineers (ASCE)
- The Association of Environmental Engineering and Science Professors (AEESP)
- American Meteorological Society (AMS)
- American Geophysical Union (AGU)
- American Water Resources Association (AWRA)
- Institute of Electrical and Electronics Engineers (IEEE)

THESIS

Rouzbeh Nazari (2010), Development of An Advanced Technique for Mapping And Monitoring Sea And Lake Ice Using Remotely Sensed Data, PhD Thesis, Department of Civil Engineering, City University of New York

Rouzbeh Nazari (2006), Hydrodynamic Modeling of Wake Perception, Propagation and Wake-tracking in Newtonian Fluids, Master Thesis, Department of Civil and Environmental Engineering, City University of New York

Rouzbeh Nazari (2002), Impact of Water Pollution and Hydrologic Changes on Aquatic Ecosystems and Fish Population in Black River, B.E. Thesis, Department of Natural Resources Engineering, Isfahan University of Technology

SELECTED REVIEW PANELS AND JOURNAL EDITORIALS, AND REFEREE

National Science Foundation: Proposal Review Panels, 2016-Present
Chair: California Climate Action Initiative Review Panel, 2023
New York Sea Grant: Technical Panel Review, 2021-2022
Alabama See Grant: Technical Panel Review, 2022
Co-Editor in Chief: Journal of Flood Engineering (JFE)
Editorial Boards: ASCE Natural Hazards Review Journal, Journal of Waste Management and Disposal, American Journal of Remote Sensing, Reliability Engineering and Resilience, Civil

Engineering Journal, Modern Subsea Engineering and Technology Journal
Special Issue Editor: Journal of Applied Sciences: "Building Resilient, Smart and Sustainable Communities: Latest Advances and Prospects"
Special Issue Editor: Journal of Urban Science Sciences: "Empowering Urban Resilience: Sustainable S
Journal Referee: Journal of Water Resource Management; Urban Climate; Science of The Total Environment; Sustainable Cities and Society; Agricultural Water Management; Atmospheric Research; Journal of Hydrology; Natural Hazard Review; Wate Management; International Journal of Hydrology Science and Technology (IJHST); Remote Sensing; Environmental Management; Urban Science; International Journal of Water; Applied Sciences; International Journal of Constructed Environment; and The Journal of Transportation Engineering

STUDENT SUPERVISION AND THESIS COMMITTEE

Post-Doctoral Research Associates

1. **Dr. Abi Giglou**

Expertise: Hydrogeological Modeling, Surface and Groundwater
Ph.D: University of Memphis

2. **Dr. Fahad Rabbani**

Expertise: Hydrodynamic Modeling, Floodplain Management
Ph.D: University of Alabama at Birmingham

3. **Dr. Samain Sabrin**

Expertise: Environmnetal Modeling, Satellite Remote Sensing, and Data Assimilation
Ph.D: University of Alabama at Birmingham

4. **Dr. Dot Lundberg**

Expertise: Hydrodynamic Modeling, Floodplain Management
Ph.D: University of Maryland

5. **Dr. Mohamad Motamedi**

Expertise: Structural Resiliency Modeling
Ph.D: University of Illinois at Chicago

PhD Students

1. Kofi Opare, PhD Advisor, Civil, Construction and Environmental Engineering, UAB
2. Mujunu Museru, PhD Advisor, Civil, Construction and Environmental Engineering, UAB
3. Jennifer Toney, PhD Advisor, Civil, Construction and Environmental Engineering, UAB
4. Richard Hawkin, PhD Advisor, Civil, Construction and Environmental Engineering, UAB
5. Sharry Small, PhD Advisor, Civil, Construction and Environmental Engineering, UAB
6. Fahad Rabbani, PhD Advisor, Civil, Construction and Environmental Engineering, UAB
7. Samain Sabrin, PhD Advisor, Civil, Construction and Environmental Engineering, UAB
8. Aishwarya Kaushal, PhD Co-Advisor, Environmental Health Sciences, UAB
9. Chris Kahn, PhD Advisor, Civil and Environmental Engineering, Rowan University
10. Husam Alfergani, PhD Advisor, Electrical and Computer Engineering, Rowan University
11. Isabel Perez, PhD. Mentor, Civil and Environmental Engineering, City University of New York
12. Soha Gholitabar, PhD. Mentor, Civil and Environmental Engineering, New York University

M.S. Students

13. Mujunu Museru, M.S. Advisor, Civil, Construction and Environmental Engineering, UAB
14. Selami Buzluk, M.S. Advisor, Civil, Construction and Environmental Engineering, UAB
15. Bhuvan Yandra, M.S. Advisor, Civil, Construction and Environmental Engineering, UAB
16. Jaiden Hatch, M.S. Advisor, Environmental Health Sciences, UAB

17. Qing Sun, M.S. Advisor, Civil, Construction and Environmental Engineering, UAB
18. Mukti Patel, M.S. Advisor, Civil, Construction and Environmental Engineering, UAB
19. Gurcharan Singh, M.S. Advisor, Civil, Construction and Environmental Engineering, UAB
20. Rose Mei Liu Albert, M.S., Co-Advisor, Environmental Health Sciences, UAB
21. Drashti Kishor Shah, M.S., Co-Advisor, Environmental Health Sciences, UAB
22. Deep Patel, M.S., Co-Advisor, Electrical and Computer Engineering, Rowan University
23. Daria Dutova, M.S. Advisor, Civil and Environmental Engineering, Rowan University
24. Katie Miller, M.S. Advisor, Civil and Environmental Engineering, Rowan University
25. Aurora Musilli, M.S. Advisor, Civil and Environmental Engineering, Rowan University
26. George Nubo, M.S. Advisor, Civil and Environmental Engineering, Rowan University
27. Peter Dorofy, M.S. Advisor, Civil and Environmental Engineering, Rowan University
28. Christopher Seigel, M.S. Committee, Civil and Environmental Engineering, Rowan University
29. Erie Green, M.S. Mentor, Earth and Environmental Sciences, City University of New York
30. Magdalena Rychtecka, M.S. Mentor, Civil and Environmental Eng., City Univ. of New York
31. Sergio H. Irizarry, M. S. Mentor, Civil and Environmental Engineering, City Univ. of New York

