

Curriculum Vitae

Dr. Malaya Chetia
Professor

Civil Engineering Department
Assam Engineering College
Jalukbari, Guwahati - 781013
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Education

PhD (2012) in Civil Engineering from Indian Institute of Technology Guwahati.
ME (1995) in Soil Mechanics and Foundation Engineering from Assam Engineering College.
BE (1992) in Civil Engineering from Jorhat Engineering College.

PhD Dissertation

Title: A Study on Measuring Methodologies and Critical Parameters Influencing Soil Suction-Water Content Relationship.
Supervisor: Dr. Sreedeeep, S., Professor, IIT Guwahati.

ME Dissertation

Title: Estimation of Overconsolidation Ratio of Saturated Uncemented Clays from Simple Parameters.
Supervisor: Dr. P. K. Bora, Professor, Assam Engineering College.

Professional Experience

Professor, Assam Engineering College (February 2020 - Till now).
Associate Professor, Assam Engineering College (February 2017 - February 2020).
Assistant Professor, Assam Engineering College (August 2006 - February 2017).
Lecturer, Assam Engineering College (August 1995 - July 2006).

Research Interest

Behavioral studies on unsaturated porous media
Characterization of soil
Characterization of waste soil
Waste containment and management
Contaminant transport studies

Professional Membership

Indian Geotechnical Society (ID: LM 2261).
International Society of Soil Mechanics and Geotechnical Engineering (ID: IND14LM-2261).

Publications

National Journal Paper

1. Malaya, C. and Sreedeeep, S. (2016). "Effect of fertilizers and fly ash addition on suction-water content relationship of a sandy soil", *Indian Geotechnical Journal*, Vol. 46, Issue 3, DOI: 10.1007/s40098-015-0174-2.
2. Malaya, C. and Sreedeeep, S. (2015). "Determination of water retention and unsaturated hydraulic conductivity of Brahmaputra sand", *Journal on Civil Engineering*, i-manager Publication, Vol. 5, Issue 4, pp. 14-20.
3. Mohamed, Y., Malaya, C., and Sreedeeep, S. (2012). "Evaluation of hydraulic conductivity of fly ash-bentonite clay liner", *Journal of Environmental Research and Development*, G.SEED.
4. Malaya, C. and Sreedeeep, S. (2011). "A study on the change in SWCC parameters of a local soil due to fly ash addition", *Journal of Environmental Research and Development*, G.SEED, Vol. 5, No. 4, pp. 972-977.
5. Malaya, C. and Sreedeeep, S. (2010). "An investigation on influence of soil additives on tensiometric measurements in soil", *Journal of Environmental Research and Development*, G.SEED, Vol. 5, No. 2, pp. 300-307.
6. Malaya, C. and Bora, P.K. (1998). "Estimation of overconsolidation ratio of saturated uncemented clays from simple parameters", *Indian Geotechnical Journal*, Vol. 28, No. 2, pp. 177-194.

International Journal Paper

7. Nazrul, I., Tinku, K. and Malaya, C. (2022). "Effect of tire buffings addition on compaction properties of bentonite-sand, bentonite-rock dust, and bentonite-sand-rock dust mixes", *International Journal for Research in Applied Science and Engineering Technology*, Vol. 10, Issue VI.
8. Malaya, C. and Sreedeeep, S. (2016). "Evaluation of different laboratory procedures for determining suction-water content relationship of cohesionless geomaterials", *Journal of Materials in Civil Engineering*, Vol. 28, Issue 2, DOI: 10.1061/(ASCE)MT.1943-5533.0001399, 04015123.
9. Rupam, S. and Malaya, C. (2014). "Soil liquefaction potential studies of Guwahati city - A critical review", *International Journal of Innovative Research in Science, Engineering and Technology*, Vol. 3, Issue 5, pp. 1333-1338.
10. Rupam, S. and Malaya, C. (2014). "Critical review on the parameters influencing liquefaction of soils", *International Journal of Innovative Research in Science, Engineering and Technology*, Vol. 3, Special issue 4, pp. 111-116.
11. Malaya, C. and Sreedeeep, S. (2013). "A study on unsaturated hydraulic conductivity of hill soil of north-east India", *ISH Journal of Hydraulic Engineering*, Taylor & Francis, London, UK, Vol. 19, No. 3, pp. 276-281.
12. Abhijit, D., Malaya, C. and Sreedeeep, S. (2013). "A study on tensiometer measurements in salt laden soil used for irrigation scheduling", *Journal of Geotechnical and Geological Engineering*, Springer, Vol. 31, No. 4, pp. 1349-1357.
13. Malaya, C. and Sreedeeep, S. (2012). "Critical review on the parameters influencing soil-water characteristic curve", *Journal of Irrigation and Drainage Engineering*, ASCE, Vol. 138, No. 1, page count: 8.
14. Malaya, C. and Sreedeeep, S. (2012). "Critical evaluation on the drying water retention characteristics of a class F Indian fly ash", *Journal of Materials in Civil Engineering*, ASCE, Vol. 24, No. 4, page count: 9.

