

- **Papers published in SCI/SCIE journals**

- a. **International Journals**

2024

1. Kumar R, Bera A, Srivastava S, **Pal S K** 2024. Integrating physiographical and geophysical analyses for the remediation of a water-filled abandoned coal mining site in Chasnala Colliery, Jharkhand, India. Ms. No. JESS-D-23-00811R1
2. Yadav A, Kumar T, Tripathi A, **Pal S.K.**, Shalivahan 2024. Combined electrical resistivity tomography and high-resolution shallow seismic analysis for coal exploration in Talcher Coalfield, India. *Acta Geophysica* AGPH-D-23-00775R1
3. Kumar S, **Pal S K** and Guha A 2024. Combined geophysical study to compare responses from pipe1 and pipe2 in Wajrakarur kimberlite field. *Mining, Metallurgy & Exploration*. DOI: 10.1007/s42461-024-00914-6.
4. Saurabh , Rajwardhan Kumar, and **Pal SK** Mapping of old coal-mine galleries near railway track using Electrical Resistivity Tomography and Magnetic approaches in Tundu, Jogidih Colliery, Jharia Coalfield, India. **Journal of Earth System Science**. 10.1007/s12040-023-02253-4.

2023

5. Horo D, Pal SK, Singh S, Biswas A 2023 New Insights into the Gold Mineralization in the Babaikundi–Birgaon Axis, North Singhbhum Mobile Belt, Eastern Indian Shield Using Magnetic, Very Low-Frequency Electromagnetic (VLF-EM), and Self-Potential Data. *Minerals* 13, 1289. <https://doi.org/10.3390/min13101289>
6. Ganguli S S, Pal S K, and Singh R K. 2023. Crustal architecture of the Dharwar craton and Southern Granulite Terrane, Southern India, from the analysis of gravity-magnetic data. **Physics and Chemistry of the Earth, Parts A/B/C**. <https://doi.org/10.1016/j.pce.2023.103532> **Impact Factor: 3.7, Q2.**
7. Narayan S, Sahoo S D; **Pal SK**, Pham L. T., Kumar P. **2023** Integrated geophysical and petrophysical characterization of Upper Jurassic carbonate reservoirs from Penobscot field, Nova Scotia: A case study. **Marine Geophysical Research**. <https://link.springer.com/article/10.1007/s11001-023-09533-0> **Q2.**
8. Verma S. K., Kumar N., **Pal, S.K.** 2023. Noise analysis of the observatory superconducting gravimeter in the normal mode frequency range using gravity data of Ghuttu, Garhwal Himalaya, India. *Journal of Asian Earth Sciences: X*. Volume 10, 1 December 2023, 100165. <https://doi.org/10.1016/j.jaesx.2023.100165>.
9. Babu, V.G., Kumar, N., Verma, **Pal S.K.** 2023. An updated earthquake catalogue and seismic regimes in the northwest Himalaya: Seismic periodicity associated with strong earthquakes. **J Earth Syst Sci** 132, 173. <https://doi.org/10.1007/s12040-023-02180-4>
10. Verma S. K., Kumar N., Hazarika, D., Paul, A., Yadav, D.K., **Pal, S.K.**, 2023. Shear wave crustal velocity structure in the Garhwal-Kumaon Himalaya based on noise cross-correlation of Rayleigh wave; **Tectonophysics**, <https://doi.org/10.1016/j.tecto.2023.230047>.
11. Dasgupta S., Mukherjee S., Vanik N., Chatterjee R., **Pal S K**. 2023. Paleostress analysis and rift kinematics of the petroliferous Barmer rift basin, western Rajasthan, India. **Marine and Petroleum Geology**. <https://doi.org/10.1016/j.marpetgeo.2023.106442>. **Impact Factor 5.36, Q1**
12. Narayan S, Kumar U; Sahoo S D; **Pal SK**. **2023** Appraisal of lineaments patterns and crustal architectures around the Owen Fracture Zone, Arabian Sea, using global gravity model data. **Acta Geophysica**. <https://doi.org/10.1007/s11600-023-01170-w>. **Impact Factor 2.3, Q2.**
13. Narayan S, Singh R, Mohan A, Vivek K, Acharya P, **Pal SK**. 2023 Delineation of thin and discrete sand reservoir facies from shale-dominated Kopili Formation (Middle to Late

- Eocene) using the post-stack seismic inversion and neural network algorithm: A case study from Assam Basin, India. **Journal of Earth System Science**. 132 (2). <https://link.springer.com/article/10.1007/s12040-023-02097-y>. **Impact Factor 1.9. Q2**
14. Ganguli S S and **Pal SK** 2023. Gravity-magnetic appraisal of the southern part of Cauvery Basin, Eastern Continental Margin of India (ECMI): An evidence of volcanic rifted margin. **Frontiers in Earth Science**. Volume 11. <https://doi.org/10.3389/feart.2023.1190106>. **Impact Factor 3.661. Q2**
 15. Bharti A K, Singh S.K, **Pal S K**, Singh K K K, Prakash A, Bhattacharjee R, Kumar L. 2023. Electrical resistivity tomography technique coupled with numerical modelling: A case study for stability analysis. *Geophysical Prospecting*. <https://doi.org/10.1111/1365-2478.13382>. **Impact Factor 2.6. Q2**
 16. Agrawal A., Gupta Ravindra K, Shams R. and **S. K. Pal** 2023 Seismic Site Response Study of Dhanbad City (India) Using Equivalent Linear Analysis Complemented by Horizontal-to-Vertical Spectral Ratios. *Environmental Earth Sciences*. volume 82, Article number: 291 (2023). **Impact Factor 2.8. Q2**
 17. Narayan, S., Sahoo, S.D., Kar, S., **Pal, S.K.**, Kangsabanik, S., 2023 Improved reservoir characterization by means of the supervised machine learning and model-based seismic impedance inversion in the Penobscot field, Scotian Basin. *Energy Geoscience* (2023), doi: <https://doi.org/10.1016/j.engeos.2023.100180>.
 18. Yadav M, **Pal SK**, Singh P.K, and Gupta N. 2023. Landslide Susceptibility Zonation Mapping Using Frequency Ratio, Information Value Model, and Logistic Regression Model: A Case Study of Kohima District in Nagaland, India. https://doi.org/10.1007/978-3-031-23859-8_17. **Edited Book**
 19. Kumar, R., Prajapati, S.K., **Pal, S. K.**, and Mishra, O. P.: Seismotectonics of the northeast Indian region based on GPS velocities, stress and strain rate field characterization, EGU General Assembly 2023, Vienna, Austria, 24–28 Apr 2023, EGU23-11133, <https://doi.org/10.5194/egusphere-egu23-11133>, 2023.
 20. Chouhan, A. K., Choudhury P. and **Pal, S. K.**, 2023. Sedimentary thickness and upper crustal structure of the north Cambay rift, India deduced from gravity data: new evidence of pre-trappean sediments. **Journal of Geological Society of India**. Ms. No. JGSI-D-22-00077R1 **Impact Factor 1.3. Q4**

