

CURRICULUM VITAE

Ashutosh Sutra Dhar, Ph.D., P.Eng.

Faculty of Engineering and Applied Science
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EDUCATION:

- Ph. D. 2002 Civil and Environmental Engineering (Soil-structure interaction)
The University of Western Ontario, London, Ontario, Canada
- M. Sc. 1996 Civil Engineering (Geotechnical Engineering)
Bangladesh University of Engineering & Technology (BUET), Bangladesh
- B. Sc. 1994 Civil Engineering (1st class with Honours) (Structural Engineering)
Bangladesh University of Engineering & Technology, Bangladesh

ACADEMIC POSITIONS:

- Sep'23 – Present **Memorial University of Newfoundland, St. John's, NL, Canada**
Professor (Geotechnical and Infrastructure Engineering)
- Sep'19 – Aug'23 **Memorial University of Newfoundland, St. John's, NL, Canada**
Associate Professor (Geotechnical and Infrastructure Engineering)
- Mar'14 – Aug'19 **Memorial University of Newfoundland, St. John's, NL, Canada**
Assistant Professor (Geotechnical and Infrastructure Engineering)
- Jan' 13 – Feb' 14 **New Mexico State University, Las Cruces, New Mexico, USA**
Assistant Professor (Civil Engineering Technology)
- Sep' 11 – Dec' 11 **University of Wisconsin-Platteville, Platteville, Wisconsin, USA**
Lecturer (Geotechnical Engineering)
- Oct' 06 – Feb' 10 **Bangladesh University of Eng. and Technology, Dhaka, Bangladesh**
Associate Professor (Geotechnical Engineering)
- Aug' 02 – Sep' 06 **Bangladesh University of Eng. and Technology, Dhaka, Bangladesh**
Assistant Professor (Geotechnical Engineering)
- Sep' 04 – Nov' 04 **Louisiana Tech University, Ruston, Louisiana, USA**
Visiting Assistant Professor (during a semester break from BUET)
- Jun' 94 – Jan' 97 **Bangladesh University of Engineering and Technology, Dhaka**
Lecturer (Civil Engineering)

INDUSTRY/CONSULTING EXPERIENCE:

- May' 13 – Jan' 14 **Levelton Consultant Ltd. (currently, WSP Canada), Calgary, Alberta, Canada**
Senior Geotechnical Engineer (part-time/full-time during summer break)
- Jan' 12 – Jan' 13 **Golder Associates Ltd., Calgary, Alberta, Canada**
Geotechnical Engineer (infrastructure division)
- Mar' 08 – Aug' 11 **Soil and Materials Engineering Inc., Windsor, Ontario, Canada**
Geotechnical Engineer (part-time/ full-time after February 2010)
- Aug' 02 – Feb' 10 **Bureau of Research, Testing and Consultation, BUET, Dhaka, Bangladesh**
Geotechnical Engineering Consultant (part-time)

POSTGRADUATE TRAINING:

- Jan' 99 – Aug' 02 **The University of Western Ontario, London, Ontario, Canada**
Research Assistant/Teaching Assistant/Research Associate
- Jan' 97 – Dec' 98 **Yokohama National University, Yokohama, Japan**
Research Student

CAREER HIGHLIGHTS:**Research**

- **Research interests:**
 - **Urban infrastructure:** Integrity of urban water and energy distribution systems, remaining strength assessment of deteriorating pipes, sustainable maintenance planning for pipe networks.
 - **Soil-structure interaction:** Soil-pipe interaction for municipal and energy pipelines, pipelines subjected to ground movements. Developed facilities for full-scale testing and numerical/analytical modeling.
 - **Sensing/measurements:** Acoustic emission method for pipe condition assessment, distributed fibre optic sensing instrument for strain measurement, earth pressure measurements.
- **Supervision:** Supervised/supervising 5 post-docs, 8 PhDs, 23 Masters, 19 undergrads, and 7 research assistants (staffs)
- **Authorship:** Authored 125 journal and conference papers (48 Journals and 77 conferences), one conference proceedings, 11 technical reports.
- **Presentations:** Delivered speeches/presented at more than 30 national/international conferences, symposia, or as an invited speaker. Also, presented as an invited speaker (made two presentations) at the Symposium on Buried Pipe Research (Testing, Analysis, and Design), at Queen's University, Kingston, ON.

Teaching

- **At Memorial University of Newfoundland**
 - **Undergraduate courses:** Mechanics of Solids I, Structural Analysis I, Highway Engineering, Geotechnical Engineering I, Geotechnical Engineering III,
 - **Graduate courses:** Solids and Structural Mechanics, Advanced Geotechnical Engineering, Subsea Pipeline Engineering.
 - Developed a new undergraduate Highway Engineering Laboratory.
 - Developed a new course-based Master's program in Sustainable Infrastructure Engineering
 - Received letters of appreciation from the Dean of Engineering and Applied Science recognizing teaching excellence. Course evaluation score was as high as **4.91 in a scale of 5**.
- **At New Mexico State University**
 - Site/Land Development, Applied Strength of Materials, Soil and Foundation Technology, Construction Cost Estimating and Scheduling.
- **At the University of Wisconsin-Platteville (one semester)**
 - Geotechnical Engineering, computer applications in civil engineering.
- **At Louisiana Tech University (one semester):**
 - Soils in Construction, Structural Mechanics and Analysis
- **At Bangladesh University of Engineering and Technology (8+ years):**
 - Soil Mechanics, Foundation Engineering, Geotechnical Design, Engineering Geology and Geomorphology, Surveying/Geodesy, Steel and Timber Structures, Reinforced Concrete Design, Concrete Materials, Details of Construction, Cost Estimating, Society Technology and Engineering Ethics. Offered professional short-course on Engineering Procurement Methods.

Professional Services

- **Editorial services:**
 - Editorial Board Member of the journal "Transportation Infrastructure Geotechnology" (Springer) (at present)
 - Editor-in-Chief, of Proceeding of Bangladesh Geotechnical Conference 2009.
- **Services to the academic institutions:**
 - Committees at MUN: Graduate admission and award committee, Review Committee for Renewal of Appointments, Committee on Undergraduate Studies, Committee for Bridging Program for college graduates, Academic Development Subcommittee in the Faculty,

curriculum committee - Civil Engineering department, sustainable infrastructure initiative - Civil Engineering Department (co-chair), faculty search committee.

- Committee at NMSU: Recruiting committee for a Civil Engineering Technology staff.
- Committee at BUET: Members of the Board of Undergraduate Studies, Board of Postgraduate Studies, Academic Council, BRTC Management Committee, tender technical committees, Revision of undergraduate geotechnical engineering courses and others. Offered professional short courses. Involved with student recruitment and administration of a students' residence as an Assistant Provost.
- **Service to professional organizations:**
 - Currently the Chair of Geomechanics and Materials Subcommittee of the Engineering Mechanics and Material Division of the Canadian Society for Civil Engineering.
 - Currently the Vice-Chair of the Education Committee of Canadian Geotechnical Society
 - Currently the Vice-Chair of the Canadian Geotechnical Society-St. John's Section
 - Served as a Co-Chair of Technical Committee for an annual conference of Canadian Geotechnical Society and Chair, Technical Committee for Bangladesh Geotechnical Conference.
 - Organized Bangladesh Geotechnical Conference 2009 and served as the Editor-in-Chief for the conference proceeding. Served as a member of Organizing Committees for several conferences.
 - Served as, Treasurer of Bangladesh Society for Geotechnical Engineers: Jan 2005 - Dec 2007
 - Serving as a reviewer for 12 journals. Reviewing 15 to 20 journal articles each year.
 - Review grant applications for funding agencies including NSERC and Mitacs.

