## Selected (Q1/Q2) Publications

1. N. Singh, R.S. Chatterjee, **D. Kumar**, D.C. Panigrahi. Spatio-temporal variation and propagation direction of coal fire in Jharia coalfield, India by satellite-based multi-temporal night-time land surface temperature imaging. Int. J. Min. Sci. Technol., 31 (5) (2021), p. 765-778. https://doi.org/10.1016/j.ijmst.2021.07.002 **(Q1: IF-11.70).**
2. Kumar, A**. Kumar, D**. Singh, A. K., Ram, S. Kumar, R. Development of an empirical model for strength estimation of irregular-shaped-heightened-rib/snook for mechanized depillaring, Int. J. Rock Mech. Min. Sci. 2021, 148, 104969. https://doi.org/10.1016/j.ijrmms.2021.104969 **(Q1: IF-7.00).**
3. Kumar, A. Ram, S. **Kumar, D**. Singh, A. K., Kumar, R. Gorain, S. Development of design norms for rib/snook during mechanised depillaring by continuous miner. Int. J. Rock Mech. Min. Sci. 2023, 161, 105259. https://doi.org/10.1016/j.ijrmms.2022.105259 **(Q1:IF-7.00).**
4. Kumar, A. **Kumar, D**. Singh, A. K., Ram, S. Kumar, R. Gautam, A. Singh, R., and Singh, A. K. Roof sagging limit in an early warning system for safe coal pillar extraction. Int. J. Rock Mech. Min. Sci. 2019, 123, 104131. https://doi.org/10.1016/j.ijrmms.2019.104131 (**Q1: IF-7.00**).
5. Ram, S. **Kumar, D**. Singh, A.K. Kumar, A. and Singh R. Field and numerical modelling studies for an efficient placement of roof bolts as breaker line support, Int J Rock Mech Min Sci, 93 (2017):152–162 https://doi.org/10.1016/j.ijrmms.2017.01.013 (**Q1: IF-7.00**).
6. Silvia Dutta, Manish Kumar Jain, **Dheeraj Kumar**. Evaluation of soil heavy metals in Raniganj open-cast coal mines in India: Spatial distribution, Positive Matrix Factorization and Monte Carlo Simulation, Process Safety and Environmental Protection 194, 2025, 1038-1055. https://doi.org/10.1016/j.psep.2024.12.039 (**Q1: IF-6.90**)
7. R. S. Chatterjee, N. Singh, S. Thapa, D. Sharma and **D. Kumar**, "Retrieval of land surface temperature (LST) from Landsat TM6 and TIRS data by single channel radiative transfer algorithm using satellite and ground-based inputs", Int. J. Appl. Earth Observ. Geoinf., vol. 58, pp. 264-277, Jun. 2017, https://doi.org/10.1016/j.jag.2017.02.017 (**Q1: IF-7.60**).
8. Singh, P., Murthy, V., **Kumar, D**., & Raval, S. A comprehensive review on application of drone, virtual reality and augmented reality with their application in dragline excavation monitoring in surface mines. Geomatics, Natural Hazards and Risk, 15(1). https://doi.org/10.1080/19475705.2024.2327399 **(Q1: IF-4.50)**
9. Singh, P., Murthy, V. M. S. R., **Kumar, D**., & Raval, S. Enhancing dragline operations supervision through computer vision: real time height measurement of dragline spoil piles dump using YOLO. Geomatics, Natural Hazards and Risk, 15(1). https://doi.org/10.1080/19475705.2024.2322492 **(Q1: IF-4.50)**
10. Rawat, A., **Kumar, D**., Chatterjee, R. S., & Kumar, H. (2022). Reconstruction of liquefaction damage scenario in Northern Bihar during 1934 and 1988 earthquake using geospatial methods. Geomatics, Natural Hazards and Risk, 13(1), 2560–2578. https://doi.org/10.1080/19475705.2022.2122591 (**Q1: IF-4.50**)
11. A. Singh, **D. Kumar**, J. Hötzel. IoT based information and communication system for enhancing underground mines safety and productivity: genesis, taxonomy and open issues. Ad Hoc Netw., 78 (2018), pp. 115-129. , https://doi.org/10.1016/j.adhoc.2018.06.008 (**Q1: IF-4.40**).
