

Dr. Malaya Chetia

Assistant Professor

Civil Engineering Department

Assam Engineering College

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Guwahati -781013, Assam, India.



Education

Ph. D. in Geotechnical Engineering, IIT Guwahati

M. E. in Soil Mechanics and Foundation Engineering, Assam Engineering College

B. E. in Civil Engineering, Jorhat Engineering College

Professional Experience

Assistant Professor, Assam Engineering College (August 2006 - Till date)

Lecturer, Assam Engineering College (August 1995 – July 2006)

Research Interest

Characterization of soil

Characterization of waste soil

Waste containment and management

Contaminant transport studies

Geohazard management

Professional Membership

Life member of Indian Geotechnical Society (**Membership number: LM 2261**)

Publications

Journal Paper

1. 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.
2. 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.
3. Malaya, C. and Sreedeeep, S. (2012). “Determination of water retention and unsaturated hydraulic conductivity of Brahmaputra sand”, Journal on Civil Engineering, i-manager Publication, In Press.

4. 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, In Press.
5. 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.
6. 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.
7. 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.
8. 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.
9. 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.
10. 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.

Conference Paper

11. 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.
12. Malaya, C. and Sreedeeep, S. (2012). "A study on the influence of soil-moisture measuring methodologies on SWCC", Indian Geotechnical Conference, IIT Delhi, India.
13. Malaya, C. and Sreedeeep, S. (2012). "Factors affecting suction-water content relationship of a locally available soil", Indian Geotechnical Conference, IIT Delhi, India.
14. 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.
15. 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.
16. 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.
17. Ellora, K. and Malaya, C. (2012). "A study on the relationship between water content at air-entry value and shrinkage limit of soil", Full paper submitted for Indian Geotechnical Conference, IIT Delhi, India.
18. 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.
19. 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.
20. 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.

21. 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.
22. 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.
23. 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.
24. 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.
25. 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.
26. 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.
27. Malaya, C., Srikanth, V., and Sreedeeep, S. (2011). "A cost effective methodology for measuring high suction in soils", Indian Geotechnical Conference, Kochi, India.
28. 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, Rhode Island.
29. Malaya, C. and Sreedeeep, S. (2010). "Performance evaluation of tensiometer response in contaminated Soil", Sixth International Congress on Environmental Geotechnics, New Delhi, India.
30. Malaya, C. and Sreedeeep, S. (2010). "Influence of soil properties on soil-water characteristic curve", Sixth International Congress on Environmental Geotechnics, New Delhi, India.
31. 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.
32. 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.
33. 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.
34. 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.
35. 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.
36. 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.
37. 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.
38. 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.

39. 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.
40. 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.
41. 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.
42. 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.
43. 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.
44. 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.
45. 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.
46. 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.
47. 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.
48. 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.
49. 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.

In Books

1. Malaya, C. and Sreedeeep, S. (2010). "Sustainable Water Resources Management and Impact of Climate Change", Raju & Vasan (eds), BS Publications, Sultan Bazar, Hyderabad, ISBN: 978-81-7800-226-2.
2. 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. International Conference on Environmentally Sustainable Urban Ecosystems (2012), Civil Engineering Department, Indian Institute of Technology Guwahati, Assam, India.
2. Indian Geotechnical Conference (2011), Kochi, India.
3. Sixth International Congress on Environmental Geotechnics (2010), New Delhi, India.

Academics

Subjects Taught

M. E.

Environmental geotechnics, Soil dynamics and earthquake engineering, System optimization technique.

B. E.

Advanced surveying, Building construction and professional practice, Engineering graphics, Engineering surveying, Environmental engineering, Foundation engineering, Strength of materials, System analysis and design, Theory of structures, Transportation engineering.

Project Guidance

M. E.

S. No.	Name of the student	Year of passing	Title of the project
1	Ms. Ellora Kalita	2012	A study on the influence of Atterberg limits on soil-water characteristic curve
2	Ms. Chinumani Choudhury	2012	A study on soil-water characteristic curve and its correlation with specific surface area

Achievements

1. Assam Govt. Scholarship obtained during M. E. course (1993-1995).
2. Secured 1st class 5th position with Honours in B. E..
3. Assam Govt. Combined Merit Scholarship obtained during B. E. course (1988-1992).
4. Secured star mark in High School Leaving Certificate Examination in 1986.
5. National Merit Scholarship obtained from Class XI to XII.
6. Assam Govt. Merit Scholarship obtained from Class VIII to X.
7. Assam Govt. Merit Scholarship obtained from Class V to VII.

Others

1. Life member of Assam Sishu Kalyan Sadan Sundorbori, Jalukbari, Guwahati-781014.
2. Financial supporter of a girl child of Assam Sishu Kalyan Sadan Sundorbori who is a student of G.U. Model School.