Resume

Dr. Maheboobsab. B. Nadaf

B.E. Civil; M.Tech(NITK Surathkal); Ph.D (IIT Bombay)



Present Address:

Dr. Maheboob. B. Nadaf,

Associate Professor, Department of Civil Engineering, Annasaheb Dange College of Engineering and Technology (ADCET), Ashta, (An Autonomous Institute), Sangli Rd, Highway, Ashta, Maharashtra 416301.

Permanent Address

c/o. F. C. Nadaf, Behind C.T.Shaha Advocate House, Railway Station Road, near Dhanush Hospital, Bagalkot, Karnataka, India, 587101

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Career Objectives

To continue to grow in leadership and knowledge, excel in innovative technology applications, interact and share thoughts/ideas with colleagues, and develop expertise to solve real world challenges

Academic Qualification	
July 2012-2018	Ph.D
	Geotechnical Engineering, Civil Engineering Department
	Indian Institute of Technology Bombay, Mumbai
	CGPA: 8.0/10
	Degree Awarded: 11.08.2018

Thesis Title: Experimental and Numerical Studies on Reinforced Fly Ash Slopes.

- Determination of physical properties and chemical composition of fly ash
- Determination of mechanical and filtration properties of different geosynthetic materials
- Model studies and numerical analyses on steel grid and geocell/cellular reinforcement applications for fly ash slopes
- Approaches to use waste materials (plastic bottles, fly ash) as manmade resources
- Approaches to use natural materials (jute) as alternative natural geosynthetics
- Sustainable material development for stability of slopes related applications

2009 – June 2011	Master of Technology (M.Tech) Geotechnical Engineering (Civil Engineering) National Institute of Technology Karnataka, Surathkal, India
2009	Graduate Aptitude Test in Engineering (GATE) 2009 with All India Ranking (AIR) 1251
2004 – June, 2008	Bachelor of Engineering (B.E.) Civil Engineering Basaveshwar Engineering College, Bagalkot& VTU-Belgaum, Karnataka, India.
2002 – 2004	Intermediate/+2 (Higher Secondary Examination) Science (CHEMISTRY, MATH, PHYSICS) Basaveshwar Science college, Bagalkot, Karnataka, India.
2000 – 2002	Matriculation (Secondary Examination) St. Anne's Convent High School, Bagalkot, Karnataka, India.

Plaxis 2D and 3D, MSEW

Professional Experience

July 2021 to Present

Associate Professor in Civil Engineering Dept. at ADCET Ashta, Sangli, (Autonomous Institute) under Shivaji University, Kolhapur, Maharashtra Committee In-charge at Institute and Department Level:

- ◆ Coordinator for Institutional Innovation Cell(IIC) for IPR
- ◆ Coordinator for Innovation & Entrepreneurship (I&E) cell.
- ◆ Department Coordinator for NAAC and NBA
- ◆ Department R&D Coordinator

Aug 2018 - June 2021

Assistant Professor in Civil Engineering Department at AIKTC, New Panvel, Navi Mumbai, Under Mumbai University, Maharashtra.

Committee In-charge at Institute and Department Level:

- ♦ Institute level Controller for IPR;R&D Projects; Publications & IRG (CIRDPI)
- ◆ Coordinator for Institutional Innovation Cell(IIC) for IPR
- ◆ Department Coordinator for NAAC and NBA
- ◆ Department Advertising Coordinator

Dec 2017 - June 2018

Research Associate in Civil Engineering Department at IIT Bombay.

July 2012 - Dec 2017

Ph.D Research Scholar (Teaching Assistantship) in Civil Engineering Department at IIT Bombay

June 2011 – June 2012

GEO ENGINEERING COMPANY PRIVATE LIMITED, Bangalore

Job Title: Geotechnical Design Engineer and Project Co-ordinator - Planning

Experience

- •Field experience with methodology & technical field execution aspects pertaining to Soil investigation including Auger and rotary drilling using calyx machine.
- •Site experience with methodology & technical execution of Ground anchors, slope stabilization (Shot –creting) along with Soil nailing, micro-piles, Pile foundation, Grouted nails and ground improvement techniques.
- •Preparation of soil investigation reports with recommendations for Safe bearing capacity, foundation type, and excavation techniques, etc.