2022

21. Narayan, S., Sahoo, S.D., Pal, SK., and Kumar U., 2022 *Comparative evaluation of five global gravity models over a part of the Bay of Bengal*. **Advances in Space Research**, **71(5)**, 2416–2436. <https://doi.org/10.1016/j.asr.2022.11.002> **Impact Factor 2.611. Q3**.
22. Sahoo, S.D., Narayan, S. and Pal, SK., 2022 Appraisal of gravity-based lineaments around Central Indian Ridge (CIR) in different geological periods: Evidence of frequent ridge jumps in the southern block of CIR. *Journal of Asian Earth Sciences*, 239, 105393. <https://doi.org/10.1016/j.jseaes.2022.105393>. **Impact Factor: 3.374, Q2**
23. Sahoo, S.D., Narayan, S. and Pal, SK., 2022 Fractal analysis of lineaments using CryoSat-2 and Jason-1 satellite gravity data: evidence of a uniform tectonic activity over the middle part of the Central Indian Ridge. **Physics and Chemistry of the Earth, Parts A/B/C**. **Impact Factor: 3.7, Q2**.
24. Sarkar P., Mondal S., Pal, SK., Roy, P.N.S., Sahoo, S.D., Widyadwatmaja, A., Gupta, S., Gupta, A., 2022. New insights on the tectonic framework using EIGEN6C4 gravity data, seismicity, and finite element stress analysis: An attempt to map earthquake vulnerable zones in parts of North-East India and surroundings. **Physics and Chemistry of the Earth, Parts A/B/C**. Volume 127, October 2022, 103195. <https://doi.org/10.1016/j.pce.2022.103195>. **Impact Factor: 3.7, Q2**
25. Ekka **M S**, Sahoo S. D., **Pal SK**, Roy P.N.S. and Mishra O. P. (2022) Comparative analysis of the structural pattern over the Indian Ocean Basins using EIGEN6C4 Bouguer gravity data. **Geocarto**

International, DOI: <https://doi.org/10.1080/10106049.2022.2087748>. **Impact Factor 3.8 Q2**

26. Ganguli S S, Mondal S., **Pal SK**, Lakshamana, M. and Mahender S. 2022 Combined analysis of Remote sensing, Gravity and Magnetic data across Moyar Bhavani Shear Zone, Southern Granulite Terrain (SGT), India: Appraisals for crustal architecture and tectonics. **Geocarto International**. DOI: [10.1080/10106049.2022.2086627](https://doi.org/10.1080/10106049.2022.2086627). **Impact Factor 3.8 Q2**
27. Sahoo S. D. and **Pal SK**, 2022 The mantle temperature corrected gravimetric Moho using SGG-UGM-2 gravity data: An evidence of asymmetric distribution of thin and thick crust along the Central Indian Ridge (3°S – 16°S). **Marine Geophysical Research** **43**, 24. <https://doi.org/10.1007/s11001-022-09481-1>. **Impact Factor 2.5, Q3**
28. Raj Kumar, Sanjay Kumar Prajapati and **Pal SK**, 2022 Determination of focal depths of moderate earthquakes in North-East Indian region using depth phase sPn. **Natural Hazards**. <https://doi.org/10.1007/s11069-022-05396-7>. **Impact Factor 3.158, Q2**
29. Mondal S., Guha A., and **Pal SK**, 2022 Support vector machine-based integration of AVIRIS NG hyperspectral and ground geophysical data for identifying potential zones for chromite exploration – a study in Tamil Nadu, India. **Advances in Space Research**. <https://doi.org/10.1016/j.asr.2022.04.048>. **Impact Factor 2.611, Q1**
30. Gupta, N., **Pal, S.K.**, and Das, J.D., 2022. GIS-based evolution and comparisons of landslide susceptibility mapping of the East Sikkim Himalaya. **Annals of GIS**. <https://doi.org/10.1080/19475683.2022.2040587>.

2021

31. Hajra S, Hazarika D, Mondal S, Pal SK, Roy PNS (2021) Deformation of the upper crust in the Kumaon Himalaya analyzed from seismic anisotropy and gravity lineament studies. *Physics of the Earth and Planetary Interiors*, 322, 106827. <https://doi.org/10.1016/j.pepi.2021.106827>. **Impact Factor : 2.748 Q2.**
32. Mondal S., Guha A., **Pal SK**, 2021 Comparative analysis of AVIRIS-NG and Landsat-8 OLI data for lithological mapping in parts of Sittampundi layered complex, Tamil Nadu, India. **Advances in Space Research**. 69 (1), 1408-1426. <https://doi.org/10.1016/j.asr.2021.11.001>. **Impact Factor 2.611, Q3**
33. Yadav D.N., Kumar N., Babu G. V., Kumari R., **Pal S. K.** 2021 Crustal velocity structure and seismotectonics of the Kinnaur region of northwest Himalaya: new constraints based on recent micro-earthquake data. **Journal of Asian Earth Sciences**. <https://doi.org/10.1016/j.jseaes.2021.105005>. **Impact Factor 3.449, Q2.**
34. Kannaujiya S., Yadav R.K., Champati ray P.K., Sarkar T., Sharma G., Chauhan P., **Pal S. K.**, Roy P.N.S., Gautam P., Taloor A.K., Yadav A. Unraveling seismic hazard by estimating prolonged crustal strain buildup in Kumaun-Garhwal, Northwest Himalaya using GPS data measurements. *Journal of Asian Earth Sciences*. <https://doi.org/10.1016/j.jseaes.2021.104993>. **Impact Factor 3.449, Q2.**
35. Sathiyaseelan Rajesh, Pappachen P. J., Gautam P.K., **Pal S.K.** 2021 Crustal velocity and interseismic strain-rate on possible zones for large earthquakes in the Garhwal-Kumaun Himalaya. **Scientific Reports**. <https://doi.org/10.1038/s41598-021-00484-3>. **Impact Factor 4.996 Q2**
36. Narayan S. Kumar U., **Pal S. K.**, Sahoo S. D. 2021. New insights into the structural and tectonic settings of the Bay of Bengal using high-resolution earth gravity model data. **Acta Geophysica**. <https://doi.org/10.1007/s11600-021-00657-8>. **Impact Factor 2.293, Q3.**
37. Gupta S. K., Roy P. N.S. and **Pal S. K.** 2021. Scale invariance behaviour for pre and post-2015 Nepal Gorkha earthquake GPS time series based on fractal analysis. *Chaos, Solitons and Fractals* **152 (2021) 111341**. **Q1. Impact Factor 9.922 Q1**

