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LaHouse Research & Education Center, Department of Biological and Agricultural Engineering

Louisiana State University AgCenter

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EDUCATION

Ph.D. in Oceanography & Coastal Sciences, 8/2022

Minor in Geography

Dissertation: *Estimation of Economic Risk from Coastal Natural Hazards in Louisiana*

Louisiana State University, Baton Rouge

Master of Economics for Professionals, 7/2017

Thesis: Sustainable Development Goals of Bangladesh and Role of Bangladesh Bank: A Descriptive Study

University of Dhaka, Bangladesh.

M.S. in Geography & Environment, 1/2010

Thesis: *Salinity Intrusion and Changes in Fisheries and Agricultural Environment in Southwestern Bangladesh*

University of Dhaka, Bangladesh

B.S. in Geography & Environment, 6/2008

Project: *Bangladesh: Enclaves, a Geographical Analysis – A Case Study on Dahgram and Angarpota*

University of Dhaka, Bangladesh

CERTIFICATIONS

Certified GIS Professional (GISP), 12/2025

GIS Certification Institute (GISCI), Columbia, MO

Certified Floodplain Manager (CFM), 1/2025

Association of State Floodplain Managers (ASFPM), Madison, WI

GIS Graduate Certificate Program, 5/2022

Louisiana State University, Baton Rouge, LA

PROFESSIONAL EXPERIENCE

LaHouse Research and Education Center, Baton Rouge, Louisiana

Assistant Director (Research), 4/2024 – Present

Louisiana State University AgCenter, Baton Rouge, Louisiana

Assistant Professor – Research, 7/2023 – Present

Louisiana State University AgCenter, Baton Rouge, Louisiana

Postdoctoral Researcher, 9/2022 – 7/2023

Louisiana State University, Baton Rouge, Louisiana

U.S. Army Corps of Engineers Research and Development Center (ERDC)-funded research assistantship: Developing Engineering practices for Ecosystem Design Solutions (DEEDS): Calibrating Ecosystem Services to Advance Performance of Natural Infrastructure in Military Operations, 7/2022 – 8/2022

Louisiana SeaGrant Omnibus-funded research assistantship: Economic, Social, and Policy Pathways to Freeboard Adoption for Existing Homes, 2/2022 – 8/2024

Louisiana SeaGrant Omnibus-funded research assistantship: Incentives and Barriers to Increased Freeboard to Enhance Flood Resilience: Louisiana Perspectives, 2/2020 – 8/2022

National Academies of Science-funded research assistantship: The New First Line of Defense: Building Community Resilience through Residential Risk Disclosure, 1/2020 – 8/2022

Department of Housing and Urban Development-funded research assistantship: Building Level Mitigation Cost-Effectiveness Analysis: Louisiana Case Study, 1/2020 – 8/2022

Graduate Teaching Assistantship, Department of Oceanography & Coastal Sciences, 8/2019 – 12/2019

Graduate Research Assistantship, Department of Environmental Sciences, 5/2019 – 8/2019

Graduate Research Assistantship, Department of Oceanography & Coastal Sciences, 1/2019 – 5/2019

Graduate Research Assistantship, Bert S. Turner Department of Construction Management, 8/2018 – 12/2018

FEMA-funded Research Assistantship: 2019 Louisiana State Hazard Mitigation Plan Update (SHMPU), 8/2017 – 8/2018

Bangladesh Bank, Dhaka, Bangladesh

Foreign Exchange Investment Department, Deputy Director, 11/2016 – 8/2017

Foreign Exchange Investment Department, Assistant Director, 7/2013 – 10/2016

Data Experts (Pvt) Limited (datEx), Dhaka, Bangladesh

KDA Master Plan, Assistant GIS Specialist, 11/2011 – 7/2013

Bangladesh Asiatic Society, Dhaka, Bangladesh

Dhaka A to Z: Street Atlas, Project Coordinator and GIS Analyst, 11/2009 – 10/2011

Geographical Solutions Research Center (GSRC), Dhaka, Bangladesh

Survey and Mapping of Kamlapur Urban Surveillance Site, GIS Analyst and Trainer, 3/2008 – 10/2009

REFEREED PUBLICATIONS (38)

Smiley, K., Diaz, O., Done, J., Hemmerling, S., Larrison, K.M., **Mostafiz, R.B.**, Rahim, M.A., Valle, A.R., and Yevuyibor, J.T. (2026). Attributing multi-hazard impacts of Hurricane Ida in south Louisiana to past, present, and future climates: Advancing extreme event impact attribution. Accepted at *Environmental Research: Climate*. Doi: 10.1088/2752-5295/ae6889

Akhter, F., Brand, M., Douthat, T., Friedland, C., **Mostafiz, R.B.**, and Rohli, R. V. (2026). A conceptual framework for integrating ecosystem services and social welfare into flood hazard mitigation benefit–cost analysis.

Environmental Research: Infrastructure and Sustainability, 6(1), 015007. doi: 10.1088/2634-4505/ae46d9

Friedland, C. J., **Mostafiz, R.B.**, Franks, M., Farris, M. T., and Rohli, R. V. (2026). Transforming disaster risk reduction in South Louisiana: Advancing scalable solutions for flood and wind resilience. *Journal of Business Continuity & Emergency Planning*, 19(3), pp. 299-308(10). <https://doi.org/10.69554/LDHR2796>

Monalisa, S., Alipuor, M., Paul, D., Rahman, M.A., Siddika, N., Apu, E.H., and **Mostafiz, R.B.** (2025). Transforming dental care, practice and education with additive manufacturing and 3d printing: innovations in materials, technologies, and future pathways. *Dentistry Journal*, 13(2), Art. No. 555. <https://doi.org/10.3390/dj13120555>

Morgan, J., **Mostafiz, R.B.**, and Friedland, C.J. (2025). Development of a decision support tool for use of 3D terrestrial laser scanning for piping designs. *Frontiers in Built Environment*, 11, Art. No. 1663869. <https://doi.org/10.3389/fbuil.2025.1663869>

Shovon, M.A.C., **Mostafiz, R.B.**, Al Assi, A., and Rohli, R.V. (2025). Hydroclimatic extremes and aquaculture: a review of impact and response strategies. *Aquaculture International*, 33, 439. <https://doi.org/10.1007/s10499-025-02108-3>

Mostafiz, R.B., Al Assi, A.*, Taghinezhad, A., Friedland, C.J., Emrich, C., Gall, M., Rohli, R.V., Rahim, M.A., and Johnson, E. (2025). Flood risk and mitigation calculator tool to support decision-making for enhancing community resilience: A case study of the U.S.A. Gulf Coastal Region. *Frontiers in Built Environment*, 1, Art. No. 1486791. <https://doi.org/10.3389/fbuil.2025.1486791>

Smith, K.A., **Mostafiz, R.B.**, Friedland, C.J., and Nahmens, I. (2025). Bibliometric Web of Science and Google Trends analysis of multi-criteria decision analysis within the built environment. *Frontiers in Built Environment*, 11, Art. No. 1528895. doi: 10.3389/fbuil.2025.1528895

Smith, K.A., **Mostafiz, R.B.**, Friedland, C.J., and Nahmens, I. (2025). Fuzzy logic use case within the built environment for optimizing sustainability versus cost in the material selection process. *Frontiers in Built Environment*, 11, Art. No. 1529578. doi: 10.3389/fbuil.2025.1529578

Ishmam, Z.S.*, Rohli, R.V., and **Mostafiz, R.B.** (2025). Exploring the spatiotemporal trends of extreme precipitation indices for the continental United States. *Physical Geography*, 46(2), 156–174. <https://doi.org/10.1080/02723646.2025.2465011>