Duties and Responsibilities:

•Study the design drawings, construction drawings and coordinate the work to be executed at site. Supervise technical tests, survey and field engineering work procedures. •Provide advice on field engineering procedures, construction methods and financial matters to site and project management team.

June 2010 - July 2010

Underwent Industrial training in 'L&T VALDEL' ON OFFSHORE PILLING DESIGN on SACC & GRLweap at Bangalore for a period 45 days.

<u>Description:</u> The objective of work is to design piles for offshore Jacket structures and do the Pile Drivability analysis using GRLWEAP software.

International and National Conferences Participated

- **PIBEC-2016** Putrajaya International Built Environment, Technology and Engineering Conference (PIBEC-2016), 24-25th September 2016, Putrajaya, Bangi, Selango, **Malaysia**.
- **Geo-Chicago -2016,** *Geotechnical Special Publication, ASCE* Sustainability, Energy, and the Geoenvironment, Geo-Chicago -2016, 14-18th August 2016, **Chicago, Illinois, USA.**
- 5th IconSWM 2015 International Society of Waste Management, Air and Water (ISWMAW) held during November 25 27, 2015 at Indian Institute of Science, Bangalore, India.
- Indian Geotechnical Society (IGS-2015) –5th Indian Young Geotechnical Engineers Conference-51YGEC -2015, Baroda Chapter, 14-15 March 2015, Vadodara, India.
- YGESFEM 2015 The proceedings of the 2015 Young Geotechnical Engineers' Symposium on Finite Element Methods, May 17-18, IIT Bombay, Mumbai.
- Indian Geotechnical Conference (IGC-2014) *Geotechnics for Inclusive Development of India* (*GEOIND*) held during Dec 18–20, 2014 at Jawaharlal Nehru Technological University, **Kakinada.**
- Received "BEST PAPER AWARD" for the paper, "Numerical Modeling of Highway Embankment Using Plaxis 3D," Putrajaya International Built Environment, Technology and Engineering Conference (PIBEC-2016), 24-25th September 2016, Putrajaya, Bangi, Selango, Malaysia, 64-73.

NPTEL Video Course

Worked on NPTEL Video Course "Geosynthetics Engineering: In Theory and Practice" and "Geotechnical Engineering Laboratory" by Prof. J. N. Mandal conducted under Centre for Distant Engineering Education (CDEEP), IIT Bombay (2013 to 2017). Course content, Power point presentation, Video review and editing.

Position of Responsibility in IIT Bombay

- **Teaching Assistant (T.A.)**, IIT Bombay (July May, 2017, 2016, 2015, 2014; 2013) in Geotechnical Engineering Laboratory Courses I and I (CE 329 and CE 336) for 3rd year B.Tech students of Civil Engineering Department, IIT Bombay
- Teaching Assistant (T.A.), IIT Bombay (January, 2017 May, 2017; January, 2016 May, 2016; January, 2015 May, 2015; January, 2014 May, 2014; January, 2013 May, 2013;) for the course "Reinforced Earth and Geotextiles" (CE 746) for M.Tech. and Ph.D. students of Civil Engineering Department, IIT Bombay.
- Teaching Assistant (T.A.), IIT Bombay (July, 2016 December, 2016; July, 2015 December, 2015; July, 2014 December, 2014; July, 2013 December, 2013; July, 2012 December, 2012) for the course "Soil Engg I" (CE 631) and "Experimental Geotechnics" (CE 643) by Prof. J.N. Mandal for M.Tech. and Ph.D. students of Civil Engineering Department, IIT Bombay.