38. Gupta R K, Agrawal M, **Pal, SK**, Das MK 2021, Seismic site characterization and site response study of Nirsa (India). **Nat Hazards**. <https://doi.org/10.1007/s11069-021-04767-w>. **Impact Factor 4.6, Q2**
39. Jotheshwar Velayudham, Kannaujiya S., Sarkar T., Champati Ray P K., Taloor Ajay K., Singh Bisht M P, Chawla S., **Pal S. K.** Comprehensive study on evaluation of Kaliasaur landslide attributes in Garhwal Himalaya by the execution of geospatial, geotechnical and geophysical methods. **Quaternary Science Advances**, <https://doi.org/10.1016/j.qsa.2021.100025>. **Impact Factor 4.456, Q1**
40. Hajra S., Hazarika D., Kumar N., **Pal S. K.**, Roy P. N. S. 2021. Seismotectonics and stress perspective of the Kumaon Himalaya: A geophysical evidence of a Lesser Himalayan duplex. **Tectonophysics** 806, 228801. doi.org/10.1016/j.tecto.2021.22880. **Impact Factor 3.66, Q2**
41. Sharma J, Kumar M, Singha Roy K, Pal S. K., Roy P. N. S. 2021. Low Velocity Zones and Negative Radial Anisotropy Beneath the Plume Perturbed Northwestern Deccan Volcanic Province. **Journal of Geophysical Research - Solid Earth**. doi:10.1029/2020JB020295. **Impact Factor 4.39, Q1**
42. Ganguli SS, **Pal SK**, Sundaralingam K, and Kumar P, 2021. Insights into the crustal architecture from combined analysis of gravity and magnetic data across Salem Attur Shear Zone (SASZ), Southern Granulite Terrane (SGT), India: An evidence of accretional tectonics. **Episodes Journal of International Geoscience**. doi: <https://doi.org/10.18814/epiugs/2020/020095>. **Impact Factor 2.439, Q3**
43. Sahoo SD, and **Pal SK**. 2021. Crustal Structure and Moho topography of the southern part (18° S - 25° S) of central Indian ridge using high-resolution EIGEN6C4 global gravity model data. **Geo-Marine Letters**, 41(3), doi:10.1007/s00367-020-00679-z. **Impact Factor 2.267, Q3**
44. Kumar R., Pal S. K. and Gupta P. K. 2021 Water Seepage Mapping in an Underground Coal-Mine Barrier Using Self-potential and Electrical Resistivity Tomography. *Journal of Mine Water and the Environment* 40(3), pp.622-638. <https://doi.org/10.1007/s10230-021-00788-w>. **Impact Factor 2.688, Q3**

2020

45. Kumar U, Satya Narayan and **S. K. Pal**, 2020. Structural and tectonic interpretation of EGM2008 gravity data around the Laccadive ridge in the Western Indian Ocean: An implication to continental crust. **Geocarto International**, <https://doi.org/10.1080/10106049.2020.1856193>. **Impact Factor: 3.45, Q2**.
46. Ganguli S S, Pal SK, Singh SL, Rama Rao JV, and Balakrishna B. 2020. Insights into crustal architecture and tectonics across Palghat Cauvery Shear Zone, India from combined analysis of gravity and magnetic data. **Geological Journal**, 55(12):1–19. <https://doi.org/10.1002/gj.4041>. **Impact factor: 2.128 Q3**
47. Horo D, Pal S K and Singh S 2021. Mapping of gold mineralization in Ichadih, North Sighbhum Mobile Belt, India using Electrical Resistivity Tomography and self-potential methods. *Min. Metall. Explor.* **38** 397-411 <https://doi.org/10.1007/s42461-020-00340-4>. **Impact Factor: 1.695, Q3**
48. Srivastava S., Pal S K and Kumar Rajwardhan, 2020. A time-lapse study using Self-Potential and Electrical Resistivity Tomography methods for mapping of old mine working across railway-tracks in a part of Raniganj Coalfield, India. *Environmental Earth Sciences*, 79:332. <https://doi.org/10.1007/s12665-020-09067-3>. **Impact Factor: 3.119, Q2**
49. Kannaujiya S., Philip G., Champati Ray P. K., **Pal S. K.**, Taloor A. K., 2020 Integrated Geophysical Techniques for Subsurface Imaging of Active Deformation across the Himalayan Frontal Thrust in Singhauli, Kala Amb, India., <https://doi.org/10.1016/j.quaint.2020.05.003>. **Quaternary International. Impact Factor: 2.454, Q3**

50. Kannaujiya S., Gautam P. K. R., Champati Ray P. K., Chauhan P., Roy P.N.S, **Pal S. K.**, Taloor A. K., 2020 Contribution of seasonal hydrological loading in the variation of seismicity and geodetic deformation in Garhwal region of Northwest Himalaya. **Quaternary International**, <https://doi.org/10.1016/j.quaint.2020.04.049>. **Impact Factor: 2.457, Q3.**
51. Kumar S, **Pal SK**, Guha A, Sahoo SD, Mukherjee A. 2020. New insights on Kimberlite emplacement around the Bundelkhand Craton using integrated satellite-based remote sensing, gravity, and magnetic data. *Geocarto Int.* 37(4). <https://doi.org/10.1080/10106049.2020.1756459>. **Impact factor : 3.45, Q2.**
52. Sarkar P, Roy P. N. S, **Pal S K** 2020 Rejuvenation of “pop-up” Tectonics for Shillong Plateau in N-E Himalayan Region. **Journal of Earth System Science**, 129:123 <https://doi.org/10.1007/s12040-020-01389-x>. **Impact factor : 1.912, Q3.**
53. Kumar Sarvesh, **Pal S.K.**, Rani S., Saurabh 2020 GPR data interpretation using Continuous Wavelet Transform: A different approach. **Current Science**, 118. **Impact factor : 1.169, Q3.**
54. **Pal S.K.**, Vaish J. (2020) Coal Fire Study Over East Basuria Colliery. In: Biswas A., Sharma S. (eds) *Advances in Modeling and Interpretation in Near Surface Geophysics*. Springer Geophysics. Springer, Cham. https://link.springer.com/chapter/10.1007/978-3-030-28909-6_11. pp 295-334. Edited Book Chapter
55. Kumar S. and Pal S.K., 2020 Underground coalfire mapping using analysis of self-potential (SP) data collected from Akashkinaree Colliery, Jharia coalfield, India. *Journal of Geological Society of India*, 95(4) 333-438. **Impact Factor :1.466, Q4.**
56. Kumar Sarvesh, **Pal Sanjit Kumar** and Guha Arindam 2020 Very low Frequency electromagnetic (VLF-EM) study over Wajrakarur kimberlite Pipe 6 in Eastern Dharwar Craton, India. **Journal of Earth System Science**. 129: 102 (2020). <https://doi.org/10.1007/s12040-020-1367-3>. **Impact factor : 1.912, Q3.**
57. **Horo D, Pal S K, Singh S and Saurabh** 2020 **Combined self-potential, electrical resistivity tomography and induced polarisation for mapping of gold prospective zones over a part of Babaikundi-Birgaon Axis, North Singhbhum Mobile Belt, India; Explor. Geophys.** 51 507-522. <https://doi.org/10.1080/08123985.2020.1722026>. **Impact factor: 1.026, Q4**
58. Chouhan, A. K., Singh D., **Pal, SK** and Choudhury P. 2020 Delineation of subsurface geological fractures in the Cambay rift and surrounding regions of NW India: an integrated approach using satellite derived EIGEN-6C4 gravity data. **Geocarto International**. <https://doi.org/10.1080/10106049.2020.1716395>. **Impact factor: 3.8, Q2.**
59. Ganguli, S. S., **Pal, S.K.**, Rama Rao, J. V., and Sunder Raj, B. (2020). Gravity-magnetic appraisal at the interface of Cuddapah Basin and Nellore Schist Belt (NSB) for shallow crustal architecture and tectonic settings. **Journal of Earth System Science** 129, 92, <https://doi.org/10.1007/s12040-020-1354-8>. **Impact factor : 1.912, Q3.**
60. Chouhan, Avinash Kumar, Choudhury Pallabee and **Pal, Sanjit Kumar** 2020, New evidence for a thin crust and magmatic underplating beneath the Cambay rift basin, Western India through modelling of EIGEN-6C4 gravity data. **Journal of Earth System Science**, 129 64, doi:10.1007/s12040-019-1335-y. **Impact factor : 1.912, Q3.**

