

RESUME

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Date of Birth 27th May 1971



Details of Academic Qualifications

Examination	Institution	Year of passing	Percentage of marks	Division
B.E. (Civil Engg.)	Utkal University, Orissa.	1993	79	First (Hons.)
M.E. (Soil Mechanics & Foundation Engg.)	National Institute of Technology Rourkela	1996	75	Not awarded
PhD in the area of Geotechnical Engg.	Indian Institute of Technology Madras, Chennai.	2001	Degree by Research	

Professional Experience

- Professor, Department of Civil Engineering IIT Kharagpur, January 2018-till date.
- Associate Professor, Department of Civil Engineering IIT Kharagpur, May 2012-Jan 2018.
- Associate Professor, Department of Civil Engineering IIT Guwahati, May 2007-May 2012.
- Visiting Fellow, Centre for Geomechanics and Railway Engineering at University of Wollongong, Australia, Dec. 2009-June 2010.
- Assistant Professor, Department of Civil Engineering IIT Guwahati, August 2003 – May 2007.
- Lecturer, Department of Civil Engineering University College of Engineering Burla, India, September 2002 - August 2003.
- Post-doctoral Research Associate, Department of Civil Engineering, Indian Institute of Science Bangalore, November 2001 - August 2002.
- Project Associate, Department of Civil Engineering, IIT Madras, Chennai, February 1996 - July 1996.

Research Interests

Reinforced soil structures, Shallow foundations, Railway Geotechnical Engineering, Seismic soil liquefaction.

Courses Taught

Soil Mechanics, Advanced Foundation Engineering, Design of Reinforced Soil Structures, Rail Track Engineering, Engineering Drawing

List of Publications

Scopus: Citations: 943, *h*-index: 16

Google scholar: Citations: 1518, *h*-index: 19, *i10*-index: 23

Refereed Journals

1. Choudhary, A.K., and **Dash S.K.** (2018). Pullout Behaviour of Vertical Plate Anchor in Granular Soil. *Proceedings of the Institution of Civil Engineers - Geotechnical Engineering*. (<https://doi.org/10.1680/jgeen.17.00174>).
2. Nimbalkar, S, **Dash, S.K.**, and Indraratna, B. (2018). Performance of ballasted track under impact loading and applications of recycled rubber inclusion” *Journal of Geotechnical Engineering, SEAGS & AGSSEA. (Accepted)*.
3. **Dash, S. K.**, and Choudhary, A.K. (2018) “Geocell reinforcement for performance improvement of vertical plate anchors in sand” *Geotextiles and Geomembranes. Journal of International Geosynthetic Society, Vol.46, pp.214-225*.
4. Choudhary, A.K., and **Dash, S. K.** (2017) “Load carrying mechanism of vertical plate anchors in sand” *Int. Journal of Geomechanics, ASCE, Vol.17, No.5, pp. 04016116-1-12 (DOI: 10.1061/(ASCE)GM.1943-5622.0000813)*.
5. Halder, K., Chakraborty, D. and **Dash, S.K.** (2017). Bearing capacity of a strip footing situated on soil slope using a non-associated flow rule in lower bound limit analysis. *International Journal of Geotechnical Engineering, Taylor and Francis. DOI.org/10.1080/19386362.2017.1325119*
6. Biswas, A., Krishna M. A. and **Dash, S.K.** (2016) “Behavior of geosynthetic reinforced soil foundation systems supported on stiff clay subgrade” *Int. Journal of Geomechanics, ASCE. (10.1061/(ASCE)GM.1943-5622.0000559)*.
7. Prashanth, V., Murali Krishna, A. and **Dash, S.K.** (2016). “Pullout test using modified direct shear test setup for measuring soil-geosynthetic interaction parameters” *International Journal of Geosynthetics and Ground Engineering, Springer DOI.org/10.1007/s40891-016-0050-x*.
8. **Dash, S.K.** and Hussain, M. (2015) “Influence of lime on shrinkage behaviour of soils.” *Journal of Materials in Civil Engineering, ASCE, Vol. 27 (12), 04015041 1-9*.
9. Biswas, A., Ansari, M.A., **Dash, S. K.** and Krishna, M. A. (2015) “Behavior of geogrid reinforced foundation systems supported on clay subgrades of different strengths.” *International Journal of Geosynthetics and Ground Engineering, Springer (DOI 10.1007/s40891-015-0023-5)*.

