

Brief CV

Prof. WILLIAM K. MOHANTY. Ph.D.

Professor, Department of Geology and Geophysics, Indian Institute of Technology, Kharagpur, India.

Qualification: Ph.D. on seismology from Delhi University, India in the year 1997.

Broad Area of Research: 1. Seismology
2. Geophysical Prospecting

Current Research Interest: Regional Seismic Hazard Analysis, Microzonation of Megacities and Major Urban Areas, Seismotectonics, Gravity and Magnetic Methods of Prospecting, Reservoir Characterization.

Scholarship/Award:

- a. Awarded National Rural Talent Search Scholarship from 1980-1983.
- b. Japanese Government Scholarship Awarded (2003) (could not availed)
- c. International Center for Theoretical Physics (ICTP), Trieste, Italy selected for Junior Associate (2003-2010)
- d. ICTP Program for Training & Research in Italian Laboratories Awarded (2003)
- e. DST, Government of India, Young Scientist Project award (2000-2003) (2004-2007)

Sponsored Research and Consultancy Undertaken:

1. Project Name: "Estimation of site effects during earthquakes in Delhi region"
Sponsor: Department of Science & Technology, Government of India.
2. Project Name: "Seismic hazard assessment of Haldia, Bengal Basin area"
Sponsor: Department of Science & Technology, Government of India.
3. Project Name : "National Programme on Earthquake Engineering Education in India"
Sponsor: Ministry of Human Resource & Development, Government of India
4. Project Name : "National Programme for Capacity Building of Engineers in Earthquake Risk Management"
Sponsor: Ministry of Home Affairs, Government of India.
5. Project Name: "Evaluation of Seismogenic Potential of Talcher Area, Orissa"
Sponsor: Sponsor Research & Industrial Consultancy, IIT, Kharagpur.
6. Project Name : "Broadband seismometry in the north-east region with special emphasis to Guwahati for seismic hazard assessment"
Sponsor: Department of science & Technology, Government of India.
7. Project Name: "Geophysical survey using gravity and magnetic methods in south Purulia shear zone"
Sponsor : Department of Atomic Energy, Government of India.
8. Project Name: Reservoir Characterization using Artificial Intelligent Techniques (Soft Computing)
Sponsor: Oil & Natural Gas Corporation Ltd. (ONGC), Dehradun, India.

9. Project Name: “Historical evidence, myth and geophysical modeling to assess the tectonic movement and risks associated with Odisha coastal heritage”
Sponsor : MHRD, New Delhi, Government of India.
10. Project Name: “Fluoride contamination in groundwaters Odisha, India”
Sponsor: Department of Atomic Energy, Government of India.

Consultancy

1. Consultancy Name: “In house training program on GPS applications to power system diagnostics.”
Sponsor: TATA Steel Ltd.
2. Consultancy Name: “Study of Ground Vibration for Putulipani Iron-ore Mines, District- Keonjhar, Orissa”
Sponsor: M/s Gandhamardhan Sponge Industries (P) Ltd.
3. Consultancy Name: “Ground Vibration study of Balagunda Iron & Manganese Mines of M/s Arjun Ladha in District Keonjhar, Orissa”
Sponsor: Envomin Consultant (P) LTD
4. Consultancy Name: “ Site specific seismic hazard study of west Sikkim region for the Rangit II Hydro-Electric project”
Sponsor: M/s Gammon India Limited, Mumbai, India
5. Consultancy Name: “Integrated geological and Geophysical study around Tangarapada area, Orissa”
Sponsor: The Industrial Development Corporation of Orissa Ltd. (IDCOL), Government of Orissa.
6. Consultancy Name: “Seismic Hazard Analysis and preparation of Seismic Hazard Curves (SHC) for smelter & CPP area of Aditya Aluminium at Lapanga, Sambalpur District, Orissa.
Sponsor: Aditya Aluminium (A Unit of Hindalco Industries Limited)
7. Consultancy Name: “Probabilistic seismic hazard analysis for Kakrapara Atomic Power Plant (KAPS-1,2).
Sponsor: Nuclear Power Corporation of India Limited, Department of Atomic Energy, Government of India.
8. Consultancy Name: “Probabilistic Assessment of Tsunamigenic Earthquake Originating from Burmese- Andaman Arc System (BAAS) and West Sunda Arc (WSA)”
Sponsor: Nuclear Power Corporation of India Limited, Department of Atomic Energy, Government of India.
9. Consultancy Name: “Probabilistic Seismic Hazard analysis of Narora Atomic Power Stations”
Sponsor: Nuclear Power Corporation of India Limited, Department of Atomic Energy, Government of India.
10. Consultancy Name: “Numerical Analysis for Slope Stability Study for the Opencast Mining Benches in MGM Mines”
Sponsor: MGM Mines