15. Malaya, C. and Sreedeeep, S. (2011). "A laboratory procedure for measuring high soil suction", *Geotechnical Testing Journal*, ASTM, Vol. 34, No. 5, page count: 11.
15. Malaya, C. and Sreedeeep, S. (2010). "A study on the influence of measuring procedures on suction-water content relationship of a sandy soil", *Journal of Testing and Evaluation*, ASTM, Vol. 38, No. 6, pp. 1-9.
16. Ankit, G., Malaya, C. and Sreedeeep, S. (2010). "A study on the influence of soil-water characteristic curve on the seepage modeling of unsaturated soil", *International Journal of Earth Sciences and Engineering*, Vol. 3, No. 2, pp. 40-46.

National Conference Paper

17. Nazrul, I., Tinku, K. and Malaya, C. (2020). "Effect of tyre waste addition on UCS of bentonite-sand and bentonite-rock quarry dust mixes", *Indian Geotechnical Conference*, Visakhapatnam.
18. Sudhir, K.T., Malaya, C., Taslima, N. and Kaniska, T. (2020). "Consolidation: Critical appraisal of settlement versus rate of settlement (SRS) approach with fuzzy logic", *Indian Geotechnical Conference*, Visakhapatnam.
19. Dipankar, D., Tinku, K. and Malaya, C. (2018). "Influence of strain rate on unconfined compressive strength of bentonite and sand mixes", *Indian Geotechnical Conference*, Indian Institute of Science, Bengaluru, India.
20. Dipankar, D. and Malaya, C. (2018). "Influence of strain rate on compressive strength of sand-bentonite mixture", *National Conference on Advances in Civil and Infrastructure Engineering*, Tezpur University, Assam, India.
21. Hemanga, D. and Malaya, C. (2018). "Unconfined compressive strength of bentonite-quarry dust mixes", *National Conference on Advances in Civil and Infrastructure Engineering*, Tezpur University, Assam, India.
22. Jitendra, D. and Malaya, C. (2018). "Shear behaviour of bentonite-quarry dust mixes", *National Conference on Advances in Civil and Infrastructure Engineering*, Tezpur University, Assam, India.
23. Natasha, K. and Malaya, C. (2018). "A study on shear strength of rock quarry dust", *National Conference on Advances in Civil and Infrastructure Engineering*, Tezpur University, Assam, India.
24. Tinku, K. and Malaya, C. (2018). "Critical review on the factors influencing unconfined compressive strength of soil", *National Conference on Advances in Civil and Infrastructure Engineering*, Tezpur University, Assam, India.
25. Prasanty, B., Malaya, C. and Sridharan, A. (2016). "Shear strength behavior of sand-tyre and rock quarry dust-tyre waste mixes", *Indian Geotechnical Conference*, IIT Madras, Chennai, India.
26. Prasanty, B., Malaya, C. and Sridharan, A. (2016). "Factors influencing shear strength of sand-tyre waste mixtures", *The 1st International Conference on Civil Engineering for Sustainable Development - Opportunities and Challenges*, Assam Engineering College, Guwahati, India.
27. Manash, B., Malaya, C. and Sridharan, A. (2016). "Influence of sand and rock quarry dust addition on compaction properties of clay", *The 1st International Conference on Civil Engineering for Sustainable Development - Opportunities and Challenges*, Assam Engineering College, Guwahati, India.
28. Manash, B. and Malaya, C. (2016). "A comparative study on compaction characteristics of bentonite-sand and bentonite-quarry dust mix", *NES Geo-Congress*, National Institute of Technology, Agartala, India.

