

## RESEARCH PUBLICATIONS:

### INTERNATIONAL JOURNAL:

1. Nirmal Kumar, Sudhir Kumar Singh, **H.K.Pandey** (2018), Drainage morphometric analysis using open access earth observation datasets in a drought affected part of Bundelkhand, India. **Applied Geomatics**, DOI:<https://doi.org/10.1007/s12518-018-0218-02>.
2. D.C.Jhariya, Tarun Kumar &**H.K.Pandey** (2018), Watershed prioritization based on soil and water hazard model using remote sensing, geographical information system and multi-criteria decision analysis approach. **Geocarto International** DOI:101080/10106049:20181510039.
3. Tarun Kumar D.C.Jhariya, &**H.K.Pandey**(2019), Comparative study of different models for soil erosion and sediment yield in Pairi Watershed, Chhattisgarh India. **Geocarto International** DOI:<https://doi.org/10.1080/10106049.2019.1576779>.
4. S. Kumar, **H. K. Pandey**, P. K Singh & K. Venkatesh (2019) Demarcation of probable failure zones based on SMR and kinematic analysis **Natural Hazards**, Vol.10(1) pp 1793-1804 DOI: [10.1080/19475705.2019.1618399](https://doi.org/10.1080/19475705.2019.1618399).
5. D.C.Jhariya, Tarun Kumar, **H.K.Pandey** ,Sunil Kumar, Dharmendra Kumar, Amar Kant Gautam, Vindhyaavashini Singh Baghel and Nawal Kishore (2019) Assessment of groundwater vulnerability to pollution by modified DRASTIC model and analytic hierarchy process. **Environmental Earth Sciences** DOI <https://doi.org/10.1007/s12665-019-8608-2>.
6. **H.K.Pandey**, Vivek Tiwari, Saurabh Kumar Ankit Yadav &S.K.Srivastava (2020) ,Groundwater quality assessment of Allahabad smart city using GIS and Water Quality Index.Sustainable Water Resources ManagementDOI: [10.1007/s40899-020-00375-x](https://doi.org/10.1007/s40899-020-00375-x)
7. Abhishek Kumar Chaurasia, **H. K. Pandey**, S. K. Tiwari, Prashant Pandey, Arjun Ram, (2021) Groundwater vulnerability assessment using water quality index (WQI) under geographic information system (GIS) framework in parts of Uttar Pradesh, India. **Sustainable Water Resources Management** 7:40 <https://doi.org/10.1007/s40899-021-00513-z>.
8. Arjun Ram, S. K. Tiwari, **H. K. Pandey**, Abhishek Kumar Chaurasi, Supriya Singh Y. V. Singh. (2021), Groundwater quality assessment using water quality index (WQI) under GIS framework. **Applied Water Science** 11:46 <https://doi.org/10.1007/s13201-021-01376>
9. Pandey, Prashant & Tiwari, S.K. &**Pandey, H. K.** & Chaurasia, Abhishek & Singh, Sachchidanand. (2021). Identification of Potential Recharge Zones in Drought Prone Area of Bundelkhand Region, India, Using SCS-CN and MIF Technique Under GIS-frame work. **Water Conservation Science and Engineering**. 6. 10.1007/s41101-021-00105-0.
10. **Pandey, H.K.**, Singh, V.K. & Singh, S.K. (2022), Multi-criteria decision making and Dempster-Shafer model-based delineation of groundwater prospect zones from a semi-arid environment. **Environ Sci Pollut Res**. <https://doi.org/10.1007/s11356-022-19211-0>
11. Digvijay Singh, P. K. Singh, A. Kainthola, **H. K. Pandey**, Saurabh Kumar & T. N. Singh, (2022). Analysis of failure pattern in cut slopes of bedded sandstone: a case study. **Environmental earth sciences**, 81, 398. doi: 10.1007/s12665-022-10528-0.
12. Kumar, S., **Pandey, H.K.** & Venkatesh, K. (2022), Stability analysis of rock cut slope near major fault using numerical simulation. **Arab J Geosci** 15, 1255 <https://doi.org/10.1007/s12517-022-10487-7>
13. Vishal Kumar Singh, **H.K. Pandey**, Sudhir Kumar Singh, (2022), Groundwater storage change estimation using GRACE data and Google Earth Engine: A basin scale study, **Physics and Chemistry of the Earth, Parts A/B/C**, Volume 129, 103297, ISSN 1474-7065, <https://doi.org/10.1016/j.pce.2022.103297>.