Deria, A., **Mostafiz, R.B.**, Lee, Y.C.*, and Friedland, C.J. (2025). Implications of new freeboard policy for homeowners on different income groups. *Mitigation and Adaptation Strategies for Global Change*, 30(5). <https://doi.org/10.1007/s11027-024-10194-6>

Christiansen, K., **Mostafiz, R.B.***, Al Assi, A., Rohli, R.V., and Friedland, C.J. (2024). Financial impacts of 2020 Oregon Labor Day fires. *PLOS Climate*, 3(10), Art. No. e0000489. <https://doi.org/10.1371/journal.pclm.0000489>

Al Assi, A.*, **Mostafiz, R.B.**, Orooji, F., Taghinezhad, A., Gall, M., Rohli, R.V., Emrich, C., Friedland, C.J., and Johnson, E. (2024). Wind risk and mitigation calculator framework for determining the wind annualized risk for single- and

multi-family homes to support resilient community decision-making. *Resilient Cities and Structures*, 3(4), 21–33. doi: 10.1016/j.rcns.2024.08.002.

- Christiansen, K., Al Assi, A., **Mostafiz, R.B.**, and Rohli, R.V. (2024). Charting the scorched trails: a comparative analysis of roadway damage from historical megafires to the unprecedented 2020 Labor Day wildfires on the USA West Coast. *Emergency Management Science and Technology*, 4, Art. No. e015. doi: 10.48130/emst-0024-0016
- Rahim, M.A., Al Assi, A., **Mostafiz, R.B.**, and Friedland, C.J. (2024). Effects of damage initiation points of depth-damage function on flood risk assessment. *NPJ Natural Hazards*, 1, Art. No. 6, doi: 10.1038/s44304-024-00004-z
- Al Assi, A., **Mostafiz, R.B.**, Friedland, C.J., and Rohli, R.V. (2024). Theoretical boundaries of annual flood risk for single-family homes within the 100-year floodplain. *International Journal of Environmental Research*, 18, Art. No. 29. doi: 10.1007/s41742-024-00577-7
- Rahim, M.A., Rohli, R.V., **Mostafiz, R.B.**, Bushra, N., and Friedland, C.J. (2024). Historical global and regional spatiotemporal patterns in daily temperature. *Frontiers in Environmental Science*, 11, Art. No. 1294456. doi: 10.3389/fenvs.2023.1294456
- Gnan, E., **Mostafiz R.B.***, Rahim, M.A., Friedland, C.J., Rohli, R.V., Taghinezhad, A., and Al Assi, A. (2024). Freeboard life-cycle benefit-cost analysis of a rental single-family residence for landlord, tenant, and insurer. *Frontiers in Climate*, 5, Art. No. 1295592. doi: 10.3389/fclim.2023.1295592
- Friedland, C.J., Orooji, F., Al Assi, A., Flynn, M. L., and **Mostafiz, R.B.** (2023). Flood damage and shutdown times for industrial process facilities: A vulnerability assessment process framework. *Frontiers in Water*, 11, Art. No. 1292564. doi: 10.3389/frwa.2023.1292564
- Rahim, M.A., Friedland, C.J., **Mostafiz, R.B.**, Rohli, R.V., and Bushra, N. (2023). Analytical advances in homeowner flood risk quantification considering insurance, building replacement value, and freeboard. *Frontiers in Environmental Science*, 11, Art. No. 1180942. doi: 10.3389/fenvs.2023.1180942
- Kodavatiganti, Y., Friedland, C.J., Rahim, M.A., **Mostafiz R.B.**, Taghinezhad, A., and Heil, S. (2023). Material quantities and estimated construction costs for new elevated IRC 2015-compliant single-family home foundations. *Frontiers in Built Environment*, 9, Art. No. 1111563. doi: 10.3389/fbuil.2023.1111563
- Al Assi, A., **Mostafiz, R.B.**, Friedland, C.J., Rohli, R.V., and Rahim, M.A. (2023). Homeowner flood risk and risk reduction from home elevation between the 100- and 500-year floodplains. *Frontiers in Earth Science*, 11, Art. No. 1051546. doi: 10.3389/feart.2023.1051546
- Friedland, C.J., Lee, Y.C., **Mostafiz, R.B.**, Lee, J., Mithila, S., Rohli, R.V., Rahim, M.A., and Gnan, E. (2023). FloodSafeHome: Evaluating benefits and savings of freeboard for improved decision-making in flood risk mitigation. *Frontiers in Communication*, 8, Art. No. 1060901. doi: 10.3389/fcomm.2023.1060901
- Al Assi, A., **Mostafiz, R.B.**, Friedland, C.J., Rohli, R.V., Taghinezhad, A., and Rahim, M.A. (2023). Cost-effectiveness of federal CDBG-DR Road Home Program mitigation assistance in Jefferson Parish, Louisiana. *Natural Hazards*, 117, 1291–1319. doi: 10.1007/s11069-023-05904-3
- Bushra, N., Rohli, R.V., Li, C., Miller, P.W., and **Mostafiz R.B.** (2023). Changing features of the Northern Hemisphere 500-hPa circumpolar vortex. *Frontiers in Big Data*, 5, Art. No. 1009158. doi: 10.3389/fdata.2022.1009158
- Al Assi, A., **Mostafiz, R.B.**, Friedland, C.J., Rahim, M.A., and Rohli, R.V. (2023). Flood risk assessment for residences at the neighborhood scale by owner/occupant type and first-floor height. *Frontiers in Big Data*, 5, Art. No. 997447. doi: 10.3389/fdata.2022.997447
- Mostafiz, R.B.**, Rahim, M.A., Friedland, C.J., Rohli, R.V., Bushra, B., and Orooji, F. (2022). A data-driven spatial approach to characterize the flood hazard. *Frontiers in Big Data*, 5, Art. No. 1022900. doi: 10.3389/fdata.2022.1022900
- Mostafiz, R.B.**, Rohli, R.V., Friedland, C.J., Gall, M., and Bushra, N. (2022). Future crop risk estimation due to drought, extreme temperature, hail, lightning, and tornado at the census tract level in Louisiana. *Frontiers in Environmental Science*, 10, Art. No. 919782. doi: 10.3389/fenvs.2022.919782
- Gnan, E., Friedland, C.J., **Mostafiz R.B.***, Rahim, M.A., Gentimis, T., Taghinezhad, A., and Rohli, R.V. (2022). Economically optimizing elevation of new, single-family residences for flood mitigation via life-cycle benefit-cost analysis. *Frontiers in Environmental Science*, 10, Art. No. 889239. doi: 10.3389/fenvs.2022.889239
- Gnan, E., Friedland, C.J., Rahim, M.A., **Mostafiz R.B.**, Rohli, R.V., Orooji, F., Taghinezhad, A., and McElwee, J. (2022). Improved building-specific flood risk assessment and implications of depth-damage function selection. *Frontiers in Water*, 4, Art. No. 919726. doi: 10.3389/frwa.2022.919726

