



1. **Name** : **Dr. KUMAR VENKATESH**
2. **Designation** : Assistant Professor
3. **Correspondence Address** : Department of Civil Engineering
Motilal Nehru National Institute of Technology
Allahabad – 211 004, U.P., India
Ph: 0532-2271312
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4. **Educational Qualifications** :

Degree	Department/Specialization	Institute/University	Year
PhD*	Civil Engineering (Geotechnical Engg.)	IIT Roorkee, India	2006
M.Tech*	Earthquake Engineering (Soil Dynamics)	IIT Roorkee, India	2001
BE (Civil)	Civil Engineering	M.S.R.I.T., Bangalore University	1996
PGDCA	Computer Application	CMC Ltd. (A Govt of India Enterprises), New Delhi	1998

***Ph.D. Thesis:** Barrage-Foundation Interaction under Static and Dynamic Loading

***M. Tech. Thesis:** Validation of Assessment of Shear Modulus of Soils using Artificial Neural Network

5. **Field of Specialization:** Geotechnical Engineering (Civil Engineering)

6. **Current Research Interests:** Geotechnical Engineering
Soil Dynamics/Geotechnical Earthquake Engineering
Soil-Structure Interaction
Advanced Finite Element Method
Artificial Neural Network and ANFIS

7. Professional Experience:

Institution/Firm	Post Held	Duration		Specific Experience P.G., U.G. Teaching/ Industrial
		From	To	
MNNIT Allahabad	Assistant Professor AGP Rs 8000.00	D.O.E. Jan 2012 (Financial Benefit Oct' 12)	Till date	Teaching, Research, Consultancy and Administration
MNNIT Allahabad	Assistant Professor AGP Rs 7000.00	January 2009	Till date	Teaching, Research, Consultancy and Administration
MNNIT Allahabad	Assistant Professor AGP Rs 6000.00	January 2006	December 2008	Teaching, Research, Consultancy and Administration
MNNIT Allahabad	Lecturer	July 2005	December 2005	Teaching, Research, Consultancy and Administration
WRDTC, IIT Roorkee	Project Associate	March 2001	July 2001	Research and Development Project*
S.P. Structures	Asst. Engg.	April 1998	July 1999	Estimation and Supervision of work at Site

*Research and Development Project Entitled “**Remote Sensing Aided Idealization of Space-Time Variant Behavior of Channel Geometry of River Brahmaputra**” sponsored by Ministry of Water Resources, New Delhi. It involved the processing and analysis of hydrological, hydrographic and remote sensing data using Artificial Neural Network Technique.

8. Course Developed at M.Tech. Level

i) Soil-Structure Interaction

Courses Modified at M.Tech. Level

i) Geotechnical Earthquake Engineering

ii) Finite Elements in Geotechnical Engineering

Courses Modified at B.Tech. Level

i) Soil Dynamics

ii) Advance Foundation Design

9. Research Supervision

List of PhD Thesis Guiding

Sl. No.	Name of Candidate	Topic	Status	Year of Completion
1.	Yeetendra Kumar	Characterization of Soils using Soft Computing Methods	To be submitted Shortly	-
2.	Vijay Kumar	Evaluation of Liquefaction Potential of Soils using Neuro and Neuro-Fuzzy Technique	In Progress	-
3.	Tiwari Ritesh Kumar Chandrashekar	Stability Analysis of slopes for Earth and Rockfill Dams	In Progress	

4.	Rahul Das Gupta	Electrokinetic Remediation of Copper contaminated soil by zero valent nano iron particles	In Progress	
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M.Tech Theses Guided/Guiding M.Tech-23 (19 Completed , 4 In Progress)