Fields of Interest

 Geosynthetics Engineering; Soil Mechanics; Foundation Engineering; Sustainable Ground Improvement Techniques

Personal Details

Date of Birth: September 24, 1986;

Gender: Male;

Marital status: Married; Nationality: Indian

Languages known: Kannada, Urdu, English and Hindi

References

Prof. J. N. Mandal

Department of Civil Engineering, Indian Institute of Technology Bombay

Powai, Mumbai – 400 076 Ph: 022 – 2576 7328

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Prof. D. M. Dewaikar

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Powai, Mumbai – 400 076 Ph: 022 – 2576 7325

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Prof. D. V. Reddy

Department of Civil Engineering National Institute of Technology, Karnataka, (NITK),

Surathkal, Srinivasanagar-575025, Mangalore

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Prof. Dharamveer Singh

Department of Civil Engineering, Indian Institute of Technology Bombay Powai, Mumbai – 400 076

Ph: 022 – 2576 7304

Email: dvsingh@civil.iitb.ac.in

Declaration: I hereby declare that the entries stated are authentic and true to the best of my knowledge.

Date: 01.01.2022

Place: Mumbai, India (Dr. Maheboobsab. B. Nadaf)

List of papers and contribution

International Journals

- 1. Nadaf, M. B. and Mandal, J. N. (2017). "Model Studies on Fly Ash Slopes Reinforced with Planar Steel Grids." *International Journal of Geotechnical Engineering*, (Taylor & Francis Group, 11 (1), 20-31. (https://doi.org/10.1080/19386362.2016.1177976) (Scopus & web of science)
- Nadaf, M. B. and Mandal, J. N. (2017). "Behavior of Reinforced Fly-Ash Slopes with Cellular Mattress and Strips under Strip Loading." *Journal of Hazardous, Toxic, and Radioactive Waste,* (ASCE), 21(4), 04017019, https://doi.org/10.1061/(ASCE)HZ.2153-5515.0000376 (Scopus & web of science)
- 3. Nadaf, M. B. and Mandal, J. N. (2017). "Numerical Analysis of Loaded Strip Footing Resting on Cellular Mattress and Strips Reinforced Fly Ash Slope." *International Journal of Geosynthetics and Ground Engineering*, (Springer International), 3: 26, https://link.springer.com/article/10.1007/s40891-017-0106-6 (Scopus & web of science)
- 4. Ravindran, S., Kumar, A., Dutta, S., **Nadaf, M.B.,** Mandal, J. N. and Shin, E.C. (2019). "Unpaved Road Stabilization using Bamboo Grid and Bitumen Coated Bamboo Cells." Soil Mechanics and Foundation Engineering, (*Springer*), 56(5), 346-351. https://link.springer.com/article/10.1007/s11204-019-09613-7 (*Scopus & web of science*)
- 5. Salunkhe, T. V., Nawghare, S. M., **Nadaf, M. B.,** Dutta, S. and Mandal, J. N. (2015). "Stabilization of Fly Ash Slope Using Plastic Recycled Polymer and Finite Element Analysis Using Plaxis 3D." *International Journal of Civil, Environmental, Structural, Construction and Architectural Engineering*, (9), 466 474. <u>doi.org/10.5281/zenodo.1105351</u>

Journals under Review:

- 6. **Nadaf, M. B.,** Dutta, S. Padade, A. H. and Mandal, J. N "Mechanically and chemically stabilized mixes using sodium bentonite ash, cement and nano silica as highway construction material." (Communicated to *International Journal of Geotechnical Engineering*, (*Taylor & Francis Group*) *Scopus*, under review since March 2022).
- 7. Dandin, S., Kulkarni, M. S and **Nadaf**, **M. B.** "Experimental Study on bearing capacity of flyash reinforced with PET bottles under circular loading." (Communicated to Arabian Journal for science and engineering, *Springer Journal*, under review since Dec 2021).