- Mostafiz, R.B.**, Friedland, C.J., Rohli, R.V., and Bushra, N. (2022). Estimating future residential property risk associated with wildfires in Louisiana, U.S.A. *Climate*, 10(4), Art. No. 49. doi: 10.3390/cli10040049
- Mostafiz, R.B.**, Friedland, C.J., Rohli, R.V., and Lee, Y.C. (2022). Actionable information in flood risk communications and the potential for new web-based tools for long-term planning for individuals and community. *Frontiers in Earth Science*, 10, Art. No. 840250. doi: 10.3389/feart.2022.840250
- Mostafiz, R.B.**, Bushra, N., Rohli, R.V., Friedland, C.J., and Rahim, M.A. (2021). Present vs. future property losses from a 100-year coastal flood: A case study of Grand Isle, Louisiana. *Frontiers in Water*, 3, Art. No. 763358. doi: 10.3389/frwa.2021.763358
- Mostafiz, R.B.**, Friedland, C.J., Rohli, R.V., and Bushra, N. (2021). Property risk assessment of sinkhole hazard in Louisiana, U.S.A. *Frontiers in Environmental Science*, 9, Art. No. 780870. doi: 10.3389/fenvs.2021.780870
- Mostafiz, R.B.**, Friedland, C.J., Rohli, R.V., Bushra, N., and Held, C.L. (2021). Property risk assessment for expansive soils in Louisiana. *Frontiers in Built Environment*, 7, Art. No. 754761. doi: 10.3389/fbuil.2021.754761
- Mostafiz, R.B.**, Friedland, C.J., Rahman, M.A., Rohli, R.V., Tate, E., Bushra, N., and Taghinezhad, A. (2021). Comparison of neighborhood-scale, residential property flood-loss assessment methodologies. *Frontiers in Environmental Science*, 9, Art. No. 734294. doi: 10.3389/fenvs.2021.734294
- Bushra, N., **Mostafiz, R.B.**, Rohli, R.V., Friedland, C.J., and Rahim, M.A. (2021). Technical and social approaches to study shoreline change of Kualkata, Bangladesh. *Frontiers in Marine Science*, 8, Art. No. 730984. doi: 10.3389/fmars.2021.730984
- Mostafiz, R.B.**, Friedland, C.J., Rohli, R.V., Gall, M., Bushra, N., and Gilliland, J.M. (2020). Census-block-level property risk estimation due to extreme cold temperature, hail, lightning, and tornadoes in Louisiana, United States. *Frontiers in Earth Science*, 8, Art. No. 601624. doi: 10.3389/feart.2020.601624
- Bushra, N., Rohli, R.V., Lam, N.S., Zou, L., **Mostafiz, R.B.**, and Mihunov, V. (2019). The relationship between the Normalized Difference Vegetation Index and drought indices in the south-central United States. *Natural Hazards*, 96, 791–808. doi: 10.1007/s11069-019-03569-5

SUBMITTED OR IN PREPARATION

- Hossain, T., **Mostafiz, R.B.**, Al Assi, A., and Rohli, R.V. (2026). Climate change impacts on global agricultural systems: A comprehensive systematic review of evidence, mechanisms, and future projections. In review at *Evolving Earth* since 05/03/2026.
- Al Assi, A.*, Hasan, F., Smiley, K., Jayasinghe, N., **Mostafiz, R.B.**, Rahim, M.A., and Friedland, C.J. (2026). Two Faces of Wind Vulnerability: Structural Fragility and Economic Exposure in Coastal Louisiana. In review at *Natural Hazards* since 05/09/2026.
- Franks, M., Conger, S., Friedland, C.J., Rohli, R.V., **Mostafiz, R.B.**, and Kleinpeter, S. (2026). Co-creating irrigation solutions: Building drought resilience in Louisiana agriculture through community engagement. In review at *Journal of Community Engagement and Scholarship* since 10/9/2025.
- Al Assi, A.*, Tate, E., Hasan, F., **Mostafiz, R.B.**, and Friedland, C.J. (2026). Elevation effectiveness and equity across flood zones: A 30-year cost-effectiveness analysis in post-Katrina Louisiana. In review at *Journal of Flood Risk Management* since 05/08/2026.
- Bushra, N.*, Rahim, M.A., **Mostafiz, R.B.**, and Rohli, R.V. (2026). Increasing trend in duration of temperatures above the daily mean temperature over the terrestrial Earth. In review at *Environmental Research Communications* since 03/18/2024.
- Rahim, M.A.*, **Mostafiz, R.B.**, and Friedland, C.J. (2026). Quantification of flood risk reduction through nature-based solutions. In review at *Scientific Reports* since 07/28/2023.
- Adams, S., Al Assi, **Mostafiz, R.B.**, Rahim, M.A., Friedland, C.J., Pace, R.K., and Rohli, R.V. (2026). Appraisal of freeboard for a single-family residence in United States. In preparation for submission to *Nature Communications*.
- Mostafiz, R.B.**, Friedland, C.J., Rohli, R.V., and Knight, E.M. (2026). Risk assessment of dam failure in Louisiana, U.S.A. In preparation for submission to *Scientific Report*.
- Akhter, F., Douthat, T., Rahim, M. A., and **Mostafiz, R.B.** (2026). Introducing socially adjusted vulnerability for flood mitigation projects in Jefferson Parish, Louisiana.
- Akhter, F., Penn, J., Douthat, T., and **Mostafiz, R.B.** (2026). Public preferences for socially adjusted flood mitigation: Evidence from a discrete choice experiment.

BOOK

Christiansen, K., **Mostafiz, R.B.**, and Al Assi, A. (2025). *Physical Impacts of 2020 Labor Day Wildfires to Oregon Highways*. LAP LAMBERT Academic Publishing. <https://morebooks.de/shop-ui/shop/product/9786208438364>

BOOK CHAPTER (ACCEPTED)

Bushra, N., **Mostafiz, R.B.**, Rohli, R.V., Garrison, M.E.B., and Reams, M. (2026). Extent of public compliance with mitigation measures. In L. Juran and B.K. Paul (Eds.), *Routledge Handbook of Disaster Mitigation & Preparedness*, Taylor & Francis Group.

Mostafiz, R.B., Al Assi, A., Rohli, R.V., and Bushra, N. (2026). Hurricane and wind mitigation. In L. Juran and B.K. Paul (Eds.), *Routledge Handbook of Disaster Mitigation & Preparedness*, Taylor & Francis Group.

Mostafiz, R.B., and Rohli, R.V. (2026). Flood mitigation. In L. Juran and B.K. Paul (Eds.), *Routledge Handbook of Disaster Mitigation & Preparedness*, Taylor & Francis Group.

Hossain, T., **Mostafiz, R.B.**, Rohli, R.V., and Bushra, N. (2026). Drought mitigation. In L. Juran and B.K. Paul (Eds.), *Routledge Handbook of Disaster Mitigation & Preparedness*, Taylor & Francis Group.

Bushra, N., **Mostafiz, R.B.**, Rohli, R.V., and Grymes, J. (2026). Early warning systems for different types of disasters. In L. Juran and B.K. Paul (Eds.), *Routledge Handbook of Disaster Mitigation & Preparedness*, Taylor & Francis Group.

Akter, D., **Mostafiz, R.B.**, Rahim, M.A., and Rohli, R.V. (2026). Policy analysis for green infrastructure. In N. N. Dalei (Ed.), *Environmental Economics and Policy for a Changing World*, Springer Nature.

Monalisa, S., **Mostafiz, R.B.**, and Rohli, R.V. (2026). 3D-printed housing for climate resilience and affordability in Louisiana: An applied environmental analysis. In N. N. Dalei (Ed.), *Environmental Economics and Policy for a Changing World*, Springer Nature.

Tanvir, H., and **Mostafiz, R.B.** (2026). Environmental conservation and economic incentives. In N. N. Dalei (Ed.), *Environmental Economics and Policy for a Changing World*, Springer Nature.