29. Rimzim, L. and Malaya, C. (2016). "Effect of density on unsaturated hydraulic conductivity of soils", NES Geo-Congress, National Institute of Technology, Agartala, India.
30. Manash, B. and Malaya, C. (2015). "Influence of grain size of quarry dust on compaction characteristics of clay-quarry dust mix", Indian Geotechnical Conference, Pune, India.
31. Manash, B. and Malaya, C. (2014). "Influence of grain size of sand on the compaction characteristics of clay-sand mixes", NES Geo-Congress, Indian Institute of Technology, Guwahati.
32. Manash, B., Malaya, C. and Sridharan, A. (2014). "A comparative study on the compaction characteristics of clay-sand mix and clay-quarry dust mix", Indian Geotechnical Conference, Kakinada, India.
33. Rupam, S. and Malaya, C. (2014). "A study on the influence of particle shape on suction-water content relationship", Indian Geotechnical Conference, Kakinada, India.
34. Malaya, C., Ankit, G. and Sreedeeep, S. (2013). "Influence of drying and wetting soil-water characteristic curves on seepage modeling of soil", Hydro 2013 International, IIT Madras, India.
35. Rupam, S. and Malaya, C. (2013). "Critical review on the parameters influencing liquefaction of soils", National Conference on Recent Advances in Civil Engineering, North Eastern Regional Institute of Science and Technology, Arunachal Pradesh, India.
36. Koustuvee, K., Malaya, C. and Sridharan, A. (2013). "Shear strength behavior of quarry dust-sand mix", Indian Geotechnical Conference, Roorkee, India.
37. Koustuvee, K., Sridharan, A., Chinmoy, K., Rahul, D. and Malaya, C. (2013). "A study on the influence of particle characteristics on shear strength behavior of quarry dust", Indian Geotechnical Conference, Roorkee, India.
38. Rimjhim, K., Susmita, B. and Malaya, C. (2013). "Application of remote sensing in soil mapping - A review", North East Geo-Congress, Assam Engineering College, Guwahati, India.
39. Chinumani, C. and Malaya, C. (2013). "A study on hygroscopic water content and residual water content of soils", Indian Geotechnical Conference, Roorkee, India.
40. Malaya, C. and Sreedeeep, S. (2013). "Comparison of suction measurements using two low cost methodologies", Indian Geotechnical Conference, Roorkee, India.
41. Malaya, C. and Sreedeeep, S. (2013). "Correlation between grain size distribution curve and unsaturated hydraulic conductivity curve of soils", Indian Geotechnical Conference, Roorkee, India.
42. Malaya, C. and Sreedeeep, S. (2012). "Estimated unsaturated hydraulic conductivity of hill soil of North-East India", National Conference on Hydraulic and Water Resources, Civil Engineering Department, Indian Institute of Technology Bombay, Maharashtra, India.
43. Malaya, C. and Sreedeeep, S. (2012). "A study on the influence of soil-moisture measuring methodologies on SWCC", Indian Geotechnical Conference, IIT Delhi, India.
44. Malaya, C. and Sreedeeep, S. (2012). "Factors affecting suction-water content relationship of a locally available soil", Indian Geotechnical Conference, IIT Delhi, India.
45. Abhijit, D., Malaya, C., Srikanth, V. and Sreedeeep, S. (2012). "Comparison of suction measurement technique for class F fly ash", Indian Geotechnical Conference, IIT Delhi, India.
46. Chinumani, C. and Malaya, C. (2012). "A study on correlation between specific surface area and soil-water characteristic curve", Indian Geotechnical Conference, IIT Delhi, India.
47. Chinumani, C. and Malaya, C. (2012). "Specific surface area and its influence on soil-water characteristic curve", International Conference on Solid Waste Management, Mysore, Karnataka, India.

