MALAY GHOSE HAJRA, Ph.D., P.E., BC. GE, ENV SP, F.ASCE

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malay.ghosehajra@gmail.com (email)

PROFESSIONAL ENGINEER REGISTRATIONS

- Licensed Professional Engineer (PE): Louisiana (#31084), Mississippi (#19145), Texas (#156064), Colorado (#44760), Minnesota (#42742), District of Columbia (#PE40002893)
- Envision™ Sustainability Professional (ENV SP)

EDUCATION

- *Ph.D., Civil (Geotechnical & Geo-Environmental) Engineering, May 2001.*

Kansas State University, Kansas, USA

- *M. Tech., Civil (Geotechnical) Engineering, July 1998.*

Indian Institute of Technology (I.I.T.), Kharagpur, INDIA

- *B.E., Civil Engineering, August 1996.*

University of North Bengal, INDIA

PROFESSIONAL EXPERIENCE

Professional Engineer and Consultant May 2025 – Present
Self Employed, New Orleans, Louisiana

- Provides miscellaneous engineering and consulting services: Civil Engineering, Geotechnical and Foundation Engineering, Coastal Engineering, Sustainable infrastructure design
- Provides engineering Data Analysis, Prediction, and Management services: Env-Hydro-Geo-Structural instrumentation data modeling and monitoring, Drone photogrammetry, Lidar and Laser scan data, Digital Twinning
- Provides Forensic Engineering services: Geo-structural distress study, expert witness, property condition assessment, construction litigation support
- Provides Engineering Site Assessment services: Environmental Site Assessment, Geologic Faulty study, Moisture scan and analysis, property assessment, Engineering assessment post-natural disaster, coastal use permit application and support, elevation certificate, FEMA property evaluation
- Provides miscellaneous field data acquisition services: Drone Photogrammetry, Lidar and Laser scan, Soil and water sampling, field instrumentation
- Provides education, training and mentoring services: Short courses, webinars, online training
- Provides Project Management services: Project Coordination, Construction Project Management
- Provides aviation consulting and training services: Certificated Flight Instructor, Commercial Pilot, Aerial Reconnaissance

Chief Engineer August 2023 – May 2025
Southeast Louisiana Flood Protection Authority East, New Orleans, Louisiana

- Provided engineering analyses, technical assistance, guidance, and advice related to Engineering, Operations, and Maintenance of the Hurricane and Storm Damage Risk Reduction System (HSDRRS) in New Orleans and vicinity
- Conducted slope stability analyses for levees and floodwall systems using complex and heterogeneous soil stratigraphy and other geotechnical engineering parameters
- Reviewed and provided technical assistance in HSDRRS digital instrumentation program with respect to data collection, engineering review, and maintenance considerations.
- Assisted in development of Digital Twin capabilities utilizing drone photogrammetry, laser scanning, 3D modeling, and data federation of the HSDRRS
- Assisted in advancement of drone and related sensor technology for HSDRRS inspection and maintenance
- Developed training material and mentor engineers and staff regarding levee slope stability, seepage, and settlement estimates

Part Time Instructor (Adjunct Faculty) August 2024 – Present
The University of New Orleans, New Orleans, Louisiana
Courses Taught: Introduction to Urban Construction Management, Capstone for Urban Construction Management

Associate Professor June 2022 – May 2023
The University of New Orleans, New Orleans, Louisiana

- Courses Taught: Geotechnical Engineering, Soil Mechanics Laboratory, Foundation Engineering, Sediment Transport and Dredging, Design of Coastal and Hydraulic Structures (Graduate), Senior Design Project (Capstone)
- Research Activities: Geotechnical and Foundation Engineering, Coastal Engineering, Energy Geotechnology, Sustainability in infrastructure design, Application of drone technology

Department Chair and Associate Professor August 2019 – May 2022
The University of New Orleans, New Orleans, Louisiana

- Managed the daily operations of the Civil and Environmental Engineering department at the University of New Orleans (B.S. in Civil Engineering; B.S. in Urban Construction Management; M.S. in Engineering; Ph.D. in Engineering and Applied Sciences; Graduate Coastal Engineering certificate)
- Courses Taught: Geotechnical Engineering, Soil Mechanics Laboratory, Foundation Engineering, Sediment Transport and Dredging, Design of Coastal and Hydraulic Structures (Graduate), Senior Design Project (Capstone)
- Research Activities: Geotechnical and Foundation Engineering, Coastal Engineering, Energy Geotechnology, Sustainability in infrastructure design, Application of drone technology