Sl. No.	Name of Candidate	Topic	Status	Year of Completion
1*	Vimal Kumar Suntha	Evaluation of Liquefaction Potential of Soils using ANN	Completed	2006
2.	Praveen Chaubey	Dynamic Response of Dam including the effect of Soil Structure Interaction	Completed	2007
3.	Subodh Kr. Singh Rathore	Dam Foundation Interaction Behaviour under Static Loading	Completed	2007
4*	Amit Kumar Sonker	Response of framed Buildings Including Soil-Structure Interaction	Completed	2007
5*	Alankar Srivastava	Finite Element Analysis of Circular Tunnel under Varying Soil Properties	Completed	2008
6*	Kore Rajendra Ashok	Estimation of SPT N-Value using ANN Technique	Completed	2008
7*	Ravi Kumar Singh	Undrained Cyclic Behaviour of Cohesive and Cohesionless Soil	Completed	2008
8*	Alok Athaley	Dynamic Response of Framed Structure including the effect of Soil Structure Interaction	Completed	2008
9.	Vinay Prakash Chauhan	Stability Analysis of Slopes using Limit Equilibrium and Numerical Method	Completed	2009
10.	Ram Narayan Kumar	Design and Construction of Head Race Tunnel – A Case Study	Completed	2009
11.	Vijay Kumar	Estimation of Shear Strength Parameters of Soils using ANN Technique	Completed	2010
12.	Abhishek Anand	Rock Slope Failure-A Case Study of Rampur Hydro Electric Project	Completed	2010
13.	Santosh Singh	Design and Construction of Tail Race Tunnel- A Case Study	Completed	2010
14.	Prashant Kumar Kashyap	Stabilization of Virgin and Contaminated Expansive Soil using Cement Kiln Dust	Completed	2010
15	Prashanna K. Pandit	Seismic Response of Asymmetric Framed Structure including the effect of Soil Structure Interaction	Completed	2011
16	Sonali Srivastava	FEA of Single and Group piles	Completed	2012

17	Nisheet Tiwari	Estimation of Liquefaction using Neuro Fuzzy Technique	Completed	2012
18	Saurabh Kumar	Analyzing and Mitigating Liquefaction Hazard	Completed	2013
19	Shlok Singh	Behaviour of Shallow Foundation on Reinforced Soil	Completed	2013
20	Arpit Gupta	Slope Stability analysis under static and dynamic load	In Progress	
21	Ghausul Azam Ansari	Behaviour of Retaining Wall under varying soil condition	In Progress	
22	Imran Ahmad Khan	Finite Element Analysis of Tunnel on soft soils	In Progress	
23	Ravi Kumar Suman	Modelling and Assessment of Liquefaction Potential using RVM	In Progress	

List of B.Tech Project Guided/Guiding

Sl. No.	Name of Candidates	Topic	Status	Year of Completion
1.	a.Abhishek Kumar Mishra b.Ravi Shankar Kumar c.Aditya Singh	Comparative Analysis of Raft Foundation for a Typical Barrage	Completed	2008
2.	a.Varun Singh b. Manish Vikram c. Ravindra Vishwakarma d. Anoop Kumar	Geotechnical Investigation and Stability Analysis of Embankment for Expressway	Completed	2009
3	a.Vivek Dheer b. A.K. Kesarwani c. Rahul Rathore d. J.P. Gond	Stabilization of Expansive Soil Using Cement Kiln Dust	Completed	2011
4	a.Prateek b. Ashish Kumar c. Naveen Kumar	Evaluation of Liquefaction Potential	Completed	2012
5	a. Ansar akhtar b. Shubhankar pandey c. Sunil meena d. Vikas chauhan	Seismic Behaviour of Gravity Dam	Completed	2013
6	a. Chetan Dixit b. Arjit Mishra c. Ram Bahadur Dorjee d. Abhishek Chandra Jha	Analysis and Design of Retaining Wall	In Progress	

Research Project/Consultancy

- a. Research Project entitled “Geo-environment evaluation of open waste dumps and strategies for their rehabilitation” funded by MNNIT, Allahabad.

- b. Provided Testing and Consultancy to Government, Public Sector, and Private Sector organization in the field of Geotechnical Engineering.

