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Publications:

International Journal Paper

1. Upadhyay, R., Datta Gupta, S. and Rajak, V.K., 2022, Impact of Pressure Dependent Diffusivity on Transient Pressure Analysis of a Dry Coalbed Methane (CBM) Wells – A New Approach, Journal of Earth System Science (accepted).

2. Datta Gupta, S., Upadhyay, R. and Rajak, V.K., 2022, Establishment of economic viability for hydrocarbon production through a geocellular model developed in challenging geological reservoir of onshore sedimentary basin, India, Himalayan Geology, 43 (2), 471-489.

3. Gautam, P. and Datta Gupta, S., 2022, Uses of Green's function for enhancing the image resolution of Ground Penetrating Radar (GPR) data, Journal of Applied Geophysics, 201, 104621, https://doi.org/10.1016/j.jappgeo.2022.104621

4. Dhubia, S., Routa, A. K., Datta Gupta, S., Mohanty, P. R and Rao, P. H., 2022, Wavefield reconstruction of pseudo spectral reverse time migration using a one-point wide based minimum boundary saving scheme, Journal of Earth System Science, 131, 185, https://doi.org/10.1007/s12040-022-01933-x.

5. Datta Gupta, S., Sinha, S.K. & Chahal, R., 2022, Capture the variation of acoustic impedance property in the Jaisalmer Formation due to structural deformation based on post-stack seismic inversion study: a case study from Jaisalmer sub-basin, India. J Petrol Explor Prod Technol, https://doi.org/10.1007/s13202-021-01442-5.

6. Vijay Kumar, S.P., Ganesh Kumar, S. and Datta Gupta, S., 2022, Performance assessment of composite skirted ground reinforcement system in liquefiable ground under repeated dynamic loading conditions, Bull Earthquake Eng., https://doi.org/10.1007/s10518-021-01298-4.

7. Hembram, S., and Datta Gupta, S., 2021, Constraints of wavelet estimation in successful Spectral Decomposition analysis for Channel feature detection: a case study in Carbonate reservoir of Jaisalmer Sub-Basin, India, Journal of Seismic Exploration, 30, 381-404.

8. Yalamanchi, P., Datta Gupta, S., 2021, Selection of a Suitable Rock Mixing Method for Computing Gardner's Constant Through a Machine Learning (ML) Approach to Estimate the Compressional Velocity: A study from the Jaisalmer sub-basin, India, Pure Appl. Geophys. 178, 1825–1844, https://doi.org/10.1007/s00024-021-02733-y.

9. Sinha, S.K., and Datta Gupta, S., 2021, A Geological Model for Enhanced Coal Bed Methane (ECBM) recovery process: A case study from the Jharia coalfield region, India, Journal of Petroleum Science and Engineering, v.201, 108498, https://doi.org/10.1016/j.petrol.2021.108498.

10. Chahal, R., and Datta Gupta, S., 2020, Capture the variation of the pore pressure with different geological age from seismic inversion study in the Jaisalmer sub-basin, India, Petroleum Science, DOI: 10.1007/s12182-020-00517-y.

11. Sinha, S.K., and Datta Gupta, S., 2020, Missing Coal Seam between East and West Bokaro near Lugu Hill of Damodar Basin, India: A Geological Model, Journal of Geological Society of India, 96(3), 298-307.

12. Pradhan, N., Datta Gupta, S., and Mohanty, P.R., 2019, Velocity anisotropy analysis for shale lithology of the complex geological section in Jaisalmer sub-basin, India, Journal of Earth System Science, https://doi.org/10.1007/s12040-019-1226-2.

13. Datta Gupta, S and Gupta, R., 2017, Importance of coloured inversion technique for thin hydrocarbon sand reservoir detection–A case in mid Cambay basin, Journal of the Geological Society of India, Springer, 90(4), 485-494.

14. Chatterjee,R., Datta Gupta, S., and Mandal, P.P., 2017, Fracture and Stress orientation from borehole Image logs, a case study from Cambay Basin, Springer, India, Journal of the Geological Society of India, 89(5), 537-580.

15. Chatterjee,R., Datta Gupta,S., and Farooqui,M.Y, 2013, Reservoir identification using full stack seismic inversion technique: A case study from Cambay basin oilfields, India, Journal of Petroleum Science and Engineering, Elsevier, 109, 87-95.

16. Chatterjee,R., Datta Gupta,S., and Farooqui,M.Y, 2012, Application of Nuclear Magnetic Resonance log for evaluation of low resistivity reservoirs: A case study from Cambay basin, India, Journal of Geophysics and Engineering, IOP, 9, 595-610.

17. Datta Gupta,S., Chatterjee,R., and Farooqui,M.Y, 2012, Formation evaluation of fractured basement, Cambay basin, India, Journal of Geophysics and Engineering, IOP, 9, 162-175.