12. Singh, S.K., **Kumar, D.** (2024). Optimizing coal mine planning and design for sustainable development in the context of mass exploitation of coal deposits. Heliyon, 10(7): e28524. https://doi.org/10.1016/j.heliyon.2024.e28524 (**Q1: IF-3.40)**
13. Kumar, S., **Kumar, D**., Donta, P.K. et al. Land subsidence prediction using recurrent neural networks. Stoch Environ Res Risk Assess 36, 373–388 (2022). https://doi.org/10.1007/s00477-021-02138-2. **(Q1: IF-3.90).**
14. Alam, M. S., **Kumar, D**., & Chatterjee, R. S. (2021). Improving the capability of integrated DInSAR and PSI approach for better detection, monitoring, and analysis of land surface deformation in underground mining environment. Geocarto International, 37(12), 3607–3641. https://doi.org/10.1080/19475705.2024.2327399 (**Q1: IF-3.30**).
15. Mujawdiya, R., Chatterjee, R. S., & **Kumar, D**. (2020). MODIS land surface temperature time series decomposition for detecting and characterizing temporal intensity variations of coal fire induced thermal anomalies in Jharia coalfield, India. Geocarto International, 37(8), 2160–2174.

https://doi.org/10.1080/10106049.2020.1818853 (**Q1: IF-3.30**).

16. Singh, N., Chatterjee, R. S., **Kumar, D**., Panigrahi, D. C., & Mujawdiya, R. (2020). Retrieval of precise land surface temperature from ASTER night-time thermal infrared data by split window algorithm for improved coal fire detection in Jharia Coalfield, India. Geocarto International, 37(3), 926–943. https://doi.org/10.1080/10106049.2020.1753820 (**Q1: IF-3.30**).
17. Sivasankar, T., **Kumar, D**., Shanker Srivastava, H., & Patel, P. (2019). Wheat leaf area index retrieval using RISAT-1 hybrid polarized SAR data. Geocarto International, 35(8), 905–915. https://doi.org/10.1080/10106049.2019.1566404 (**Q1: IF-3.30**).
18. Ranjan, V. Sen, P. **Kumar, D.** and Sarsawat, A. A review on dump slope stabilization by revegetation with reference to indigenous plant. Ecol Process 4, 14 (2015). https://doi.org/10.1186/s13717-015-0041-1 (**Q1: IF-4.60**).
19. K. Malik, **D. Kumar**, D. Perissin, B. Pradhan. Estimation of ground subsidence of New Delhi, India using PS-InSAR technique and Multi-sensor Radar data Adv. Space Res., 69 (4) (2022), pp. 1863-1882. https://doi.org/10.1016/j.asr.2021.08.032 **(Q1: IF-2.8).**
20. Suman, S.; **Kumar, D**.; Kumar, A . Fuzzy Based Convolutional Noise Clustering Classifier to Handle the Noise and Heterogeneity in Image Classification. Mathematics 2022, 10, 4056. https://doi.org/10.3390/math10214056 (**Q1: IF-3.00**).
21. Kumar, S., Agarwal, A., Villuri, V.G.K. **Kumar, D** Constructed wetland management in urban catchments for mitigating floods. Stoch Environ Res Risk Assess 35, 2105–2124 (2021). https://doi.org/10.1007/s00477-021-02004-1 (**Q1: IF-3.90**).
22. N. Kayet, K. Pathak, C.P. Singh, V.M. Chowdary, B.K. Bhattacharya, **D. Kumar**, S. Kumar, I. Shaik. Application of vegetation index and brightness temperature for drought detection. Ecotox. Environ. Safe., 239 (2022), Article 113650. https://doi.org/10.1016/j.ecoenv.2022.113650 (**Q1: IF-6.2**)
23. Kumar S.;Agarwal A.;Ganapathy A.;Villuri V.G.K.;Pasupuleti S.;**Kumar D**.;Kaushal D.R.;Gosain A.K.;Sivakumar B. Impact of climate change on stormwater drainage in urban areas. Stoch Environ Res Risk Assess 36, 77–96 (2022). https://doi.org/10.1007/s00477-021-02105-x **(Q1: IF-3.9)**
24. Chatterjee, R.; Singha, S.; Aggarwal, A.; Sharma, V.; Pranjal, P.; Karunakalage, A.; Jain, P.; Nagar, A.; Mitra, D.; **Kumar, D**.; et al. Reconnaissance to characterization of land subsidence due to groundwater overdraft and oil extraction in and around Mehsana City, Gujarat, India by long-term hybrid differential interferometric SAR technique. J. Hydrol. 2023, 627, 130441, https://doi.org/10.1016/j.jhydrol.2023.130441 (**Q1: IF-5.9**)
25. Chatterjee, R.S. Pranjal, P. Jally, S. Kumar, B. Dadhwal, V. K. Srivastav, S. K. **Kumar, D**. Potential groundwater recharge in north-western India vs spaceborne GRACE gravity anomaly based monsoonal groundwater storage change for evaluation of groundwater potential and sustainability, Groundwater for Sustainable Development 10 (2020) 100307: 1-14, https://doi.org/10.1016/j.gsd.2019.100307 (**Q1: IF-4.9**) .