Associate Professor and Graduate Coordinator, August 2017 – July 2019
The University of New Orleans, New Orleans, Louisiana

- Courses Taught: Statics (undergraduate), Mechanics of Materials (Undergraduate), Geotechnical Engineering (Undergraduate), Soil Mechanics Laboratory (Undergraduate), Foundation Engineering (Undergraduate and Graduate), Sediment Transport and Dredging (Graduate), Design of Coastal and Hydraulic Structures (Graduate), Coastal and Marine Geotechnics (Graduate), Testing and Monitoring during Geotechnical Construction (Graduate)
- Research Activities: Geotechnical and Foundation Engineering, Coastal Engineering, Energy Geotechnology, Sustainability in infrastructure design, Application of drone technology
- Coordinate application review, admission process for graduate students (Masters and PhD)

Assistant Professor, August 2011 – August 2017
The University of New Orleans, New Orleans, Louisiana

- Courses Taught: Statics (undergraduate), Mechanics of Materials (Undergraduate), Geotechnical Engineering (Undergraduate), Soil Mechanics Laboratory (Undergraduate), Foundation Engineering (Undergraduate and Graduate), Deep Foundations (Graduate), Sustainability Principles for Engineers (Undergraduate), Soil Shear Strength and Slope Stability (Graduate)

Regional Geotechnical Engineer, June 2009 – December 2011
Professional Service Industries (PSI), Inc., New Orleans, Louisiana

- Managed and participated in subsurface geotechnical exploration for design and construction of Hurricane Protection Levee Systems along the Louisiana Gulf Coast. Included supervision of field exploration, laboratory testing, slope stability and seepage analyses of levee alignment, floodgate design and dewatering recommendations.
- Managed and conducted subsurface geotechnical exploration for coastal restoration and marsh creation projects funded by Louisiana Coastal Protection and Restoration Authority (CPRA), Louisiana Department of Natural Resources (LDNR) and US Army Corps of Engineers (USACE).
- Managed and conducted subsurface geotechnical exploration for design of highways and bridges with Louisiana Department of Transportation and Development (LADOTD).
- Managed subsurface geotechnical investigations for high rise buildings, residential buildings, industrial structures, and coastal restoration systems.
- Designed shallow and deep foundations for commercial and industrial developments.

Geotechnical Engineer & Department Manager, October 2003 - June 2009
Professional Service Industries (PSI), Inc., New Orleans, Louisiana

- Managed the Geotechnical Engineering Services department with an annual budget of more than $1.8 million. Supervised field crews, laboratory techs, and project geotechnical engineers.
- Managed and conducted subsurface geotechnical exploration for coastal restoration and marsh creation projects funded by Louisiana Coastal Protection and Restoration Authority (CPRA), Louisiana Department of Natural Resources (LDNR) and US Army Corps of Engineers (USACE).
- Managed and conducted subsurface geotechnical exploration for design of highways and bridges with Louisiana Department of Transportation and Development (LADOTD) including

slope stability analyses for bridge embankments and cut/fill locations.

- Designed shallow and deep foundation systems for governmental, commercial and industrial developments.
- Performed seepage analyses of earthen levees and down drag analyses of piles subjected to non-structural loads.

Geotechnical Project Manager, January 2002 – October 2003
Geotech Engineering and Testing, Houston, TX, USA

- Conducted subsurface geotechnical investigations for residential buildings, commercial, industrial buildings, and subdivisions.
- Analyzed and recommended shallow and deep foundation systems.
- Designed flexible and rigid pavement sections for commercial and residential constructions.
- Conducted geotechnical exploration studies for design of highways and bridges with Texas Department of Transportation (TDOT).
- Designed retaining walls, foundations for ground storage tanks and communication towers.
- Performed foundation Distress Study for residential and commercial buildings.
- Performed Environmental Site Assessments, asbestos survey and Geologic Fault studies.