18. Datta Gupta,S., Chatterjee,R., and Farooqui,M.Y, 2012, Rock physics template (RPT) analysis of well logs and seismic data for lithology and fluid classification in Cambay Basin, International Journal of Earth science, 101 (5), 1407-1426.

International Conference (accepted/presented/Oral/Poster)

1. Prasad Karanam, D., Datta Gupta, S., Kumar, J., Kumar A., and John, J, 2022, Meteoroids as Causative Sources for Selected Seismic Events - A relook at Apollo Seismic Data, 44th COSPAR Scientific Assembly. Held 16-24 July 2022, Athens, Greece (online).

2. Quantitative Interpretation towards hydrocarbon exploration based on residual oil signature from drilled well data: a case study from Jaisalmer sub-basin, India, European Association of Geoscientists and Engineers (EAGE), Asia-Pacific, Kuala Lumpur, Malaysia, 2018.

3. Application of quantitative interpretation for development of challenging reservoir in limestone formation of Rajasthan Basin, India, GEO-India, Association of Petroleum Geologist (APG), India, NOIDA, 2018.

4. GSPC Mitigates Risk and Optimizes Business Performance by laying out strong foundation of E&P Corporate Database through Corporate Database Managed Service (GSPC-CDMS) Project Society of Petroleum Geophysicist (SPG), Hyderabad, 2012.

5. Integrated Subsurface Analysis for Development of a Basalt Resrvoir, Cambay Basin – India, International Petroleum Technology Conference (IPTC), Bangkok, 2011.

6. Major Pay Sand Delineation through Inversion study from Mid to Northern Cambay Basin Field, India, Society of Petroleum Geophysicist (SPG), Hyderabad, 2010.

7. Evaluation of Low Resistivity Reservoir in Cambay Basin, India, Annual India Oil & Gas Industry Symposium and Exhibition (IORS), 2010, Mumbai.

8. Fluid Flow Modeling through Fractured Porous Medium, Society of Petroleum Geophysicist (SPG), Kolkata, 2006.

National Conference/workshop (accepted/presented/Oral/Poster)

1. Identification of Rock type based Spectral Decomposition analysis of Carbonate reservoir for Hydrocarbon exploration, 2nd Triennial Congress, FIGA, NGRI, Hyderabad, 2019.
2. Hydrocarbon bearing Facies detection through Geobody capturing in Carbonate reservoir – a case study from Rajasthan Basin, India, Indian Geophysical Union (IGU), Bhopal, 2018.

3. Fracture and facies characterization in basaltic reservoir – a case study from Indian sedimentary basin, Horizon and Fault picking for interpreting the 3D seismic image: Rajasthan basin, Emerging Trend of Geophysical Research for Make in India (ETGRMI), IIT(ISM) Dhanbad, 2018.

4. Velocity modelling for complex carbonate reservoir, Emerging Trend of Geophysical Research for Make in India (ETGRMI), IIT(ISM) Dhanbad, 2018.

5. Porosity and Permeability maps development using rock physics properties near Kujjo Ghatto area of West Bokaro of Damodar Basin, Emerging Trend of Geophysical Research for Make in India (ETGRMI), IIT(ISM) Dhanbad, 2018.

6. Capturing the uncertainties of water saturation for formation, Emerging Trend of Geophysical Research for Make in India (ETGRMI), IIT(ISM) Dhanbad, 2018.

7. Horizon and Fault picking for interpreting the 3D seismic image: Rajasthan basin, Emerging Trend of Geophysical Research for Make in India (ETGRMI), IIT(ISM) Dhanbad, 2018.

8. Separation of thin Reservoir facies in Carbonate Reservoir through Genetic Inversion, Indian Geophysical Union (IGU), Hyderabad, 2017.

9. Lithology Prediction of Carbonate reservoir through attribute studies, Indian Geophysical Union (IGU), Hyderabad, 2017.

10. Reservoir Characterization of Carbonate facies towards hydrocarbon exploration in Jaisalmer sub-basin, India, Conference, workshop on Challenges in Petrophysical Evaluation and Rock Physics Modelling of Carbonate reservoirs, Likely Elucidations and way forwards characterisation, Department of Earth Science, IIT Bombay, Mumbai, 2017.

11. Finding of thin hydrocarbon bearing sands in small marginal field through coloured inversion technique – a case study in mid Cambay basin, India, Indian Geophysical Union (IGU), Hyderabad, 2016.

Book Chapter

Chahal R., Datta Gupta S., 2020, Reservoir Characterization of Carbonate Facies Towards Hydrocarbon Exploration in Jaisalmer Sub-basin, India. In: Singh K., Joshi R. (eds) Petro-physics and Rock Physics of Carbonate Reservoirs. Springer, Singapore. https://doi.org/10.1007/978-981-13-1211-3_17.