Research Guidance:

Guidance at Doctoral level- 4*+8 (* Completed)

Guidance at Masters Level – 8* +3(* Completed)

Guidance at Undergraduate level – 75

Teaching at IIT Kharagpur:

Geophysical Prospecting

Gravity & Magnetic Methods of Prospecting

Seismology/ Earthquake Seismology

Environmental Hazards and Mitigation

Natural Hazards & Mitigation

Physics of the Solid Earth

Instrumental Methods in Geosciences

Instrumental Lab

Gravity & Magnetic Field work UG/PG

Laboratory Developed:

Gravity & Magnetic Laboratory.

Broad Band Seismic Observatories in Sikkim.

Research Collaboration:

University of Mexico. University of Trieste.

International Center for Theoretical Physics (ICTP), Italy.

University of Western Ontario, Canada.

Lettis Consultants International Inc., California, USA.

Languages Known: English, Oriya, Hindi.

Other Activities:

- 1) Member Board of Research for Geophysics, Berhampur University, Odisha.
- 2) Member Editorial Board: Journal of the Geological Society of India.
- 3) Member Editorial Board: Prakruti Vikash, Published by Envomin (2010-)
- 4) Adjunct Faculty at Indian Institute of Technology, Bhubaneswar (2012-)
- 5) Life Member of Society of Petroleum Geophysicists (SPG) (2013-)
- 6) Reviewer of the journals like Nature Geosciences, Pure & Applied Geophysics, Engineering Geology, Natural Hazards, Asian Earth Sciences, Journal Earth System Sciences, Bulletin of Seismological Society of America etc.

List of Publications**INTERNATIONAL REFERRED JOURNALS**

1. S. Chaki, A. Routray, and **W. K. Mohanty**, (2015) “A novel pre-processing scheme to improve the prediction of sand fraction from seismic attributes using neural networks,” *IEEE J. Sel. Topics Appl. Earth Observations and Remote Sens.* Vol. 8, No. 4, pp.1808-1820.

2. Mandal, Animesh, Gupta, Saibal, **Mohanty, William K.**, Misra, Surajit, (2015) Sub-surface structure of a craton-mobile belt interface: evidence from geological and gravity studies across the Rengali Province - Eastern Ghats Belt boundary, eastern India, *Tectonophysics*, doi: 10.1016/j.tecto.2015.01.016, I.F.2.866.
3. **Mohanty, W.K.**, Mohapatra, A.K., Verma, A.K., (2015) A Probabilistic Approach Towards Earthquake Hazard Assessment Using Two First Order Markov Models In Northeastern India, *Natural Hazards* 75:pp.2399–2419. DOI: 10.1007/s11069-014-1438-3. I.F. 1.958.
4. Verma, A.K., Routray, A. and **Mohanty, W.K.**, (2014) Assessment of Similarity between Well-Logs using Synchronization Measures, *IEEE Geoscience and Remote Sensing Letters*, 11(12), 2032–2036, DOI: 10.1109/LGRS.2014.2317498, I.F. 1.809.
5. Verma, A.K., Chaki, S., Routray, A., **Mohanty, W.K.**, Jenamani, M. (2014) Quantification of sand fraction from seismic attributes using Neuro-Fuzzy approach, *Journal of Applied Geophysics*, Vol. 111;141-155. DOI: 10.1016/j.jappgeo.2014.10.005.
6. Mandal, Animesh, **Mohanty, W.K.**, Sharma, S.P., Biswas, A., Sen, J., Bhatt, A.K. (2014) Geophysical signatures of uranium mineralization and its subsurface validation at Beldih, Purulia District, West Bengal, India: a case study, *Geophysical Prospecting*. 63,713-726.
7. Chaki, S., Verma, A.K., Routray, A., **Mohanty, W.K.**, Jenamani, M., (2014). Well Tops Guided Prediction of Reservoir Properties using Modular Neural Network Concept: A Case Study from Western Onshore, India, *Journal of Petroleum Science and Engineering*, Vol.123;155-163, DOI: 10.1016/j.petrol.2014.06.019.
8. **Mohanty William K.**, Mohapatra, A.K., Verma, A.K., Tiampo, K.F., and Kislay, K., (2014), Earthquake Forecasting and its Verification in Northeast India, *Geomatics, Natural Hazards and Risk*. DOI: 10.1080/19475705.2014.883441. (I.F. 0.977)
9. Arkoprovo Biswas, Animesh Mandal, S. P. Sharma, and **W. K. Mohanty**, (2014), Delineation of subsurface structures using self-potential, gravity, and resistivity surveys from South Purulia Shear Zone, India: Implication to uranium mineralization. (doi: 10.1190/INT-2013-0170.1), *Interpretation*, May 2014, Vol. 2, No. 2 : pp. T103-T110.
10. Gupta, S., **William K. Mohanty**, A. Mandal, S. Misra., (2014). Ancient terrane boundaries as probable seismic hazards: A case study from the northern boundary of the Eastern Ghats Belt, India, *Geoscience Frontiers*, doi: 10.1016/j.gsf.2013.04.001, **5,17-24**.
11. **Mohanty William K.** and Akhilesh Kumar Verma., 2013. Probabilistic Seismic Hazard Analysis for Kakrapar Atomic Power Station, Gujarat, India. *Natural Hazards*. DOI: 10.1007/s11069-013-0744-5. **Volume 69, Issue 1, Page 919-952**.(I.F.=1.639) (Cited by 1)
12. Biswas, A., A. Mandal, S. P. Sharma, and **W. K. Mohanty**, 2013 (*In Press*), Integrating apparent conductance in resistivity sounding to constrain 2-D gravity modeling for