Postdoctoral Research Associate, February 2001 – December 2001
Microscale Physiochemical Engineering Center, University of Akron, Akron, OH, USA

- Researched on use of polyurethane foam filter/PAC adsorber for treatment of drinking water
- Conducted pilot plant study at Akron water treatment plant to develop a filtration/adsorption process operating at very high velocity and low head loss for the removal of turbidity and total organic carbon from drinking water.
- Researched on the use of Activated Carbon Polymer nanofibers- enhanced polyurethane foam filter for the removal of Natural Organic Matter from drinking water
- Co-authored four peer-reviewed journal articles

Graduate Research Assistant, January 1998 – January 2001
Civil and Environmental Engineering, Kansas State University, Manhattan, KS, USA

- Doctoral research on "Soil Filter Clogging – Physical, Chemical, and Biological mechanisms" funded by National Science Foundation ($280,000)
- Developed a practical model to predict particle and biological transport and clogging and permeability reduction in soil filters and drainage systems.
- Co-authored four peer-reviewed journal articles

Research Assistant, August 1996 – December 1997
Civil Engineering, Indian Institute of Technology, Kharagpur, India

- Master research on "Estimation of Stiffness of non-circular foundation embedded into elastic stratum."
- Co-authored one peer-reviewed journal article

UNIVERSITY COURSES DEVELOPED AND/OR TAUGHT

Undergraduate:

(i) *Statics, (ii) Mechanics of Materials, (iii) Geotechnical Engineering, (iv) Soil Mechanics Laboratory, (v) Foundation Engineering, (vi) Senior Civil Engineering Design Project*

Graduate:

(i) *Sediment Transport and Dredging, (ii) Design of Coastal and Hydraulic Structures, (iii) Deep Foundations, (iv) Ground Improvement, (v) Dewatering and Groundwater Control, (vi) Ocean and Coastal Engineering*

New courses developed and taught:

(i) Coastal and Marine Geotechnics (Graduate), *(ii)* Soil Shear Strength and Slope Stability (*Graduate*), (iii) Geotechnical Instrumentation & Monitoring *(Graduate), (iv)* Testing and Monitoring during Geotechnical Construction *(Graduate), (v)* Sustainability Principles for Engineers *(Undergraduate), (vi) Remote Pilot Training and Drone Applications (Undergraduate).*

HONORS, AWARDS, RECOGNITIONS, AND FELLOWSHIPS

- Fellow of American Society of Civil Engineers (ASCE); 2025 – Present
- 2020 New Orleans CityBusiness' 2020 Excellence in Construction & Real Estate
- 2019 ASCE Louisiana section Educator of the Year award
- 2018 ASCE New Orleans branch Educator of the Year award
- 2018 Faculty Professionalism Award, Louisiana Engineering Society (LES)
- 2016 President's Medal, American Society of Civil Engineers (ASCE) – Louisiana chapter
- 2015 Louisiana Discovery, Integration, and Application (LaDIA) Fellow, LA Sea Grant
- 2014 University of New Orleans Early Career Research Award
- 2014 ASCE ExCEEd New Faculty Excellence in Teaching award
- 2014 ASCE Louisiana section Educator of the Year award
- 2014 ASCE New Orleans branch Educator of the Year award
- 2014 ASEE-GSW conference Faculty paper award, "Project-based Education on Sustainability Principles for Engineers," ASEE-GSW annual conference, New Orleans, Louisiana, April 2-4, 2014.
- 2014 Outstanding Faculty Member for Commitment to Diversity, The University of New Orleans, New Orleans, Louisiana
- 2013 President's Medal, American Society of Civil Engineers (ASCE) – New Orleans branch
- 2012 American Society of Civil Engineers (ASCE) -- Excellence in Civil Engineering Education (ExCEEd) Fellow
- 2010 President's Medal, American Society of Civil Engineers (ASCE) – New Orleans branch

EXAMPLE SCHOLARLY CONTRIBUTIONS

Research Reports

- Ghose Hajra, M., Barth, B., Powell, B., and Sommers, J. (2016). "Evaluation of the Effect of Soil Sample/ Specimen Size on Undrained Shear Strengths in Soft Soils for Coastal Protection and Restoration Projects," The Water Institute of the Gulf, Report Date: November 15, 2016.
- Ghose Hajra, M. and Tavera, E. A. (2015). "Testing Protocol for Predicting Driven Pile Behavior within Pre-bored Soil," Louisiana Transportation Research Center (LTRC), LTRC Project Number: 14-2GT, Report date: October 2015.

- Ghose Hajra, M. (2013). "Comparative evaluation of pile set up and axial capacity of driven piles installed using impact hammer versus vibratory pile driving equipment," Louisiana Transportation Research Center (LTRC), LTRC Project Number: 12-1 TIRE, Report date: July 2013
- Ghose Hajra, M., and Chase, G.G. (2001), "Coalescence Research Consortium, 3-year project summary," Microscale Physiochemical Engineering Center, University of Akron, OH.