FUNDING:

- A new Highway Engineering **laboratory development**, Memorial University of Newfoundland, \$89,430, PI (Completed in 2015).
- "Best Practices on Geotechnical Investigation of Transmission Lines", CEATI Inc., Total amount \$28,800 (2022-2023).
- "Behaviour of buried pipelines subjected to ground movements", NSERC - Alliance International Catalyst Grant in collaboration with Kyoto University and Kobe University in Japan, Total amount \$25,000, PI, (awarded: 2022-2023).
- "Finite element modelling for the assessment of dented pipelines", Mitacs Accelerate, Industry Partner – Norther Crescent Inc., Total amount \$60,000, PI (Awarded: 2022-2023).
- "Investigation of gas distribution pipes subjected to landslide ground movements", NSERC - Alliance in collaboration with FortisBC Inc., SaskEnergy Inc. and WSP Canada, Total amount \$934,900, PI, (awarded: 2021-2026).
- "Numerical modelling techniques for the assessment of dented pipelines" NSERC - Engage, Industry partner – Northern Crescent Inc., Total amount \$25,000, PI, (Completed in Oct. 2019)
- "Full-scale Testing for Pipelines Subjected to Large Ground Movements", Seed, Bridge, and Multidisciplinary Fund, Memorial University of Newfoundland, \$10,000, PI (Completed, 2018)
- "Performance assessment of buried pipelines considering soil-structure interaction", National Science and Engineering Research Council of Canada (NSERC) Discovery grants, Total amount \$160,134 (including COVID extension and benefit), PI (awarded: 2018-2024).
- "Investigation of pull-out behaviour of medium density polyethylene pipes", NSERC - Collaborative Research and Development Grants (CRD) in collaboration with FortisBC Inc., WSP Canada Inc. and InnovateNL, Total amount \$382,000, PI, (Co-PI: Dr. Hawlader) (Completed in 2021).
- "Finite element analysis of pipelines subjected ground movements", NSERC - Engage, Industry partner - FortisBC Inc., Total amount \$25,000, PI (Completed in Sep. 2017).

- “Municipal water main infrastructure integrity management techniques”, NSERC-Collaborative Research and Development Grants (CRD), Total amount \$156,000, PI, (co-PI: Dr. Sadiq at UBC) (Completed in Oct. 2019).
- “Upheaval buckling behavior of offshore oil pipeline”, Mitacs Accelerate, Industry Partner – Husky Energy, Total amount \$15,000, PI (Completed in Aug. 2016).
- “Structural Integrity of Onshore and Offshore Pipelines in the Harsh Environment of Newfoundland and Labrador”, RDC Ignite, Research & Development Corporation of Newfoundland and Labrador, Total amount \$100,000, PI, awarded (Completed in Aug. 2016)
- “Strength of deteriorating pipelines”, President’s Doctoral Student Investment Fund award, \$30,000, awarded (Completed in 2019).
- Development of Earthquake and Tsunami Preparedness Program in Cox’s Bazar Area in Bangladesh: Funded by United Nation Office for Project Service (Tk.5M), PI, 2007 – 2008.
- Simplified Soil-Structure Interaction Method for Buried Pipe Design: Bangladesh University of Engineering and Technology, Dhaka (Tk. 166,700), PI, 2004 - 2005.

HONOURS AND AWARDS:

- 2020 AG Stermac Award for outstanding service to the Canadian Geotechnical Society
- 2018 Invited article in the Newsletter of the International Association for Computer Methods and Advances in Geomechanics, Vol. 23 (Muntakim, A. H. and Dhar, A. S. (2018) "Investigating axial pullout behavior of buried polyethylene pipelines").
- 2006 First runner-up in DFI’s 2006 Young Professor Paper Competition, 31st Annual Conference on Deep Foundations, Washington D.C., October 04, 2006.
- 2001 Milos Novak Memorial Award (for outstanding contribution in soil-structure Interaction), The University of Western Ontario, London, ON, Canada
- ’97-’98 Japanese Ministry of Education and Culture (Monbukagakusho) Scholarship The Yokohama National University, Japan
- ’88-’93 University Merit Scholarship (for being among top 5% in the class), BUET

PUBLICATIONS:

Proceedings/Book Chapter:

1. A. Siddique, **A. S. Dhar**, and S. F. Ameen. (2022). Ground Improvement Using Prefabricated Vertical Drains with Preloading for Port Park Area at Chittagong, Bangladesh. H. Hazarika, J. Nakazawa and I. Nakahara. Practices and Trends in Ground Improvement Techniques.: 5-20. Springer.
2. **Dhar, A.S.**, Yasin, S.J.M, Ansary, M.A. and Siddique, A. (2009) “Proceedings of Bangladesh Geotechnical Conference 2009”, Bangladesh Society for Geotechnical Engineering (BSGE).

Journals:

1. Reza, A. and **Dhar, A.S.** (2024) “Strain assessment of polyethylene pipes in dense sand subjected to axial displacement”, Geosynthetics International, to appear, <https://doi.org/10.1680/jgein.22.00351>.
2. Anzum, P. and **Dhar, A.S.** (2024) “Three-dimensional Finite Element Modeling of Polyethylene Pipes in Dense Sand Subjected to a Lateral Force, ASCE Journal of Pipeline Systems - Engineering and Practice, accepted.
3. Reza, A. and **Dhar, A.S.** (2024) “Finite-Element Modelling of Axial Movements of Polyethylene Pipes in Dense Sand”, Canadian Geotechnical Journal, Revision submitted.
4. Subedi, R., Hawlader, B.C., Roy, K. and **Dhar, A.S.** (2024). Numerical modelling of upheaval buckling of offshore pipelines with unstressed and stressed initial imperfections. Ocean Engineering, Submitted.
5. Sinha, T. and **Dhar, A.S.** (2023) “Lateral Ground Movement Effects at a Joint of MDPE Gas Distribution Pipes”, Canadian Geotechnical Journal, 60(9), <https://doi.org/10.1139/cgj-2022-0260>.