10. Deka S., **Dash, S. K.** and Sreedeeep S., (2015). Strength of lime-treated fly ash using bentonite. *Geotechnical Engineering, Journal of the South East Asian Geotechnical Society*, Vol.46, No.3, pp.73-81.
11. Hussain, M. and **Dash S.K.** (2014) "The influence of lime on the compaction behaviour of soils." *Environmental Geotechnics, Journal of Institution of Civil Engineers London*, doi.org/10.1680/envgeo.14.00015.
12. Ravi K., **Dash, S.K.**, Vogt S. and Braeu, G. (2014) "Behaviour of geosynthetic reinforced unpaved roads under cyclic loading" *Indian Geotechnical Journal, Journal of Indian Geotechnical Society, Springer*, Vol.44, No.1, pp.77-85.
13. Biswas, A., Krishna, M. A. and **Dash, S.K.** (2013) "Influence of Subgrade Strength on the Performance of Geocell-Reinforced Foundation Systems" *Geosynthetics International, Journal of International Geosynthetics Society*, Vol. 20, No.6, pp.376-388.
14. **Dash, S.K.** and Bora, M.C. (2013) "Improved Performance of Soft Clay Foundation using Stone Columns and Geocell-Sand Mattress" *Geotextiles and Geomembranes. Journal of International Geosynthetics Society* Vol. 41, pp. 26-35.
15. **Dash, S.K.** and Bora M.C. (2013) Influence of geosynthetic encasement on the performance of stone columns floating in soft clay." *Canadian Geotechnical Journal, Journal of National Research Council Canada*, Vol. 50, No.7, pp. 754-765. (Scopus: 1)
16. **Dash, S.K.** and Amol, S. (2012) "Performance improvement of railway ballast using geocells" *Indian Geotechnical Journal, Journal of Indian Geotechnical Society, Springer*, Vol.42, No.3, pp.186-193.
17. Nimbalkar S., Indraratna, B., **Dash, S.K.** and Christie, D. (2012) Improved Performance of Railway Ballast under Impact Loads using Shock Mats. *Journal of Geotechnical and Geoenvironmental Engineering, ASCE*, Vol.138, No.3, pp.281-294.
18. **Dash, S.K.** (2012) Effect of geocell type on load carrying mechanisms of geocell-reinforced sand foundations. *International Journal of Geomechanics, ASCE*, Vol.12, No.5, pp.537-548.
19. **Dash, S.K.** and Hussain, M. (2012) Lime Stabilization of Soils: Reappraisal. *Journal of Materials in Civil Engineering, ASCE*, Vol. 24, No. 6, pp. 707-714. (Scopus: 5)
20. Raghukanth, S.T.G., Dixit, J. and **Dash, S.K.** (2011) Ground motions for scenario earthquakes at Guwahati city. *Acta Geodaetica et Geophysica Hungarica*, Vol.46, No.3, pp.326-346.
21. **Dash, S.K.** (2010) Influence of relative density of soil on performance of geocell reinforced foundations. *Journal of Materials in Civil Engineering, ASCE*, Vol. 22, No. 5, pp. 533-538.
22. Raghukanth, S.T.G., and **Dash, S.K.** (2010) Evaluation of Seismic Soil-Liquefaction at Guwahati City. *Journal of Environmental Earth Sciences*, Vol. 61, No.2, pp. 355-368.
23. Raghukanth, S.T.G., and **Dash, S.K.** (2010) Deterministic Seismic Scenarios for North East India. *Journal of Seismology*. Vol.14, No.2, pp.143-167.
24. Latha, G.M, **Dash, S.K.** and Rajagopal, K. (2009) Numerical Simulation of the Behaviour of Geocell Reinforced Sand in Foundations. *International Journal of Geomechanics, ASCE*, Vol.9, No.4, pp.143-152.