Theses

- Ghose Hajra, M. (2001), "Soil filter clogging – physical, chemical, and biological mechanisms", Ph.D. thesis, Dept. of Civil Engineering, Kansas State University, Manhattan, KS, 66506.
- Ghose Hajra, M. (1997), "Estimation of Stiffness of non-circular foundation embedded into elastic stratum," M. Tech Thesis, Indian Institute of Technology (IIT), Kharagpur, India.

Journal Articles/ Conference Proceedings

- Coco, J. and Ghose Hajra, M. (2025). "Digital Twins: The Next Frontier of Civil Engineering and Infrastructure," Journal of ASCE – Louisiana section, May 2025, Vol. 33, No. 3, pp. 6-13.
- Alshamaileh, L., Ghose Hajra, M., McCorquodale, J.A., and Roberts, B.M. (2020). "Geo-hydrodynamics and Erosion Potential of fine-grained cohesive sediments in coastal systems,' proceedings of the 10th International Conference on Scour and Erosion (ICSE-10), Arlington, VA, November 15-18, 2020
- Kulesza, S. Ghose Hajra, M. Mathis, M., and Roberts, B.M. (2020). "Effects of organic matter and salinity on fine- grained sediment erosion," proceedings of the 10th International Conference on Scour and Erosion (ICSE-10), Arlington, VA, November 15-18, 2020
- Cothren, G. and Ghose Hajra, M. (2020). "Urban water management and mitigation analysis in response to hydro-climate change and regional subsidence." *Proceedings of World Environmental & Water Resources Congress*, Henderson, NV, May 17-21, 2020
- Ghose Hajra, M., and Roberts, B. (2020). "Effects of Organic Matter on Settling Characteristics of Coastal Sediments." *Proceedings of 2020 Geo-Congress*, Feb 25-28, 2020, Minneapolis, MN.
- Bilici, C., Stark, N., and Ghose Hajra, M. (2018). "In-situ Geotechnical Investigation of surficial sediments in wetland waterway sediments in coastal Louisiana with regard to local morphodynamics." ASCE Journal of Waterway, Port, Coastal, and Ocean Engineering, Vol. 144, Issue 6, Nov. 2018.
- Ziotopoulou, K., O' Connell, S., Stark, N., and Ghose Hajra, M. (2017) "Preliminary simulations of free-fall penetrometer behavior: towards validating against geotechnical field and laboratory observations and predicting sediment erosion and deposition in waterways in coastal Louisiana," *Proceedings of 2017 Geotechnical Frontiers, March 12-15, 2017, Orlando, FL*
- Ghose Hajra, M. (2016). "Geotechnical Instrumentation for Construction Monitoring," Louisiana Civil Engineer, Journal of ASCE – Louisiana section, February 2016, Vol. 24, No. 2, pp. 16-20.
- Stark, N. and Ghose Hajra, M. (2016). "Field and laboratory characterization of native coastal deposits using a portable free-fall penetrometer and Settling Column Tests", *Proceedings of 2016 Geo-Chicago, August 14-18, 2016, Chicago, IL*.
- Ghose Hajra, M., Mebust, C., and Mattson, G. (2015). "Settling Characteristics of fine-grained Dredged Sediments used in Louisiana Coastal Restoration and Land Building projects,"

Proceedings of The 2015 International Foundations Congress & Equipment Exposition (IFCEE 2015), March 17-21, 2015, San Antonio, TX