Geotechnical Special Publications

- 8. **Nadaf, M. B.** and Mandal, J. N. (2019). "Numerical Simulation of Cellular Reinforced Fly Ash Slopes," *Geo-Congress 2019: Geoenvironmental Engineering and Sustainability, Geotechnical Special Publication No. GSP 312, ASCE,* 24-27th March 2019, Philadelphia, Pennsylvania, USA, 202 211. https://doi.org/10.1061/9780784482148.021 (Scopus & web of science)
- 9. **Nadaf, M. B.** and Mandal, J. N. (2016). "Steel Grid Reinforced Fly Ash Slopes," *Sustainability, Energy, and the Geoenvironment, Geo-Chicago -2016, Geotechnical Special Publication No. GSP 271, ASCE*, 14-18th August 2016, Chicago, Illinois, USA, 678-687. https://doi.org/10.1061/9780784480144.067 (Scopus & web of science)
- 10. Dutta, S., **Nadaf, M. B.** and Mandal, J. N. (2016). "An Overview on the Use of Waste Plastic Bottles and Fly Ash in Civil Engineering Applications," Procedia Environmental Sciences, Elsevier B.V., 35, 681 691. https://doi.org/10.1016/j.proenv.2016.07.067 (Web of science)
- 11. Dutta, S., **Nadaf, M. B.,** Ram Rathan Lal, B. and Mandal, J. N. (2016). "Encased Stone Column for Soft Ground Improvement," *Sustainability, Energy, and the Geoenvironment, Geo-Chicago 2016, Geotechnical Special Publication No. GSP 271, ASCE*, 14-18th August 2016, Chicago, Illinois, USA, 746-755. https://doi.org/10.1061/9780784480144.074 (Scopus & web of science)

12. Padade, A. H., Dutta, S., **Nadaf, M. B.,** Ram Rathan Lal, B. and Mandal, J. N. (2016). "Expanded Polystyrene (EPS) Geofoam Unit Cell with Fly Ash," *Sustainability, Energy, and the Geoenvironment, Geo-Chicago 2016, Geotechnical Special Publication No. GSP 271, ASCE*, 14-18th August 2016, Chicago, Illinois, USA, 35-43. https://doi.org/10.1061/9780784480144.004 (Scopus & web of science)