6. Sinha, T. and **Dhar, A.S.** (2023) "Beam-on-Spring Modeling of Buried MDPE Pipe in Sand Subjected Lateral Loads", *Journal of Pipeline Science and Engineering*, 3(3), <https://doi.org/10.1016/j.jpse.2023.100125>.
7. Phan, H.C., **Dhar, A.S.**, and Bui, N.D. (2023) "Reliability Assessment of Pipelines Crossing Strike-slip Faults Considering Modeling Uncertainties Using ANN Models", *Reliability Engineering & System Safety*, 237(9), <https://doi.org/10.1016/j.ress.2023.109371>.
8. Bui, N. D., Phan, H. C., Pham, T.D. and **Dhar, A.S.** (2022) "A Hierarchical System to Predict Behavior of Soil and Cantilever Sheet Wall by Data-Driven Models", *Frontiers of Structural and Civil Engineering* 16, pages 667–684 (2022).
9. Mondal, B.C., **Dhar, A.S.** and Hafiz, H. I. (2022) "Burst Pressure Assessment of Pipe Bend/Elbow for Transmission Pipelines", *Thin-Walled Structures*, Volume 174, May 2022, 109148.
10. Reza, A. and **Dhar, A.S.** (2021) "Axial Relative Ground Movement Effects on Small Diameter Polyethylene Piping in Loose Sand", *Infrastructures*, 6(12), 168; <https://doi.org/10.3390/infrastructures6120168>.
11. Duong, H.T., Phan, H.C., Tran, T.M. and **Dhar, A.S.** (2021) "Assessment of Critical Buckling Load of Functionally Graded Plates Using Artificial Neural Network Modeling", *Neural Computing and Applications*, <https://doi.org/10.1007/s00521-021-06238-6>.
12. Akhi, A. H. and **Dhar, A.S.** (2021) "Fracture Parameters for Buried Cast Iron Pipes Subjected to Internal Surface Corrosions and Crackings", *Journal of Pipeline Science and Engineering*, Vol. 1, Issue 2, 187-197.
13. Akhi, A. H. and **Dhar, A.S.** (2021) "Stress Intensity Factors for External Corrosions and Cracking of Buried Cast Iron Pipes", *Engineering Fracture Mechanics*, Volume 250, 1 June 2021, 107778.
14. Das, S. and **Dhar, A.S.** (2021) "Modeling time-dependent behavior of medium density polyethylene pipes", *ASCE Journal of Pipeline Systems - Engineering and Practice*, Vol. 33, Issue 5 (May 2021), [https://doi.org/10.1061/\(ASCE\)MT.1943-5533.0003695](https://doi.org/10.1061/(ASCE)MT.1943-5533.0003695).
15. Phan, H.C. and **Dhar, A.S.** (2021) "Investigation on Predicting Pipeline Burst Pressure with Machine Learning Models", *International Journal of Pressure Vessels and Piping*, Volume 191, June 2021, 104384.
16. Reza, A. and **Dhar, A.S.** (2021) "Axial Pullout Behaviour of Buried Medium Density Polyethylene Gas Distribution Pipes", *ASCE International Journal of Geomechanics*, Vol. 21, Issue 7 (July 2021). [https://doi.org/10.1061/\(ASCE\)GM.1943-5622.0002101](https://doi.org/10.1061/(ASCE)GM.1943-5622.0002101).
17. Phan, H.C., **Dhar, A.S.**, and Bui, N.D. (2021) "Accounting source location on the vulnerability assessment of water distribution network", *ASCE Journal of Infrastructure System*, Vol. 27, Issue 3 (September 2021), [https://doi.org/10.1061/\(ASCE\)IS.1943-555X.0000620](https://doi.org/10.1061/(ASCE)IS.1943-555X.0000620).
18. Das, S. and **Dhar, A.S.** (2021) "Nonlinear Time-Dependent Mechanical Behavior of a Medium Density Polyethylene Pipe Material", *ASCE Journal of Materials in Civil Engineering*, 33(5): 04021068.
19. Muntakim A.H. and **Dhar, A.S.** (2021) "Assessment of Axial Pullout Force for Buried Medium Density Polyethylene Pipelines", *ASCE Journal of Pipeline Systems - Engineering and Practice*, 12(2): 04020074.
20. Murugathan, P., **Dhar, A.S.** and Hawlader, B.C. (2021) "An Experimental and Numerical Investigation of Pullout Behavior of Buried Ductile Iron Water Pipes", *Canadian Journal of Civil Engineering*, 48(2): 134-143, <https://doi.org/10.1139/cjce-2019-0366>.
21. Debnath, S. Ali, I. M., **Dhar, A.S.** and Thodi, P. (2021) "Material Properties for Fracture Mechanics based Strength Assessment of Cast Iron Water Mains", *Canadian Journal of Civil Engineering*, 48(1): 62-74, DOI: 10.1139/cjce-2019-0229.

22. Phan, H.C., **Dhar, A.S.**, Hu, G. and Sadiq, R. (2019) "Managing Water Main Breaks in Distribution Networks - A Risk-Based Decision Making", *Reliability Engineering & System Safety*, 191 (Nov. 2019), 106581.
23. Mondal, B.C. and **Dhar, A.S.** (2019) "Burst pressure of corroded pipelines considering axial forces and bending moments", *Engineering Structures*, 186 (May 2019), 43-51.
24. Mondal, B.C. and **Dhar, A.S.** (2019) "Burst pressure assessment of corroded pipelines using fracture mechanics criterion", *Engineering Failure Analysis*, 104 (Oct. 2019), 139-153.
25. Mondal, B.C. and **Dhar, A.S.** (2018) "Improved Folias Factor and Burst Pressure Models for Corroded Pipelines", *Journal of Pressure Vessel Technology*, ASME, 40(1), 011702-011702-9.
26. Phan, H.C., **Dhar, A.S.**, Thodi, P. and Sadiq, R. (2018) "Reliability assessment of water distribution network using algebraic connectivity", *Journal of Water Supply: Research and Technology-AQUA*, 67(3), 252-269.
27. Phan, H.C. and **Dhar, A.S.**, Sadiq, R. (2018) "Prioritizing water mains for inspection and maintenance", *ASCE Journal of Pipeline Systems - Engineering and Practice*, 9(3), 1949-1204.0000324.
28. Liyanage, K.T.H and **Dhar, A.S.** (2018) "Stresses in Cast Iron Water Main Subjected to Non-Uniform Bedding and Localized Concentrated Forces", *International Journal of Geotechnical Engineering*, 12(4): 368-376.
29. Mondal, B.C. and **Dhar, A.S.** (2017) "Upheaval buckling of surface-laid offshore pipeline", *Applied Ocean Research*, 66(2017), 146-155.
30. Mondal, B.C. and **Dhar, A.S.** (2017) "Interaction of Multiple Corrosion Defects on Burst Pressure of Pipeline", *Canadian Journal of Civil Engineering*, 44(8): 589-597.
31. Liyanage, K.T.H and **Dhar, A.S.** (2017) "Effects of corrosion pits on the wall stresses in cast iron water mains", *ASCE Journal of Pipeline Systems - Engineering and Practice*, 8(4): 04017023.
32. Phan, H.C., **Dhar, A.S.** and Mondal, B.C. (2017) "Revisiting Burst Pressure Models for Corroded Pipelines", *Canadian Journal of Civil Engineering*, 44(7): 485-494.
33. Muntakim A.H., **Dhar, A.S.**, and Dey, R. (2017) "Interpretation of acoustic field data for leak detection in ductile iron and copper water distribution pipes", *ASCE Journal of Pipeline Systems - Engineering and Practice*, 8(3): 05017001.
34. Phan, H.C. and **Dhar, A.S.** (2016) "Pipeline Maintenance Prioritization Considering Reliability and Risk: A Concept Methodology", *Journal of Advances in Civil and Environmental Engineering*, 3(1): 13-30.
35. Mondal, B.C. and **Dhar, A.S.** (2016) "FE Evaluation of Burst Pressure Models for Corroded Pipelines", *Journal of Pressure Vessel Technology*, ASME, Vol. 139, 021702-1.
36. Siddique, M.S.A. and **Dhar, A.S.** (2015) "A Novel Elasto-Viscoplastic model of High Density Polyethylene Material", *Geosynthetics International*, Vol. 22, No. 2, pp: 173-182.
37. **Dhar, A.S.** and Ansary, M.A. (2012) "Community Based Evaluation for the Development of a Sustainable Disaster Early Warning System", *Journal of Emergency Management*, Vol. 10, No. 4, pp: 293-302.
38. **Dhar, A.S.**, and Tarefder, R.A. (2011) "An Approximate Spreadsheet Integration Method for Foundation Settlements in Two-Layered Medium", *International Journal of Geotechnical Engineering* Vol. 5, Issue 4, pp.: 437-446.
39. **Dhar, A.S.**, Siddique, A. and Ameen, M. F. (2011) "Ground Improvement using Pre-loading with Prefabricated Vertical Drains: A Case Study of Coastal Alluvial Soil in Bangladesh", *International Journal of Geoengineering Case Histories*, ISSMGE, Vol. 2, No. 2, pp: 86-104.