25. Sireesh, S., Sitharam, T.G. and **Dash, S.K.** (2009) Bearing Capacity of Circular Footing on Geocell-Sand Mattress Overlying Clay Bed with Void. *Geotextiles and Geomembranes, Journal of International Geosynthetics Society*, Vol.27, No.2, pp.89-98.
26. Deka S., Sreedeeep S., and **Dash, S. K.** (2009) Re-evaluation of Cone Penetration Liquid Limit Based on Free Swell Property of Soil. *Geotechnical Testing Journal, ASTM*, Vol.32, No.6., pp.1-6.
27. **Dash, S.K.**, Reddy, P. D. and Raghukanth, S.T.G. (2008) Subgrade modulus of geocell-reinforced sand foundation. *Ground Improvement, Journal of Institution of Civil Engineers London*. Vol.161, No.2, pp. 79-87.
28. Latha, G. M, **Dash, S.K.** and Rajagopal, K. (2008) Equivalent Continuum Simulations of Geocell reinforced Sand beds Supporting Strip Footings. *Geotechnical and Geological Engineering An International Journal*, Springer, Vol. 26, No.4, pp.387-398.
29. Raghukanth, S.T.G., and **Dash, S.K.** (2008) Stochastic modeling of SPT-N value and evaluation of probability of liquefaction at Guwahati city. *Journal of Earthquake and Tsunami*, World Scientific Publishing, Vol.2, No.3 pp.175-196.
30. Raghukanth, S.T.G., Sreelatha, S. and **Dash, S.K.** (2008) Ground motion estimation at Guwahati city for a M_w 8.1 earthquake in the Shillong plateau. *Tectonophysics, International Journal of Geotectonics and the Geology and Physics of the Interior of the Earth*, Elsevier, Vol.448, pp. 98-114.
31. **Dash, S. K.**, Rajagopal, K. and Krishnaswamy, N.R. (2007) Behaviour of geocell reinforced sand beds under strip loading. *Canadian Geotechnical Journal*, Journal of National Research Council Canada, Vol. 44, No. 7, pp. 905-916.
32. Sitharam, T.G., Sireesh, S. and **Dash, S.K.** (2007) Performance of surface footing on geocell-reinforced soft clay beds. *Geotechnical and Geological Engineering An International Journal*, Springer, Vol. 25, No. 5, pp. 509-524.
33. Sitharam, T.G., Sireesh, S. and **Dash, S.K.** (2005) Model studies of a circular footing supported on geocell-reinforced clay. *Canadian Geotechnical Journal*, Journal of National Research Council Canada, Vol.42, No.2, pp.693-703.
34. **Dash, S.K.**, Rajagopal, K. and Krishnaswamy, N.R. (2004) Performance of different geosynthetic reinforcement materials in sand foundations. *Geosynthetics International, Journal of International Geosynthetics Society*, Vol.11, No.1, pp. 35-42.
35. **Dash, S.K.**, Sireesh, S. and Sitharam, T.G. (2003) Model studies on circular footing supported on geocell reinforced sand underlain by soft clay. *Geotextiles and Geomembranes, Journal of International Geosynthetics Society*, Vol. 21, No.4, pp.197-219.
36. **Dash, S.K.**, Sireesh, S. and Sitharam, T.G. (2003) Behaviour of geocell reinforced sand beds under circular footing. *Ground Improvement, Journal of International Society of Soil mechanics and Geotechnical Engineering* Vol. 7, No. 3, pp.111-115.
37. **Dash, S.K.**, Rajagopal, K. and Krishnaswamy, N.R. (2001) Strip footing on geocell reinforced sand beds with additional planar reinforcements. *Geotextiles and*

Geomembranes, Journal of International Geosynthetic Society, Vol. 19, No. 8, pp.529-538.

38. **Dash, S.K.**, Krishnaswamy, N.R. and Rajagopal, K. (2001) Bearing capacity of strip footings supported on geocell-reinforced sand. *Geotextiles and Geomembranes*, Journal of International Geosynthetic Society, Vol. 19, No. 4, pp.235-256.
39. Latha, G.M., **Dash, S.K.**, Rajagopal, K. and Krishnaswamy, N.R. (2001) Finite element analysis of strip footing on geocell reinforced sand beds. *Indian Geotechnical Journal*, Journal of Indian Geotechnical Society, Vol.31, No.4, pp.454-478.

Refereed Conference Proceedings

International

1. Halder, K., Chakraborty, D. and **Dash, S. K.** (2018) Seismic bearing capacity of a strip footing situated on soil slope using a non-associated flow rule in lower bound limit analysis. *ASCE Geotechnical special publication*, 292 (G-I GEESD Austin 2018) pp. 454-463. (<https://doi.org/10.1061/9780784481479.047>)
2. Halder, K., Chakraborty, D. and **Dash, S. K.** (2016) Behaviour of reinforced soil slopes under strip loading. Proceedings of the *International Geotechnical Engineering Conference on Sustainability in Geotechnical Engineering Practices and Related Urban Issues, September 23-24, 2016, Mumbai, India* pp.1-3.
3. Dixit, J., Raghukanth, S.T.G., **Dash, S.K.** (2014). Spatial distribution of seismic site coefficients for Guwahati city. *Proc.16th Int. Association for Mathematical Geosciences - Geostatistical and Geospatial Approaches for the Characterization of Natural Resources in the Environment: Challenges, Processes and Strategies*, IAMG 2014- 117654.
4. Hussain, M. and **Dash, S.K.** (2012) Compaction characteristics of lime treated soils. Proceedings of the *International Conference on Ground Improvement and Ground Control, Wollengong, Australia*, pp. 1095-1100, doi:10.3850/978-981-07-3560-9 04-0410.
5. **Dash, S.K.**, Dutta, S., Sreedeeep, S. and Rao, G.V. (2011) Design of a bank protection system on river Brahmaputra at Jamuguri. Proceedings of the *International seminar 'Geosynthetics India' 11*, IIT Madras, Chennai, India, September 23-24, pp. 3-8.
6. **Dash, S.K.** (2008) Study on performance of geocell reinforced foundation beds with different type of geocells. Proceedings of the *Fourth European Geosynthetics Conference, EuroGeo4, Edinburg, Scotland*, September 7-10, Paper No.294 (CD proceedings).
7. Sireesh, S., Sitharam, T.G., **Dash, S.K.** and Puppala, A.J. (2007) Geocell reinforced sand mattress spanning over an underground circular void in soft clays: Model studies. Proceedings of the *13th Asian Regional Conference on Soil Mechanics and Geotechnical Engineering*, December 10-14, 2007, Kolkata, India, Vol. 1, Part II, pp. 1017-1020 (paper no. 241 in CD).