Bushra, N., Muna, T.S., and **Mostafiz, R.B.** (2026). Community Well-Being Index: Concepts, frameworks, and applications. In N. N. Dalei (Ed.), *Environmental Economics and Policy for a Changing World*, Springer Nature.

Bushra, N., Mukarroma, F., and **Mostafiz, R.B.** (2026). Carbon capture, storage, and utilization (CCSU) in a global and Louisiana context. In N. N. Dalei (Ed.), *Environmental Economics and Policy for a Changing World*, Springer Nature.

Tanvir, H., and **Mostafiz, R.B.** (2026). Tropical Cyclone Risk in the Bay of Bengal: Advancing Multi-Hazard Planning and Resilience Strategies. In J. Collins, J. Done, and Y.-J. Zhu (Ed.), *Tropical Cyclone Risk in a Changing Climate*, Springer Nature.

Mostafiz, R.B., Bushra, N., Rohli, R., and Mukarroma, F. (2026). Fortifying the Gulf Coast: Adapting Infrastructure and Housing to Intensifying Storms. In J. Collins, J. Done, and Y.-J. Zhu (Ed.), *Tropical Cyclone Risk in a Changing Climate*, Springer Nature.

Shovon, M.A.C., and **Mostafiz, R.B.** (2026). Hurricane-Induced Agricultural Disruptions in the Gulf Region: A Framework for Risk Mitigation and Resilience. In J. Collins, J. Done, and Y.-J. Zhu (Ed.), *Tropical Cyclone Risk in a Changing Climate*, Springer Nature.

Noggle, R.E., and **Mostafiz, R.B.** (2026). Nature's Barrier: Strategic Wetland Restoration for Tropical Cyclone Flood Risk Mitigation. In J. Collins, J. Done, and Y.-J. Zhu (Ed.), *Tropical Cyclone Risk in a Changing Climate*, Springer Nature.

Rohli, R., Bushra, N., and **Mostafiz, R.B.** (2026). One Storm, Many Hazards: Multi-Hazard Planning for Wind, Surge, and Flood Risks in the Gulf Coast. In J. Collins, J. Done, and Y.-J. Zhu (Ed.), *Tropical Cyclone Risk in a Changing Climate*, Springer Nature.

REPORTS

Governor's Office of Homeland Security and Emergency Preparedness, Louisiana State Hazard Mitigation Plan: 2019 Update. Available at: <http://gohsep.la.gov/Portals/0/Documents/Mitigate/HMPlan/2019HM-plan-final.pdf>, 432 pp.

Governor's Office of Homeland Security and Emergency Preparedness, Louisiana State Hazard Mitigation Plan: 2024 Update. Available at: <https://gohsep.la.gov/divisions/hazard-mitigation-assistance/state-hazard-mitigation-plan/>

OPEN EDUCATIONAL RESOURCES (OER)

Mostafiz, R.B., Friedland, C.J., Liner, R., Farris, M., and Lambert, D.M. (2026). *Flood Mitigation* (in progress). Building a Competitive Workforce: Career and Technical Education (CTE) Open Educational Resources (OER). LOUIS: The Louisiana Library Network. U.S. Department of Education's Open Textbooks Pilot Program.

CONFERENCE PAPERS

Hamza, M., Nahmens, I., Heymann, M., Rohli, R.V., and **Mostafiz, R.B.** (2026). Identifying Flow Inefficiencies in Manufactured-Home Framing: Evidence from a Lab-Scale Workstation Simulation. *2026 IISE Annual Conference*, Arlington, TX. May 16-19.

Al Assi, A., Hasan, F., **Mostafiz, R.B.**, Rahim, M.A., Smiley, K., Friedland, C.J. (2025). Wind resilience in Louisiana: A social equity approach to enhanced building code practices. *ASCE International Conference on Computing in Civil Engineering (i3CE2025)*, New Orleans, LA. May 11-14.

Hamza, M., Monteiro, C., Nahmens, I., Ikuma, L., Rohli, R.V., **Mostafiz, R.B.**, Al Assi, A., and Friedland, C.J. (2025). Supply chain challenges in the construction of resilient manufactured homes. *2025 IISE Annual Conference*, Atlanta, GA. May 31-June 3.

Pinheiro, L., Wang, Z., Pang, Z., **Mostafiz, R.B.**, Al Assi, A. (2025). A longitudinal analysis of residential electricity costs and social equity implications in Louisiana. *2025 ASHRAE Winter Conference*, Orlando, FL. February 8-12.

Rahim, M.A., and **Mostafiz, R.B.** (2025). Quantifying flood risk reduction through nature-based solutions in coastal areas. *International Conference on Water & Flood Management (ICWFM)*, Dhaka, Bangladesh, February 22-24. https://iwfm.buet.ac.bd/site/wp-content/uploads/2025/06/Book-of-Abstracts-2025_PDF_Final.pdf_compressed-1.pdf

Rahim, M. A., and **Mostafiz, R.B.** (2025). Assessing flood insurance implications of coastal master plan projects in Louisiana. *International Conference on Water & Flood Management (ICWFM)*, Dhaka, Bangladesh, February 22-24. https://iwfm.buet.ac.bd/site/wp-content/uploads/2025/06/Book-of-Abstracts-2025_PDF_Final.pdf_compressed-1.pdf

Deria, A., Lee, Y.C., **Mostafiz, R.B.**, and Friedland, C.J. (2023). Measuring disparity in flood risk and freeboard benefits for different income groups. In *Computing in Civil Engineering 2023* (pp. 127-135). <https://doi.org/10.1061/9780784485248.016>

EXTENSION PUBLICATIONS

Kleinpeter, S., **Mostafiz, R.B.**, and Franks, M. (2026). Building resilience against severe winter weather in Louisiana. *Louisiana Agriculture Magazine*, Vol. 69, No. 1, Winter 2026.

<https://www.lsuagcenter.com/articles/page1772807901949>

Franks, M., **Mostafiz, R.B.**, Rahim, M.A., and Kleinpeter, S. (2025). What is Risk Rating 2.0?

<https://www.lsuagcenter.com/articles/page1757703995250>

Franks, M., **Mostafiz, R.B.**, Rahim, M.A., and Kleinpeter, S. (2025). Flood barrier and protection.

<https://www.lsuagcenter.com/articles/page1757701432072>

Franks, M., **Mostafiz, R.B.**, Rahim, M.A., and Kleinpeter, S. (2025). Elevated appliances and improved wall construction: A practical guide for flood resilience. <https://www.lsuagcenter.com/articles/page1757619201365>

Franks, M., **Mostafiz, R.B.**, Rahim, M.A., and Kleinpeter, S. (2025). Types of floods and their impact on Louisiana communities. <https://www.lsuagcenter.com/articles/page1757702969596>