40. **Dhar, A.S.** and Moore, I.D. (2006) "Evaluation of Local Bending in Profile-Wall Polyethylene Pipes" *Journal of Transportation Engineering*, ASCE, Vol. 132, No. 11, pp: 898-906.
41. Wong, L.S., Allouche, E.N., **Dhar, A.S.**, Baumert, M. and Moore, I.D. (2006) "Long Term Monitoring of SIDD Type IV Installations" *Canadian Geotechnical Journal*, Vol. 43, No. 4: 392-408.
42. **Dhar, A.S.**, Moore, I.D. and McGrath, T.J. (2004) "Two-Dimensional Analysis of Thermoplastic Culvert Deformations and Strains", *Journal of Geotechnical & Geoenvironmental Engineering*, ASCE, Vol. 130, No.2, pp: 199-208.
43. **Dhar, A.S.**, Siddiquee, M.S.A. and Sinha, A.N. (2004) "Deflections of PVC Pipes in a Clayey Backfill", *Transportation Research Record*, Journal of the Transportation Research Board, No. 1892, pp: 221-226.
44. **Dhar, A.S.** and Moore, I.D. (2004) "Laboratory Investigation of Local Bending in Profiled Thermoplastic Pipes", *Advances in Structural Engineering-An International Journal*, Vol. 7, No. 3, pp: 201-215.
45. **Dhar, A.S.** and Moore, I.D. (2002) "Corrugated High-Density Polyethylene Pipe: Laboratory Testing and Two-dimensional Analyses to Develop Limit States Design" *Transportation Research Record*, Journal of the Transportation Research Board, No. 1814, pp: 157-163.
46. **Dhar, A.S.** and Moore, I.D. (2001) "Liner Buckling in Profiled Polyethylene Pipes", *Geosynthetics International*, Vol. 8, No. 4, pp: 303-326.
47. Ansary, M.A., **Dhar, A.S.**, Siddiquee, M.S.A. and Shafiullah, A.M.M. (1999) "Laboratory Investigation of the Behaviour of Open-Ended Steel Pipe Piles". *The Indian Engineer*, Sept. 1999 issue.
48. Siddiquee, M.S.A., Ansary, M.A., **Dhar, A.S.** and Shafiullah, A.M.M. (1999) "Numerical Modelling of the Behaviour of Open-Ended Steel Pipe Piles". *The Indian Engineer*, Aug. '99 issue.

Conference:

1. Reza, A., Kuwata, Y., Dhar, A.S. (2023). Investigation of buried pipes under axial tension and compression loadings. 76th Canadian Geotechnical Conference (GeoSaskatoon2023), Saskatoon, Oct. 1-4, 2023.
2. Chakraborty, S., *Anzum, S., and Dhar, A.S. (2023). Loading-unloading-reloading responses of MDPE pipes in sand subjected to axial ground movement. 76th Canadian Geotechnical Conference (GeoSaskatoon2023), Saskatoon, Oct. 1-4, 2023.
3. Andersen, D. and Dhar, A.S. (2023). Investigation of small-diameter steel pipes subjected to axial ground movement. 76th Canadian Geotechnical Conference (GeoSaskatoon2023), Saskatoon, Oct. 1-4, 2023.
4. Anzum, S. and Dhar, A.S., (2022). Finite element modelling of polyethylene pipe in dense sand subjected to lateral force, the 75th Canadian Geotechnical Conference (GeoCalgary2022), Oct. 2-5, 2022.
5. Reza, A. and Dhar, A.S., (2022). Axial ground movement analysis for buried polyethylene pipelines using nonlinear pipe-soil interaction model, the 75th Canadian Geotechnical Conference (GeoCalgary2022), Oct. 2-5, 2022.
6. Sinha, T. Dhar, A.S., Weerasekara, L. and Rahman, M. (2021). Effects of lateral ground movements on MDPE gas distribution pipes and branches, the 74th Canadian Geotechnical Conference (GeoNiagara2021), Sep/ 26-29, 2021.
7. Reza, A. and Dhar, A.S., (2021). Finite element modeling of pipe-soil interaction under axial loading in dense sand, the 74th Canadian Geotechnical Conference (GeoNiagara2021), Sep/ 26-29. 2021.
8. Chakraborty, S., Dhar, A.S. and Reza, A., (2021). A laboratory investigation of buried 42-mm diameter MDPE branched pipes under axial ground movements, the 74th Canadian Geotechnical Conference (GeoNiagara2021), Sep/ 26-29. 2021.
9. Reza, A., Hossain, K. and Dhar, A.S. (2021) "Compressibility Assessment of Roadway Embankments using Tire Derived Aggregates (TDA)", TRB 100th Annual Meeting, Washington DC.
10. Chakraborty, S., **Dhar, A.S.**, Talesnick, M. and *Muntakim, A.H. (2020). Behavior of a branched