- Ghose Hajra, M., Jensen, R., and Hulliger, L. (2015). "Pile setup and axial capacity gain for driven piles installed using impact hammer versus vibratory system," Accepted for publication, Proceedings of The 2015 International Foundations Congress & Equipment Exposition (IFCEE 2015), March 17-21, 2015, San Antonio, TX
- Ghose Hajra, M., McCorquodale, A., Mattson, G., Jerolleman, D., and Filostrat, J. (2014). "Effects of salinity and particle concentration on sediment hydrodynamics and critical bed-shear-stress for erosion of fine grained sediments used in wetland restoration projects," Proceedings, Sediment Dynamics from the Summit to the Sea, ICCE/IAHS International Symposium, December 11-14, 2014, New Orleans, LA
- Ghose Hajra, M. and Mattson, G. (2014). "Characterization of coastal dredged sediments used in land restoration projects." *Proceedings of 2014 Geo-Congress*: *Geo-Characterization and Modeling for Sustainability*, Feb 23-16, 2014, Atlanta, GA.
- Ghose Hajra, M. and Koob, T. (2014). "Sustainable erosion remediation and restoration measures in south Louisiana navigation channels." *Proceedings of 2014 Geo-Congress*: *Geo-Characterization and Modeling for Sustainability*, Feb 23-26, 2014, Atlanta, GA.
- Ghose Hajra, M. and Landry, K.V. (2013). "Climate Change, Storm Events, and Subsoil Subsidence within Lake Pontchartrain Basin." *Proceedings of 2013 Basics of the Basin*, October 24-26, 2013, New Orleans, LA.
- Foust, H. and Ghose Hajra, M. (2010). "Sizing an ultrafiltration process that will treat radioactive waste" Separation Science and Technology Journal, Vol. 45, No. 8, pp. 1025-1032.
- Reddi, L. N., Xiao, M. Ghose Hajra, M., and In Mo Lee (2005). "Physical clogging of soil filters under constant flow rate vs. constant head conditions", Canadian Geotechnical Journal, Vol. 42, No. 3, pp. 804-811.
- Ghose Hajra, M., Rangarajan, S., and Chase, G.G. (2005). "Effect of Nanofiber Diameter on Performance of Coalescing Filter Media," Filtration News, pp 14, 16, 18, 20, 22, January/February 2005.
- Biswas, N., Arbuckle, W. B., and Ghose Hajra, M. (2003). "Polyurethane foam filter/ PAC adsorber for drinking water treatment," American Water Works Association Journal, Vol. 95, No. 5, pp. 183-188.
- Ghose Hajra, M., Mehta, K., and Chase, G.G. (2003). "Effects of humidity, temperature, and nanofibers on drop coalescence in glass fiber media," Separation and Purification Technology Journal, Volume 30, pp. 79-88.
- Ghose Hajra, M., Reddi, L.N., Glasgow, L. A. Glasgow, and Xiao, M. (2002),"Effects of ionic strength on fine particle clogging of soil filters," ASCE Journal of Geotechnical and geoenvironmental Engineering, Vol. 128, No. 8, pp. 631-639.
- Baidya, D.K., and Ghose Hajra, M. (2001), "Elastic settlement of footings embedded into elastic stratum/ half space", Indian Geotechnical Journal, Vol. 31, No. 4, pp. 368 – 387.
- Reddi, L.N., Xiao M., Ghose Hajra, M., and Lee, I.M. (2000), "Permeability reduction of soil filters due to physical clogging," ASCE Journal of Geotechnical and geoenvironmental Engineering, Vol. 128, No 3, pp. 236-246.
- Ghose Hajra, M., Reddi, L.N., Marchin, G., and Mutyala, J. (2000), "Biological Clogging in Porous Media," Proceedings of ASCE Geo-Denver 2000 conference, Geotechnical Special Publication No. 105, pp. 151-166.

● Baidya, D.K., and Ghose Hajra, M. (1999), "Elastic settlement of rectangular footing embedded into elastic stratum/half space," Proc. of Indian Geotechnical Conference 1999 held at Science City, Calcutta on December 1999, pp. 109-112.

Conference and Other presentations

● Ghose Hajra, M., Alshamaileh, L., McCorquodale, J.A., and Roberts, B.M. (2021). "*Hydrodynamic characterization of fine-grained Coastal Sediments affected by Global Climate Change,"* 2021 World Environmental & Water Resources Congress, June 7-11, 2021

● Rosa, M., Ghose Hajra, M., and Zito, P.A. (2021). "*Geoenvironmental characterization of fine-grained coastal sediments impacted by aerosols and emerging contaminants,"* 2021 World Environmental & Water Resources Congress, June 7-11, 2021

● Ghose Hajra, M. and Netto, C. (2019). "Innovative Use of Unmanned Aircraft Systems (UASs) in inspection, evaluation, and monitoring of Civil Infrastructure Projects." Louisiana Civil Engineering Conference and Show, Kenner, LA, September 25-26, 2019

● Ghose Hajra, M. (2017). "Engineering restoration of the Louisiana coast," University of New Orleans Engineering Forum 2017, September 15, 2017, University of New Orleans, New Orleans, LA

● Ghose Hajra, M. and Chisholm, D. (2016). "Rating Systems for Public Improvement Projects – Envision," Seminar organized by ASCE T&DI LA chapter, November 16, 2016, New Orleans, LA

● Ghose Hajra, M. and Fitzgerald, T. (2016). "Engineering Design & Construction of a Marsh Creation Project," Louisiana Civil Engineering Conference and Show, September 28-29, 2016, Kenner, LA

● Ghose Hajra, M. (2016). "Use of Unmanned Aircraft Systems (UASs) for Louisiana coastal protection and restoration systems," University of New Orleans Engineering Forum 2016, September 16, 2016, University of New Orleans, New Orleans, LA