Details of Publications

International/ National Journal

1. **Venkatesh, K.** Kumar, V. and Tiwari, R.P. “Appraisal of Liquefaction Potential using Neural Network and Neuro Fuzzy” International Journal of Applied Artificial Intelligence, Taylor & Francis (Accepted for publication)
2. Kumar, V. **Venkatesh, K.** and Tiwari, R.P. “A Neurofuzzy Technique to Predict Seismic Liquefaction Potential of Soil” International Journal of neural network world (Revised and submitted)
3. Kumar, V. **Venkatesh, K.** Kumar, Y. and Tiwari, R.P. (2012), “Application of ANN to Predict Liquefaction Potential” International Journal Of Computational Engineering Research, Vol. 2, No.2, pp. 379-389 (ISSN: 2250–3005).
4. Kumar, V. **Venkatesh, K.** and Kumar, Y. (2012), “Liquefaction Potential Evaluation of Alluvial Soil by Neuro-Fuzzy Technique” International Journal of Emerging Technology & Advanced Engineering, Vol. 2, No. 3, pp.174-184 (ISSN: 2250-2459).
5. Kumar, V. **Venkatesh, K.** and Kumar, Y. (2012), “Approaches of Estimating Liquefaction Potential of Soils” International Journal of Structural and Civil Engineering, Vol.1, No.2, pp. 35-53 (ISSN: 2277-7032).
6. **Venkatesh, K.**, (2011), “Prediction of SPT N-Value using Artificial Neural Network Technique”, International Journal on Recent Trends in Engineering and Technology, Vol. 5, No.3, pp. 39-41.
7. **Venkatesh, K.** (2010), “Free Vibration Analysis of Structure-Raft-Soil System on Homogeneous Media”, International Journal of Recent Trends in Engineering, Vol. 3, No.6, pp. 24-26.
8. **Venkatesh, K.**, Gupta, Y. K., and Athaley, A. (2009), “Free and Forced Vibration Interactive Analysis of a Framed Structure under Varying Soil Medium” The Icfai University Journal of Structural Engineering , Vol. II, No.3, pp. 48-64.
9. **Venkatesh, K.**, Samadhiya, N. K. and Pandey, A. D. (2009), “Response of Raft Foundation on Varying Stratum”, International Journal of Recent Trends in Engineering (Civil Engineering), Vol. 1, No.6, pp.16-19.
10. **Venkatesh, K.**, Samadhiya, N. K. and Pandey, A. D. (2005), “Analysis of Barrage Raft Floor on Varying Foundation Media” International Dam Engineering Journal, Vol. 16, No.2, pp. 153-167.
11. Pandey, A.D., Sharma, N., **Venkatesh, K.** and Kulkarni, M.D. (2005), “ Comparative Study on Analysis of Barrage Raft by Hetenyi’s method and FEM” Water and Energy International Journal, Vol. 62 No. 1, pp. 40-47.
12. Sharma, N., Pandey, A.D. and **Venkatesh, K.** (2004), “ANN Model Development for Bank-line Migration of River Brahmaputra Using Remote Sensing Data.” ISH Journal of Hydraulic Engineering, Vol. 10, No. 1, pp. 56-64.
13. Sharma, N., Pandey, A.D. and **Venkatesh, K.** (2002), “Modelling of Brahmaputra River Cross-Sections Using ANN Technique.” Water and Energy International Journal, Vol. 59 No. 3, pp. 20-29.

International/ National Conferences

1. Dasgupta, R. **Venkatesh, K.** and Tiwari, R.P.(2012) “Electrokinetic Remediation of Copper Contaminated Soils by Zero Valent Nano Iron Powder” Proceedings of 5th International Congress of Environmental Research (ICER-12), UMT Terengganu, Malaysia, 22-24 November, 2012.
2. Yeetendra Kumar, Kumar Venkatesh & Vijay Kumar, “Particle size based assessment of soil using neural network modeling technique”, IGC 2012, 13-15th Dec 2012, IIT Delhi, Delhi.
3. Yeetendra Kumar, Kumar Venkatesh & Vijay Kumar, “Prediction of Compression Index of Cohesive Soil using Neural Network Approach”, International Conference on Advances in Architectural and Civil Engineering, 21-23 June 2012, MSRIT, Bangalore, India.
4. Vijay Kumar, Kumar Venkatesh, Yeetendra Kumar, “Liquefaction Potential Evaluation of Alluvial Soil by ANN Technique”, ISET Golden Jubilee Symposium, IIT Roorkee 2012.

