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Publications in International/National Journals

- (i) Kuldeep Sarkar, Upendra K Singh (2023). Inversion, Assessment of Stability and Uncertainty of Geoelectric Sounding data using a New Hybrid Meta-heuristic algorithm and Posterior Probability Density Function Approach, *Nonlinear Processes in Geophysics*, 1-41. <https://doi.org/10.5194/npg-2022-13>, IF 3.534 (Q2).
- (ii) Mukesh, Kuldeep Sarkar, Upendra K Singh (2023). The joint application of metaheuristic algorithm and Bayesian Statistics approach for uncertainty and stability assessment of nonlinear Magnetotelluric data, *Nonlinear Processes in Geophysics* 2023, 1-44. <https://doi.org/10.5194/npg-2023-8>, IF 3.534 (Q2).
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- (iv) Abhishek Kumar, Upendra K Singh, B. Pradhan, (2022). Ground Penetrating Radar in Coastal Hazard Mitigation Studies Using Deep Convolutional Neural Networks, *Remote Sensing* 14 (19), 4899. <https://doi.org/10.3390/rs14194899>, IF 5.786 (Q1).
- (v) Saikia, S., Chopra, S., Gogoi, B., Sharma, A., Gautam, J.L., Borgohain, H., Singh, Upendra K., (2022). Variation in Moho topography and Poisson's ratio in the Eastern Himalayan arc, *Physics and*

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- (viii) Mukaila Abdullahi, Raj Kumar and Upendra K. Singh (2018). Magnetic basement depth from high-resolution aeromagnetic data of parts of lower and middle Benue Trough, Nigeria using scaling spectral method, *Journal of African Earth Sciences, Elsevier (150 (2019) xxx-xxx)*, <https://doi.org/10.1016/j.jafrearsci.2018.11.006>. IF 2.046 (Q2).
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- (xi) Upendra K. Singh, Rahul Prajapati and Thinesh Kumar (2017). Geological Stratigraphy and Spatial Distribution of Microfractures over Costa Rica Convergent Margin, Central America- A Wavelet-Fractal Analysis, *Geoscientific Instrumentation Methods and Data Systems*, 7, 1-9, 2018. doi.org/10.5194/gi-7-1-2018. IF 1.473 (Q3).
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- (ii) Singh, Upendra K., Sarkar, K. and Tiwari, J.V., 16-21 August 2021. *Two-Dimensional inversion and resolution Analysis of DC Resistivity data - A innovative Global Optimization Approach*, 36th International Geological Congress, Delhi, India.
- (iii) Mukesh, Sarkar, K. and Singh, Upendra K., 18-21 October, 2021. *Joint Inversion of MT and DC Resistivity using Meta-Heuristic Algorithm with Gibb's Sampler*, EAGE Annual 2021, Amsterdam, Netherland.

- (iv) *Sarkar, K., Mukesh and Singh, Upendra K., 13-17 December 2021. Assessment of Probabilistic Boltzmann distribution in Joint Hybrid Global Inversion for 1D MT and DC data. AGU Fall Meeting 2021.*
- (v) *Mukesh, Sarkar, K. and Singh, Upendra K., 13-17 December 2021. Joint approach of particle swarm optimization and Gibb's sampler for improving non-linear solution. AGU Fall Meeting 2021.*
- (vi) *Sarkar, K. and Singh, Upendra K., 20-22 February 2020. Sensitivity and Uncertainty analysis of 1D Geophysical Data: a new meta-heuristic Cauchy-GWO global optimization Approach, International Conference on Engineering Science & Technologies for Environmental Care, Assam, India.*
- (vii) *Sarkar, K. and Singh, Upendra K., 1-17 December 2020. Assessment of Equivalence Problem by Joint Hybrid Global Inversion of 1D MT and DC Resistivity and Using Integral Equations of MT for Cost Function. AGU Fall Meeting 2020.*
- (viii) *Mukesh, Sarkar, K. and Singh, Upendra K., 1-17 December 2020. Synthesis of Alternative Equations of Subsurface Resistivity with Meta Heuristic PSO Technique for Layered Earth MT Data Inversion, AGU Fall Meeting 2020.*
- (ix) *Sarkar, K. and Singh, Upendra K., 16-21 August 2021. Resolution, Sensitivity and Uncertainty analysis of 1D Vertical Geoelectrical Resistivity sounding data: A new Metaheuristic global optimization Approach, 36th International Geological Congress, Delhi, India.*
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- (xiii) Arvind Singh and Upendra K. Singh (2013). *Automatic Depth Estimation of Potential field Data - An Integrated Approach*, Earth Doc DOI: 10.3997/2214-4609.2013059, 75th EAGE Conference & Exhibition incorporating SPE EUROPEC, London, UK, June 10-13, 2013.
- (xiv) Arora, Y., D. K. Gupta, J. P. Gupta and Upendra K. Singh, (2012). *Inversion of 1D VES Data Using New a Technique Called Recursive Ant Colony Optimization (RACO)*: Saint Petersburg International Conference and Exhibition, EAGE, Extended Abstracts.
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- (ii) Mukaila Abdullahi, Rahul Prajapati and Upendra K. Singh (2018). *Identification of concealed Pb-Zn deposits from high-resolution aeromagnetic data of parts of lower Benue Trough, Nigeria-West Africa, extended abstract to be presented at SEGJ International Symposium 11-14, August, 2018 in Japan.*
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- (iv) Arvind Singh and Upendra K. Singh, 2012, *Automatic Source Identification of Potential fields using Integrated Advance Approach of CWT, Tilt-Depth and Euler Deconvolution Method at 49th Annual Convention, IGU, Hyderabad, India. October 29-31, 2012.*

- (v) *Arvind Singh and Upendra K. Singh, 2012, Separation of Regional Gravity anomaly via spectrum analysis and wavelet transform: a case study, National workshop on Wavelets, Multiresolution and Multifractal Analyses in Earth, Ocean and Atmospheric Sciences, IIT Bombay, Feb. 29 - March 02, 2012.*
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