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- Bushra, N.* and **Mostafiz, R.B.** (2021). A comprehensive approach to identify shoreline change: A study of Kuakata, Bangladesh. *Disaster PRIMR*, Virtual, February 4.
- Mostafiz, R.B.***, Friedland, C.J., Rohli, R.V., and Bushra, N. (2020). Assessing property loss in Louisiana, U.S.A., to natural hazards incorporating future projected conditions. *American Geophysical Union Annual Meeting*, Virtual, December 9.
- Mostafiz, R.B.***, Friedland, C.J., and Rohli, R.V. (2020). Future crop risk estimation due to natural hazards at the census tract level in Louisiana, U.S.A. *Southwest Division of the American Association of Geographers Annual Meeting*, Virtual, November 18.
- Mostafiz, R.B.*** and Bushra, N. (2020). Census-tract-level crop risk estimation due to drought, extreme cold temperature, extreme heat, hail, lightning, and tornadoes in Louisiana, U.S.A. *Applied Geography Conference Annual Meeting*, Virtual, October 19.
- Bushra, N.* and **Mostafiz, R.B.** (2020). Temperature variability in the south-central United States and relationship to atmospheric teleconnections. *Applied Geography Conference Annual Meeting*, Virtual, October 20.
- Friedland, C.J., Farris, M., Jenkins, P., Lee, Y., Rohli, R.V., Taghinezhad, A., Gnan, E., **Mostafiz, R.B.**, and Tao, H. (2020). Incentives and barriers to increased freeboard to enhance flood resilience: Louisiana perspectives, research and practice highlights. *45th Annual Natural Hazards Research and Applications Workshop*, Virtual, July 12-15.
- Gnan, E.S.* , Friedland, C.J., Farris, M., Rohli, R.V., Lee, Y., Taghinezhad, A., **Mostafiz, R.B.**, and Kodavatiganti, Y. (2020). Flood hazard risk assessment. *Louisiana Fisheries Forward Summit*, Kenner, LA, March 11.
- Mostafiz, R.B.***, Friedland, C.J., Rohli, R.V., Gall, M., and Gilliland, J.M. (2019). Assessing risk of atmospheric natural hazards at the census block level. *American Association of Geographers Annual Meeting*, Washington, DC, April 5.
- Mostafiz, R.B.***, Friedland, C.J., and Rohli, R.V. (2018). Risk assessment of extreme temperature and drought events in Louisiana. *34th Annual Louisiana Remote Sensing & GIS Workshop*, Covington, LA, May 9.
- Mostafiz, R.B.***, Friedland, C.J., and Rohli, R.V. (2018). Spatio-temporal variability of extreme temperature and drought events in Louisiana. *American Association of Geographers Annual Meeting*, New Orleans, LA, April 11.
- Friedland, C.J., Rohli, R.V., and **Mostafiz, R.B.** (2018) 2019 State Hazard Mitigation Plan update: Statewide risk assessment, Invited talk, State Hazard Mitigation Planning Committee Meeting #4, Louisiana Governor's Office of Homeland Security and Emergency Preparedness, Baton Rouge, LA, April 2018.
- Friedland, C.J., Rohli, R.V., and **Mostafiz, R.B.** (2018) 2019 State Hazard Mitigation Plan update: Hazard profiles, Invited talk, State Hazard Mitigation Planning Committee Meeting #2, Louisiana Governor's Office of Homeland Security and Emergency Preparedness, Baton Rouge, LA, January 2018.
- 2018 Esri Gulf Coast User Conference, New Orleans, LA, conference attendee, July 2018.

MEDIA MENTION

- Sarhan, D. (2026, March 16). LSU professor, researchers create AI tool that can predict wildfires before ignition. <https://lsureveille.com/277451/news/lsu-professor-researchers-create-ai-tool-that-can-predict-wildfires/>
- Holland, R. (2026, February 12). We Build Teams That Win: LSU Combined Effort Advances AI to Predict and Prevent Wildfires. <https://www.lsu.edu/blog/2026/02/wbttw-deepfire.php>
- Campo, C. (2023, November 1). LSU researchers to release tool that determines flood insurance premiums. Houma Today. <https://www.houmatoday.com/story/news/2023/11/01/lsu-researchers-develop-tool-to-predict-flood-insurance-premiums/71393317007/>
- Drew Costley, V. (2023, September 3). Poor air quality from Louisiana wildfires could become more common. <https://lailluminator.com/2023/09/03/louisiana-air-quality/>
- Baurick, T. (2023, August 25). Explosion of wildfires offers a 'sneak peek' of the challenges ahead for Louisiana. https://www.nola.com/news/environment/wildfire-explosion-offers-sneak-peak-of-future-challenges/article_5e1a1d26-4361-11ee-a305-1307b885cb46.html
- Drew Costley, V. (2023, September 22). Louisiana prison officials say they're ready for wildfires; reform advocates have doubts. <https://lailluminator.com/2023/09/22/prisoners-wildfires/>
- L'Heureau, J. (2023, August 28). Extreme heat, drought and record-breaking wildfires hit Louisiana. <https://www.wsbs.org/en/articles/2023/08/29/wgdg-a29.html>

SCHOLARSHIPS AND AWARDS

Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh

Institute of Water and Flood Management (IWFM),

South Asian Water Fellow (SAWA), October 2010

University of Dhaka, Bangladesh

Department of Geography and Environment

Academic Merit Scholarship from Syed Mazeza Memorial Trust Fund, November 2009

Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP), State of Louisiana

GOHSEP 2019 Annual Awards

Outstanding Performance Recognition

Southwest Division of the American Association of Geographers, U.S.A.

Graduate Student Poster Competition 2020 (First Prize Winner)

Louisiana State University (LSU) Campus Life, U.S.A.

Love Purple Live Gold Awards 2020

Nominated as Graduate Student Leader of the Year

Louisiana Sea Grant, U.S.A.

Graduate Research Scholar Program,

Graduate Research Scholar 2020

State of the Coast, U.S.A.

Student Poster Competition 2021, third prize winner

Louisiana State University (LSU) Campus Life, U.S.A.

Love Purple Live Gold Awards 2021, nominated as Graduate Student Leader of the Year

National Tropical Weather Conference (2022), South Padre Island, TX

"Trip to the Tropics," sweepstakes winners! to attend conference by Weatherboy

LSU College of the Coast and Environment, U.S.A.

Outstanding Dissertation Award, 2022-23

NHERI Summer Institute, University of Texas at San Antonio

NSF Travel Award (Early-Career Faculty), June 12-14, 2024

NSF NHERI RAPID Experimental Facility, Seattle, Washington

Travel Stipend (\$1,500), 2024 NHERI RAPID 4-Day Workshop, July 23-26, 2024

Louisiana Sea Grant, U.S.A.

LaDIA Faculty Fellow 2024-25

Louisiana State University, U.S.A.

WBTTW Employee Recognition 2026 (We Build Teams That Win: LSU Combined Effort Advances AI to Predict and Prevent Wildfires)

National Science Foundation Felloow

Enabling the Next Generation of Hazards and Disasters Researchers Fellowship Program

TECHNICAL SKILLS

GIS and Remote Sensing ArcGIS, QGIS, ERDAS IMAGINE, Image Analyst, ENVI, Map Info, ILWIS

Hazard Risk Assessment Software Hazus, HEC-FIA, FAST

Database Management MS Access, Statistical Package for Social Science (SPSS)

Programming Language Python, R, SAS

OUTREACH AND VOLUNTEER WORK

Spring Greening Day 2018 and 2019; Louisiana State University, Baton Rouge, LA

Donate blood in a blood drive by LifeShare Blood Centers: April 2019; Islamic Center of Baton Rouge, LA

Geaux BIG Baton Rouge, LSU's Largest Day of Service: March 2019; Louisiana State University. Baton Rouge, LA

Judge in 2018 Undergraduate Research Conference: October 2018; Louisiana State University. Baton Rouge, LA

PROFESSIONAL ORGANIZATIONS

Member, American Association of Geographers (AAG), 2017 – present

Member, American Geophysical Union (AGU), 2020 – present

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Member, European Geophysical Union (EGU), 2022 – present

Member, Japan Geoscience Union (JpGU), 2022 – present

Member, Asia Oceania Geosciences Society (AOGS), 2023 – present

Member, Association of State Floodplain Managers (ASFPM), 2025 – present

Delegate, Extension Disaster Education Network (EDEN), 2024 – present

Representative of LaHouse, Global Alliance of Disaster Research Institutes (GADRI), 2025 – present