8. **Dash, S.K.** (2007) Effect of Soil dilation on performance of geocell reinforced sand beds. *Proceedings of 5th International Symposium on Earth Reinforcement (IS Kyushu 07)* Fukuoka, Kyushu, Japan, November 14-16, pp. 629-632.
9. S.T.G. Raghu Kanth, S. Sreelatha and **Dash, S.K.** (2007) Ground motion estimation at Guwahati city from M_w 8.1 earthquake in the Shillong plateau. *Proceedings of the 3rd Indo German Workshop and theme meeting on Seismic Safety of Structures, Risk Assessment and Disaster Mitigation*, Mumbai, March 12-13, pp.35-44.
10. Ramanjaneyulu, C., Hussain, M. and **Dash, S. K.**(2006) Mechanism of Volume Expansion in Soil. *Proceedings of the 2nd International Congress on Computational Mechanics and Simulation*, Guwahati, December, CD Proceeding, P21.
11. Jyostna, P., Sreedeeep, S. and **Dash, S. K.** (2006) A study on controlling mechanisms and critical evaluation of methods used for determining liquid limit of active fine-grained soil. *Proceedings of the 2nd International Congress on Computational Mechanics and Simulation*, Guwahati, December, CD Proceeding, P26.
12. **Dash, S.K.**, Madhavi Latha, G. and Rajagopal, K.(2006) Numerical Modeling of Geocell Reinforced Soil Foundations. *Proceedings of the 2nd International Congress on Computational Mechanics and Simulation*, Guwahati, December, Vol.2, 1895-1898.
13. **Dash, S. K.**, Rajagopal, K. and Krishnaswamy, N.R. (2004) Load carrying mechanism of geocell reinforced earth slabs supporting a strip footing. *Proceedings of the Third European Geosynthetics Conference*, Munich, Germany, March, Vol.2, pp. 681-682.
14. **Dash, S. K.**, Rajagopal, K. and Krishnaswamy, N.R. (2004) Geocell reinforced sand - A composite material. *Proceedings of the International e-Conference on Modern Trends in Foundation Engineering: Geotechnical Challenges and Solutions*, IIT Madras, January 26-30, Paper No.3.2.
15. **Dash, S. K.**, Krishnaswamy, N.R. and Rajagopal, K. (2001) Comparison of geocell, planar and randomly reinforced earth slabs. *Proceedings of the International Conference on Civil Engineering*, Bangalore, July, pp.870-877.
16. Krishnaswamy, N.R., Pitchumani, N.K., Rajagopal, K. and **Dash, S.K.** (2000) Geocell-reinforced foundation beds. *Proceedings of the 2nd Asian Geosynthetics Conference*, Kuala Lumpur, May, Vol.2, pp.85-90.
17. Krishnaswamy, N.R., Rajagopal, K. and **Dash, S.K.** (2000) Behaviour of geocell-soil composite system in foundations. *Proceedings of the 45th Congress of the Indian Society of Theoretical and Applied Mechanics - an International meet*, Sivakasi, December, pp. 17-24.

National

1. Choudhary, A.K. and Dash, S.K. (2014). Pullout behavior of vertical plate anchor embedded in sand. *Proceedings of Indian Geotechnical Conference*, Kakinada.