26. J. Pandey, **D. Kumar**, N. K. Mohalik, R. K. Mishra, A. Khalkho, & V. K. Singh Investigation of the Role of Fire Retardants in Preventing Spontaneous Heating of Coal and Controlling Coal Mine Fires. Fire Technol 51, 227–245 (2015). https://doi.org/10.1007/s10694-012-0302-9 (**Q2: IF-3.3**).
27. Chatterjee, R. S., Singh, K. B., Thapa, S., & **Kumar, D.** (2015). The present status of subsiding land vulnerable to roof collapse in the Jharia Coalfield, India, as obtained from shorter temporal baseline C-band DInSAR by smaller spatial subset unwrapped phase profiling. International Journal of Remote Sensing, 37(1), 176–190. https://doi.org/10.1080/2150704X.2015.1126376 (**Q2: IF-3.3**).
28. Ranjan, V., Sen, P., **Kumar, D.** et al. Enhancement of mechanical stability of waste dump slope through establishing vegetation in a surface iron ore mine. Environ Earth Sci 76, 35 (2017). https://doi.org/10.1007/s12665-016-6350-6 (**Q2: IF-3.0**).
29. Pandey, J., Kumar, D., Panigrahi, D.C. et al. Temporal transition analysis of coal mine fire of Jharia coalfield, India, using Landsat satellite imageries. Environ Earth Sci 76, 439 (2017). https://doi.org/10.1007/s12665-017-6765-8 (**Q2: IF-3.0**).
30. Rawat, A., **Kumar, D.,** Chatterjee, R.S. et al. A GIS-based liquefaction susceptibility mapping utilising the morphotectonic analysis to highlight potential hazard zones in the East Ganga plain. Environ Earth Sci 81, 358 (2022). https://doi.org/10.1007/s12665-022-10468-9 (**Q2: IF-3.0**).

31. Singh, A.K., Kumar, A., **Kumar, D.** et al. Coal Pillar Extraction Under Weak Roof. Mining, Metallurgy & Exploration 37, 1451–1459 (2020). https://doi.org/10.1007/s42461-020-00277-8 (**Q2: IF-2.8**).
32. Kadiyan, N., Chatterjee, R.S., Pranjal, P. **Kumar, D.** (2021). Assessment of groundwater depletion–induced land subsidence and characterisation of damaging cracks on houses: a case study in Mohali-Chandigarh area, India. Bull Eng Geol Environ 80, 3217–3231 (2021). https://doi.org/10.1007/s10064-021-02111-x (**Q2: IF-3.7**).
33. Pranjal P. Kadiyan N. Chatterjee R.S. **Kumar D**. Sati M.S. (2021). Interpreting land subsidence impacts due to groundwater depletion using remote sensing-based GRACE gravity anomaly and DInSAR technique: a study on north-western parts of India. Environ Earth Sci 80, 596 (2021). https://doi.org/10.1007/s12665-021-09905-y (**Q2: IF-2.8**).
34. Vivek Singh, Purnendu Sardar, Sukha Ranjan Samadder, **Dheeraj Kumar**, Vasant Govind K. Villuri. Predicting the future landscape of Dhanbad District: an analysis of land-use change and urban sprawl through cloud computing and neural networks. Environ Dev Sustain 26, 30749–30770 (2024). https://doi.org/10.1007/s10668-023-03998-0 **(Q2: IF -4.7)**
35. Pranjal, P., **Kumar, D**., Soni, A. et al. Assessment of groundwater level using satellite-based hydrological parameters in North-West India: A deep learning approach. Earth Sci Inform 17, 2129–2142 (2024). https://doi.org/10.1007/s12145-024-01263-0 (**Q2: IF-2.9**).