



## **Prof. H. P. Singh**

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**Publication:** (i) Journal: 31

(ii) Patent: 02

(iii) Conferences: 15

(iv) Book Chapter: 01

### **Educational Qualifications:**

**Ph.D. :** IIT Roorkee

**M.Tech:** M.N.N.I.T. Allahabad (Soil Mechanics and Foundation Engineering)

**B.Tech.:** B.C.E. Bhagalpur (Civil Engineering)

**Total Teaching and Research Experience: 32 Years**

**Specialisation and Area of Research:** Soil Stabilization, Geosynthetics and Reinforced Soil, Ground Improvement Techniques, Soil Liquefaction and Geotechnical Earthquake Engineering.

**Brief Profile:** Joined at Central University of Jharkhand on 15-09-2014 as a Professor and since then have been actively involved in the various academic and administrative works of the University such as Nodal officer of the Students Grievance Redressal Cell from 2015-2020, Liaisoning officer of SC/ST Cell from 2016-2019, Chairman, Admission Committee-2015, Head of Department of Water Engineering and Management from 2018-2021, Dean, School of Natural Resource Management from 2017-2019 and Dean, School of Engineering and Technology from 2020 to 2023. Also, was an Executive Council member of the University from 2020 to 2023. Before joining at CUJ, worked for 22 years in the various academic and administrative capacities in North Eastern Regional Institute of Science and Technology (NERIST) which is a premier institute of North Eastern Region under the Ministry of Education, Govt. of India. Taught many courses of Civil Engineering of different specialisations and supervised a number of B.Tech. and M.Tech. projects of students. Published a number of research papers in various International and National Journals and participated in the various International and National conferences as an Invited Speaker and Chaired many conferences. Supervised 54 M.Tech. dissertations and supervising 5 numbers of Ph.D. students.

### **Details of Publications**

1. **Singh, H.P., Maheshwari, B.K., Saran, S. and Paul, D.K. (2010)**, “International Journal of Geotechnical Engineering, 4(1), 23-30.
2. **Singh, H.P. (2011)**, “Strength Characteristics of Fly ash Reinforced with Geo synthetic Fiber”. International Journal of Earth Science and Engineering, Vol. 04, No.06 SPL, pp. 969-971.

3. Maheshwari, B.K., **Singh, H.P.** and Saran, S. (2012),” Effects of Reinforcement on Liquefaction Resistance of Solani Sand.” ASCE Journal of Geotechnical and Geoinvromental Engineering, Vol. 138, NO. 7, 831-840.
4. **Singh, H.P. and Yachang, Omo, (2012)**, “Use of Fly ash Reinforced with Jute Geotextile As a Pavement Subgrade”. International Journal of Earth Science and Engineering, Vol. 5, No.3 (1), pp.562-567.
5. **Singh, H.P.** (2012), Improvement in CBR Value of Soil Reinforced with Jute Geo textile Layers”. International Journal of Earth Science and Engineering, Vol. 05, No.05 (2),pp.1438-1442.
6. **Singh, H.P. (2013)**, “Strength and Stiffness of Soil Reinforced with Jute Geotextile Sheets.” International Journal of Current Engineering and Technology, Vol.3 No. 3, 1243- 1246.
7. **Singh, H.P. (2013)**, “Effects of Cotton Fiber on CBR value of Itanagar Soil.” International Journal of Current Engineering and Technology, Vol.3 No. 3, 1247-124.
8. **Singh, H.P., (2013)**, “Effects of Coir Fiber on CBR value of Itanagr Soil.” International Journal of Current Engineering and Technology, Vol.3 No. 4, 1283-1286.
9. **Singh, H.P. (2013)**, “Strength and Stiffness Response of Medium Densed Reinforce Sand”. International Journal of Current Engineering and Technology, Vol.3 No. 4, 1419-1423.
10. **Singh, H.P., (2013)**, “Effects of Surcharge Loads on Liquefaction Parameters of Pond Ash Improved With Stone-Sand Columns”. International Journal of Civil Engineering and Technology. Vol. 04, Issue 04, pp.225-235.
11. **Singh, H.P., (2013)**, “Strength and Stiffness Response of Soil Reinforced with Cotton Fiber”. International Journal of Civil Engineering and Technology. Vol. 04, Issue 04, pp.304-312.
12. **Singh, H.P. and Bagra, M.(2013)**, “Improvement in CBR value of Soil reinforced with Jute Fiber”. International Journal of Innovative Research in Science, Engineering and Technology, Vol.02, Issue 08, pp.3447-3452.
13. **Singh, H.P. and Bagra, M. (2013)**, “Strength and Stiffness Response of Itanagar Soil Reinforced with Jute Fiber”. International Journal of Innovative Research in Science, Engineering and Technology, Vol.02, Issue 09, pp.4358-4367.
14. **Singh, H.P. (2013)**, “Strength and Stiffness Response of Itanagar Fly Ash Reinforced with Coir Fiber”. International Journal of Innovative Research in Science, Engineering and Technology, Vol.02, Issue 09, pp.4500-4509.
15. **Singh, H.P. (2013)**, “Effects of Geo grid Sheet on Strength and Stiffness of Loose Sand”.International Journal of Innovative Research in Science, Engineering and Technology, Vol.02, Issue 10, pp.5290-5299.
16. Muni, T., Jeram, Y., Padu, K., Yachang, Omo and **Singh, H.P.** (2014), “International Journal of Innovative Research in Science, Engineering and Technology, Vol.03, Issue 10, pp. 16659-16667.
17. Sinha, A., Kumari, A., Mahapatra, S., **Singh, H.P.** and Bharti, B. (2019), “Temporal Rainfall Variability and Its Correlation with Temperature over Ranchi, Jharkhand, India”. International Journal of Engineering and Advanced Technology, Vol. 09, Issue 02, pp.1099-1104.
18. Kumar, S., Bharti, B. and **Singh, H.P.** (2020), “Evaluation of ANN, M5P, RBF, Reptree for Runoff and Sediment Yield”. International Journal of Scientific & Technological Research, Volume 9, Issue 04, pp-2987-2993
19. Kumar, V., Bharti, B. and **Singh, H.P.(2020)**, “ Role of Proletariat at grass Root Level in Eco-Hydrology Management- A Case Study of Subarnarekha River Basin in Jharkhand, Orissa and West Bengal, India”.European Journal of Molecular & Clinical Medicine (ISSN 2515-8260), Vol.7, Issue 8, pp5444-5449.
20. Parmar, P. Mayoor, M. and **Singh, H.P.** (2022), “Probabilistic Analysis of Annual Time Series of