2019

61. Ujjawal Kumar, Satya Narayan and **S. K. Pal**, 2019. New insights on structure and tectonics over the Laxmi Ridge using EIGEN6C4 modelled gravity data, *Indian Journal of Geo Marine Sciences*, Vol. 48 (12), December 2019, pp. 1999-2005. **Impact Factor: 0.553 Q4**
62. **Rani K**, Guha A, Pal S K, Vinod Kumar K 2019 Potential use of ASTER derived emissivity, thermal inertia and albedo image for geological mapping – a study for Aravalli

- Group of Rocks, Rajasthan, Journal of Geological Society of India. **94**, 583–589. **Impact Factor : 1.466, Q4.**
63. Mondal S., Guha A., Pal SK, Alok Porwal, Snehamoy Chatterjee, Komal Rani, Amin Beiranvand Pour & K. Vinod Kumar, 2019, Conjugate utilization of Landsat-8 OLI, ground gravity and magnetic data for targeting mafic cumulates within anorthositic-layered complex of Sittampundi, India, **Geocarto International**, 10.1080/10106049.2019.1669726, **Impact factor: 3.8, Q2**
 64. Sahoo S. D. and Pal S. K. 2019 Mapping of structural lineaments and fracture zones around the Central Indian Ridge (10°S - 21°S) using EIGEN 6C4 Bouguer gravity data. **Journal of Geological Society of India**, 94 (4), 359-366. **Impact Factor : 1.466, Q4.**
 65. Bharti, A.K., Pal S. K., Saurabh, Sarvesh kumar, Subhendu Mondal, K. K. K. Singh, P. K. Singh, 2019. Detection of old mine workings over a part of Jharia coal field, India using Electrical Resistivity Tomography. Journal of Geological Society of India, 94(3), 290-296. **Impact Factor : 1.466, Q4.**
 66. Pal SK, Kumar S. 2019. Subsurface structural mapping using EIGEN6C4 data over Bundelkhand craton and surroundings: An appraisal on kimberlite/lamproite emplacement. J Geol Soc India. 94(2):188-196. **Impact Factor : 1.466, Q4.**
 67. Gautam Param K., Sathyaseelan Rajesh, Pappachen John P., Kumar Naresh, Biswas Arkoprovo, Philip George, Dabral Chandra P., **Pal Sanjit K. 2019.** GPS measured static and kinematic offsets at near and far field of the 2011 Mw 9.0 Tohoku-Oki earthquake. **Geodesy and Geodynamics 10(3) 213-227. Q4**
 68. Gupta R K, Agrawal M, **Pal S K**, Kumar R, Srivastava S, (2019) Site characterization through combined analysis of seismic and electrical resistivity data at a site of Dhanbad, Jharkhand, India. **Environmental Earth Sciences 78 (6), 226.** <https://doi.org/10.1007/s12665-019-8231-2>. **Impact Factor: 3.119, Q2**
 69. Singh K. K. K., Bharti, A.K., **Pal, S. K.**, Amar Prakash, Saurabh, Rajwardhan Kumar, P. K. Singh, **2019**, Delineation of fracture zone for groundwater using combined inversion technique. Environmental Earth Sciences, 78: 110. <https://doi.org/10.1007/s12665-019-8072-z>. **Impact Factor: 3.119, Q2**
 70. Ganguli S. S., Singh S., Das N., Maurya D., Pal S.K., and Rama Rao J. V. 2019. Gravity and magnetic survey in south western part of Cuddapah Basin, India and its implication for shallow crustal architecture and mineralization. Journal of Geological Society of India 93(4) 419-430. <https://link.springer.com/article/10.1007/s12594-019-1196-7> **Impact Factor : 1.466, Q4.**
 71. Bharti, A.K., **S. K. Pal**, Saurabh, K. K. K. Singh, P. K. Singh, Amar Prakash, R. K. Tiwary, **2019** Groundwater prospecting by inversion of cumulative data of Wenner-Schlumberger and Dipole-Dipole arrays: A case study at Turamdih, Jharkhand, India. **Journal of Earth System Science, 128(4), 107. Impact factor : 1.912, Q3.**
 72. Rani K, Guha A, Subhendu M, Pal S K, Vinod Kumar K (2019) ASTER multispectral bands, ground magnetic data, ground spectroscopy and space-based EIGEN6C4 gravity data model for identifying potential zones for gold sulphide mineralization in Bhukia, Rajasthan, India **Journal of Applied Geophysics.** 160, 28-46. <http://dx.doi.org/10.1016/j.jappgeo.2018.10.00>, **Impact factor: 1.845, Q2**

2018

73. Kumar, U., **Pal, S. K.**, Sahoo, S. D., Narayan, S., Saurav, Mondal S., Gunguli, S. S. 2018 Lineament mapping over Sir Creek offshore and its surroundings using high resolution EGM2008 Gravity data: An integrated derivative approach. **J. Geol. Soc. India**, 91(6), 671-678. <https://doi.org/10.1007/s12594-018-0922-x> **Impact factor: 1.466, Q4.**
74. Rani K., Guha A., **Pal S. K.**, Vinod Kumar K. (2018) Satellite-derived regional apparent thermal inertia and gravity for mapping different rock - types: potential analysis in parts of

Banswara, Rajasthan, India. **Journal of Geological Society of India**, 92(6), 671-678.

Impact factor: 1.466, Q4.

75. Rani K, Guha A, Pal SK, Kumar KV 2018 Broadband reflectance, emittance spectroscopy and self-potential geophysical survey for targeting gold sulphide lode deposit in Bhukia, Rajasthan, India, **Geocarto International**, 35(1),93-112. **Impact factor: 3.8, Q2**
76. Rani K., Arindam Guha, **Sanjit Kumar Pal**, K. Vinod Kumar, 2018. Comparative Analysis of Potentials of ASTER Thermal Infrared Band Derived Emissivity Composite, Radiance Composite and Emissivity–Temperature Composite in Geological Mapping of Proterozoic Rocks in Parts Banswara, Rajasthan. **Journal of the Indian Society of Remote Sensing**. V.46(5), 771-782, DOI: <https://doi.org/10.1007/s1252>, **Impact Factor: 1.894, Q4**

2017

77. **Pal, S. K.**, Vaish, J., Kumar, S., Priyam, P., Bharti, A. K. and Kumar R., 2017. Downward continuation and Tilt Derivative of magnetic data for delineation of concealed coal fire in East Basuria Colliery, Jharia coal field, India. **J. Earth Syst. Sci.** 126(53), 1-17. DOI 10.1007/s12040-017-0826-y. **Impact factor : 1.912, Q3.**
78. Priyam, P. and **Pal, S. K.** 2017. Delineation of Rajmahal Basaltic Flows, Inter-trappeans and associated coal layers using Audio-magneto-telluric method. **Journal of the Geological Society of India**, V 90(1), 11-28. DOI: 10.1007/s12594-017-0660-5. **Impact factor: 1.466, Q4.**
79. Das P., Pal S. K., Mohanty P. R., Priyam P., Bharti A.K., and Kumar R., 2017. Abandoned mine galleries detection using Electrical resistivity tomography method over Jharia coal field, India. **Journal of the Geological Society of India**, V90(2), 169-174. **Impact factor: 1.466, Q4.**
80. Satya Narayan, Soumyashree Debasis Sahoo, S. K. Pal, Ujjawal Kumar, Vipin Kumar Pathak, and T. J. Majumdar and Avinash Chouhan, 2017. Delineation of structural features over a part of the Bay of Bengal using total and balanced horizontal derivative techniques. **Geocarto International** 32(1), 1-16, DOI: <http://dx.doi.org/10.1080/10106049.2016.1140823>; **Impact Factor: 3.8, Q2**