5. Yeetendra Kumar, Kumar Venkatesh & Vijay Kumar, "An approach for USCS Identical classification of soil using Artificial Neural Network Technique", An International Conference GEOTEC HANOI 2011, Hanoi, Vietnam, 6-7 October 2011.
6. Venkatesh, K. Kumar, Y. and Kumar, V. (2011) "Neurofuzzy Modeling Approach for Estimating Shear Strength Parameters of Cohesive Soil" Proceedings of the 13th International Conference of International Association for Computer Methods and Advances in Geomechanics (IACMAG), Melbourne, Australia, 9-11 May, 2011.
7. Dheer, V. Kesarwani, A.K. Rathore, R. Gond, J.P. and Venkatesh, K. (2011) "Stabilization of Expansive Soil using Cement Kiln Dust" Proceedings of National Conference on RAGIT 2011 at CBRI Roorkee, India, 24-25 February 2011.
8. Venkatesh, K. (2010) "Behaviour of Circular Tunnel under Varying Soil Medium" Proceedings of Indian Geotechnical Conference (IGC 2010) at IIT Mumbai, India, 16-18 December 2010.
9. Kumar, Y., Kumar, V. and Venkatesh, K. (2010) "Estimation of Liquid and Plastic Limit using Artificial Neural Network Models" Proceedings of Indian Geotechnical Conference (IGC 2010) at IIT Mumbai, India, 16-18 December 2010.
10. Gupta, Y.K. and Venkatesh, K. (2010) "Dynamic Response of Soil-Raft-Structure System Under Varying Soil Medium" Proceedings of 14th Symposium on Earthquake Engineering (14SEE) at IIT Roorkee, India, 17-19 December 2010.
11. Venkatesh, K., Pandey, A.D. and Samadhiya, N.K. (2010)," Seismic Response of Barrage Raft Floor Under Heterogeneous Soil Medium" Proceedings of the 5th International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics", San Diego, California, USA, 24 – 29 May 2010, paper no. 5.32a.
12. Venkatesh, K. Kumar, Y and Kumar, V (2010) "Prediction of Shear Strength Parameters using Artificial Neural Network Technique" Proceedings of National Conference Technologia, at Bhilai, India, 24-25 February 2010.
13. Venkatesh, K. (2009) "Dynamic Analysis of Soil-Raft-Structure System" Proceedings of Indian Geotechnical Conference (IGC 2009) at Guntur, India, 17-19 December 2009.
14. Venkatesh, K., Samadhiya, N.K. and Pandey, A.D.(2008) "Response of Barrage Raft Foundation Under Changed Strata", Proceedings of Indian Geotechnical Conference (IGC 2008) at IISc Bangalore, India, December 17-19, 2008.pp.106-108.
15. Venkatesh, K., Samadhiya, N.K. and Pandey, A.D. (2008)," Effect on Barrage Raft Floor Due to Intrusion Of Rock" Proceedings of the 12th International Conference of International Association for Computer Methods and Advances in Geomechanics (IACMAG), Goa, India, 1-6 October, 2008, pp 3224-3230.
16. Venkatesh, K., Samadhiya, N.K. and Pandey, A.D. (2008)," Approaches of Analysis of Ogee Shaped Barrage Raft Floor on Varying Foundation Media" Proceedings of the 6th International Conference on Case Histories in Geotechnical Engineering, Arlington, VA, USA, 11 – 16 August 2008,paper no. 1.16, pp.1-8.
17. Venkatesh, K., Samadhiya, N.K. and Pandey, A.D. (2008)," Behaviour of Barrage Raft Floor Under Elasto-Plastic Foundation Soil Medium" Proceedings of the BGA International Conference on Foundations, Dundee, Scotland,24 – 27 June 2008. IHS BRE Press., paper code 315-855, pp. 1137-1148.
18. Mishra, A.K., Kumar, R.S., Singh, A., and Venkatesh, K. (2008), "Comparative Analysis of Raft Foundation for a Typical Barrage" , Proceedings of national conference on Infrastructure Development in Civil Engineering, NIT Himirpur, 16– 17 May 2008, pp. 502-506.
19. Athaley, A., Venkatesh, K. and Gupta, Y.K. (2008), "Influence of Soil Properties on Dynamic Behaviour of Framed Structure", Proceedings of national conference on Infrastructure Development in Civil Engineering, NIT Himirpur, 16– 17 May 2008, pp. 397-402.
20. Athaley, A., Venkatesh, K. and Gupta, Y.K. (2008), "Influence of Soil Properties on Free Vibration Response of Framed Structure", Proceedings of national conference on Challenges and Applications of Mathematical Modeling Techniques in Building Science and Technology, CBRI, Roorkee, 7– 8 February 2008, pp.271-281.
21. Venkatesh, S. and Venkatesh, K. (2007), "Scenario of Air Pollution Management in a Metropolitan City", Proceedings of International conference on environmental management:

- scenario and strategies to 2020, EMASS-2020, Ujjain Engineering College, Ujjain, 26 – 27 December 2007, pp 108-117.
22. Venkatesh, K., Samadhiya, N. K. and Pandey, A. D. (2007), “Free Vibration Analysis of a Barrage Bay Resting on Varying Foundation Media ”, Proceedings of International conference on recent development in structural engineering, RDSE-2007, Manipal Institute of Technology, Manipal, 30th Aug – 1st Sep 2007, pp 170-176.
 23. Venkatesh, K., Samadhiya, N. K. and Pandey, A. D. (2007), “Comparative analysis of ogee shaped barrage raft floor”, Proc. National Conference on Foundation and Retaining Structures, Indian Geotechnical Society, Roorkee chapter, 23-24 May 2007, IIT-Roorkee, Uttaranchal, pp 71-74.
 24. Venkatesh, K., Gupta, Y. K. and Sonker, A. K. (2007), “Influence of Soil Properties at the Interfaces of Structure and Foundation Media”, Proc. National Conference on Foundation and Retaining Structures, Indian Geotechnical Society, Roorkee chapter, 23-24 May 2007, IIT-Roorkee, Uttaranchal, pp 90-93.
 25. Venkatesh, K., Samadhiya, N. K. and Pandey, A. D. (2007), “Response of ogee shaped barrage raft floor on varying foundation media”, Proc. National Conference on Emerging Technology and Developments in Civil Engineering, Government College of Engineering, 22-23 March 2007, Amravati, Maharashtra, pp IV-91-97.
 26. Venkatesh, K., Samadhiya, N.K. and Pandey, A.D. (2006), “Approaches of analysis of barrage raft foundation”, Proc. Indian Geotechnical Conference (IGC 06) at IIT Madras, India, December 14-16, 2006, pp 447-450.
 27. Venkatesh, K., Samadhiya, N.K. and Pandey, A.D. (2006), “Effect of soil properties on dynamic behaviour of raft floor”, Proc. International congress on Computational Mechanics and Simulation (ICCMS 06)” at IIT Guwahati, India, 8-10 December, 2006, pp. 1059-1964.
 28. Venkatesh, K., Pandey, A. D. and Gupta, Y.K. (2006), “Finite Element Analysis of A Barrage Raft Floor ” Proc. National Seminar on Advances in Product Development, Institute of Engineers , 17-18 February 2006, Allahabad, content no. 26.
 29. Venkatesh, K., Pandey, A. D. and Samadhiya, N. K. (2006), “Effect Of Elastic Modulus Of Foundation Media On Response Of Barrage Raft Floor” Proc. National Conference on Earthquake Disaster Technology and Management, Indian Geotechnical Society, 11-12 February 2006, Allahabad, pp IV-40-43.
 30. Venkatesh, K., Samadhiya, N. K. and Pandey, A. D. (2006), “Free Vibration Analysis Of Pier-Raft Of A Barrage On Homogeneous Foundation Media” Proc. National Conference on Earthquake Disaster Technology and Management, Indian Geotechnical Society, 11-12 February 2006, Allahabad, pp. VI-15-18.
 31. Venkatesh, K., Pandey, A. D. and Samadhiya, N. K. (2004), “Comparative Analysis of Raft foundation for a Barrage in India.” Proc. International Conference on Geotechnical Engineering, 3-6 October 2004, Sharjah – UAE, pp.468-473.
 32. Venkatesh, K., Pandey, A. D. and Mukerjee, S. (2002), “Application of Artificial Neural Networks in Estimating SPT N-Value.” Proc. of Indian Geotechnical Conference 2002, Vol. 1, Indian Geotechnical Society, Dec. 20-22, 2002, Allahabad, India, pp. 505-508.
 33. Sharma, N., Pandey, A.D. and Venkatesh, K. (2002), “An Approach For Developing Spatio-Temporal Model of the River Brahmaputra, Proceedings 18th National Convention of Civil Engineers, Institution of Engineers (INDIA), Nov. 9-10, 2002, Guwahati, India, pp 137-142.