48. Ellora, K. and Malaya, C. (2012). "A study on the relationship between water content at air-entry value and shrinkage limit of soil", Indian Geotechnical Conference, IIT Delhi, India.
49. Malaya, C. and Sreedeeep, S. (2012). "Determination of water retention and unsaturated hydraulic conductivity of an Indian fly ash", National Conference on Recent Developments in Civil Engineering, Civil Engineering Department, SRM University, Tamil Nadu, India.
50. Malaya, C. and Sreedeeep, S. (2012). "A critical review on soil-water retention curve", National Conference on Advances in Civil Engineering, Civil Engineering Department, Vasavi College of Engineering, Hyderabad, India.
51. Malaya, C., Abhijit, D. and Sreedeeep, S. (2011). "Evaluation of estimated suction-water content relationship of a locally available soil", Indian Geotechnical Conference, Kochi, India.
52. Malaya, C. and Sreedeeep, S. (2011). "Recent developments in the measurement of wetting SWCC", National Conference on Recent Advances in Civil Engineering, Banaras Hindu University, Varanasi, India, pp. 290-293.
53. Malaya, C., Srikanth, V. and Sreedeeep, S. (2011). "A cost effective methodology for measuring high suction in soils", Indian Geotechnical Conference, Kochi, India.
54. Malaya, C. and Sreedeeep, S. (2010). "A study on wetting soil-water characteristic curve of a poorly graded sandy soil", Indian Geotechnical Conference, Indian Institute of Technology Bombay, Mumbai, India.
55. Malaya, C. and Sreedeeep, S. (2010). "Effect of fly ash on soil-water characteristic curve of a locally available soil", Fourth International Conference on Plants and Environmental Pollution, National Botanical Research Institute, Lucknow, India.
56. Malaya, C. and Sreedeeep, S. (2010). "Influence of admixture on soil-water characteristic curve of a sandy soil", National Conference on Sustainable Water Resources Management and Impact of Climate Change, BITS-Pilani, Hyderabad.
57. Malaya, C. and Sreedeeep, S. (2009). "An investigation on the effect of initial density on drying soil-water characteristic curve of a cohesionless soil", Student Symposium on Research in Civil Engineering, Indian Institute of Technology Madras, Chennai.
58. Malaya, C. and Sreedeeep, S. (2009). "A comparative study on the measured and estimated soil-water characteristic curve of a sandy soil", Indian Geotechnical Conference, Guntur, pp. 23-26.

International Conference Paper

57. Hemanga, D., Tinku, K. and Malaya, C. (2019). "Factors influencing unconfined compressive strength of bentonite-rock quarry dust mixes", International Association for Computer Methods and Advances in Geomechanics Symposium 2019, Indian Institute of Technology, Gandhinagar, India.
58. Hemanga, D., Tinku, K. and Malaya, C. (2018). "Compaction and strength characteristics of bentonite-sand-rock quarry dust mixes", International Conference on Infrastructure Development, Jorhat Engineering College, Assam, India.
59. Natasha, K. and Malaya, C. (2018). "Shear strength of rock quarry dust and sand mix", First International Conference on Emerging Trends in Civil Engineering, Srinivasa Ramanujan Institute of Technology, Andhra Pradesh, India.
60. Malaya, C., Manash, B. and Sridharan, A. (2017). "Effect of quarry dust on compaction characteristics of clay", GeoMEast, Sharm El-Sheik, Egypt.
61. Malaya, C. and Sridharan, A. (2016). "A review on influence of rock quarry dust on geotechnical properties of soil", Geo-Chicago, Chicago, US.