PEER REVIEWER

American Journal of Environmental Science and Engineering, 2022 – present

Frontiers in Environmental Science, 2022 – present

TRAINER

Managing floodplain development through the national flood insurance program, Course Code: L0273, Emergency Management Institute, National Disaster & Emergency Management University, FEMA, Ruston, LA, January 27-30, 2025

REVIEW PANEL MEMBER

National Science Foundation, Directorate for Geosciences (GEO)/Directorate for Technology, Innovation and Partnerships (TIP), 2025

Graduate Student Committee

MS Thesis Committee Member of Zuhayr Shahid Ishmam, Oceanography & Coastal Sciences, LSU, Spring 2024

MS Project Committee Member of Lakshmi P Kunku, Computer Science and Engineering, LSU, Spring 2024

SEARCH COMMITTEE MEMBER

Extension Associate (Decision Support System), LaHouse Research and Education Center, LSU AgCenter, 2025

Assistant Professor - Extension, LaHouse Research and Education Center, LSU AgCenter, 2025

Program Manager, LaHouse Research and Education Center, LSU AgCenter, 2024

Extension Associate (Creative Content Manager), LaHouse Research and Education Center, LSU AgCenter, 2024

Postdoctoral Researcher, LaHouse Research and Education Center, LSU AgCenter, 2023

Assistant Professor - Research, LaHouse Research and Education Center, LSU AgCenter, 2023

COMPETITIVE GRANTS AND CONTRACTS AWARDED

Friedland, C.J., **Mostafiz, R.B.**, and Conger, S. 2023-26: *Natural Hazard Risk Assessment for Louisiana*. LSU AgCenter, Governor's Office of Homeland Security and Emergency Preparedness, \$1,055,259.

Mostafiz, R.B., and Friedland, C.J. 2024-26: *FORTIFIED Elevated Manufactured Homes to Increase Supply of Affordable, Resilient Housing*. Subcontractor to LSU, U.S. Department of Housing and Urban Development, \$77,112.

Mostafiz, R.B., Al Assi, A., Rahim, M.A., and Franks, M. 2024-25: *Housing Efficiency, Resilience, And Outreach for Energy Solutions in Louisiana (Heroes La)*. U.S. Department of Agriculture, \$299,812.

Rahim, M.A., **Mostafiz, R.B.**, Al Assi, A., and Friedland, C.J. 2024-25: *2029 Coastal Master Plan: Flood Insurance Implications of Future Scenarios and Projects*. Coastal Protection and Restoration Authority, \$319,064.

Friedland, C.J., **Mostafiz, R.B.**, Al Assi, A., and Rahim, M.A. 2024-25: *National Flood Insurance Program (NFIP) Community Assistance Program-State Support Services Element (CAP-SSSE)*. Louisiana Department of Transportation and Development, \$120,761.

Rahim, M.A., **Mostafiz, R.B.**, and Friedland, C.J. 2024-27: *Improving Indoor Air Quality and Pediatric Asthma Outcomes through a Dual-Component, Low-Cost, Portable Intervention involving HEPA Filtration Systems*. Subcontractor to LSU, U.S. Department of Housing and Urban Development, \$63,241.

Al Assi, A., **Mostafiz, R.B.**, Rahim, M.A., and Friedland, C.J. 2024-26: *Wind Resilience in Coastal Louisiana: A Social Equity Approach to Enhanced Building Code Practices*. RESTORE Act Center of Excellence for Louisiana (LA-COE), \$349,995.

Douthat, T., Friedland, C.J., Rohli, R.V., **Mostafiz, R.B.**, Rahim, M.A., and Al Assi, A. 2024-26: *Louisiana Social, Environmental and Economic Resilience (LA-SEER) Center*. LSU, \$250,000.

Friedland, C.J., Reeder, A.J., Wang, Y., Rahim, M.A., and **Mostafiz, R.B.** 2024-27: *ReDDDoT Phase 2: Climate-Informed Flood Risk Mitigation Sandbox*. National Science Foundation (NSF), \$1,499,722.

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- Rahim, M.A., **Mostafiz, R.B.**, Al Assi, A., Friedland, C.J., and Franks, M. 2024-26: *Enhancing Flood Insurance Literacy in Coastal Louisiana: Risk Rating 2.0*. Louisiana Sea Grant College Program (LSG), \$43,500.
- Lee, Y., Lam, N., Douthat, T., Xue, G., Miller, P., Lee, K., Sun, C., Kameshwar, S., Ostrenko, D., Jamerson, J., Jo, S., Silva, F., and **Mostafiz, R.B.** 2024-25: *Urban-level Digital Twin and AI Technology for Scalable Education and Interactive Learning Environment*. LSU Student Technology Fee, \$144,269.
- Mostafiz, R.B.** 2024-26: *Building a Competitive Workforce: Career and Technical Education (CTE) OER with Embedded Digital Skills- OER Course Development Faculty Team*, LOUIS: The Louisiana Library Network, Louisiana Board of Regents, \$12,000.
- Zhihong, P., Su, Y-F., Huang, H., An, Y., Soni, A., **Mostafiz, R.B.** 2025-26: *Climate-Resilient Buildings for Tomorrow's Efficient, Equitable, and Sustainable Communities*, LSU, \$49,975.
- Franks, M., Kleinpeter, S., and **Mostafiz, R.B.** 2025: *AgCenter Resilience Response Initiative*, Extension Disaster Education Network (EDEN), \$25,000.
- Mostafiz, R.B.** 2025-26: *Resilient Partnerships for Equitable Hazard Science and Community Empowerment in the Underserved Gulf Region (REACH)*. Subcontractor to LSU, University Corporation for Atmospheric Research (UCAR), \$5,626.
- Franks, M., Kleinpeter, S., and **Mostafiz, R.B.** 2025-26: *Resilient Futures Through STEAM: Youth Arts for Community Awareness and Environmental Resilience*. Baton Rouge Mayor's Office of Community Development, \$38,767.
- Rahim, M.A., Al Assi, A., and **Mostafiz, R.B.** 2024-27: *Coastal Research & Engineering to Advance Test-beds for Ecosystem Design (CREATED): Engineering Performance of Natural and Nature-Based Solutions in Military Operations*. Subcontractor to LSU, Engineer Research and Development Center (ERDC), \$574,924.
- Friedland, C.J., **Mostafiz, R.B.**, and Al Assi, A. 2025: *Insuring for Resilience: Strengthening Disaster Preparedness and Post-Catastrophe Reconstruction*. Subcontractor to ASU, The Swiss Re Institute, \$50,000.
- Friedland, C.J., Lewandowski, P., Franks, M., Kleinpeter, S., and **Mostafiz, R.B.** 2026: *Improving Flood Insurance Literacy to Support Resilient Communities: A National Training Pilot*. Extension Disaster Education Network (EDEN), \$25,000.
- Smiley, K., Done, J.M., Al Assi, A., Friedland, C., **Mostafiz, R.B.**, and Rahim, M.A. 2026: *Adapting to Wind Risk in a Changing Climate: Would enhanced building codes have lessened climate-driven impacts of Hurricane Ida?* NSF NCAR Innovators Supplemental Funding, \$49,948
- Bushra, N., Scott, J., and **Mostafiz, R.B.** 2025-27: *Community Engagement: Local Engagement Assessment and Planning (LEAP) Framework for Resilience and Development*, LSU Institute for Energy Innovation (IEI), \$261,565
- da Silva, F.T., Ozdemir, C.E., Aubanel, M., Birch, T., **Mostafiz, R.B.**, Lee, Y.-C., and Xue, G.Z. 2026: *Virtual Reality–Augmented Learning Incubator (VR-ALI): Interdisciplinary Hub for Data, Design, Visualization, and Human Experience*. LSU Student Technology Fee, \$60,000.
- Friedland, C.F., Aubrey Dugger, A., Hopson, T., Tye, M., Wilhelmi, O., **Mostafiz, R.B.**, Rahim, M.A., Franks, M., Noggle, R., Kleinpeter, S., and Al Assi, A. 2026-28: *Enhancing National Resilience through National Water Model (NWM) Analysis and the ASCE 24 National Technical Flood Standard*. Faculty Innovator Program. NSF National Center for Atmospheric Research (NSF NCAR), \$250,000.