- buried MDPE gas distribution pipe under axial ground movement, 73rd Canadian Geotechnical Conference (GeoVirtual 2020: Resilience and Innovation), Sep. 14-16, 2020.
11. Saha, R.C. and **Dhar, A.S.** (2020). Assessment of shear strength parameters of moist sands using conventional triaxial tests, 73rd Canadian Geotechnical Conference (GeoVirtual 2020: Resilience and Innovation), Sep. 14-16, 2020.
 12. Murugathan, P., **Dhar, A.S.**, Debnath, S., Muntakim, A.H. and Roy, K. (2019) "Numerical Assessment of Dented Pipe Using Inline Inspection Data", the 2020 13th International Pipeline Conference (IPC2020), Calgary, Alberta, Sep. 28 – Oct. 1, 2020 (accepted).
 13. Murugathan, P., Muntakim, A.H. and **Dhar, A.S.** (2019) "Nonlinear Finite Element Analysis of Dented Pipes Under Internal Pressure and Axial Loads", the 13th International Conference on Mechanical Engineering (ICME2019), Dhaka, Bangladesh, Dec. 18-20, 2019.
 14. Saha, R., **Dhar, A.** and Hawlader, B. (2019) "Shear strength assessment of a well-graded clean sand", 72nd Canadian Geotechnical Conference, St. John's, NL, Sep. 30-Oct. 2, 2019.
 15. Reza, A., **Dhar, A.S.**, Rahman, M. and Weerasekara, L. (2019) "Pulling rate effects on pullout resistance of buried small diameter MDPE pipe in loose sand", 72nd Canadian Geotechnical Conference, St. John's, NL, Sep. 30-Oct. 2, 2019.
 16. Debnath, S., and **Dhar, A.S.** (2019) "Assessment of Stress Intensity Factor for Buried Cast Iron Water Pipes Using Abaqus", 72nd Canadian Geotechnical Conference, St. John's, NL, Sep. 30-Oct. 2, 2019.
 17. Reza, R., and **Dhar, A.S.** (2019) "Full-Scale Laboratory Pullout Testing of 60 mm Diameter Buried MDPE Pipes", CSCE 2019 Annual Conference, Laval, QC, June 12 - 15, 2019.
 18. Saha, R., **Dhar, A.S.** and Hawlader, B. (2019) "Strength and deformation behaviour of a local sand", CSCE 2019 Annual Conference, Laval, QC, June 12 - 15, 2019.
 19. Das, S., and **Dhar, A.S.** (2019) "Nonlinear Behavior of a Medium Density Polyethylene Pipe Material", CSCE 2019 Annual Conference, Laval, QC, June 12 - 15, 2019.
 20. Saha, D., Hawlader, B, Datta, S. and **Dhar, A. S.** (2019) "Effects of Seabed Shear Strength and Gap between Pipeline and Seabed on Drag Force on Suspended Pipelines Caused by Submarine Debris Flow", 29th International Ocean and Polar Engineering Conference, Honolulu, Hawaii, USA, June 16-21, 2019.
 21. Morshed, M.A., Roy, K.S., Hawlader, B, and **Dhar, A. S.** (2018) "Numerical Modelling of Oblique Pipe-Soil Interaction in Dense Sand", 71st Canadian Geotechnical Conference, Edmonton, AB, Sep. 23-26, 2018.
 22. Saha, D., Hawlader, B, Datta, S. and **Dhar, A. S.** (2018) "A comparison using two numerical approaches for modelling the impact of submarine landslides on suspended pipelines", 71st Canadian Geotechnical Conference, Edmonton, AB, Sep. 23-26, 2018.
 23. Murugathan, P., **Dhar, A.S.** and Hawlader, B. (2018) "A laboratory facility for studying pullout behavior of buried pipelines", 71st Canadian Geotechnical Conference, Edmonton, AB, Sep. 23-26, 2018.
 24. Muntakim, A.H., **Dhar, A.S.** and Reza, A. (2018) "Modelling time dependent behaviour of buried polyethylene pipes using Abaqus", 71st Canadian Geotechnical Conference, Edmonton, AB, Sep. 23-26, 2018.
 25. Debnath, S. and Dhar, A.S. (2018) "Failure analysis of buried cast iron water main using fracture mechanics", 71st Canadian Geotechnical Conference, Edmonton, AB, Sep. 23-26, 2018.
 26. Muntakim, A.H., **Dhar, A. S.**, and Hussein, A. (2017) "Acoustic wave attenuation through buried water mains", 70th Canadian Geotechnical Conference, GEOOTTAWA 2017, Ottawa, ON, Oct.2-5.
 27. Muntakim, A.H., **Dhar, A. S.**, and Rahman, M. (2017) "Pipeline behaviour subjected to large ground movement", 70th Canadian Geotechnical Conference, GEOOTTAWA 2017, Ottawa, ON.
 28. Al Tarhouni, M., Fouzder, A., Hawlader, B. and **Dhar, A.S.** (2017) "Direct Simple Shear and Triaxial Compression Tests on Dense Silica Sand at Low Effective Stress", 70th Canadian Geotechnical Conference, GEOOTTAWA 2017, Ottawa, ON, Oct. 2-5, 2017.

29. Arman, R., Roy, K, Hawlader, B. and **Dhar, A.S.** (2017) "Finite Element Analysis of Upheaval Buckling of Submarine Pipelines with Initial Imperfection", 70th Canadian Geotechnical Conference, GEOOTTAWA 2017, Ottawa, ON, Oct. 2-5, 2017.
30. Phan, H.C., **Dhar, A.S.**, Sadiq, R. (2017) "Complex network analysis of municipal water main system incorporating the reliability of individual pipe", Annual Conference of the Canadian Society of Civil Engineering (CSCE), May 31 - June 3, 2017.
31. Mondal, B.C. and **Dhar, A.S.** (2016) "Upheaval Buckling Behavior of Offshore Oil Pipeline ", 69th Canadian Geotechnical Conference, Vancouver, BC, October 2-5, 2016.
32. **Dhar, A.S.** and Mondal, B.C. (2016) "Burst Pressure Assessment for Pipelines with Multiple Corrosion Defects", Annual Conference of the Canadian Society of Civil Engineering (CSCE), London, June 1-4, 2016.
33. Muntakim A. H. and **Dhar, A.S.** (2015) "Laboratory investigation of acoustic noise from leaks in ductile iron water pipe", Annual Conference of the Canadian Society of Civil Engineering (CSCE), London, June 1-4, 2016.
34. Liyanage, K.H. and **Dhar, A.S.** (2015) "Three dimensional Finite Element Analyses of Partially Supported Water Mains", GeoQuebec 2015, 68th Canadian Geotechnical Conference, Quebec City, QC, September 21-23, 2015.
35. Mondal, B.C. and **Dhar, A.S.** (2015) "Corrosion effects on the strength of steel pipes using FEA", 34th International Conference on Ocean, Offshore and Arctic Engineering, St. John's, NL, May 31- June 5, 2015.
36. **Dhar, A.S.** and Muntakim A. H. (2015) "Nonlinear Analysis of Axisymmetrically Wrinkled Pipes Under Axial Loads And Internal Pressures", 34th International Conference on Ocean, Offshore and Arctic Engineering, St. John's, NL, May 31- June 5, 2015.
37. **Dhar, A.S.** and Mondal, B.C. (2015) "FE Modelling of Corroded Pipelines under Internal Pressure", Artic Oil and Gas North America 2015, IBC Energy's 6th Annual Conference, St. John's, NL, April 14-15, 2015.
38. Mondal, B.C. and **Dhar, A. S.** (2014) "Corrosion of Iron and Steel Pipes in Sodium Chloride Salt Solution: A review", presentation at Corrosion Management – The Key to Asset Integrity Management, Northern Area Eastern Conference, St. John's, NL, October 19-21, 2014.
39. **Dhar, A.S.** and Ansary, M. (2011) "Seismic Hazard Assessment for Cox's Bazar in Bangladesh", 5th Canadian Conf. on Geotechnique and Natural Hazards, Kelowna, BC, May 2011.
40. Alam, M. S., **Dhar, A.S.** and Turan, Alper (2010) "Horizontal Impedance Functions for Circular Foundations on Layered Soil Media" 3rd International Earthquake Symposium, Dhaka, Bangladesh, 5-6 March 2010.
41. **Dhar, A.S.** and Tarefder, R.A. (2009) "Wall Thrusts and Moments for Buried Rigid Pipe", Bangladesh Geotechnical Conference, Dhaka, Bangladesh, December 17, 2009, pp: 49-57.
42. **Dhar, A.S.** and Datta, S. (2009) "A Parametric Study of Buried Flexible Pipe under Surface Load", Bangladesh Geotechnical Conference, December 17, Dhaka, Bangladesh, pp: 100-108.
43. Saha, N., Tarefder, R.A. and **Dhar, A.S.** (2009) "A Finite Element Model for Parametric Study of Cracking in Asphalt Concrete", Bangladesh Geotechnical Conference, December 17, Dhaka, Bangladesh, pp: 86-99.
44. Paul, S., Islam, K., **Dhar, A.S.** (2009) "Wall Forces from Standard Installation Direct Design of Buried Rigid Pipe", Bangladesh Geotechnical Conference, December 17, Dhaka, Bangladesh, pp: 72-79.
45. Siddique, A., **Dhar, A. S.** and Ameen S. F. (2009) "Ground Improvement Works Employed for the Construction of a Container Yard at Chittagong Sea Port", Bangladesh Geotechnical Conference, December 17, Dhaka, Bangladesh, pp: 218-226.