- Precipitation Data over Marathwada Region of Maharashtra, India”. *Journal of Stochastic Modelling & Applications*, Vol. 26, No.03 (January-June Special Issue), pp. 481-488.
21. Kumar, S., **Singh, H.P.**, Balaji, S., Hanmaiahgari, P.R, and Jaan, H. Pu. (2022), “Inclusive Hyper- to Dilute-Concentrated Suspended Sediment Transport Study Using Modified Rouse Model: Parameterized Power-Linear Coupled Approach Using Machine Learning”. *Journal of Fluids*, 07, 261.
  22. Mishra, C., Toppo, S., Naik, P.K., **Singh, H.P.**, and Raj, A. (2023), “Well Hydraulics in Parts of Western Vidarbha Region in Deccan Traps, India”. *Journal of Geological Society, India*, Vol. 99, pp. 105-110.
  23. Kumar, S., **Singh, H.P.** and Hanmaiahgari, P.R. (2023), “Developing a Numerical Model for Sediment Transport in Channel Network by Considering Multi Grade Bed Load Sediment”. *ISH Journal of Hydraulic Engineering*, 1-16.  
<https://www.tandfonline.com/doi/full/10.1080/09715010.2023.2250303>
  24. Kumar, V., Bharti, B., **Singh, H.P.** and Topno, A.R. (2023),” Assessing the interrelation between NDVI and climate dependent variables by using granger causality test and vector auto-regressive neural network model”. *Physics and Chemistry of the Earth, Parts A/B/C*,  
<https://www.sciencedirect.com/journal/physics-and-chemistry-of-the-earth-parts-a-b-c>
  25. Ali, S., Bharti, B., **Singh, H.P.**, and Jaiswal, R. (2023). “Application of SWAT Model for Water Balance Component Analysis, The Case of Bah River Basin, Madhya Pradesh, India”. *Indian Journal of Environmental Protection*. 43(11). 972-986.
  26. Ali, S., Bharti, B., **Singh, H.P.**, and Jaiswal, R.K. (2023). “Assessment of Spatial and Temporal Trends of Diurnal Temperature Range for Vidisha district, Madhya Pradesh, India”. *Indian Journal of Environmental Protection*. 43(7). 599-611.
  27. Ali, S., Bharti, B., **Singh, H.P.** and Jaiswal, R.K. (2023). “Runoff Estimation by Integration of GIS and SCN-CN Method for Bah River Watershed, Madhya Pradesh, India. 11.109-126.10.1016/VVI.2023.11.12.681
  28. Kumar, V., Bharti, B., **Singh, H.P.**, Singh, A. and Topno, A.R. (2024),”Prediction of volatility and seasonality vegetation by using the GARCH and Holt-Winters models”. *Journal of Environmental Monitoring and Assessment*, 196:288.  
<https://link.springer.com/article/10.1007/s10661-024-12437-0> (Published: 21 February, 2024)
  29. Praksh, C., Ahirwar, A., Lohani, A. and **Singh, H.P.** (2024), “Comparative Analysis of HEC-HMS and SWAT Hydrological models for simulating the streamflow in sub-humid tropical region in India”. *Journal of Environmental Science and Pollution Research*. Volume 31, pages 41182–41196,  
<https://doi.org/10.1007/s11356-024-33861-2> (Published: 07 June 2024).
  30. Kumari, P., Jaiswal, R.K. and **Singh, H.P.** (2024), “Assessing Climate Change Impacts on Irrigation Water Requirement in the Lower Mahanadi Basin: A CMIP6-Based Spatiotemporal Analysis and Future Projection”. *Journal of Water and Climate Change*. <http://iwaponline.com/jwcc/article-pdf/doi/10.2166/wcc2024.152/1444014/jwc2024152.pdf>
  31. Quamar, S., Kumar, P and Singh, H.P. (2025), “Streamflow and Sediment Simulation in the Song River Basin using the SWAT mode”. *Journal of Frontiers in Water*.  
<https://doi.org/10.3389/frwa.2025.1500086>

**Patents:**

S. No.	Title of the Invention	Application No.	Date of Filing	Date of Publication	Journal No.
1.	"A METHOD AND A DEVICE TO IMPROVE THE STRENGTH CHARACTERISTICS OF POND ASH DEPOSITS".	142/DEL/2010	25/01/2010	29/07/2011	30/2011
2.	"A METHOD FOR IMPROVING THE LIQUEFACTION RESISTANCE OF POND ASH DEPOSITS	840/DEL/2010	06/04/2010	02/03/2012	09/2012