International Conferences

- 13. **Nadaf, M. B.** and Mandal, J. N. (2013). "Experimental Studies and Analyses for Basic Characterization of Fly Ash," *Proceedings of 4th Global Engineering, Science and Technology Conference 27-28 December, 2013*, BIAM Foundation, Dhaka, Bangladesh, 1-11.
- 14. **Nadaf, M. B.,** Dutta, S. and Mandal, J. N. (2016). "Fly Ash as Backfill Material in Slopes using Waste Pet Bottles as Reinforcement," Waste Management & Resource Utilisation: Proceedings of 6th IconSWM 2016, International Society of Waste Management, Air and Water (ISWMAW), 24-26th November 2016, Jadavpur University, Kolkata, India,1209-1215.
- 15. **Nadaf, M. B.,** Verma, A. K., Dutta, S., Zerie, Y. and Mandal, J. N. (2016). "Numerical analyses on behavior of buried pipe lines with EPS geofoam inclusion over pipe in stone dust fill," GeoAmericas 2016, 3rd Pan-American conference on geosynthetics, North American Geosynthetics Society (NAGS), International Geosynthetics Society (IGS), IGS Secretariat, 1934 Commerce Ln., Suite 4, Jupiter, FL 33458, 10-13 April, Miami Beach, USA, pp. 926-937.
- 16. Dutta, S., **Nadaf, M. B.,** Asha, B. S. and Mandal, J. N. (2015). "Geosynthetics for Ground Improvement," International conference on Infrastructure development for environmental conservation and sustenance (INDECES 15), 28-30th October, Hosur, Tamilnadu, India, 52-61.
- 17. Athulya, G. K., **Nadaf, M. B.,** Padade. A. H., and Mandal, J. N. (2016). "Numerical Modeling of Highway Embankment Using Plaxis 3D," Putrajaya International Built Environment, Technology and Engg., Conference (PIBEC-2016), 24-25th Sept, Putrajaya, Bangi, Selango, Malaysia, 64-73.
- 18. Verma, A. K., **Nadaf, M. B.,** Dutta, S., Zerie, Y. and Mandal, J. N. (2016). "Reduction of static load on buried pipes by EPS geofoam inclusion," 19TH SEAGC-2ND AGSSEA Conference, Deep Excavation and Ground Improvement, 31 May 3 June 2016, Dorsett Grand Subang, Subang Jaya, Kuala Lumpur, Malaysia, 799-802.
- 19. Dandin, S., Kulkarni, M., and **Nadaf, M. B.** (2021). "Laboratory Scale Model Test on Pet Bottle Mattress as Reinforcement in Fly As Fill Construction," International Conference on Advances in Construction Technology and Management (ACTM-2021), 11th 12th March, 2021, Organized by Department of Civil Engineering, College of Engineering Pune (COEP), Maharashtra, India. (InPress) *Elsevier Proceedings.* http://www.scopus.com/inward/record.url?eid=2-s2.0-85123039507&partnerID=MN8TOARS (Scopus)
- 20. **Nadaf, M. B,** Patil, A, Chougale, R. A., Mane, B and Kuralapkar, R. R. (2022). "Model Studies on Soft Rock using Socketed Pile." International Conference on Advances in Material Science, Mechanical and Civil Engineering (ICAMMCE-2022), 14th 15th Feb, 2022, Organised by ADCET, Ashta, Sangli, Maharashtra, India.

National Conferences

- 21. **Nadaf, M. B. and** Mandal, J. N. (2014). "Triaxial Behavior of Steel Grid Reinforced Fly Ash." *Proceedings of Indian Geotechnical Conference- IGC -2014*, 18-20 December 2014, Kakinada, India, 50-54.
- 22. Dutta, S., **Nadaf, M. B.** and Mandal, J. N. (2015). "Design of Flexible Airfield Pavement using Geotextiles." *Proceedings of 5th Indian Young Geotechnical Engineers Conference- 5IYGEC 2015, Baroda Chapter*, 14-15 March 2015, Vadodara, India, 229-234.
- 23. Dutta, S., **Nadaf, M. B.,** Kumar, A. and Mandal, J. N. (2015). "Novel Studies on Some Ground Improvement and Modification Techniques." *The proceedings of the 2015 Young Geotechnical Engineers' Symposium on Finite Element Methods*, May 17-18, IIT Bombay, Mumbai, India.

24. Beju, Y. Z., Kumar, A., **Nadaf, M. B.** and Mandal, J. N. (2017). "3D Numerical Simulation of EPS Geofoam Fill Railway Embankment on Soft Ground," 4th Conference of the Transportation Research Group of India (CTRG-2017), 17 - 20 December, 2017, IIT Bombay, Mumbai, India.

Books/Chapter Published

Nadaf M.B., Dutta S., Mandal J. N. (2019) Fly Ash as Backfill Material in Slopes Using Waste PET Bottles as Reinforcement. In: Ghosh S. (eds) Waste Management and Resource Efficiency. Springer, Singapore, pp.905-913. ISBN 978-981-10-7289-5. © Springer Nature Singapore Pte Ltd. 2019. https://doi.org/10.1007/978-981-10-7290-1_76

Proposal Submission:

Proposal on "Studies on Utilization of Industrial (Pozzolanic) Waste Materials Using Geosynthetics in Highway Pavements".

Submitted to *Department of Science and Technology (DST)* for Consideration under Technology Development Programme (TDP) through ADCET, Ashta, Sangli on 23/12/2021.



(Dr. Maheboobsab. B. Nadaf)