46. Imtiaz, A. B. A., Ansary, M.A. and **Dhar, A.S.** (2008) "Seismic Microzonation Based on Site Amplification Study of Cox's Bazar in Bangladesh", 7th International Symposium on New Technologies for Urban Safety of Mega Cities in Asia, 9-10 December 2008, China.
47. Hussain, M.A, **Dhar, A.S.**, Welhena, T. and Ansary, M.A (2008) "Tsunami Vulnerability Assessment of Cox's Bazar District, Bangladesh", WFEO- JFES- JSCE Joint International Symposium on Disaster Risk Management, Tohoku Univ., Japan, 11 September 2008, pp: 96-110.
48. **Dhar, A.S.**, Ansary, M.A., Jubair, M. and Imtiaz, A. B. A (2008) "Community Awareness Program in Cox's Bazar for Disaster Risk Reduction", International Disaster and Risk Conference, IDRC 2008, August 25 – 28, 2008, Davos, Switzerland.
49. **Dhar, A.S.**, and Noor, M.A. (2007) "Calculation of Wall Stresses for Buried Flexible Pipe", 13th Asian Regional Conference, 10-14th December, 2007, Kolkata, India.
50. **Dhar, A.S.**, and Muqtadir, M.A. (2007) "Evaluation of the Capacity of Bored Pile using Pile Load Tests", 13th Asian Regional Conference, 10-14th December, 2007, Kolkata, India.
51. Islam, M.K., and **Dhar, A.S.** (2007) "Interpretation of Plate Load Tests on Controlled Fills" 13th Asian Regional Conference, 10-14th December, 2007, Kolkata, India.
52. Saha, R., **Dhar, A.S.**, and Ansary, M.A. (2007) "Assessment of Cyclone Shelters in Cox's Bazar against Earthquake Hazard", 6th International Symposium on New Technologies for Urban Safety of Mega Cities in Asia, 9-10 December 2007, Dhaka, Bangladesh.
53. Imtiaz, A. B. A., Shamim, M., **Dhar, A.S.**, Ansary, M.A. and Ahmed, M.Z (2007) "Visual Screening Methods for Earthquake Vulnerability Assessment", 6th International Symposium on New Technologies for Urban Safety of Mega Cities in Asia, 9-10 December 2007, Dhaka, Bangladesh.
54. Imtiaz, A. B. A., Ansary, and **Dhar, A.S.** (2007) "Seismic Microzonation of Cox's Bazar in Bangladesh", 6th International Symposium on New Technologies for Urban Safety of Mega Cities in Asia, 9-10 December 2007, Dhaka, Bangladesh.
55. **Dhar, A.S.**, Ansary, and Imtiaz, A. B. A. (2007) "Evaluation of Sheltering Systems for Earthquake and Tsunami Disaster at Cox's Bazar in Bangladesh", International Disaster and Risk Conference, IDRC 2007, August 21 – 25, 2007, Harbin, China.
56. Siddiquee, M.S.A, and **Dhar, A.S.** (2007) "Determination of Pipe Pullback load for Horizontal Directional Drilling (HDD) Crossings by Finite Element Method", ASCE International Pipeline Conference 2007, Boston, MA, USA, July 08-11, 2007.
57. Ahmed, M. Z., **Dhar, A.S.**, Ansary, M. A. and Al-Hussaini, T.M. (2007) "Seismic Risk Reduction in Bangladesh: Recent Activities", 6th National Conf. on Earthquake Engineering, Istanbul, Turkey.
58. **Dhar, A.S.** (2006) "Design and Performance Evaluation of Bored Piles in Sand", 31st Annual Conference on Deep Foundations, Deep Foundations Institute, Washington D.C., Oct. 04, 2006.
59. **Dhar, A.S.**, Islam, M.K. and Kalam, A.K. (2006) "Water supply and sewage pipeline system in Bangladesh: prospects of trenchless installation methods, 24th International NO-DIG conference (NO-DIG DOWN UNDER 2006), Brisbane, Australia, October 29 - November 02, 2006.
60. **Dhar, A.S.** and Kabir, M.A. (2006) "A Simplified Soil-Structure Interaction based Method for Calculating Deflection of Buried Pipe", Geotechnical Symposium in Roma, University of Rome "La Sapienza", Italy, March 2006, in Soil Stress-Strain Behavior: Measurement, Modeling and Analysis by Ling et al.
61. **Dhar, A.S.**, Siddiquee, M.S.A., Tatsuoka, F. and Noor, M A. (2006) "An Isotach Model for Time Dependent Behavior of High Density Polyethylene", 85th Annual Meeting of the Transportation Research Board, Washington D.C., USA, Jan 22-26, 2006, CD-ROM.
62. **Dhar, A.S.**, Kabir, M.A., Noor, M A. (2005) "Development of Rational Design Method for Rigid Pipes", 3rd Annual Paper Meet and International Conference on Civil Engineering, Institute of Engineers, Dhaka, Bangladesh, Mar 9-11, 2005, pp: 95-110.