COMPETITIVE GRANT PROPOSALS PENDING

- Mostafiz, R.B.**, Al Assi, A., and Franks, M. 2026: *Wildfire Intelligence for Louisiana through DeepFire-Enabled Forecasting, Intervention, Resilience, and Education (WILDFIRE)*. Subcontractor to LSU, U.S. Department of Agriculture, \$189,960.
- Mostafiz, R.B.** and Franks, M. 2026: *iCLEAN-HOME: International Climate-Enhanced Airborne-Exposure Network for Health, Occupants, Mold, and Equity*. Subcontractor to LSU, Wellcome Funding, \$301,008.
- Mostafiz, R.B.** 2025: *Collaborative Research SAI SHAPE Strengthening Housing Affordability and Prosperity through Stakeholder-Driven and Impact-Maximized Building Codes*. Subcontractor to LSU, National Science Foundation (NSF), \$49,999.
- Franks, M., Kleinpeter, S., and **Mostafiz, R.B.** 2025: *Empowering Communities Through Energy Awareness: Advancing Energy Transition in Louisiana*. LSU Institute for Energy Innovation (IEI) Round 4 Proposal Call, \$52,778.
- Mostafiz, R.B.**, and Friedland, C.J. 2025: *Leveraging Nature-Based Solutions for Climate Adaptation: Developing State-Level Guidelines from Pilot Applications with the Pointe-au-Chien Indian Tribe*. Louisiana Sea Grant College Program (LSG), \$17,564.

Mostafiz, R.B., Franks, M., Coker, C., Al Assi, A., and Kleinpeter, S. 2025: *Facilitating Resilience, Education, and Extension for Specialty Winter Crops in Louisiana (FREEZE)*. Critical Agricultural Research and Extension (CARE). U.S. Department of Agriculture, \$299,998.

Rahim, M.A., Conger, S., Franks, M., and **Mostafiz, R.B.** 2025: *Data-driven Irrigation Response Tool with Agentic AI (DIRT-AI)*. AFRI Data Science for Food and Agricultural Systems (DSFAS). U.S. Department of Agriculture, \$649,933.

Franks, M., **Mostafiz, R.B.**, Edwards, A., and Zaunbrecher, B. 2025: *Building Resilience for Livestock Winter Preparedness and Mitigation (BRACE)*. Rapid Response to Weather Events Across Food and Agricultural Systems (A1712). U.S. Department of Agriculture, \$299,998.

COMPETITIVE GRANT PROPOSALS DECLINED

Friedland, C.F., **Mostafiz, R.B.**, Rahim, M.A., Franks, M., and Kleinpeter, K. 2025: *Balancing Affordability and Resilience: A Life-Cycle Framework for Modernizing U.S. Building Codes*. Building for the Future: Research on Modernizing Building Codes to Advance Housing Affordability and Climate Resilience. Lincoln Institute of Land Policy, \$50,000.

Mostafiz, R.B., Al Assi, A., Friedland, C.J., and Franks, M. 2024: *Pilot Evaluation of Energy Extension in Louisiana*. Louisiana Sea Grant College Program (LSG), \$50,000.

Friedland, C.J., Flose, T., Pang, Z., Burke, L.A., **Mostafiz, R.B.**, Al Assi, A., and Franks, M. 2024: *Leveraging Energy Code Compliance and Implementation for Strengthening Resilience and Energy Efficiency in Rural Louisiana*. Department of Energy (DOE), \$2,354,115.

Kleinpeter, S., Al Assi, A., **Mostafiz, R.B.**, and Franks, M. 2025: *Enhancing Disaster Response and Resilience through Comprehensive Post-Storm Damage Rapid Reconnaissance and Training for the Louisiana Cooperative Extension Service*. U.S. Department of Agriculture, \$299,993.

Pang, Z., and **Mostafiz, R.B.** 2024: *Harnessing the Sun: A Cutting-Edge Renewable Energy Hub for Multi-Disciplinary Education and Research in Sustainable Infrastructure, Resilient Design, and Advanced Energy Systems*. LSU Student Technology Fee, \$82,922.

Rahim, M.A., **Mostafiz, R.B.**, Al Assi, A., and Friedland, C.J. 2024: *Resilience through Integrated Solutions for Enhanced Flood Management and Risk Mitigation (RISE-FRM)*, National Aeronautics and Space Administration (NASA), \$798,812.

Mostafiz, R.B., Rahim, M.A., and Al Assi, A. 2024: *HOME - Housing Options Mitigating Exposure: Breaking the Disaster Cycle through Flood Insurance and Mitigation Strategies in Western North Carolina*. Subcontractor to East Carolina University, U.S. Department of Agriculture, \$135,809.

Mostafiz, R.B., Al Assi, A., and Franks, M. 2024: *GRAIN: Guiding Resilience of Agri-Infrastructure for Natural Disasters – Lessons from Hurricane Francine*. Subcontractor to LSU, U.S. Department of Agriculture, \$147,341.

Mostafiz, R.B., Al Assi, A., and Franks, M. 2024: *FOCUS: Food Chain Optimization and Community Understanding for Storm Resilience – Lessons from Hurricane Helene and Francine*. Subcontractor to LSU, U.S. Department of Agriculture, \$148,014.

Friedland, C.J., Al Assi, A., **Mostafiz, R.B.**, Franks, M., and Kleinpeter, S. 2024: *Advancing Resilience and Inclusive Sustainability through Empowerment (ARISE) in Disadvantaged Communities*. U.S. Environmental Protection Agency, \$19,791,015.

Franks, M., **Mostafiz, R.B.**, Al Assi, A., and Scott, C. 2025: *Forecasting Change: Resilient Rangers*. National Academies of Sciences, Engineering, and Medicine (NASEM), \$649,896.

Kleinpeter, S., Lewandowski, P., Franks, M., and **Mostafiz, R.B.** 2025: *Building Futures: A Summer Camp for Certification-Based Workforce Training in Building Science for Baton Rouge Youth*. Baton Rouge Mayor's Office of Community Development, \$49,563.

Mostafiz, R.B., Al Assi, A., and Franks, M. 2025: *From Exposure to Consequence: A Component-Based Framework for Enhancing Industrial Resilience in the Louisiana Coastal Zone*. LSU Institute for Energy Innovation (IEI) Round 4 Proposal Call, \$137,418.

Lewandowski, P., Kleinpeter, S., Franks, M., and **Mostafiz, R.B.** 2025: *Fix, Save, Breathe: A Community Workshop on Low-Cost Home Maintenance and Energy Solutions*. Baton Rouge Mayor's Office of Community Development, \$69,811.