Funded Undergraduate Interns

Rebeca Martin, Ian McKane, Christopher Young, Kelly Pham, Jed Vergara, Shane Kelly, Uriel Clark, Lonnie Souder, Rebecca Adamo, Nicholas Ambrose, Peter Awolumate, Matthew Bresan, Mike Cameron, Ureil Clark, Paul Entwistle, Eric Johnson, Megan Mittenzwei, Mike Moore, Mitchell Rudy, Navjot Singh, Angelic Tucker, Charles White, India Woodruff, Jenna Ledig, Christine Goins, Matthew Bresan, Neirouz Bouhrira

Engineering Clinics (Junior/Senior Clinic, PI)

32. Shane Wagner, Tri Nguyen and Ian McKane (CEE), Hydrodynamic Modeling of Extreme Storm Events, Fall 2016 and Spring 2017
33. Andreas M. Karsiotis, Gerod J. Dvorak, Matthew E. Stacker (CEE), Proactive Waste Management and Remote Sensing of Landfills, Fall 2016 and Spring 2017
34. Nicholas Spanos, Nicholas Minner (CEE), Road Weather Information System, Fall 2016 and Spring 2017
35. Michael S. Conroy, Matthew A. Grosmick and Peter T. Dorofy (CEE) Remote Sensing of Sea Ice, Fall 2016 and Spring 2017
36. Collin Hurler, Andrew Plucinsky, Joshua Stenger, Kyle Sooy (CEE), Impact Assessment of Extreme Storm Events on Infrastructures in Northeast, Fall 2015 and Spring 2016
37. Adam Ross and Thomas Paronich (CEE), Calibration of Satellite Thermal Infrared Channel to Estimate Land Surface Temperature, Fall 2015 and Spring 2016
38. Kimberly Gabel and Austin Gould, (CEE), Understanding Thermal Neighborhoods in Mixed Urban Settings, Fall 2015 and Spring 2016
39. Nick Mineer, Nick Spanos, Dr. Reza Yadollahi (CEE), Non-destructive Testing of Payments, Fall 2015 and Spring 2016
40. Ryan Lee, Christopher Brzozowski (CEE), Development of Landfill Risk Index, Spring 2015 and Fall 2016
41. Collin Hurler, Andrew Plucinsky, Joshua Stenger, Kyle Sooy (CEE), Impact Assessment of Extreme Storm Events on Infrastructures in Northeast, Fall 2014 and Spring 2015
42. Jenna Ledig, Aurora Musilli, Adam Ross, Tyler Seifrit, India Woodruff (CEE) & Adam Haskell and Matthew Motto (ECE), Calibration of Satellite Thermal Infrared Channel to Estimate Land Surface Temperature, Fall 2014 and Spring 2015
43. Robert Cohen, Tanner Davidson (CEE), Kate Candelaria, Matthew Austen and Nicholas Cetrullo, (ECE), Understanding Thermal Neighborhoods in Mixed Urban Settings, Fall 2014 and Spring

2015

44. Kevin Varghese and Peter T. Dorofy (CEE) Application of Earth SySTEM in Establishing a Geospatial Intelligence Pipeline, Spring 2015 and Fall 2015

PEER-REVIEWED TECHNICAL REPORTS

Rouzbeh Nazari, Masoud Ghandehari, John Falcocchio, Air Quality Impact of Traffic Congestion in Midtown Manhattan. University Transportation Research Center (UTRC) Final Report, Project No: 49997-43-24, 2014

Rouzbeh Nazari, Megan Wiley, Frank W. Grasso, Olfactory and Hydrodynamic Contributions to Wake Perception and Wake-tracking Behavior in catfish, Grant Final Report. City University of New York, June 2005

SERVICE

The University of Alabama at Birmingham

- Serving on President's Wellbeing Collaborative
- Senator, University Faculty Senate
- Co-Chair, University Research Committee
- Science Lead, UAB Live Health Smart Alabama
- Serving on CCEE Chair Search Committee
- Serving as the Director of SSCRC
- Co-Chair, Graduate Program Committee
- Chair, Department Research Committee

Rowan University

- Chair, Graduate Program Committee
- Faculty Advisor: United State Green Building Council
- Civil Engineering Department Faculty Search Committee 2016 & 2017
- Alternate Delegate to University Faculty Senate 2015 & 2016
- Faculty Advancement and Training Committee 2015 & 2016
- Geology Department Faculty Search Committee 2017
- Curriculum Committee for the New School of Geology and Environment 2016 &2017
- Director of Innovation Center Search Committee 2016
- Coordinator of Department Seminar Series 2014 & 2015

The City University of New York

- Ex officio Member of The Board of Trustees of City University of New York
- Member of Chancellor’s Search Committee for Provost
- Chairperson University Student Senate
- Vice Chair for Graduate Student Affairs at University Student Senate
- Executive Committee Doctoral Students’ Council
- Chair of Graduate Committee, the University Student Senate
- Civil Engineering Doctoral Student Council (President 2005-2007, Vice President 2004-2005)