Involvement in Institute development/ laboratory in-charge/ administrative work

1. Member DMPC, CED from July 2013
2. O.C. PG Programme Geotechnical and Geo-environmental Engineering from August 2011 till date
3. Coordinator, Avishkar, Student Activity Centre from Aug 2010 till date
4. Member, Departmental Purchase Committee from August 2011 till date
5. Ex O.C. of Geotechnical engineering lab, CED, from August 2011 Feb 2013.
6. Ex Member, DPGC, CED from July 2012 to June 2013
7. Ex O.C. Civil Maintenance (Colony) from August 2009 to 10th July 2012

8. Ex Convener , House Allotment committee from August 2009 to 10th July 2012
9. Ex O.C. Civil Maintenance (Academic) from June 2011 to 10th July 2012
10. Ex Convener , ICCM from June 2011 to 10th July 2012
11. Ex Warden, Tagore Hostel from July 2006 to June 2008
12. Ex O.C. of Geotechnical engineering lab, CED, from February 2006 to May 2008.
13. Ex Member DUGC, CED from August 2011 to July 2012
14. Ex Member, PMGSY from September 2005 to August 2011
15. Ex Member, Central Purchase Committee from August 2006 till November 2010
16. Ex Member, Departmental TEQIP Committee from April 2008 to June 2009
17. Ex Member, DPGC, CED from May 2010 to July 2011.
18. Ex Member, DUGC, CED from April 2008 till April 2010
19. Ex Member, DPGC, CED from September 2005 to September 2006
20. Ex Convener, DST-FIST, CED for proposal submitted in 2006

Membership in Professional Bodies

1. Life Member, Indian Geotechnical Society, LM-2130.
2. Life Member, Indian Society of Earthquake Technology, LM-1053.
3. Member, The Institution of Engineers (India), M-133883-2.

Awards/Fellowship

Awarded Scholarship during M.Tech after qualifying GATE at IIT Roorkee (1999-2001)
Awarded MHRD Fellowship during PhD Degree programme at IIT Roorkee (2002-2005)
“Bharat Jyoti Award” by India International Friendship Society, New Delhi in 2012

Conferences Organized

- National Conference on ‘Earthquake Disaster: Technology & Management’ EARTH’06 held in February, 11-12th 2006, MNNIT, Allahabad.