2016

81. Bharti, A. K.; Pal, S. K.; Priyam, P.; Pathak, V. K., Kumar R. and Ranjan S.K., 2016 Detection of illegal mine voids using electrical resistivity tomography: the case-study of Raniganj coalfield (India). **Engineering Geology**, 213, 120–132, <http://dx.doi.org/10.1016/j.enggeo.2016.09.004>. **Impact Factor: 7.4, Q1**
82. Pal S. K., Satya Narayan, Majumdar T. J.; Ujjawal Kumar, 2016. Structural mapping over the 85°E ridge and surroundings using EIGEN6C4 High Resolution Global Combined Gravity Field Model: an integrated approach. **Marine Geophysical Research**, 37, 159-184, DOI: <https://doi.org/10.1007/s11001-016-9274-3>. **Impact Factor: 2.5, Q3**
83. Srivardhan V., Pal S. K., Vaish J., Kumar S., Bharti AK and **Priyam P.**, 2016. Particle swarm optimization inversion of self-potential data for depth estimation of coal fires over East Basuria colliery, Jharia coalfield, India. **Environmental Earth Sciences**, 75(8)688, 1-12, <https://doi.org/10.1007/s12665-015-5222-9>. **Impact Factor: 3.119, Q2**
84. Bharti, A. K.; Pal, S. K.; **Priyam, P.**; Kumar, S.; Shalivahan and Yadav, P.K., 2016. Subsurface cavity detection over Patherdih colliery, Jharia Coalfield, India using electrical resistivity tomography. **Environmental Earth Sciences**, 75(5)443, 1-17. <https://doi.org/10.1007/s12665-015-5025-z>. **Impact Factor: 3.119, Q2**
85. Pal, S. K.; Vaish, J., Kumar, S.; Bharti, A. K.; 2016 Coalfire mapping of East Basuria Colliery, Jharia coal field using Vertical Derivative Technique of Magnetic data, **Journal of Earth System Science**. 125, 1, 165-178, **Impact factor : 1.912, Q3**
86. Pal, S. K.; Majumdar, T. J.; Pathak, V.K.; Satya Narayan; Ujjawal Kumar and Om Prakash Goswami; 2016, Utilization of high resolution EGM2008 gravity data for geological

- exploration over the Singhbhum-Orissa Craton, India. **Geocarto International**, 31(7) 783-802. DOI: <https://doi.org/10.1080/10106049.2015.1076064>, **Impact factor: 3.8, Q2**
87. Ranjan, S. K., **Pal, S. K.**, and Singh, K. K. .K., 2015, An approach to improve shallow surface investigation using Joint analysis of Rayleigh and Love waves. **Current science**, 109(7), 1239-1242. **Impact Factor: 1.169, Q4**
88. Vaish, J., and **Pal, S. K.**, 2016, Subsurface Coal fire mapping of Patherdih Colliery, a part of Jharia coal field, India, **Journal of the Geological Society of India, Special Publication 4**, 80-85. DOI: <https://doi.org/10.17491/cgsi/2016/95899>. **Impact Factor :1.466, Q4**

2015

89. Vaish, J., and Pal, S. K. 2015, subsurface coal fire mapping of East Basuria Colliery, Jharkhand, **Journal of the Geological Society of India**, 86(4), 438-444. **Impact Factor :1.466, Q4**
90. **Pal, S. K.** and Majumdar, T. J., 2015. Geological appraisal over the Singhbhum-Orissa Craton, India using GOCE, EIGEN6-C2 and in-situ gravity data. **International Journal of Applied Earth Observations and Geoinformation**, 35, 96-119. <https://doi.org/10.1016/j.jag.2014.06.007>. **Impact Factor: 7.672, Q1**
91. Vaish J. and **Pal S.K.** (2015): Geological mapping of Jharia Coalfield, India using GRACE EGM2008 gravity data: a vertical derivative approach, **Geocarto International**, 30(4):388-401 DOI: <https://doi.org/10.1080/10106049.2014.905637>. **Impact factor: 3.8, Q2**

2012

92. Majumdar, T. J., **Pal, S. K.**, Bhattacharya, Amit K., 2012. Generation of emissivity and land surface temperature maps using MODIS TIR data for lithological mapping over the Singhbhum-Orissa Craton, India, **Journal of the Geological Society of India**, 80, 685-699. **Impact Factor : 1.466, Q4**

2011

93. **Pal, S. K.**, Majumdar, T. J., Bhattacharya, A. K. and Bhattacharyya, R., 2011. Utilization of Landsat ETM+ data for mineral occurrences mapping over Dalma and Dhanjori, Jharkhand, India: An Advanced Spectral Analysis approach, **International Journal of Remote Sensing**, Vol. 32, No. 14, 20 July 2011, 4023–4040, DOI: 10.1080/01431161.2010.484430. **Impact Factor: 3.531, Q2**

2007

94. **Pal, S. K.**, Majumdar, T. J., and Bhattacharya, A. K., 2007. Usage of ERS SAR data over the Singhbhum shear zone, India for structural mapping and tectonic studies, **Geocarto International**, 22(4), 285 – 295. DOI: 10.1080/10106040701337642,. **Impact factor: 3.8, Q2**
95. **Pal, S. K.**, Majumdar, T. J., and Bhattacharya, A. K., 2007. ERS-2 SAR and IRS-1C LISS III data fusion: A PCA approach to improve remote sensing based geological interpretation, **ISPRS Journal of Photogrammetry and Remote Sensing**, 61(5), 281-297. **Impact Factor: 12.7, Q1**

2006

96. **Pal, S. K.**, Majumdar, T. J., and Bhattacharya, A. K., 2006. Extraction of linear and anomalous features using ERS SAR data over Singhbhum Shear Zone, Jharkhand using fast Fourier transform, **International Journal of Remote Sensing**, 27(20), 4513–4528. **Impact Factor: 3.531, Q2**

b. National Journal

1. **Pal S. K.**, Bhattacharya, A. K., and Majumdar, T. J., **2006**. Geological interpretation from Bouguer gravity data over the Singhbhum-Orissa Craton and its surroundings: A GIS approach. **Journal of Indian Geophysical Union**, 10(4), 313-325.
2. **Kumar**, Sahadev; Maurya, Ved P.; **Pal S. K.**; Shalivahan and Srivastava, Prateek, **2014**. Tipper Magnitude: A possible Indicator of Anomalous Conducting Zone. **Association of Exploration Geophysics**, 35(2), 83-87.
3. **Pal S. K.**, Ranjan, S.K., Kumar Rajwardhan, Yadav R.K., Singh K K K. **2015**. Utilization of Multimode Surface Wave Dispersions for Improving of Shallow Surface Characterization. Special publication, Journal of Engineering Geology (ISN: 0970-5317), 61-64.
4. Bharti A.K., **Pal S.K.**, Priyam Piyush, Narayan Satya, Pathak, V. K., Sahoo, S.D., **2015**, Detection of Illegal Mining over Raniganj Coalfield using Electrical Resistivity Tomography. Special publication, Journal of Engineering Geology (ISN: 0970-5317), 65-69.
5. Kumar Sahadev, **Pal S.K.**, Vaish, J., Shalivahan, 2015, Utilization of Magnetic Gradient Method for Coal Fire Mapping of Chatabad Area, a Part of Jharia Colafield, India. Special publication, Journal of Engineering Geology (ISN: 0970-5317), 170-176.