2. Bora, M. C. and **Dash, S.K.** (2014). Regression model for floating stone column improved soft clay. *Proceedings of Indian Geotechnical Conference, Kakinada.*
3. Biswas, A., Krishna, A.M., **Dash, S.K.** (2013). Applicability of planar geogrid reinforcement in geocell-reinforced foundation systems. e-Proceedings of Indian Geotechnical Conference, Roorkee, Paper No. 175, pp.1-6.
4. Priyadarshie, A., **Dash, S.K.** (2013). Behaviour of geocell reinforced granular soils. e-Proceedings of Indian Geotechnical Conference, Roorkee, Paper No. 178, pp.1-6.
5. Baglari, D, **Dash, S.K.** (2013) Improvement of expansive soil by lime and reinforcement. Proceedings of Indian Geotechnical Conference, Roorkee, Paper No. 207, pp.1-6.
6. Choudhary, A.K, **Dash, S.K.** (2013) Uplift behaviour of horizontal plate anchor embedded in geocell-reinforced sand. Proceedings of Indian Geotechnical Conference, Roorkee, Paper No. 235, pp.1-5.
7. Bora, M. C. and **Dash, S.K.** (2012) Floating stone columns in soft clay with unreinforced and geocell reinforced sand cushion. *Proceedings of Indian Geotechnical Conference, Delhi*, pp.255-260.
8. Biswas, A., **Dash, S.K.** and Krishna, M. A. (2012) Parameters influencing the performance of geocell-reinforced foundation system: A brief review. *Proceedings of Indian Geotechnical Conference, Delhi*, pp.365-368.
9. Hussain, M. and **Dash, S.K.** (2012) Shrinkage behaviour of soils. *Proceedings of Indian Geotechnical Conference, Delhi*, pp.388-391.
10. Hussain, M. and **Dash, S.K.** (2011) Swelling behaviour of soils. Proceedings of *Indian Geotechnical Conference, Kochi*, December.
11. Bora, M. C. and **Dash, S.K.** (2010) Load deformation behaviour of floating stone columns in soft clay. *Indian Geotechnical Conference, Bombay*, December, pp.251-254.
12. Hussain, M. and **Dash, S.K.** (2010) Influence of lime on plasticity behaviour of soils. *Indian Geotechnical Conference, Bombay*, December, pp.537-540.
13. Hussain, M. and **Dash, S.K.** (2009) Influence of lime on compaction behaviour of soils. *Indian Geotechnical Conference, Guntur*, December, pp.15-17.
14. Raghukanth, S.T.G., Dixit, J. and **Dash, S.K.** (2009) Estimation of site amplification factors for Guwahati city. *Indian Geotechnical Conference, Guntur*, December, pp.527-530.
15. Dixit, J, Raghukanth, S.T.G. and **Dash, S.K.** (2009) Influence of local soil deposits on the ground response at Guwahati city. Proceedings of the National conference on computer modeling and simulation in computational mechanics, NERIST Itanagar, March, pp.200-210.
16. Hussain, M. and **Dash, S.K.** (2008) Bearing Capacity Improvement of Liquefiable Soil using Lime Stabilisation. Proceeding of the *National seminar on earthquake hazard and disaster management of North Eastern states of India*, NIT Silchar, October, pp. 131-136.

17. **Dash, S. K.**, Rajagopal, K. and Krishnaswamy, N.R. (2008) Contact pressure on subgrade soil underlying geocell mattress. Proceedings of *Indian Geotechnical Conference, Bangalore*, December, pp.226-229.
18. Ravi, K., Braeu, G., Vogt, S. and **Dash, S.K.** (2008) Behaviour of Geosynthetic reinforced unpaved road subbase under cyclic loading. Proceedings of *Indian Geotechnical Conference, Bangalore*, December, pp.214-217.
19. **Dash, S. K.**, Rajagopal, K. and Krishnaswamy, N.R. (2008) Contact pressure on subgrade soil underlying geocell mattress. Proceedings of *Indian Geotechnical Conference, Bangalore*, December, pp.226-229.
20. **Dash, S. K.** and Rajagopal, K. (2006) Influence of soil density on the performance of geocell reinforced sand foundations. Proceedings of the *Indian Geotechnical Conference, Chennai*, December, pp.581-582.
21. Sireesh, S., Sitharam, T.G. and **Dash, S.K.** (2006) Influence of footing size on behavior of geocell reinforced sand foundations. Proceedings of the *Indian Geotechnical Conference, Chennai*, December, pp.591-592.
22. Sireesh, S., Sitharam, T.G. and **Dash, S.K.** (2005) Load tests on geocell reinforced soft clay foundations. Proceedings of the *Indian Geotechnical Conference, Ahmedabad*, December, pp.261-264.
23. Sabat, A.K., Behera, S.N. and **Dash, S.K.** (2005) Effect of flyash-marble powder on the engineering properties of an expansive soil. Proceedings of the *Indian Geotechnical Conference, Ahmedabad*, December, pp. 269-272.
24. **Dash, S. K.**, Krishnaswamy, N.R. and Rajagopal, K. (2005) Influence of geocell material on performance of geocell reinforced sand foundations. Proceedings of the *National Symposium on Prediction Methods in Geotechnical Engineering*, Chennai, June, pp.A2.1-4.
25. **Dash, S.K.**, Lenka, B.P., Sahoo, T., Senapati, O., Mishra, S., Patra, M. and Patro, A. (2005) Tensile strength of cement stabilised flyash-a material for highway construction. Proceedings of the *National Conference on Advances in road Transportation*, Rourkela, February, pp. 502-508.
26. **Dash, S.K.**, Sireesh, S., Sitharam, T.G. and Vinod, J.S. (2005) Improvement of bearing capacity of layered soil beds using geocell reinforcement. Proceedings of the *All India Seminar on Advances in Geotechnical Engineering*, Rourkela, January, pp.71-77.
27. **Dash, S. K.**, Rajagopal, K. and Krishnaswamy, N.R. (2004) Load dispersion in geocell reinforced sand foundations. Proceedings of the *National Symposium on Advances in Geotechnical Engineering*, Bangalore, July, pp.151-154.
28. Sireesh, S., Sitharam, T.G., Vinod, J.S. and **Dash, S.K.** (2003) Behaviour of circular footing on geocell reinforced sand underlain by soft clay. Proceedings of the *Indian Geotechnical Conference*, Roorkee, December, pp.355-358.
29. **Dash, S.K.**, Sireesh, S. and Sitharam, T.G. (2002) Bearing capacity of circular footing on geocell reinforced sand beds. Proceedings of the *Indian Geotechnical Conference*, Allahabad, December, pp.577-578.