62. Binu, S. and Malaya, C. (2015). "Deterministic and probabilistic liquefaction potential evaluation of Guwahati city", The 15th Asian Regional Conference on Soil Mechanics and Geotechnical Engineering, Japanese Geotechnical Society Special Publication, Vol. 2, No. 22, pp. 823-828, <http://doi.org/10.3208/jgssp.IND-32>.
63. Malaya, C. and Sreedeeep, S. (2014). "A study on the influence of fly ash addition on water retention characteristics of soil", Geo-Congress, Atlanta, Georgia, US.
64. Malaya, C. and Sreedeeep, S. (2014). "Influence of range of suction measurement on soil-water characteristic curve", Geo-Congress, Atlanta, Georgia, US.
65. Koustuvee, K., Sridharan, A. and Malaya, C. (2014). "An investigation on the influence of grain shape and size on the shear strength of cohesionless soils", Geo-Congress, Atlanta, Georgia, US.
66. Malaya, C., Abhijit, D. and Sreedeeep, S. (2011). "A study on the influence of measuring methodologies on soil-water characteristic curve of a locally available soil", Third International Postgraduate Conference on Infrastructure and Environment, The Hong Kong Polytechnic University, Hong Kong.
67. Ellora, K. and Malaya, C. (2012). "A study on the influence of Atterberg limits on soil-water characteristic curve", International Conference on Solid Waste Management, Mysore, Karnataka, India.
68. Malaya, C., Abhijit, D. and Sreedeeep, S. (2012). "Parameterization of drying water retention characteristics of fly ash-soil mix", International Conference on Solid Waste Management, Mysore, Karnataka, India.
69. Malaya, C. and Sreedeeep, S. (2012). "Suction-water content relationship for hill soil of North-East India", International Conference on Environmentally Sustainable Urban Ecosystems, Civil Engineering Department, Indian Institute of Technology Guwahati, Assam, India.
70. Malaya, C. and Sreedeeep, S. (2011). "Effect of measurement procedures on water retention characteristics of sand-fly ash admixture", International Conference on Advances in Civil Engineering, K L University, Vijayawada, India
71. Malaya, C. and Sreedeeep, S. (2010). "Performance evaluation of tensiometer response in contaminated Soil", Sixth International Congress on Environmental Geotechnics, New Delhi, India.
72. Malaya, C. and Sreedeeep, S. (2010). "Influence of soil properties on soil-water characteristic curve", Sixth International Congress on Environmental Geotechnics, New Delhi, India.
73. Malaya, C. and Sreedeeep, S. (2010). "A study on water retention characteristics of fly ash", Ninth International Conference on Hydro-Science and Engineering, Indian Institute of Technology Madras, Chennai.
74. Mohamed, Y., Malaya, C., and Sreedeeep, S. (2010). "Evaluation of hydraulic conductivity of fly ash-bentonite clay liner", Third International Conference on Environmental Research, University of Mauritius, Reduit, Mauritius.
75. Malaya, C. and Sreedeeep, S. (2010). "Evaluation of estimated soil-water characteristic curve for a poorly graded sandy soil", Third International Perspective on Current and Future State of Water Resources and the Environment, EWRI, ASCE, Indian Institute of Technology Madras, Chennai.
76. Malaya, C. and Sreedeeep, S. (2010). "An investigation on the effect of initial water content and dry density on drying soil-water characteristic curve of a cohesionless soil." Fifth International Conference on Unsaturated Soils, Barcelona, Spain.
77. Malaya, C. and Sreedeeep, S. (2010). "Evaluation of SWCC model and estimation procedure for soil and fly ash", World Environment and Water Resources Congress, ASCE, Providence, Rhode Island.

78. Ankit, G., Malaya, C. and Sreedeeep, S. (2010). "Influence of different procedures for establishing suction-water content relationship on seepage modeling in unsaturated soils", Sixth International Congress on Environmental Geotechnics, New Delhi, India.
79. Abhijit, D., Malaya, C. and Sreedeeep, S. (2010). "Fly ash water retention with reference to agricultural application", Fourth International Conference on Plants and Environmental Pollution, National Botanical Research Institute, Lucknow, India.
80. Malaya, C. and Sreedeeep, S. (2010). "A study on the influence of unit weight on tensiometric measurement", World Environment and Water Resources Congress, ASCE, Providence, Rode Island.
81. Malaya, C. and Sreedeeep, S. "Effect of fly ash on soil-water characteristic curve of a locally available soil", Sixteenth Asian Agricultural Symposium, Bangkok, Thailand.
82. Malaya, C. and Sreedeeep, S. (2010). "A study on the change in SWCC parameters of a local soil due to fly ash addition", Third International Conference on Environmental Research, University of Mauritius, Reduit, Mauritius.
83. Malaya, C. and Sreedeeep, S. (2010). "An investigation on the influence of soil additives on tensiometric measurements in soil", Third International Conference on Environmental Research, University of Mauritius, Reduit, Mauritius.
84. Malaya, C. and Sreedeeep, S. (2010). "Recent development in the measurement of soil suction", Fourth International Perspective on Water Resources and the Environment, IPWE-2011, EWRI, ASCE, National University of Singapore, Singapore.
85. Malaya, C. and Sreedeeep, S. (2010). "A study on drying and wetting water retention curve of a fly ash", Fourth International Perspective on Water Resources and the Environment, IPWE-2011, EWRI, ASCE, National University of Singapore, Singapore.
86. Malaya, C. and Sreedeeep, S. (2010). "Suction-water content relation of sand-fly ash mixture", Fourth International Conference on Plants and Environmental Pollution, National Botanical Research Institute, Lucknow, India.
87. Ankit, G., Malaya, C. and Sreedeeep, S. (2009). "A study on the influence of soil-water characteristic curve on the seepage modeling of unsaturated soil", International Conference on Advances in Concrete, Structural and Geotechnical Engineering, BITS Pilani, India.