Nirmal Kumar, Sudhir Kumar Singh, Pushpendra K. Singh, Dilip Kumar Gautam, Pooja Patle, **H.K. Pandey**, Pankaj Chauhan, (2022 ), Water accounting of a trans-boundary river basin using satellite observations and WA+ framework, Physics and Chemistry of the Earth, Parts A/B/C, 103343, ISSN 1474-7065, <https://doi.org/10.1016/j.pce.2022.103343>.

14. **Pandey, H. K.**, Kumar, S., Mondal, N. C., & Rawal, N. (2022). Chemical characterization of the Bicchari ash pond and its impact around the Renusagar thermal power plant, Sonbhadra district, Uttar Pradesh, India. Environmental Quality Management, 31(3), 403–412. <https://doi.org/10.1002/tqem.21796>.

15. **Hemant Kumar Pandey**, Vishal Kumar Singh, Sudhir Kumar Singh , Swapnil Kumar Sharma (2023) Mapping and validation of groundwater dependent ecosystems (GDEs) in a drought-affected part of Bundelkhand region, India. Groundwater for Sustainable Development [doi.org/10.1016/j.gsd.2023.100979](https://doi.org/10.1016/j.gsd.2023.100979).

17. Videshi Chaudhary, Saurabh Kumar, Sanjay Kumar Tiwari, **Hemant Kumar Pandey** (2023), Evaluation of engineering properties of KBH and KCH Kaimur Sandstone based on petrological analyses. Arabian Journal of Geosciences. [doi.org/10.1007/s12517-023-11712-7](https://doi.org/10.1007/s12517-023-11712-7)

18. **H. K. Pandey**, Vishal Kumar Singh, Ram Pal Singh, Sudhir Kumar Singh (2023) Soil Loss Estimation Using RUSLE in Hard Rock Terrain: a Case Study of Bundelkhand, India. Water Conservation Science and Engineering. <https://doi.org/10.1007/s41101-023-00229-5>.

19. **H. K. Pandey**, Vishal Kumar Singh, Sudhir Kumar Srivastava, Ram Pal Singh (2023) Groundwater quality assessment using PCA and water quality index (WQI) in a drought-prone area. Sustainable Water Resources Management. <https://doi.org/10.1007/s40899-023-00963-7>

20. Swapnil Kumar Sharma, **H. K. Pandey**, R. P. Singh, Ramanand Mishra, Vishal Kumar Singh, Sudhir Kumar Singh, Keval H. Jodhani, Upaka Rathnayake (2025) Hydrogeological Insights: Assessing Groundwater in Trans-Yamuna Using Decision Making Method, Prayagraj, Iranian Journal of Science and Technology, Transactions of Civil Engineering <https://doi.org/10.1007/s40996-025-01787-5>.

21. Ashutosh Mishra, Prabuddh Kumar Mishra, Anupam Mishra, **Hemant Kumar Pandey**, Kamal Abdelrahman, Mohammed S. Fnais (2025) Spatio-temporal characterization of groundwater hydrogeochemistry using GIS, multivariate statistics, and geochemical modeling in the Lower Ganga-Yamuna Doab region, India Applied Water Sciences <https://doi.org/10.1007/s13201-025-02448-8>

22. Swapnil Kumar Sharma, H. K. Pandey, Keval H. Jodhani, Nitesh Gupta, Sanidhya Dadia, Sudhir Kumar Singh, and Upaka Rathnayake (2025) Advancing Soil Erosion Quantification in the Yamuna River Subbasin Through GEE and Empirical Models for Sustainable Development. Applied and Environmental Soil Science Volume 2025, Article ID 5051873, 16 pages <https://doi.org/10.1155/aess/5051873>

23. Himanshu Hanumant Singh, Ram Pal Singh, H. K. Pandey & Aman Kumar (2025) Assessment of Magnetic Susceptibility of Metal Contaminated Industrial Soils in Prayagraj, India. Soil and Sediment Contamination: An International Journal <https://doi.org/10.1080/15320383.2025/2598574>

#### **NATIONAL JOURNAL:**

**Pandey, H.K.** (1997) :- Comments on the paper entitled Interstratified low Ti and high –Ti Volcanics in arc related Kharagarh Group of Central India, Current Science, Vol 72 No3 pp.13.