63. Allouche, E.N., **Dhar, A.S.** and Wong, L.S. (2004) "Response of SIDD Type IV Bedding to Live Loads", 83rd Annual Meeting of the Transportation Research Board, Washington D.C., USA, Jan 11-15, 2004.
64. **Dhar, A.S.**, Siddiquee, M.S.A, and Sinha A.N. (2004) "Performance of PVC Pipes in a Backfill of Native Dhaka Clay", 83rd Annual Meeting of the Transportation Research Board, Washington D.C., USA, Jan 11-15, 2004, CD-ROM.
65. **Dhar, A.S.** (2003) "The Development of a Simplified Equation for Deflection of Buried Pipe", Proc. ASCE International Pipeline 2003 conference, Baltimore, Maryland, July 13-16, 2003, pp: 1096-1105.
66. Noor, M. A. and **Dhar, A.S.** (2003) "Three Dimensional Response of Buried Pipe Under Vehicle Loads", Proc. ASCE International Pipeline 2003 conference, Baltimore, Maryland, July 13-16, 2003, pp: 658-665.
67. **Dhar, A.S.**, Noor, M.A., Hossain, T.R., Seraj, S.M., Haque, M.S and Khan, A.J. (2003) "Safety Assessment of Gas Pipelines Under the Jamuna Bridge Access Road Rehabilitation", ASCE International Pipeline 2003 conference, Baltimore, Maryland, July 13-16, 2003, pp: 1106-1115.
68. **Dhar, A.S.**, Moore, I.D. and McGrath, T.J. (2002) "Evaluation of Simplified Design Methods for Buried Thermoplastic Pipe" Proc. Pipelines 2002 conference, ASCE, Cleveland, Ohio, USA, August 4-7, 2002.
69. **Dhar, A.S.** and Moore, I.D. (2002) "Corrugated HDPE Pipe: Laboratory Testing and Two-Dimensional Analyses to Develop Limit States Design", 81st Annual Meeting of the Transportation Research Board, Washington D.C., USA, January 13 -17, 2002, CD-ROM.
70. **Dhar, A.S.** and Moore, I.D. (2001) "Sensitivity of Thermoplastic Pipe Behavior to Profile Geometry", International Specialty Conference on Pipelines 2001 – Advances in Pipeline Engineering and Construction, ASCE, San Diego, CA, USA, July 14-18, 2001, CD-ROM.
71. **Dhar, A.S.** and Moore, I.D. (2001) "Limit States of Buried Thermoplastic Pipes: Laboratory Investigations", International conference of the Underground Infrastructure Research (UIR2001), Waterloo, ON, Canada, June 10-13, 2001, pp: 23-30.
72. **Dhar, A.S.** and Moore, I.D. (2000) "Non-linear Analysis of Buried HDPE Pipe by the Finite Element Method: Comparison with Laboratory Test", Proceedings of the International conference of Geotechnical and Geological Engineering (GEOENG2000), Melbourne, Australia, November 19 – 24, 2000, CD-ROM.
73. **Dhar, A.S.** and Moore, I.D. (2000) "Local Buckling in Profiled Thermoplastic Pipes" the 28th Annual Conference of the Canadian Society of Civil Engineers, London, Ontario, Canada, June 7-10, 2002, pp: 368-375, CD-ROM.
74. **Dhar, A.S.**, Sawada, S. and Nakase, H. (1999) "Response of Granular Material to Steady State and Dynamic Stresses", proceeding of the 13th Engineering Mechanics Conference, ASCE, Baltimore MD, USA, June 13-16, 1999, CD-ROM.
75. Pradhan, T.B.S., **Dhar, A.S.** and Sawada, S. (1998) "Role of Stiffness in the Simulation of 1-D Compression by DEM", 33rd Japan National Conf. on Soil Mech. and Found. Eng., Komamoto, Kyushu, Japan, August, 1998, pp: 553-555.
76. Siddiquee, M.S.A., Ansary, M.A., **Dhar, A.S.** and Safiullah, A.M.M (1997) "Behavior of Open-Ended Steel Pipe Piles in Granular Soil", proceedings of 30th year Anniversary Symposium of the Southeast Asian Geotechnical Society, Bangkok, Thailand, Nov. 03-07, 1997, pp: 3.14-3.28.
77. Siddiquee, M.S.A, **Dhar, A.S.** and Safiullah, A.M.M. (1997) "Study of Formation of Stress Arches in Open-Ended Pipe Pile" *Computer Methods and Advances in Geomechanics*, proceedings of the 9th Int. Conference on Computer Methods and Advances in Geomechanics, Wuhun, China, Vol. 2, pp: 2111-2116.

Research Reports:

1. **Dhar, A.S.** (2022) "Investigation of Pullout Behaviour of Small Diameter Medium Density Polyethylene Pipes", Submitted to NSERC and FortisBC Energy Inc. (NSERC-CRD Project: CRDPJ514564-17).
2. **Dhar, A.S.**, Phan, H.C., and Muntakim, A.H. (2019) "Municipal Water Main Infrastructure Integrity Management Techniques", Submitted to City of Mount Pearl, Newfoundland and Labrador (NSERC-CRD Project: CRDPJ 491323-2015).
3. **Dhar, A. S.** (2017) "Finite element analysis of pipelines subjected ground movements", Submitted to FortisBC Canada Inc. (NSERC Engage Project: EGP 505318-16)
4. **Dhar, A.S.**, Hossain, A. and Ansary, M.A. (2008) "Tsunami Vulnerability Assessment of Cox's Bazar District", Project Report to United Nation Office for Project Services (UNOPS) through the Comprehensive Disaster Manage Program, Ministry of Food and Disaster Management, Government of the People's Republic of Bangladesh.
5. **Dhar, A.S.** and Ansary, M.A. (2008) "Earthquake Vulnerability Assessment of Cox's Bazar District", Project Report to United Nation Office for Project Services (UNOPS) through the Comprehensive Disaster Manage Program, Ministry of Food and Disaster Management, Government of the People's Republic of Bangladesh.
6. **Dhar, A.S.** and Ansary, M.A. (2008) "Disaster Early Warning Systems for Cox's Bazar", Project Report to United Nation Office for Project Services (UNOPS) through the Comprehensive Disaster Manage Program, Ministry of Food and Disaster Management, Government of the People's Republic of Bangladesh.
7. **Dhar, A.S.**, and Ansary, M.A. (2008) "Community Awareness about Earthquake and Tsunami Hazards in Cox's Bazar", Project Report to United Nation Office for Project Services (UNOPS) through the Comprehensive Disaster Manage Program, Ministry of Food and Disaster Management, Government of the People's Republic of Bangladesh.
8. Allouche, E.N., Wong, L.S. and **Dhar, A.S.** (2003) "Response of SIDD type IV bedding to live loads" OCPA Final Report, Ontario Concrete Pipe Association.
9. **Dhar, A.S.** and Moore, I.D. (2001) "Liner buckling in profiled polyethylene pipes" GEOT-2-01, Geotechnical Research Center, The University of Western Ontario, London, Ontario.
10. Moore, I.D. and **Dhar, A.S.** (2000) "Analysis and Testing of Buried Plastic Pipe", Attach. A.3, Phase 1 Interim Report, NCHRP Project 4-26, Transportation Research Board, USA.
11. **Moore, I.D.** and Dhar, A.S. (2000) "UWO-Tests to Investigate Pipe Behavior", Attach. B, Phase1 Interim Report, NCHRP Project 4-26, Transportation Research Board, USA.

HQP TRAINING:**Post-doctorate**

1. Auchib Reza (ongoing NSERC Alliance), Sole supervision
2. Hieu Chi Phan (ongoing Mitacs Intern), Sole supervisor
Topic: Finite element modelling for the assessment of dented pipelines
3. Hieu Chi Phan (Completed in 2019), Sole supervisor.
Topic: Municipal Infrastructure Integrity Management Method
4. Premkumar Thodi (Completed in 2016), Sole supervisor.
Topic: Leak detection and integrity of municipal water mains
5. Rajib Dey (Completed in 2015), Academic supervisor (with City of Mount Pearl)
Topic: Acoustic emission method for leak detection in municipal water mains

Doctorate

1. Auchib Reza (Completed in 2023), Sole supervision.
Topic: Investigation of axial pullout behaviour of small diameter medium-density polyethylene pipes in sand.
2. Rabindra Subedi (Completed in 2023) Co-supervised with Dr. Hawlader
Topic: Failure assessment of offshore pipelines subjected to upheaval buckling
3. Mahmud Al-Tarhouni (completed in 2021), Co-supervised with Dr. Hawlader
Topic: Behaviour of sand in monotonic and cyclic simple shear loading at low-stress level
4. Surya Swarna (completed in 2021), Co-supervised with Dr. Kamal Hossain
Topic: Influence of Climate Change on Pavement Design and Materials in Canada
5. Hieu Chi Phan (Completed in 2019), Sole supervision.
Title: Development of methods for municipal water main infrastructure integrity management
6. Bipul Mondal (Completed in 2018), Sole supervision.
Title: Improved burst pressure assessment methods for deteriorating energy pipelines
7. Saifa Anzum Prioty (In Progress), Sole supervision
Title: Modeling ground movement effects on MDPE gas distribution pipes
8. Chakraborty (In Progress), Sole supervision
Title: Modelling the pullout response of medium density polyethylene branched pipes