In Books

88. Nazrul, I., Tinku, K. and Malaya, C. (2022). "Effect of tyre waste addition on UCS of bentonite-sand and bentonite-rock quarry dust mixes", In: Satyanarayana Reddy C.N.V., Muthukkumaran K., Satyam N., Vaidya R. (eds) Ground Characterization and Foundations. Lecture Notes in Civil Engineering, Vol. 167. Springer, Singapore. https://doi.org/10.1007/978-981-16-3383-6_36.
89. Sudhir, K.T., Malaya, C., Taslima, N. and Kaniska, T. (2022). "Consolidation: Critical appraisal of settlement versus rate of settlement (SRS) approach with fuzzy logic", In: Satyanarayana Reddy C.N.V., Muthukkumaran K., Satyam N., Vaidya R. (eds) Ground Characterization and Foundations. Lecture Notes in Civil Engineering, Vol. 167. Springer, Singapore. https://doi.org/10.1007/978-981-16-3383-6_37.
90. Natasha, K. and Malaya, C. (2020). "Shear strength of rock quarry dust and sand mix. In: Babu K., Rao H., Amarnath Y. (eds) Emerging Trends in Civil Engineering. Lecture Notes in Civil Engineering, Vol. 61. Springer, Singapore. https://doi.org/10.1007/978-981-15-1404-3_1.
91. Hemanga, D., Tinku, K. and Malaya, C. (2020). "Compaction and strength characteristics of bentonite - rock quarry dust mixtures", In: Prashant A., Sachan A., Desai C. (eds) Advances in Computer Methods and Geomechanics. Lecture Notes in

Civil Engineering, Vol. 56. Springer, Singapore. https://doi.org/10.1007/978-981-15-0890-5_11.

92. Dipankar, D., Tinku, K. and Malaya, C. (2020). "Influence of strain rate on unconfined compressive strength of bentonite and sand mixes", In: Latha Gali M., P.R.R. (eds) Geotechnical Characterization and Modelling. Lecture Notes in Civil Engineering, Vol. 85. Springer, Singapore. https://doi.org/10.1007/978-981-15-6086-6_16.
93. Malaya, C., Manash, B. and Sridharan, A. (2018). "Effect of quarry dust on compaction characteristics of clay", In: Singh D., Galaa A. (eds) Contemporary Issues in Geoenvironmental Engineering, Sustainable Civil Infrastructures, Springer, Cham.
94. Malaya, C. and Sreedeeep, S. (2015). "Suction-water content relationship for hill soil of North-East India" Water Science and Technology Library: Urban Hydrology, Watershed Management & Socio-Economic Aspects, Springer Book Series.
95. Malaya, C. and Sreedeeep, S. (2010). "Sustainable Water Resources Management and Impact of Climate Change", Raju & Vasana (eds), BS Publications, Sultan Bazar, Hyderabad, ISBN: 978-81-7800-226-2.
96. Malaya, C. and Sreedeeep, S. (2010). "Unsaturated Soils", Barcelona, Alonso & Gens (eds), Taylor & Francis Group, London, ISBN 978-0-415-60428-4.

Conference Attended and Paper Presented

1. Indian Geotechnical Conference (2020), Andhra University College of Engineering, Visakhapatnam, Andhra Pradesh, India
2. National Conference on Advances in Civil and Infrastructure Engineering (2018), Tezpur University, Assam, India.
3. GeoMEast-2017, Sharm El-Sheik, Egypt.
4. Indian Geotechnical Conference (2017), IIT Guwahati, Assam, India.
5. Geo-Congress-2014, Atlanta, Georgia, US.
6. International Conference on Environmentally Sustainable Urban Ecosystems (2012), Civil Engineering Department, Indian Institute of Technology Guwahati, Assam, India.
7. Indian Geotechnical Conference (2011), Kochi, India.
8. Sixth International Congress on Environmental Geotechnics (2010), New Delhi, India.