c. International conference proceedings

1. Chouhan, Avinash Kumar, Choudhury Pallabee and **Pal, Sanjit Kumar** 2020. Evidence of shallow lithosphere and crust in the western continental margin of India through modeling of gravity data. 22nd EGU General Assembly, held online 4-8 May, 2020, id.316, 2020EGUGA..22..316C
2. Singh P., **Pal S.K.** and Kumar S. 2019. Inversion of Self Potential Anomaly for Coal Seam Fire Prediction Using Genetic Algorithm. 81st EAGE Conference and Exhibition 2019, Jun 2019, Volume 2019, p.1 – 5, <https://doi.org/10.3997/2214-4609.201901125>
3. Bharati AK, Singh KKK, Prakash A, **Pal SK**, Verma A, Singh PK, 2018. Mapping of Cavity Using Electrical Resistivity Tomography, 24th European Meeting of Environmental and Engineering Geophysics
4. Gupta RK, Agrawal M, Pal SK, Srivastava S, Kumar R, 2018. through Joint Analysis of MASW and Microtremor data in Dhanbad, Jharkhand, India, AGU Fall Meeting Abstracts. [2018AGUFM.S23C0544G](https://doi.org/10.1029/2018AGUFM.S23C0544G)
5. Sarkar P, Singha Roy PN, **Pal SK**, 2018. Seismicity and stress field variations across the North East India: A finite element modelling approach, AGU Fall Meeting Abstracts

6. Hajra S, Hazarika D, Bankhwal M, Kumar N, **Pal SK**, Singha Roy PN, 2018. Average Crustal Thickness and Poisson's Ratio Beneath a Broadband Seismological Profile Along the Kali River Valley, Kumaon Himalaya, AGU Fall Meeting Abstracts
7. **Pal SK**, Kumar S, Bharti AK, Pathak VK, Kumar R, **2016**. Electrical Resistivity Tomography for coal fire mapping over Jharia coal field, India, American Geophysical Union, Fall Meeting 2016, abstract #NS33B-1954.
8. Rajkumar T, Pal SK, **2016**. Inversion of Reflected Travel Time Curve Using a Continuous Genetic Algorithm, 78th EAGE Conference and Exhibition 2016
9. Bharti A K, **Pal S K**, Ranjan S K, Priyam P, Pathak V K (2016) Coal Mine Cavity Detection Using Electrical Resistivity Tomography: A Joint Inversion of Multi Array Data. 22nd European Meeting of Environmental and Engineering Geophysics, EAGE, held in Barcelona, Spain. DOI: 10.3997/2214-4609.201602084.
10. Singh, B.B.; Srivardhan, V.; **Pal, S.K.** ; Kanagaraju, S.K.; Kumar S. and Vaish J., 2015, Particle Swarm Optimization Inversion of Self Potential Anomaly for Detecting Coal Fires, a Case Study - Jharia Coal Field. Third Sustainable Earth and Sciences conference in Celle, Germany, EAGE, DOI: 10.3997/2214-4609.201414282
11. Srivardhan, V., and **Pal, S. K.**, 2015, Shale Volume Estimation Using Factor Analysis and Neural Network. 6th International Geosciences Student Conference, 13-16 July, Prague, pp-2016.
12. **Pal, S. K.**, Kumar U, Majumdar, T. J., 2014, Utilization of High resolution GOCE gravity data for mapping of gravity field and structures Western offshore, India. 5th International GOCE User Workshop, 25-28 November 2014, UNESCO, Paris, France.
13. **Pal, S. K.** and Majumdar, T. J., 2013, High resolution EIGEN-6C2 gravity data for geological appraisal over the Singhbhum-Orissa Craton, India, International Conference on Future Challenges in Earth Sciences for Energy & Mineral Resources, Department of Applied Geology, ISM Dhanbad, November 14-16, 2013.
14. Vaish, J., and **S. K. Pal**, 2013, Interpretation of Magnetic Anomaly data over East Basuria region using an Enhanced Local Wavenumber (ELW) Technique, 10th Biennial International Conference & Exposition, Kochi, P11, Society of Petroleum Geophysicists (SPG). spgindia.org/10_biennial_form/P110
15. Vaish, J., and **S. K. Pal**, 2013, Subsurface Coal fire mapping of Patherdih Colliery, a part of Jharia coal field, India. International Conference on Future Challenges in Earth Sciences for Energy & Mineral Resources, Department of Applied Geology, ISM Dhanbad, November 14-16, 2013.

16. **Pal, S. K.** and Majumdar, T. J., 2012, Geological appraisal of the 85oE Ridge, Bay of Bengal using GRACE and GOCE anomaly, First International GOCE Solid Earth Workshop, University of Twente, Netherlands, 16-17 October 2012, 33-34.
 17. **Pal, S. K.,** Bhattacharyya, R., Majumdar, T. J. and Bhattacharya, A. K., 2007. Geological interpretation of Bouguer gravity anomaly map over Singhbhum shear zone: a vertical derivative approach. International Conference on “Current Trends in Remote Sensing and GIS (CTRGA 2007)” at IIT, Kharagpur during Feb. 15-17, 2007 (Proc. Abs. p. 40).
 18. Bhattacharya, A. K., Srivastava, P. K., and **Pal, S. K.,** 2004. Change Detection Analysis of Eastern Coastal Zone of India using Satellite Remote sensing Data and GIS, International Conference on Remote Sensing & GIS for Environmental Studies, Germany, October, 7-8. Gottinger Geographische Abhandlungen 13, 10-15
- d. Papers in conference proceedings**
1. Rajat Sanyal and **Sanjit Kumar Pal** 2017, Presented a paper on Recent Archaeological Investigations at Asuralay (District Birbhum, West Bengal)“, at the International symposium on Recent Field Researches and Scientific Studies in Indian Archaeology, during the Joint Annual Conference of the ISPQS, IAS and HCS, held at the Banaras Hindu University, in November 2017.
 2. **S. K. Pal et al. 2017, Depth estimation of subsurface coal fire over part Jharia coal field using magnetic method**, 39 Annual convention of AEG, at BHU, Varanasi, October 5-7, 2017.
 3. **S. K. Pal, 2018 Mapping of coal mine cavities and coal fire fronts over Raniganj and Jharia coalfields using integrated Geophysical techniques**, ETGRMI 2018 APPLIED GEOPHYSICS IIT(ISM), March 9-11,2018.
 4. Saurabh, S.K. Pal, Piyush Priyam, Rajwardhan Kumar and Vipin K. Pathak 2016, Application of Seismic Refraction Tomography to delineate subsurface cavity : A case study in Jharia Coalfield region. 1st Triennial Congress of FIGA, 53rd Annual Convention of IGU & 34th Annual Convention of AHI on “Geosciences for Sustainability” at Indian School of Mines, Dhanbad, November 8-10, 2016.
 5. Rajwardhan Kumar, Abhay Kumar bharti, Piyush Priyam, Saurabh And S K Pal 2016, Application of electrical resistivity tomography for delineation of underground mine goaf in Jharia coal field. 1st Triennial Congress of FIGA, 53rd Annual Convention of IGU & 34th Annual Convention of AHI on “Geosciences for Sustainability” at Indian School of Mines, Dhanbad, November 8-10, 2016.
 6. Subhendu Mondal, Arindam Guha, **Sanjit Kumar Pal**, Biswajit Ghosh, K. Vinod Kumar. Synergistic use of ground magnetic data, laboratory spectroscopy, Landsat 8

derived spectral map to delineate rock types of Sitampundi layered complex, Tamilnadu, India. ISRS-ISG National Symposium, IIRS, Dehradun, 7-9 December, 2016.