30. **Dash, S. K.**, Rajagopal, K. and Krishnaswamy, N.R. (2001) Influence of additional planar reinforcement on the behaviour of geocell mattress. Proceedings of the *Indian Geotechnical Conference*, Indore, December, pp.278-279.
31. Krishnaswamy, N.R., Rajagopal, K. and **Dash, S.K.** (2000) Bearing capacity tests on geocell-reinforced sand. Proceedings of the *Indian Geotechnical conference*, Bombay, December, pp.333-334.
32. **Dash, S.K.** and **Dash, P.K.** (1996) Influence of strain rate on shear parameters of sand. Proceedings of the *Indian Geotechnical Conference*, Madras, December, pp.162-164.

Technical Report

1. Sitharam T.G., Govindaraju L. and **Dash, S.K.** (2002) Dynamic properties of soils and liquefaction behaviour of sands. *Research report* submitted to the Department of Science and Technology, Seismology Division, Government of India, NewDelhi.
2. **Dash, S.K.** (2006) Effectiveness of Reinforcement in Highway Subbase under Cyclic Loading. *Research report* submitted to Center for Geotechnical Engineering, Technical University Munich, Germany.
3. **Dash, S.K.**, Dutta, S., Sreedeeep S. and Rao, G.V. (2008) Bank protection of terminal/inland port of river Brahmaputra at Jamuguri. *Design Report # IWAI/GHY/Terminal/3(13)/General/2006-07/965a*, submitted to the Inland water ways authority of India, Guwahati, Ministry of Shipping, Govt. of India.
4. Dutta, S., **Dash, S.K.**, Sreedeeep S. and Rao, G.V. (2008) River Training Work for Maintaining Navigational flow depth in Brahmaputra at Garimari. *Design Report # IWAI/GHY/Terminal/3(13)/General/2006-0/965b*, submitted to the Inland water ways authority of India, Guwahati, Ministry of Shipping, Govt. of India.
5. **Dash S. K.** (2009) Geocell-reinforced sand foundation on soft clay: Behaviour under Cyclic Loading. *Research report (SR/FTP/ETA-23/2005)* submitted to Department of Science and Technology, SERC Division, Government of India, New Delhi.
6. **Dash S. K.** and Babu GLS (2011) Soil nailing for slope stabilization in the section Ch 119/100 to Ch 119/595 in Lumding-Silchar gauge conversion project of North East Frontier Railway. *Design Report # W/29/CON/L-S/TUNNEL*, submitted to Chief Engineer/CON/I, North East Frontier Railway, Maligaon, Guwahati.

Awards and Recognitions

1. *Indian Geotechnical Society – Z-Tech. Biennial award* for the paper “Madhavi Latha, G., Dash, S.K., Rajagopal, K. and Krishnaswamy, N.R. (2001) Finite element analysis of strip footing on geocell reinforced sand beds. *Indian Geotechnical Journal* Vol.31, No.4, pp.454-478.” Adjudged as the *best paper* on “Geosynthetics and Allied Construction Products” published through Indian Geotechnical Society for the years 2000-2001.
2. *Indian Geotechnical Society – Z-Tech. Biennial award* for the paper “Sireesh, S., Sitharam, T.G., Vinod, J.S. and Dash, S.K. (2003) Behaviour of circular footing on geocell reinforced sand underlain by soft clay. Proceedings of the *Indian Geotechnical Conference*, Roorkee, December, pp.355-358.” Adjudged as the *best paper* on

“Geosynthetics and Allied Construction Products” published through Indian Geotechnical Society for the years 2002-2003.

3. **German Academic Exchange Service (DAAD) Fellowship** 2006, for research work at the Technical University Munich, Germany.
4. **Endeavour Research Fellowship of Government of Australia** 2009, for research work in the Centre for Geomechanics and Railway Engineering, University of Wollongong, Australia.