● Erickson, L. and Ghose Hajra, M. (2016). "Evaluation of settling velocity of fine-grained dredged sediments used in Louisiana coastal restoration projects," presented by L. Erickson, 2016 State of the Coast conference, June 1-3, 2016, New Orleans, LA

● Ghose Hajra, M. (2016). "Characterization of Coastal Sediments used in marsh restoration projects," 2016 State of the Coast conference, June 1-3, 2016, New Orleans, LA

● Ghose Hajra, M. and Joffrion, R. (2016). "Geotechnical design of a marsh creation project," 2016 ASCE Acadiana half-day workshop, May 11, 2016, Lake Charles, LA

● Ghose Hajra, M. and Joffrion, R. (2016). "Geotechnical design of a marsh creation project," 2016 ASCE Louisiana Spring conference, April 28-29, 2016, Shreveport, LA

● Ghose Hajra, M. (2016). "Economic and Social implications of Natural and man-made disasters in Coastal Louisiana and improvements in Hurricane and Storm Damage Risk Reduction (HSDRRS) in the last 50 years," CNREP 2016 conference: Challenges of Natural Resource Economics & Policy, March 20-22, 2016, New Orleans, LA

● Ghose Hajra, M. (2016). "Characterization of Native Coastal Deposits Using Cone Penetration Testing," 2016 Geotechnical and Structural Engineering Congress, February 14-17, 2016, Phoenix, AZ

● Ghose Hajra, M. (2015). "Geological characteristics, Mechanics, and Environmental Impacts of Hydraulic Fracturing," ASTM workshop on water quality monitoring and environmental characterization related to hydraulic fracturing activities, January 28, 2015, New Orleans, LA

- Ghose Hajra, M., and Chisholm, D. (2015). "Sustainable rating systems for public improvement projects," APA LA Annual conference, January 21-23, 2015, Baton Rouge, LA.
- Ghose Hajra, M. (2014). "Mechanics and Impacts of Hydraulic Fracturing," University of New Orleans Engineering Forum 2014, September 19, 2014, University of New Orleans, New Orleans, LA
- Ghose Hajra, M. (2014). "Sustainable Practices for Pile Foundation Design and Construction," Deep Foundation Institute (DFI) and Pile Driving Contractors Association (PDCA) Pile Specialty Seminar (Driven Pile – A foundation for the 21st Century), September 9, 2014, Austin, Texas.
- Ghose Hajra, M. (2014). "Integrating Sustainability principles in optimizing performance of geotechnical construction." 2014 ASFE Spring Conference on Optimizing Performance: For our clients and our Geoprofessional Businesses, April 10-12, 2014, Kohla coast, Hawaii.
- Ghose Hajra, M., and Fernandez, B. (2014). "Geotechnical instrumentation to monitor performance of Interstate 20 Bridge in Vicksburg" Transportation Research Board (TRB) 93rd Annual Meeting, January 12-16, 2014, Washington D.C.
- Ghose Hajra, M. (2013). "Sustainable Practices for Pile Foundation Design and Construction," Deep Foundation Institute (DFI) and Pile Driving Contractors Association (PDCA) Pile Specialty Seminar (Driven Pile – A foundation for the 21st Century), November 14, 2013, Nashville, TN
- Ghose Hajra, M. (2013). "Advancement in Geotechnical Instrumentation for Monitoring Field Performance," University of New Orleans Engineering Forum 2013, November 1, 2013, University of New Orleans, New Orleans, LA