7. Rajesh S., John P Pappachen, and **S K Pal**. 2016, **Near** and far field co-seismic offsets of 25th April 2015 Mw 7.8 Nepal earthquake from continuous GPS data” at 53rd Annual convention of **Indian Geophysical Union(IGU)** held at Indian Institute of Technology (IIT-ISM) Dhanbad during November 8-10,2016
8. A.K. Chouhan, S.V. Rao, R.K. Singh, N. Kumar, P. Choudhury, **S.K. Pal**, & B.K. Rastogi, 2016, New insight of crustal structure of cambay basin by 2.5D gravity modelling. 38th annual convention Seminar and Exhibition on Exploration Geophysics, Association Exploration Geophysics , 20-22 October, Hyderabad.
9. Vipin Kumar Patahk and **S.K. Pal**, Appraisal of surface geology and subsurface structural features over Singhbhum-Orissa Craton, India using high resolution EIGEN6C4 gravity data. Developments in Geosciences in the Past Decade – Emerging Trends for the Future and Impact on Society” 58th Annual General Meeting of the Geological Society of India, IIT Kharagpur, 21-23 October, 2016
10. **S. K. Pal**, Sahadev Kumar, Piyush Priyam, Saurabh Srivastava and Subhendu Mondal, **2016**, Subsurface Coal fire mapping using geophysical methods: some case studies over Jharia coalfields, India. Developments in Geosciences in the Past Decade - Emerging trends for the future & Impact on society and 58th AGM of Geological Society of India. Department of Geology & Geophysics, IIT Kharagpur from 21-23 October 2016.
11. Sahadev Kumar, **S. K. Pal**, Shalivahan Srivastava, D.C. Panigrahi, Saurabh Srivastava and Jitendra Vaish’ 2016. **Delineation of conceal Coal fire over Jharia coalfield, India**. National Seminar on Environment and Development in Eastern India(status, Issues & Challenges) during 17-18 December, Ranchi, Ranchi University.
12. Satya Narayan, Vipin Kumar Patahk, T.J. Majumdar, **S.K. Pal**, Ujjawal Kumar and Saurabh. 2016. Utilization of GECO global gravity data and edge enhancement technique in delineation of structural features over parts of 85⁰E ridge. 1st Triennial Congress of FIGA, 53rdAnnual Convention of IGU & 34thAnnual Convention of AHI on “Geosciences for Sustainability ”at Indian School of Mines, Dhanbad, November 8-10, 2016.
13. Piyush Priyam, **S.K. Pal**, Vipin K. Pathak. Rajwardhan and Saurabh, 2016. Application of Electrical Resistivity Tomography and Seismic Refraction tomography for exploration and identifying nature of massive and fractured Basalts over Birbhum district, West Bengal India. 1st Triennial Congress of FIGA, 53rdAnnual Convention of

IGU & 34th Annual Convention of AHI on “Geosciences for Sustainability ”at Indian School of Mines, Dhanbad, November 8-10, 2016

14. Pathak V.K., Narayan S., Kumar Ujjawal, Goswami O.P. and **Pal S.K., 2015**, Structural mapping over Singhbhum-Orissa Craton, India using high resolution EGM2008 gravity data and in situ gravity data. 52nd Annual Convention of IGU, NCAOR, Goa during 3-5 November, 2015.
15. Kumar Rajwardhan, Bharti, A.K. Kumar Sahadev and **Pal S.K., 2015**, Delineation of Underground cavities Using Electrical Resistivity Tomography (ERT) method. 52nd Annual Convention of IGU, NCAOR, Goa during 3-5 November, 2015.
16. Priyam P., and **Pal S.K., 2015**, Interpretation of Bouguer gravity data by spectral analysis and downward continuation, over parts of Rajmahal trap area. 52nd Annual Convention of IGU, NCAOR, Goa during 3-5 November, 2015.
17. Singh Rashmi and **Pal S.K., 2015**, Detection of coal fire zone in Patherdih Colliery, Dhanbad using magnetic modeling. 52nd Annual Convention of IGU, NCAOR, Goa during 3-5 November, 2015.
18. Ranjan S. K., Yadav R.K. and **Pal S.K., 2015**, Near surface characterization using multi modes of love wave. 52nd Annual Convention of IGU, NCAOR, Goa during 3-5 November, 2015.
19. Bharti, A.K., **Pal, S.K.**, and Jitendra Vaish, **2014**, Application of Self-potential method for coal fire detection over Jharia Coal field, *Indian Geophysical Union, 19 - 21 November, 2014*, Kurukshetra University, Kurukshetra, p59-62.
20. Ranjan, S.K. and **Pal, S.K. 2014**, Characterization of shallow structure by MASW technique using multimode surface wave dispersion. *Indian Geophysical Union, 19 - 21 November, 2014*, Kurukshetra University, Kurukshetra, p161-164.
21. Piyush Priyam, **Pal, S.K.** and Maurya, Ved P., **2014** Delineation of inter-trappean basalts and possible coal seams over Birbhum District, West Bengal. *Indian Geophysical Union, 19 - 21 November, 2014*, Kurukshetra University, Kurukshetra, p152-133.
22. Gupta Sandeep Kumar, and **Pal, S.K., 2014**, Digital image enhancement of Singhbhum Shear Zone and surroundings using Landsat ETM+ data. *Indian Geophysical Union, 19 - 21 November, 2014*, Kurukshetra University, Kurukshetra, p195-196.
23. **Pal, S. K.** and Vaish, J., 2014, Coal fire mapping of East Basuria, a part of Jharia colafield, India: a magnetic gradient approach 6th National Seminar on Surface Mining (NSSM) on January 10-11, 2014.
24. **Pal, S. K.** and Vaish, J., **2013**, Magnetic method of investigation for Coal fire mapping of East Basuria Colliery, a part of Jharia cola field, India, XIII convention of