1. Rai. K.L., **Pandey, H.K.** (2001) : “ Comments on Anatomy of a Porphyry Copper Deposit, Malanjkhand, Madhya Pradesh, Jour. Of Geol. Soc. of India, Vol-57, pp551-554

2. Rai, K.L., **Pandey, H.K.**, Venkatesh, A.S., Dash, S.K., Agrawal S. and Diwan, P. (2004), Granotoids, their altered variants and associated rocks from Malanjkhand, Central India. Geological Setting, Geochemistry, Evolution and Petrogenesis, Journal of Economic Geology and Georesource Management, Vol.1, No2, pp235-277.
3. **Pandey, H.K.** and Rai, K.L. (2006) ,Granite magmatism and metallogenesis in Malanjkhand region of Kotri rift zone, Central India: A geochemical reappraisal . Indian Journal of Geochemistry Vol. No 21 ( 2) pp283-312
4. Singh, S., Samaddar, A.B., Srivastava, R.K., **Pandey, H.K.** (2009), Artificial Recharge of Ground Water- A case study of Allahabad City" International Journal of Earth Sciences and Engineering. Vol.02, No 06, pp-556-560.
5. Saumya Singhi, A. B. Samaddar, R. K. Srivastava, **H.K.Pandey** (2014) Ground Water Recharge in Urban Areas – Experience of Rain Water Harvesting, Journal Geological Society of India, Vol.83,pp295-302 (SCI Impact factor:0.596)
6. Poonam Dubey, M.M.Singh, **H.K.Pandey** (2014) Aquifer Parameterization in an Alluvial Area:Varanasi District, Uttar Pradesh, India- A Case Study, International Journal of Innovative Research in Science, Engineering and Technology, Vol.3.,Issue-1. Pp-9015-9033
7. **H.K.Pandey**, S.K.Duggal, Ajit Jamatia (2015) Fluoride contamination of ground water and its hydrogeological evolution in District Sonbhadra (U.P.), Proceeding of National Academy of Sciences, (Springer) India, Vol.86(1) pp-81-93( SCI Impact Factor:0.38).
8. Abhishek Kumar Chourasia, **H.K.Pandey**, H.C.Nainwal, Jitendra Singh, S.K.Tiwari(2017), Stability analysis of rock slopes along Gangadarshan, Pauri, Garhwal, Uttarakhand, Journal of Geological Society of India,Vol.89, pp 689-696. (SCI- Impact factor:0.596). IF: 1.33
9. Abhishek Kumar Chourasia, **H.K.Pandey**, S.K.Tiwari, Ram Prakash, Prashant Pandey and Arjun Ram (2018), Groundwater Quality Assessment using Water Quality Index (WQI) in parts of Varanasi District,Uttar Pradesh India , Journal of Geological Society of India,Vol.92, pp 76-82. (SCI- Impact factor:0.596). IF 1.33
10. **H.K.Pandey**, Shivam Dwivedi and Kamlesh Kumar (2018), Flood frequency analysis of Betwa River, Madhya Pradesh India. Journal of Geological Society of India,Vol.92, pp 286-290. (SCI- Impact factor:0.596). IF: 1.33
11. NekRam Rawal ,Chaitanya Nidhi, **H.K.Pandey**(2019) Rapid Impact Assessment Matrix (RIAM)-Based Approach for selection of Solid Waste Disposal Site. National Academy Science Letter <https://doi.org/10.1007/s40009-018-0765-4>. IF 0.788
12. A Ram, SK Tiwari, **H K Pandey**, AK Churasia, SK Choudhary (2020) Assessment of Groundwaterbehaviour in Kulpahar Watershed, District Mahoa, Uttar Pradesh, India. IOP Conference Series Earth and Environmental Sciences 597(2020) 012014 doi:10.1088/1755-1315/597/1/012014. IF: 0.45
13. Abhishek Kumar Churasia, **H K Pandey** and SK Tiwari (2020) Groundwater Resource Assessment of an alluvial aquifer in parts of Varanasi and Sant Ravidas Nagar Districts, Uttar Pradesh, India using GRE-2015. IOP Conference Series Earth and Environmental Sciences 597 (2020) 012004doi:10.1088/1755-1315/597/1/012004. IF 0.45
14. Saurabh Kumar and **Hemant Kumar Pandey** (2021), Slope Stability Analysis Based on Rock Mass Rating, Geological Strength Index and Kinematic Analysis in Vindhyan Rock Formation. JOURNAL GEOLOGICAL SOCIETY OF INDIA Vol.97, pp.145-150. IF: 1.641
15. Abhishek Kumar Chaurasia, **H. K. Pandey**, S. K. Tiwari , Prashant Pandey,(2021) Arjun Ram. Groundwater Stress Analysis using GIS in Parts of Varanasi District, Uttar Pradesh, India. Proc. Natl. Acad. Sci., India, Sect. A Phys. Sci. <https://doi.org/10.1007/s40010-021-00735-y>. IF: 1.276