SHORT COURSE/ SEMINAR OFFERINGS

- Ghose Hajra, M. (2019). Shore course on "Soil Shear Strength and Slope Stabilization." organized by Halfmoon Education, Inc., August 9, 2019, New Orleans LA
- Ghose Hajra, M. (2018). Short course on "FAA Remote Pilot Training and Drone Applications." Flood Protection Authority (New Orleans), New Orleans, LA December 7 & 14, 2018.
- Ghose Hajra, M. Davidson, C., and Pearson, Y., E. (2018). Short course on "Applications of Envision™ rating system in Engineering courses and curricula." ASEE National Conference, Salt Lake City, UT, June 24, 2018
- Ghose Hajra, M. and Koob-Marking, Tonja (2018). Short course on "Soil Erosion and Sediment Control." Organized by Halfmoon Education, Inc. August 10, 2018, Metairie, LA
- Ghose Hajra, M. (2017). Shore course on "Soil Mechanics, Bearing Capacity and Slope Stabilization." organized by Halfmoon Education, Inc., July 11, 2017, Shreveport, LA
- Ghose Hajra, M. (2016). Short course on "Geotechnical and Structural Instrumentation and Monitoring during Construction," 2016 Geotechnical and Structural Engineering Congress, February 14-17, 2016, Phoenix, AZ.
- Ghose Hajra, M. and Bartholomew, E. (2015). "Principles of Leadership," eight (8) hour seminar presented to Gibbs Construction, New Orleans, Louisiana, May 6 and 8, 2015.
- Ghose Hajra, M. (2015). Short course on "Engineering Leadership, Effective Communication, Professionalism, Ethics, and Sustainability," six (6) hour seminar, Leonard de Vinci International Week 2014, Pole Universitaire Leonard de Vinci, Paris, France, March 16-20, 2015
- Ghose Hajra, M. (2014). Short course on "Sustainability Principles for Engineers," six (6) hour seminar, Leonard de Vinci International Week 2014, Pole Universitaire Leonard de Vinci, Paris, France, March 17-21, 2014

LEADERSHIP AND SYNERGISTIC ACTIVITIES

- Accreditation Board for Engineering and Technology (ABET) --- Program Evaluator (PEV), 2013 to present
- Chair, ASCE Committee on Student Members (CSM), (2016-2017)
- President, American Society of Civil Engineers, Louisiana Section (2017-2018)
- President, American Society of Civil Engineers (ASCE), New Orleans branch (2011-12)
- Secretary-Treasurer, American Society of Civil Engineers (ASCE), Louisiana section (2015 to 2016)
- Director, American Society of Civil Engineers (ASCE), Louisiana section (2012 to 2015)
- Participating Member, Engineers without Borders (EWB), New Orleans chapter (2012 – 14)

TRACK RECORD OF RESEARCH/ OTHER FUNDING

- "Youth watershed Action Project for a Resilient New Orleans East." $99,707, August 2021 through July 2023, NOAA Gulf of Mexico Bay-Watershed Education and Training (B-WET) program.
- "Development of a comprehensive engineering design tool to predict and evaluate long term performance of Louisiana coastal restoration and protection projects." $75,000, June 2016 through June 2019, Louisiana Coastal Protection and Restoration Authority (CPRA), Louisiana Sea Grant: Coastal Science Assistantship program (CSAP)
- "Settling Properties of Dredged Sediments for Cat Island Restoration project, Plaquemines Parish, Louisiana," $10,000, Settling Column Testing and Analysis for Professional Service Industries, Inc. (PSI), December 2016
- "Use of Unmanned Aircraft Systems (UASs) to monitor coastal hazard, design mitigation measures, and evaluate long term health of Louisiana coastline." $2,500, March 2016 through December 2016, Louisiana Sea Grant UROP program
- "Settling Properties of Dredged Sediments for wetland mitigation project within the Gulf Intercostal Waterway (GIWW) near Crown Point, Louisiana," $5,000, Settling Column Testing and Analysis for Gulf South Engineering and Testing, Inc., January 2016
- "Settling Properties of Dredged Sediments for Cat Island Restoration project, Plaquemines Parish, Louisiana," $5,000, Settling Column Testing and Analysis for Professional Service Industries, Inc. (PSI), November 2015
- "Evaluation of the effect of soil sample/ specimen size on undrained shear strengths in soft soils for coastal protection and restoration projects," $108,000, August 15, 2015, through February 28, 2016, The Water Institute of the Gulf, Applied Research Program
- "Development of theoretical model to predict and evaluate long term engineering performance of coastal restoration projects," $11,999, June 1, 2015, through June 30, 2016, University of New Orleans, Stimulating Competitive Research (SCoRe)
- "Testing Protocol for Predicting driven pile behavior within pre-bored soil," $50,000, November 1, 2013, through October 31, 2014, Louisiana Transportation Research Center (LTRC)
- "In situ monitoring and laboratory evaluation of Soil Hydro-Thermal properties and Thermo-Mechanical behavior analysis of Geothermal Energy Piles as a renewable energy source," $11,999, May 18, 2013 – August 18, 2013, University of New Orleans, Stimulating Competitive Research (SCoRe)
- "Literature review and interpretation of field and laboratory geotechnical test data obtained from historic soil borings drilled in southeast Louisiana," $14,807, May 18, 2012 through August

18, 2012, University of New Orleans (UNO) ORSP -- Supervised Undergraduate Experience (SUE)