Professional Activity

1. **Editorial Board member**, Transportation and Transit Systems (specialty section of Frontiers in Built Environment, Frontiers in Environmental Science and Frontiers in Mechanical Engineering), published by Frontiers, UK.
2. **Lead Guest Editor**, “Geosynthetics for Infrastructure Development” *Journal of Geotechnical Engineering, SEAGS, Special issue-2018*.
3. **Reviewer**
 - *Journal of Materials in Civil Engineering, ASCE*
 - *American Journal of Engineering and Applied Sciences*
 - Journal of Testing and Evaluation, American Institute of Physics
 - Geosynthetics International, Journal of International Geosynthetics Society.
 - Soils and Foundations, Journal of Japanese Geotechnical Society
 - Geotextiles and Geomembranes, Journal of International Geosynthetics Society
 - Ground Improvement, Proceedings of the Institution of Civil Engineers London.
 - Engineering Geology, Elsevier.
 - Journal of Hydraulic Engineering, ASCE
 - Journal of Advanced Research, Elsevier
 - Applied Clay Science, Elsevier
 - Canadian geotechnical journal
 - Transportation Geotechnics,
 - Journal of Geotechnical engineering, *SEAGS*
 - International journal of Geomechanics, *ASCE*
 - Journal of Hazardous, Toxic, and Radioactive Waste, *ASCE*
 - Geotechnical Testing Journal, *ASTM*
 - Geotechnical and Geological Engineering, Springer
 - Engineering Mechanics, *ASCE*
 - International Journal of Geotechnical Earthquake Engineering
 - Journal of Rock Mechanics and Geotechnical Engineering
 - Journal of Environmental Geology, *Springer*
 - International Journal for Numerical and Analytical Methods in Geomechanics, *Wiley*
 - *Natural Hazards and Earth System Sciences, Journal of the European Geosciences Union*
 - *Geomechanics and Engineering, An International Journal; Techno-press*
 - Indian Geotechnical Journal, Springer

Project

Sponsored Research

1. Geocell-reinforced sand foundation on soft clay: Behaviour under Cyclic Loading, Department of Science and Technology Govt. India. Cost Rs. 11.64 Lakhs, Status: completed (Principal investigator).
2. Analysis of water balance in rice agriculture system using distributed hydrologic model, ISRO Ahmedabad-IIT Guwahati collaboration project. Project Cost: Rs. 20.117 Lakhs, Status: completed (Co-investigator).
3. Application of geocell reinforcement for performance improvement of anchored foundations under uplift, SRIC, IIT Kharagpur. Cost Rs. 5 Lakhs, Status: Ongoing (Principal investigator).

Consultancy

1. Investigations on soil for coffer-dam of Mangdechhu Hydroelectric Project, Bhutan. Sponsoring Agency: NHPC Govt. of India, Project Cost: Rs. 4.445 Lakhs, Status: Completed - (Principal investigator).
2. Investigations on the bridge foundation over river Killing on NH-37 regarding the accident on 17th May 2007. Sponsoring Agency: NHAI Govt. of India, Project Cost: Rs. 0.449 Lakhs, Status: Completed - (Principal investigator).
3. Bank protection of terminal/inland port on river Brahmaputra at Jamuguri, Sponsoring Agency: IWAI Govt. of India, Project Cost: Rs. 12 Lakhs, Status: Completed - (In collaboration with IIT Delhi)
4. River training work for maintaining navigational flow depth in river Brahamaputra, Sponsoring Agency: IWAI Govt. of India, Project Cost: Rs. 20 Lakhs, Status: Completed - (In collaboration with IIT Delhi).
5. Slope stabilization measures in Lumding-Silchar gauge conversion project in Northeast Frontier Railway. Sponsoring Agency: Northeast Frontier Railway, Govt. of India, Project Cost: Rs. 18.858 Lakhs, Status: Completed - (In collaboration with IISc. Bangalore).
6. Recommendation for foundation of the zonal office building, Doordarsan, Guwahati. Sponsoring agency: Prasar Bharati, Guwahati, Project cost: 1.1 Lakh, Status: Completed - (Principal investigator).
7. Evaluation of Modulus of Elasticity of Rail Track Formation. Sponsoring agency: HMBS Textiles Pvt Ltd. Delhi, Project cost: 7 Lakhs, Status: Completed - (Principal investigator)
8. Laboratory scale evaluation of Ev2 for a railway formation at Agartala. Sponsoring agency: C.E. Testing Company Pvt. Ltd. Kolkata. Project cost: 7.865 Lakhs, Status: Completed- (Principal investigator).

Short Term Course Conducted

Geotechnical Earthquake Engineering, under *NPEEE*, 31st May to 4th June 2004.