- Mineralogical Society of India, 20th – 21st March 2013, **University of Mysore, Department of Studies in Earth Science, Manasagangotri, Mysore, India.**
25. **Pal, S. K.** and Majumdar, T. J., **2012**, Utilization of GRACE gravity data for geological interpretation over a part of the Singhbhum Shear Zone, **49th annual convention on “towards the energy security - exploration, exploitation and new strategies”, Indian Geophysical Union, 29 - 31 October, 2012, Gandhinagar.**
 26. Vaish, J., and **S. K. Pal**, **2012**, Geological appraisal of Jharia coalfield using GRACE gravity data, **49th annual convention on “towards the energy security - exploration, exploitation and new strategies”, Indian Geophysical Union, 29 - 31 October, 2012, Gandhinagar.**
 27. Vaish, J., and **S. K. Pal**, **2012**, Geotechnical characterization of a part of Jharia coal field using Refraction Micro Tremor method, **National workshop “Engineering Geophysics for civil engineering and Geo-Hazard” 22-23 November 2012, CSIR-CBRI, IIT Roorkee.**
 28. Rahut, A.K. and **Pal, S.K.**, **2008**. Contour mapping and Terrain Analysis using SRTM data: a case study of dam area, Dibang Multipurpose Project, Arunachal Pradesh, India. *Challenging in Engineering Geology*, **Indian Society of Engineering Geology** , 03-05 December 2008, Hyderabad, India.
 29. Kapil, S. L., Jyotirmoy and **Pal, S.K.**, **2007**. Combined Approach of Seismic Refraction and Resistivity Imaging in Geotechnical Exploration: A Case Study. **Silver Engineering Experiences and Practices, CSMRS, New Delhi**, May 18 & 19, Paper No. NP-114.
 30. **Pal, S. K.**, Majumdar, T. J., and Bhattacharya, A. K., **2005**. Utilization of MODIS Multispectral Thermal Infrared Data over Singhbhum–Orissa Craton: A MNF Transform Approach. **Workshop on MODIS data utilization at SAC** during April 19-20, 2005.
 31. Srivastava, P.K., **Pal, S.K.** and Bhattacharya, A.K., **2002**. An Integrated Remote Sensing and Geophysical Methods for Ground Water Prospecting in a Hard Rock Area. **39th Annual Convention Meeting of National Geophysical Union, NEERI, Nagpur 4th-6th Oct 2002.**

A. EIGHTEEN TECHNICAL REPORTS ON GEOPHYSICAL INVESTIGATION for Hydroelectric Project (Internal Geophysical Report prepared and submitted to NHPC Limited, Sector-33, Faridabad, India) as detail below:

1. Kapil, S.L., Jyotirmoy, **Pal, S.K.**, and Khanna, P., 2011, Geophysical survey involving MASW and ReMi Technique for assessment of rock mass characteristics of Swazye Hydroelectric Project, Myanmar (Unpublished report, NHPC Limited).
2. Nagar, V., **Pal, S.K.**, and Sen, A., 2011. Ultrasonic Velocity measurement study on rock core samples for determining dynamic elastic parameters for Chamkharchu-I HE Project, Bhutan. **GEOPHYSICAL REPORT NO. NH/EG/GEOPHY/144.**
3. **Pal, S.K.**, Nagar, V., and Sen, A., 2011. Report on Geophysical Resistivity survey for sitting of tube well in Semna Colony, Dulhasthi Power Station. **GEOPHYSICAL REPORT NO. NH/EG/GEOPHY/143.**

4. Nagar, V., **Pal, S.K.**, and Sen, A., 2011. Report on Geophysical Resistivity survey for sitting of tube well in NHPC Office Complex, Faridabad. GEOPHYSICAL REPORT NO.NH/EG/GEOPHY/141.
5. **Pal, S.K.**, and Jyotirmoy, 2010. Report on Resistivity study for Ground water survey at Loktak HE Project, 2010.
6. **Pal, S.K.**, Jyotirmoy and Murgapan, S., 2009. Report on Geophysical survey involving seismic refraction and resistivity imaging, Tawang H.E. Project (Stage-I and stage-II), Arunachal Pradesh. GEOPHYSICAL REPORT NO. NH/ED/SBP/GEOPHY/26, 2009.
7. **Pal, S.K.**, 2009. Final report on Earth Resistivity measurements for design of Earthmat at Dam foundation Subansiri Lower H.E. Project, March 2009.
8. **Pal, S.K.**, 2009. Final report on Earth resistivity measurements for design of Earthmat at Intake-I and Intake-II foundations, Subansiri Lower H. E. Project, February 2009.
9. Kapil, S. L., Jyotirmoy, **Pal, S.K.**, Giri, T.V., 2007. Report on Geophysical survey involving seismic tomography, seismic refraction and resistivity imaging, Tawang H.E. Project (stage-II), Arunachal Pradesh. GEOPHYSICAL REPORT NO. NH/ED/SBP/GEOPHY/25, July 2007.
10. Kapil, S. L., Jyotirmoy, **Pal, S.K.**, Giri, T.V., 2007. Report on Geophysical survey involving seismic tomography, seismic refraction and resistivity imaging, Tawang H.E. Project (stage-I), Arunachal Pradesh. GEOPHYSICAL REPORT NO.NH/ED/SBP/GEOPHY/24, July 2007.
11. Kapil, S.L., Jyotirmoy, and **Pal, S.K.**, 2006, TLDP-IV, Resistivity Imaging survey for ground water mapping and groutability verification GEOPHYSICAL REPORT NO. NH/ED/SDBP/GEOPHY/23, 2006.
12. Kapil, S.L., Jyotirmoy, and **Pal, S.K.**, 2006.TLDP-III, Resistivity Imaging survey for land sliding mapping, GEOPHYSICAL REPORT NO. NH/ED/SDBP/GEOPHY/22, 2006.
13. Kapil, S.L., Jyotirmoy, and **Pal, S.K.**, 2006. Report on seismic tomography scanning for assessment of rock mass characteristics of dam site area Kotlibhel HE Projects (Stage-II) Uttaranchal, NHPC, GEOPHYSICAL REPORT NO. NH/ED/SDBP/GEOPHY/21, MAY 2006.
14. Kapil, S.L., Jyotirmoy, and **Pal, S.K.**, 2006. Report on seismic tomography scanning for assessment of rock mass characteristics of dam site area Kotlibhel HE Projects (Stage-IB) Uttaranchal, NHPC, GEOPHYSICAL REPORT NO. NH/ED/SDBP/GEOPHY/20, MAY 2006.
15. Kapil, S.L., Jyotirmoy, and **Pal, S.K.**, 2006. Report on Geophysical survey involving seismic tomography, seismic refraction and resistivity imaging Siang Lower HE Project (I-

- site) Arunachal Pradesh. NHPC, GEOPHYSICAL REPORT NO. NH/ED/SDBP/GEOPHY/19, March, 2006.
16. 15. Kapil, S.L., **Pal, S.K.**, and Jyotirmoy, 2005. Report on shear wave velocity measurement at Lower Siang (I-Site) H.E. Project, Arunachal Pradesh. NHPC, GEOPHYSICAL REPORT NO. NH/ED/SDBP/GEOPHY/17, December, 2005, p1-9.
17. Jyotirmoy, **Pal, S.K.**, and A.Sen, Report on Geophysical investigation at alternate Dam sites (Site-I and Site-K), Lower Siang HE Project, Arunachal Pradesh. NHPC, GEOPHYSICAL REPORT, January, 2005, p1-7.
18. Kapil, S.L., **Pal, S.K.**, 2005. Report on shear wave velocity measurement at Dibang multipurpose project Arunachal Pradesh. NHPC, GEOPHYSICAL REPORT NO. NH/ED/SDBP/GEOPHY/16, December, 2005, p1-8.