Mostafiz, R.B., and Al Assi, A. 2025: *Living With Water: Connecting Nature and Resilience to an Educational Program in Louisiana*. National Academies of Sciences, Engineering, and Medicine (NASEM), \$203,366.

- Bercegeay, A., Gautreau, B., Franks, M., **Mostafiz, R.B.**, and Kleinpeter, S. 2025: *The Youth Resiliency Summit: Learning, Leading, and Adapting for Louisiana's Future*. National Academies of Sciences, Engineering, and Medicine (NASEM), \$743,034.
- Lewandowski, P., Franks, M., **Mostafiz, R.B.**, and Kleinpeter, S. 2025: *EmpowerED: Advancing Opportunity in the Energy Workforce*. National Academies of Sciences, Engineering, and Medicine (NASEM), \$587,543.
- Rahim, M.A., **Mostafiz, R.B.**, Franks, M., Friedland, C.J., Kunku, L., Al Assi, A., and Kleinpeter, S. 2025: *Agentic AI System for Accelerated Building Permits and Regulatory Compliance*. HUD, \$1,211,748.
- Mostafiz, R.B.**, Al Assi, A., Franks, M., and Lewandowski, P. 2025: *Affordable 3D-Printed Homes and Emergency Shelters: Leveraging AI and Engineered Materials for Rapid and Cost-effective Construction*. HUD, \$298,485.
- Mostafiz, R.B.**, Al Assi, A., Franks, M., and Lewandowski, P. 2025: *Rebuilding Smarter: Advancing Offsite Housing Solutions for Rapid, Resilient, and Affordable Post-Disaster Recovery*. HUD, \$350,898.
- Pang, Z., and **Mostafiz, R.B.** 2025: *An AI-Driven Resilient Energy Living Lab for Education, Research, and Community Engagement in Sustainable Infrastructure*. LSU Student Technology Fee, \$83,522.
- Mostafiz, R.B.** 2025: *Virtual Home Visits and Indoor Air Quality Monitoring to Address Asthma Disparities in Louisiana*, Subcontractor to Louisiana Department of Health (LDH), U.S. Environmental Protection Agency, \$303,114.
- Bretherton, E., Friedland, C., and **Mostafiz, R.B.** 2025: *Comparative evaluation of regulatory tools to reduce risk from flood*, Royal Society of New Zealand's Catalyst Seeding Fund, Royal Society Te Apārangi, \$76,000.
- Lewandowski, P., Friedland, C., Franks, M., Kleinpeter, S., and **Mostafiz, R.B.** 2025: *Building Resilience: Workforce Training for Insurance and Construction Professionals in the Delta Region*, States' Economic Development Assistant Program (SEDAP), \$76,000.
- Rahim, M.A., **Mostafiz, R.B.**, Franks, M., Friedland, C.J., Kunku, L., and Al Assi, A. 2025: *Interactive AI for Louisiana Gulf Sea Level Variation and Rise (GulfRiseAI)*. National Academies of Sciences, Engineering, and Medicine (NASEM), \$1,227,592.
- Rohli, R.V., Berkowitz, J., **Mostafiz, R.B.**, Birch, T., Brand, M., Rahim, M.A., Bushra, N., and Franks, M. 2025: *Natural & Nature-Based Features (NNBF) Symposium: Advancing Collaborative Research and Implementation in Louisiana*. 2025-2026 Big Ideas in Conferences, Symposia & Seminars at LSU - Provost's Fund for Innovation in Research, \$25,000.
- Bappy, M., Mukopadhyay, S., **Mostafiz, R.B.**, Rahim, M.A., Jasim, M., Bushra, N., and Kameshwar, S. 2025: *Artificial Intelligence for Resilience: LSU System Summit on Machine Learning, Deep Learning, and Digital Twins*. 2025-2026 Big Ideas in Conferences, Symposia & Seminars at LSU - Provost's Fund for Innovation in Research, \$10,000.
- Mostafiz, R.B.**, Franks, M., Coker, C., Al Assi, A., and Kleinpeter, S. 2025: *Facilitating Resilience, Education, and Extension for Specialty Winter Crops in Louisiana (FREEZE)*. Rapid Response to Weather Events Across Food and Agricultural Systems (A1712). U.S. Department of Agriculture, \$299,997.
- Friedland, C.J., Reeder, A.J., Giering, J., Kruger, A., Farris, M., **Mostafiz, R.B.**, and et al. 2025: *Louisiana Disaster Reduction Initiative*. Regional Innovation Engines Program, National Science Foundation (NSF), \$160,000,000.
- Mostafiz, R.B.**, and Franks, M. 2025: *Before the Next Disaster: Protecting LSU AgCenter's Educational and Cultural Assets Through Emergency Readiness Planning*. Louisiana Endowment for the Humanities (LEH)– Emergency Readiness Grants, \$5,000.
- Bushra, N., Rahim, M.A., Kameshwar, S., Wang, Y., Smiley, K., **Mostafiz, R.B.**, Franks, M., and Bappy, M. 2025: *BayouShield: A Community- and Data-Driven Artificial Intelligence Platform for a Flood-Resilient Louisiana Coast*. LSU 2025-2026 Big Ideas in STEM and Social & Behavioral Sciences - Provost's Fund for Innovation in Research, \$100,000.
- Mukopadhyay, S., Rahim, M.A., **Mostafiz, R.B.**, Bushra, N., Rohli, R.V., Friedland, C., Al Assi, A., Bappy, M., Smiley, K., Franks, M., and Wang, Y. 2025: *AI-Percept: Human-Centered Artificial Intelligence for Disaster Risk Perception and Resilience Decision-Making*. LSU 2025-2026 Big Ideas in STEM and Social & Behavioral Sciences - Provost's Fund for Innovation in Research, \$50,000.
- Hayes, M.P., Soni, A., Subedi, B., Bivins, A., and **Mostafiz, R.B.** 2025: *Research Enhancement for Septic Treatment Operational Resilience and Education (RESTORE) Initiative for Louisiana Waterways*. LSU 2025-2026 Big Ideas in STEM and Social & Behavioral Sciences - Provost's Fund for Innovation in Research, \$100,000.
- Wang, Y., Bacopoulos, P., **Mostafiz, R.B.**, and Bushra, N. 2025: *AI-Enabled Co-Production as Social Infrastructure: A Platform for Living Shoreline Decisions*. LSU 2025-2026 Big Ideas in STEM and Social & Behavioral Sciences - Provost's Fund for Innovation in Research, \$50,000.

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Bappy, M.M., Tsai, F., Kargarian, A., Barbalata, C., and **Mostafiz, R.B.** 2025: *Designing Convergent Intelligent Systems: An Incubator for Cross-Industry Transformation and Resilience*. LSU 2025-2026 Big Ideas in STEM and Social & Behavioral Sciences - Provost's Fund for Innovation in Research, \$49,941.

Rahim, M.A., and **Mostafiz, R.B.** 2026: *AI for Natural Hazard Preparedness: Building Educator Capacity and Community Resilience in the Gulf Region*. PACUR's Community Engagement Fund (PCEF). University Corporation for Atmospheric Research (UCAR), \$25,761.

Friedland, C., **Mostafiz, R.B.**, Al Assi, A., Franks, M., Rahim, M.A., Kleinpeter, S., Lewandoski, P., and Kunku, L. 2025: *Building Resilient Economies: Expanding Community Rating System Participation in Louisiana's Capital Region*. U.S. Economic Development Administration (EDA), \$1,013,703.

TEACHING EXPERIENCE

OCS 4001/7001: Coastal Hazards Risk Assessment, Spring 2026