Professional Body membership

- Life member of the Indian Geotechnical Society – LM 2463
- Life member of the Institution of Engineers, India – A512895/2
- Member of International Society of Soil Mechanics and Geotechnical Engineering - IND060147

PhD Thesis Guidance

1. Monowar Hussien “A Study on Performance Improvement of Expansive Soil Using Residual Soil and Lime” – *Status: Awarded* (Independent Guidance)
2. Meenaxi Rai “Geocell-sand mattress overlying soft clay subgrade: behaviour under circular loading” –*Status: Awarded* (jointly with Dr. T. Lyngdoh)
3. Mukul Bora “Performance improvement of weak clay foundation using stone column and geocell-sand mattress.” *Status: Awarded* (Independent Guidance)
4. *Shailen Deka* “Performance enhancement of expansive soil by application of flyash and lime” *Status: Awarded* (jointly with Dr. S. Sreedeeep)
5. *Akash Priyadarshiee* “Strength and Deformation Characteristics of Geocell-Fiber Reinforced Granular Soil” *Status: Awarded* (Independent Guidance)
6. *Awdhesh Kumar Choudhary* “Pullout behaviour of vertical plate anchors in geocell reinforced sand” *Status: Awarded* (Independent Guidance)
7. *Anjan Majee* “Settlement Analysis of Reinforced Soil Foundation Beds” *Status: in progress* (Independent Guidance)
8. *Kousik Halder* “Behaviour of Reinforced Soil Slopes under Different Loading Conditions” *Status: in progress* (Joint Guidance)
9. *Ajay Kumar Samal* “Behaviour of ballasted Rail Tracks” *Status: in progress* (Joint Guidance)
10. *Lalima Banerjee, IIT (ISM) Dhanbad* “Study on the behavior of geocell reinforced tracks with recycled mine spoils as sub-ballast material” *Status: in progress* (External Guide)

M. Tech. Thesis Guidance

1. C. Ramanjaneylu “Swell-Shrink behaviour of fine grained soils” *Status: Awarded.* (Independent Guidance)
2. J. Pegu “Re-evaluation of plasticity characteristics of fine grained soils” *Status: Awarded* (jointly with Dr. S. Sreedeeep)
3. Ravi K. “Effectiveness of reinforcement in highway subbase under cyclic loading” – *Status: Awarded.* (jointly with Prof. N. Vogt, TU Munich Germany)
4. Sakhare Pravin V. “Behaviour of reinforced soil beds under cyclic loading: Large scale tests”. *Status: Awarded.* (jointly with Prof. N. Vogt, TU Munich Germany)
5. Jagabandhu Dixit “Seismic site coefficient at Guwahati city” *Status: Awarded.* (jointly with Dr. Raghukanth)

6. Syam P.S. “Bearing capacity of geocell reinforced foundation” *Status: Awarded.* (Jointly with Dr. Rajib Bhattacharjee)
7. Sindhe Bhusan Vilas “Modulus of elasticity of geocell reinforced foundation beds” *Status: Awarded.* (Jointly with Dr. Rajib Bhattacharjee)
8. S. Amol “Performance improvement of ballsted rail track using geocell reinforcement” *Status: Awarded* (Independent Guidance).
9. Prabhudutta Pradhan “Development of a constitutive model for geocell encased soil” *Status: Awarded* (Independent Guidance).
10. Harinarayan N.H. “Study of cohesionless soils reinforced with randomly distributed fibers.” *Status: Awarded.* (Independent Guidance).
11. Ansari A. “Bearing capacity of foundations on layered soil with geogrid reinforcement” *Awarded.* (Independent Guidance).
12. Dipjyoti Baglari “Behaviour of lime stabilized reinforced expansive soils” *Awarded.* (Independent Guidance).
13. P. Satyapraksh (2013) “Mechanical behaviour of fiber reinforced soils” *Status: Awarded* (Independent Guidance).
14. Hemanth P. (2014) “Performance improvement of expansive soil stablised with lime and cement: A comparative study.” *Status: Awarded* (Independent Guidance).
15. Ranjan Halder (2014) “Performance evaluation of fiber reinforced flyash.” *Status: Awarded* (Independent Guidance).
16. Sajmi S. (2015) “Strength characteristics of fiber reinforced cement stabilized flyash” *Status: Awarded* (Independent Guidance).
17. Sittanandan M. (2015) “Strength deformation behavior of geocell reinforced granular soil” *Awarded* (Independent Guidance).
18. Mridul Mandal (2016) Performance improvement of railway formation with geogrid reinforcement” *Awarded* (Independent Guidance).
19. Ashutosh Kumar (2017) Uplift Behavior of Horizontal Plate Anchors in Cohesion less Soil. *Awarded* (Independent Guidance).
20. Manjunath R. (2017) Performance improvement of coal fouled ballast using geocells. *Awarded* (Independent Guidance).
21. N. Rammohan (2018) “Performance improvement of horizontal plate anchor using geocell reinforcement” *Awarded* (Independent Guidance)
22. Arbind Kumar Mahato (2018) “Effect of coal dust fouling on shear behavior of rail track ballast” *Awarded* (Independent Guidance)

Date: 3rd September 2018

(Sujit Kumar Dash)