Master's

1. Mahmud Hasan (Started in September 2023), Sole supervision.
Title: TBD
2. Sudipta Nath Priyom (started in January 2023), Sole supervision.
Title: Investigating lateral ground movement effect on buried metal pipes
3. Thirojan Jayabalasingham (started in September 2022), Sole supervision.
Title: Investigating lateral ground movement effect on buried MDPE pipes
4. Darren Andersen (to be completed in 2024), Sole supervision.
Title: Studying ground movement effects on steel pipelines
5. Francis Odeh (completed in 2022), Sole supervision.
Topic: Machine Learning Method for Leak Detection in Water Mains Using Acoustic Data
6. Salami Adeniyi (completed), Sole supervision.
Topic: A numerical investigation on the axial pullout tests of buried pipes
7. Masud Rana (Completed in 2020), Co-supervised with Dr. Hossain
Topic: Effects of Autonomous Vehicles on Pavement Distress & Road Safety and Pavement Distress Optimization.
8. Atika Hossain Akhi (Completed in 2021), Sole supervision.
Topic: Fracture parameters for buried cast iron pipes subjected to internal and external corrossions and crackings
9. Shajib Guha (Completed in 2021), Co-supervised with Dr. Hossain
Topic: Towards Development of a Pavement Management Framework for Low Volume Road Networks in Canada.
10. Sudipta Chakraborty (Completed in 2021), Sole supervision.
Title: Behavior of branched buried MDPE gas distribution pipes under axial ground movements
11. Tanmoy Sinha (completed in 2021), Sole supervision.

- Title: Pullout behaviour of medium density polyethylene pipes under lateral ground movements
12. Suprio Das (completed in 2021), Sole supervision.
Topic: Time-dependent Behavior of a Medium Density Polyethylene Pipe
13. Riju Chandra Saha (completed in 2021), co-supervisor: Dr. Hawlader
Topic: Shear strength assessment of a manufactured well-graded sand
14. Parththeeban Murugathan (Completed in 2019), Co-supervisor: Dr. Hawlader
Title: Experimental and numerical investigations of axial pullout behavior of buried ductile iron pipe
15. Suborno Debnath (Completed in 2019), Sole supervision.
Title: Failure assessment of cast iron water mains using fracture mechanics
16. Diponkar Saha (Completed in 2019), Co-supervised with Dr. Hawlader
Title: Numerical modelling of submarine landslide impact on offshore free spanning pipelines
17. Riyadul Amin Arman (Completed in 2018), Co-supervised with Dr. Hawlader
Title: Numerical modeling of upheaval buckling of offshore pipelines
18. Ismail Mufta Ali (Completed in 2017), Sole supervision.
Title: Mechanical properties of cast iron water pipe materials
19. Abu Hena Muntakim (Completed in 2017), Sole supervision.
Title: Acoustic noise characterisation for leak detection in water mains
20. Kasuni Hordiyamulla Liyanage (Completed in 2016), Sole supervision.
Title: Numerical investigation of failure mechanisms of cast iron water mains.
21. Sujan Datta, (completed in 2008 at BUET), Sole supervision.
Title: Soil-structure interaction analyses of buried flexible pipes under surface load
22. Kawser MA Waheed, (completed in 2008 at BUET), Co-supervised with Dr. Shafiullah
Title: study of cut and cover methods for potential metro rail tunneling in dhaka city
23. Md. Aynul Kabir (completed in 2007 at BUET), Sole supervision.
Title: Soil-structure interaction analyses of buried rigid pipes under surface load

Undergraduate

1. Bukhari Ahmed, Work-term completed in December 2022.
2. Chinmoy Kar Victor, Work-term completed in December 2021.
3. Dooshyantt Doobaly, Work-term completed in April 2021.
4. Abrar Faiyaz, Work-term completed in April 2021.
5. Logan Hornell, Work-term completed in April 2020.
6. Sultan Al-Ahmari, Work-term completed in August 2019.
7. Thabiso Mthethwa, work-term completed in April 2019
8. Jovan Alexis Gongora, Work-term completed in April 2019.
9. Shady Saleh Soliman Abdelazim, Work-term completed in Dec. 2018
10. Alexander McNeil, Work-term completed in Dec. 2018.
11. Thabiso Mthethwa, Work-terms completed in August 2018.
12. Kaytlin Cole, work term completed in 2018.
13. Tariqul Anwar, project completed in 2008.
14. Shah MAS Rozen, project completed in 2008.
15. S. M. Ashraful Alam, project completed in 2007.
16. Abu S. K. Chowdhury, project completed in 2007.
17. Faruque Ahmed, project completed in 2006.
18. Ram Prit Ray, project completed in 2006.

19. Badsha Mia, project completed in 2006.

Research Assistant

1. Anup Fouzder, Research Assistant, Completed in August 2018.
2. Abu Hena Muntakim, Completed in September, 2017.
3. Rajan Saha, completed in 2008.
4. Md Jubair, completed in 2008.
5. Afifa Imtiaz, completed in 2008.
6. Kalyani Sutradhar, completed in 2008.
7. Mahfuza Shamim, completed in 2008.

PRESENTATIONS (SELECTED):

1. Auchib Reza, Yasuko Kuwata. (2023). Investigation of Buried Pipes Under Axial Tension And Compression Loadings. 76th Canadian Geotechnical Conference (GeoSaskatoon2023), Saskatoon, Canada.
2. Dhar, A.S. (2022). Assessment of Pipelines Subjected to Ground Movements. Research Seminar - Yokohama National University, Yokohama, Japan
3. Dhar, A.S. (2022). Buried Pipeline Infrastructure. Guest Lecture, Graduate course on Structural Engineering for Civil Infrastructure - Kyoto University, Kyoto, Japan
4. Dhar, A.S. (2022). Integrity of Buried Water Mains and Energy Pipelines. Geotechnical Seminar – Tokyo University, Tokyo, Japan
5. Dhar, A.S. (2022). Assessment of Pipelines Subjected to Ground Movements. Reserach Seminar- Disaster Prevention Research Institute, Kyoto University, Kyoto, Japan
6. Dhar, A.S. (2022). Pipelines Subjected to Ground Movements. Research Seminar- Saitama University, Saitama, Japan
7. Dhar, A.S. (2021). Innovative Infrastructure: Initiative for Education and Training for Sustainable Infrastructure Development, Guest Speaker, 2021 MNL Virtual Municipal Symposium.
8. Dhar, A.S. (2021). Integrity of Buried Water Mains and Energy Pipelines. Annual Research Week at Memorial University, St. John's, Canada
9. Sinha, T. Dhar, A.S., Weerasekara, L. and Rahman, M. (2021). Effects of Lateral Ground Movements on MDPE Gas Distribution Pipes and Branches. 74th Canadian Geotechnical Conference (GeoNiagara2021), Niagara Falls, Canada
10. Debnath, S. and Dhar, A. S. (2019). Assessment of Stress Intensity Factor for Buried Cast Iron Water Pipes using Abaqus. 72nd Canadian Geotechnical Conference, St. John's, NL, Canada
11. Dhar, A. S. (2018). Facility for Pullout Testing of Buried Pipelines. Symposium on Buried Pipe Research (Testing, Analysis and Design), Kingston, Ontario, Canada
12. Dhar, A. S. (2018). Pullout Force Assessment for Flexible Pipelines using FE Analyses. Symposium on Buried Pipe Research (Testing, Analysis and Design), Kingston, Ontario, Canada
13. Muntakim, A.H., Dhar, A.S. and Reza, A. (2018). Modelling Time Dependent Behaviour of Buried Polyethylene Pipes using Abaqus. 71st Canadian Geotechnical Conference, Edmonton, Canada.