Achievements

1. Recognized as a NPTEL Believer in Jan-April 2022 by NPTEL.
2. Recognized as a NPTEL Discipline Star in 2020 by NPTEL.
3. Recognized as a NPTEL Enthusiast in December 2020 by NPTEL.
4. Recognized as the Top Performing Mentor by NPTEL in 2019.
5. Travel Grant awarded by the Department of Science and Technology for attending GeoMEast-2017 at Sharm El-Sheik, Egypt.
6. Travel Grant awarded by the University Grants Commission for attending Geo-Congress-2014 at Atlanta, Georgia, US.
7. Summer Research Fellowship of Indian Academy of Sciences awarded in 2014.

Academics: Subjects Taught

Postgraduate

1. Environmental geotechnics, 2. Geotechnical in-situ testing and instrumentation, 3. Soil dynamics and earthquake engineering, 4. System optimization technique.

Undergraduate

1. Advanced surveying, 2. Building construction and professional practice, 3. Engineering graphics, 4. Engineering surveying, 5. Environmental engineering, 6. Foundation engineering, 7. Geotechnical Engineering-I, 8. Geotechnical Engineering-II, 9. Strength of materials, 10. System analysis and design, 11. Theory of structures, 12. Transportation engineering, 12. Optimization techniques, 13. Geotechnical in-situ testing.

NPTEL Course Completed

Sl. No.	Name of the course	Duration (Week)	FDP (Week)	Score (%)	Type of Certificate
1	Unsaturated Soil Mechanics	12 Jul-Oct 2018	1.5	73	Elite + Silver
2	Geotechnical Engineering II Foundation Engineering	12 Jan-April 2019	-	63	Elite
3	Subsurface Exploration: Importance and Techniques Involved	8 Feb-April 2019	1	81	Elite + Silver
4	Teaching and Learning in Engineering	4 Feb-March 2019	0.5	82	Elite + Silver
5	Environmental Geotechnics	12 Jul-Oct 2019	-	58	Successfully Completed
6	Geotechnical Engineering Laboratory	4 Jul-Aug 2019	0.5	93	Elite + Gold (Topper)
7	Stress Management	4 Jul-Aug 2019	0.5	64	Elite
8	Environmental Geomechanics	12 Jan-April 2020	1.5	96	Passed
9	Geotechnical Engineering - 1	12 Jan-April 2020	-	100	Passed
10	Project Planning and Control	8 Sep-Nov 2020	1	72	Elite
11	Soil Mechanics/ Geotechnical Engineering I	12 Sep-Dec 2020	-	88	Elite
12	Geotechnical Engineering Laboratory	4 Sep-Oct 2020	0.5	96	Elite + Gold (Topper)
13	Project Planning and Control	8 July-Sept 2021	1	93	Elite + Gold
14	Effective Writing	4 Jan-Feb 2022	0.5	64	Successfully Completed
15	Expansive Soil	8 Jan-Mar 2022	1	86	Elite + Silver
16	Ethics in Engineering Practice	8 Feb-April 2022	1	68	Elite
17	Course on Geotechnical Engineering -1	12 Jan-April 2022	-	96	Elite + Gold (Topper)

Short Term Course Attended

Sl. No.	Name of the Course	Date	Place	Duration (Day)	Sponsoring Agency
1	Industrial Training in Additive Manufacturing and its Applications (FDP)	2 nd to 15 th Feb 2022	NIELIT Calicut	10	NIELIT
2	Introduction to Finite Element Method in Engineering (STTP)	7 th to 18 th Feb 2022	NITTTR Kolkata	10	NITTTR
3	Bioengineering: A New Dimension Towards Multidisciplinary Research (FDP)	4 th to 16 th July 2022	Assam Don Bosco University Guwahati	10	AICTE
4	Shallow and Deep Foundations (FDP)	25 th Jan to 6 th Feb 2021	Andhra University College of Engineering	10	AQIS
5	Classical and Metaheuristic Optimization Methods for Engineering Planning and Design (STC)	22 nd to 26 th Feb 2021	IITG	5	TEQIP
6	Geotechnical Investigations in Civil Engineering (TTP)	26 th to 30 th April 2021	Chhattisgarh Swami Vivekanand Technical University Bhilai	5	AICTE
7	Soil Exploration (STC)	2 nd July to 7 th Aug 2021	Indian Geotechnical Society	10 (Sat Days & Sun Days)	IGS
8	Outcome Based Education and Bloom's Taxonomy (FDP)	8 th to 15 th Nov 2021	Ramakrishna Mission Vivekananda Centenary College Kolkata	06	IPSR
9	Outcome Based Education (FDP)	22 nd to 27 th Nov 2021	Auxilium College Vellore	06	IPSR
10	Laboratory Testing of Soil (STTP)	20 th to 24 th Dec 2021	NITTTR Kolkata	05	NITTTR