16. Ghosh, S., Kumar, S., Khare, S.K. &**Pandey, H.K** Stability Assessment of Siwalik Rock Slopes — A Case Study from Dehradun Area, Uttarakhand, India. *J Geol Soc India* 98, 1737–1744 (2022). <https://doi.org/10.1007/s12594-022-2245-1>

17. Nikhil Kumar Pandey, Kumar Venkatesh, **Hemant Kumar Pandey**, Sundaram Srivastava (2023) Numerical Modeling and Analysis of Rock Slope in Markundi Hills, Sonbhadra. *Indian Geotech J* doi.org/10.1007/s40098-023-00730-7

#### **INTERNATIONAL CONFERENCE:**

1. Pandey, H.K. (2014), Ground Water Scenario and Management options in Allahabad and Varanasi city 9U.P.), India - An Analysis in International academic conference held at Venice, Italy during June 30,2014 to July 03,2014.
2. HK Pandey, SK Srivastava Geo-environmental assessment at Bichhari ash pond, District Sonbhadra, UP India International Groundwater Conference-2017, Dec.11- 13,2017 held at New Delhi organized by National Institute of Hydrology, Roorkee.
3. Abhishek Kumar Chaurasia, HK Pandey, SK Tiwari, Prashant Pandey, Arjun Ram Hydrogeological condition and groundwater management options in Araziline Block, District Varanasi, U.P., India International Groundwater Conference-2017, Dec.11- 13,2017 held at New Delhi organized by National Institute of Hydrology, Roorkee.
4. Arjun Ram, SK Tiwari HK Pandey, Abhishek Kumar Chaurasia,,Ravi Shanker Patel , Groundwater behavior and scope of recharge in the District Mahoba, Bundelkhand U.P.India International Groundwater Conference-2017, Dec.11-13,2017 held at New Delhi organized by National Institute of Hydrology, Roorkee.
5. Prashant Pandey,HKPandey,SK Tiwari, Abhishek Chaurasia, Morphometric analysis and its applications in targeting in Yamuna sub-basin, District Banda, UP India International Groundwater Conference-2017, Dec.11-13,2017 held at New Delhi organized by National Institute of Hydrology, Roorkee.

#### **NATIONAL CONFERENCE/SEMINAR**

1. Pandey, H.K. ( 1995 ) Remote Sensing and its utility in Mineral Exploration, in National Seminar on “Utility of Remote Sensing and other methods in Geological studies pp-10 at Bhopal.
2. Pandey, H.K. ( 1995 ) National Mineral Policy and Mineral based industries, in National Seminar on “ Earth Resources, Industrial Development and Environmental Issue : pp-15 at Jaipur.
3. Pandey, H.K. ( 1995), Industrial Mineral Potential and its development – an improved approach for mineral resource evaluation in Minex 95 ( prod.) pp 119-121.
4. Pandey, H.K. ( 1995), Geological Constraints and hazards of surface Mining in the Himalaya and adjoining Regions, pp 25 at W.I.HG., Dehradun.
5. Pandey, H.K. and Rai, K.L. ( 1995), Rare Earth Elements Geochemistry of Malanjkhand Granitoid, Central India in xth Convention of Indian Geological Congress pp.20 at Dhanbad
6. Rai, K.L. and Pandey, H.K., ( 1996), Deposit Model of Proterozoic Cu-Mo, Mineralisation at Malanjkhand, Central India in XthConvenion of Indian Geological Congress pp 6 at Dhanbad.
7. Rai, K.L. and Pandey, H.K., ( 1996 ), Meallogenetic aspects of Precambrian Superlarge Copper Deposit of Malanjkhand in Central India in International Geological Congress pp. at Beijing China.
8. Nag, S., Pandey, H.K. and Rai, K.L. ( 1996), Geological Setting and Depositional Environment of Gold Mineralisation in Sonakhan Schist Belt, Raipur, M.P. in National Seminar on Proterozoic Basins of Central India pp.46 at Rewa.