- "Laboratory evaluation of organic clay and peat soil characteristics and their significance in levee construction and coastal restoration projects," $4,500, May 15, 2012 through August 15, 2012, Louisiana Board of Regents Supervised Undergraduate Research Experience 2012.
- "Laboratory evaluation of subsurface soil for coastal restoration projects," $4,500, May 15, 2012 through August 15, 2012, Louisiana Board of Regents Supervised Undergraduate Research Experience 2012.
- "Comparative evaluation of pile set up and axial capacity of driven piles installed using impact hammer versus vibratory pile driving equipment," $30,000 + $10,000 matching fund from Boh Brothers, July 1, 2012 through June 30, 2013, Louisiana Transportation Research Center (LTRC): Transportation Innovation for Research Exploration (TIRE)
- "Characterization of Dredged sediment used in Louisiana coastal restoration and marsh creation projects," $75,000, June 2012 through June 2015, Louisiana Coastal Protection and Restoration Authority (CPRA), Louisiana Sea Grant: Coastal Science Assistantship program (CSAP)
- "Study of sedimentation characteristics of dredged sediment using column settling test apparatus," $10,000, March 1, 2012, through February 28, 2013, Louisiana Board of Regents Pilot Funding for New Research (Pfund)
- Louisiana Board of Regents: Travel Grants for Emerging Faculty ($1,200.00)

(Visited with Dr. Richard Fragaszy, Program director of Geotechnical Engineering section at National Science Foundation (NSF), on November 18th, 2011 to discuss proposal submission in NSF's BRIGE and Geotechnical section), 2011.

PROFESSIONAL TECHNICAL COMMITTEES

- Chair – Academic committee: Institute for Sustainable Infrastructure (ISI). (2012 to 2015)
- Member, Engineering Geology and Site Characterization committee, ASCE's Geo Institute – (2011 to present)
- Member, Driven Pile committee, Deep Foundation Institute (DFI) – (2013 to 2017)
- Member, Sustainability committee, Deep Foundation Institute (DFI) – (2013 to 2016)
- Member, Sustainability committee, ASCE's Geo Institute – (2013 to Present)
- Member, Levee committee, ASCE Report Card for Louisiana – (2012)

NATIONAL/INTERNATIONAL CONFERENCE COMMITTEES

- Co- Technical Session Chair with Dr. Nina Stark (Virginia Tech), 2017 Geotechnical Frontiers, March 12-15, 2017, Orlando, Florida, Session Title: "*Offshore Foundation Systems*."
- Co- Technical Session Chair with Dr. Nina Stark (Virginia Tech), 2017 Geotechnical Frontiers, March 12-15, 2017, Orlando, Florida, Session Title: "*Recent Advancements in Coastal Geotechnics*."
- Technical Session Chair, 2016 Geotechnical and Structural Engineering Congress, February 14-17, 2016, Phoenix, AZ, Session Title: "*Advancements in field and laboratory characterization of Coastal Deposits."*
- Co - Technical Session Chair, Geo-Chicago 2016, Chicago, IL, August 14-18, 2016, Session Title: "*Carbon sequestration*."

- Technical Session Chair, Geo-Congress 2014, Atlanta, Georgia, February 23-26, 2014. Session Title: *"Recent advances in Characterizing Coastal deposits."*
- Technical Session Moderator, Louisiana Civil Engineering Conference and Show: 2011, 2013, 2014
- Organizing Committee Member, Louisiana Civil Engineering Conference and Show: 2013, 2014, 2015, 2016

TECHNICAL REVIEW ACTIVITIES

- PE Civil Engineering review course Instructor, Fall 2013, Spring 2014, Fall 2015
- Member, Jefferson parish, Louisiana Technical Evaluation committee, (2013 to 2014)
- Reviewer, National Science Foundation (NSF) – Geotechnical division
- Reviewer, Journal of Materials in Civil Engineering, American Society of Civil Engineers (ASCE)
- Reviewer, Geotechnical Testing Journal, American Society for Testing and Materials (ASTM)
- Reviewer, Proceedings of ASCE Geo Institute – Geo-Congress 2012, Geo-Congress 2013, Geo-Congress 2014, GeoHubei 2014
- Reviewer, Proceedings of Transportation Research Board (TRB) 2014 Annual Meeting

PROFESSIONAL AFFILIATIONS

- American Society of Civil Engineers (ASCE)
- American Society of Civil Engineers (ASCE) – Geo Institute
- Institute for Sustainable Infrastructure (ISI)
- National Academy of Forensic Engineers (NAFE)