11	Sustainable Environment - An Engineering Perspective, 2020 (FDP)	13 th to 18 th July 2020	Assam Engineering College	06	TEQIP-III
12	Disaster Management Mitigation and Responses, 2020 (FDP)	10 th to 14 th Aug 2020	Assam Engineering College	05	TEQIP-III
13	Psychology in Education (FDP)	27 th Jan to 1 st Feb 2020	Assam Engineering College	05	TEQIP-III
14	Industrial and Fire Safety Engineering (FDP)	4 th to 8 th November 2019	Assam Engineering College	05	TEQIP-III
15	Faculty Induction Workshop (W)	3 rd to 7 th July 2018	IIT Kharagpur	05	Continuing Cell IIT Kharagpur
16	Sustainable Solid Waste Management Practices (FDP)	31 st Aug to 1 st Sept 2017	Assam Engineering College	02	AICTE
17	Pedagogy (W)	5 th to 6 th May 2017	Assam Engineering College	02	AICTE-NEQIP
18	Challenges and Recent Advances in Geotechnical Engineering Research and Practices (STC)	9 th to 13 th March 2015	IIT Guwahati	05	AICTE
19	Geotechnical Engineering Practices and Developments (STC)	6 th to 10 th Jan 2014	IIT Guwahati	05	AICTE
20	Engineering Optimization using Matlab and Excel (QIP)	29 th Feb to 2 nd Mar 2012	IIT Guwahati	03	AICTE
21	Use and Development of Web and Video Courses for Enriching Technical Education (W)	4 th to 5 th Nov 2011	IIT Guwahati	02	MHRD
22	Role of Environmental Geotechnology in Waste Management (QIP)	2 nd to 6 th Nov 2009	IIT Guwahati	05	AICTE
23	Computer Aided Traffic Engineering	24 th to 28 th Nov 2008	IIT Guwahati	05	AICTE

	Analysis and Design (STC)				
24	Earthquake Hazard and Mitigation (W)	7 th to 8 th Dec 2007	IIT Guwahati	02	IIT Guwahati
25	Use and Development of Web and Video Courses for Enriching Engineering Education (W)	20 th to 21 st May 2007	IIT Guwahati	02	NPTEL
26	Seismic Soil-Structure Interaction (STT)	2 nd to 6 th Dec 2006	IIT Guwahati	05	NPEEE
27	Earthquake Engineering (TC)	19 th Jun to 7 th July 2006	IIT Guwahati	19	Ministry of Home Affairs, Govt. of India
28	Earthquake Engineering (TC)	8 th May to 24 th May 2006	IIT Guwahati	17	Ministry of Home Affairs, Govt. of India
29	Probabilistic Seismic Hazard Assessment and Structural Design (STT)	5 th Jun to 9 th Jun 2006	IIT Guwahati	05	NPEEE
30	Seismic Behaviour of Ground and Geotechnical Structures (STT)	12 th to 16 th Dec 2005	IIT Guwahati	05	NPEEE
31	Geotechnical Earthquake Engineering (STT)	31 st May to 4 th Jun 2004	IIT Guwahati	05	NPEEE
32	GIS and Remote Sensing Application in Water Resources (STC)	1 st to 5 th Dec 2003	IIT Guwahati	05	AICTE
33	Geotechnical Aspects in Design of Foundation Structures-Modern Trends (STC)	20 th March to 2 nd April 1998	Assam Engineering College	14	ISTE
34	Advances on Water Pollution Control (WS)	20 th Jan to 2 nd Feb 1997	Assam Engineering College	14	AICTE
FDP: Faculty Development Programme; QIP: Quality Improvement Programme; STC: Short Term Course; STT: Short Term Training; TC: Training Course; W: Workshop; WS: Winter School					

Collaborative Research Project

Title: Performance Improvement of the Clay Soil using Rock Quarry Dust

Participating Institutes: IIT Indore and Assam Engineering College

PI & Co-PI: Dr. Lalit Borana, IIT Indore & Dr. Malaya Chetia, Assam Engineering College

Year: 2019-2021

Others

Acted as an External Expert of the Selection Committee for selecting PhD students in AcSIR PhD Program, Jan 2022 and Aug 2022 sessions.