9. Pandey, H.K. and Mishra, A.K. (1998) " Scope of Artificial Recharge in Kandi belt of Outer Himalaya of Jammu Province ( J&K) – A case Study" in a National Seminar pp 27 held at Banaras Hindu University ( B.H.U.).
10. Pandey, H.K. and Pandey, K.S. ( 2003), Artificial Recharge Studies of Ground Water in and around Allahabad ( U.P.) – A case Study", in Procs. of Tenth National Convention of National Water Development Agency held at Bhubaneswar, 5-7 Nov. 2003 pp232-236.
11. Pandey, H.K. (2006) Ground Water Regime and its impact on Interlinking of Rivers. Souvenir of IIIrd M.P. Science Congress at Bhopal, pp18-19
12. Pandey, H.K.(2009) Impact of liquid waste on Ground water Quality in Alluvial area: A case Study as abstract in National Conference on " Recent Advances in Waste Management held during Feb: 20-21, 2009, pp30 at BHU, Varanasi.
13. Pandey, H.K.(2009), Ground water scenario, problems and it's management in Eastern Uttar Pradesh in National Symposium on "The Planet Earth: Its Finite Resources and Human Civilization during March 17-19, at BHU, Varanasi.
14. Pandey, H.K.( 2010), Groundwater scenario and it's management in Bundelkhand region of Uttar Pradesh in National Symposium on "Geology and Mineral Resources of Bundelkhand Craton held during October 08-10 at Bundelkhand University, Jhansi (U.P.), pp-101.
15. Pandey, H.K., Ramji Singh, A.K.Bhargava and J.P.Gautam ( 2011), Groundwater Stress in Allahabad and Varanasi city and its Management-An Analysis in Regional workshop on "Management Techniques in Ground Water Stressed Urban areas held on Feb.09,2011, pp .78-81
16. Pandey, H.K. (2014), GroundWater Scenario in BundelkhandmegaWatershed of Uttar Pradesh and Management options presented in National Seminar held at Govt. Science College, Rewa(M.P) during Feb.15-16, 2014, pp32.
17. Abhishek Chourasia, S.K.Tiwari , H.K. Pandey (2015), Ancient River Sarasvati- A Palaeochannel, pp29-32 in Workshop on "Groundwater Prospect of Palaeochannels' held on 06.10.2015 organized by CGWB at Allahabad.
18. Pandey, H.K. (2015), Ground Water Stress in Ganga Flood Plain: Case study of Allahabad City (U.P.), pp23 in Workshop on "Groundwater Prospect of Palaeochannels" held on 06.10.2015 organised by CGWB at Allahabad.
19. Rakesh Singh, M.N.Khan, J.P.Gautam and H.K.Pandey (2015) Significance of Urban Hydrogeology in the Gangetic Alluvial Plains-A case study of Allahabad High Court Building pp21-22 in Workshop on "Groundwater Prospect of Palaeochannels" held on 06.10.2015 organized by CGWB at Allahabad
20. Pandey, H.K., Pandey Prashant (2016) Scope and Dimensions of Ground Water Recharge in Allahabad city, published in proceedings of conference on "GroundWater Resource of U.P.- challenges and mitigation " pp-82-91 on 30.03.2016
21. Abhishek Chourasia, H.K. Pandey, Prashant Pandey,Arun Ram, S.K.Tiwari (2016) Groundwater Scenario of Araziline block, District Varanasi, published in proceedings of conference on "GroundWater Resource of U.P.- challenges and mitigation " pp-101-108 on 30.03.2016 10
22. Pandey, H.K. Srivastava Sudhir, Pandey Prashant, Chourasia Abhishek, Tiwari, S.K. (2016), Petrochemical characterisation of fluoride contamination of groundwater in parts of District, Sonbhadra(U.P.) published in proceedings of conference on "Ground Water Resource of U.P.- challenges and mitigation " pp-117-129 on 30.03.2016.