subsurface structure associated with uranium mineralization across South Purulia Shear Zone, West Bengal, India: *International Journal of Geophysics*, (<http://www.hindawi.com/journals/ijge/aip/691521/>).

13. Mandal Animesh, **William K. Mohanty**, S. P. Sharma, 2013, 3D compact inverse modeling of gravity data for chromite exploration A case study from Tangarparha, Odisha, India, *SEG Technical Program Expanded Abstracts 2013*, **32**, **1171-1174**. doi: <http://dx.doi.org/10.1190/segam2013-0898.1>
14. Mandal, A., **William K. Mohanty**, S.P. Sharma, 2013, Gravity-magnetic studies for uranium exploration over Manbazar-Kutni area of South Purulia Shear Zone (SPSZ), West Bengal, India using hydro-uranium anomalies as guidance: *GSTF Journal of Geological Sciences*, **1**, no. 1, 83–87.
15. Gupta, Sandeep, **William K. Mohanty**, Rajesh Prakash and Atindra Kumar Shukla. 2012. Crustal heterogeneity and seismotectonics of the national capital region, Delhi, India. **Pure and Applied Geophysics**, Vol. 170, pp. 607-616. DOI 10.1007/s00024-012-0572-7 (I.F.=1.787)
16. **Mohanty, William K.**, Mandal Animesh, Sharma, S.P., Gupta Saibal and Mishra Surajit. 2011. Integrated geological and geophysical studies for delineation of chromite deposits: A case study from Tangarparha, Orissa, India. **Geophysics**, Vol. 76, No.5. (I.F.=1.97) (Cited by 4)
17. Mohapatra, A.K. and **Mohanty, William K.** 2011. Coda Q (Qc) Estimates in the Northeast India Using Local Earthquakes. **Seismological Research Letter**, vol.80, No.1. (I.F.=1.826)
18. K. Senapati, S. Dhubia, A. Routray, and **W.K. Mohanty**. 2011. Blind Deconvolution of Seismic Signals in Time and Frequency Domain: a Study on 2004 Sumatra Earthquake. **International Journal of Signal Processing**, Vol. 4, No. 1, 29-47.
19. Franco Vaccari, M. Yanger Walling, **William K. Mohanty**, Sankar K. Nath, Akhilesh K. Verma, A. Sengupta and Giuliano F. Panza. 2011, Site-specific modelling of *SH* and *P-SV* waves for microzonation study of kolkata metropolitan city, India. **Pure and Applied Geophysics**, Vol. 168, pp.67-91. (10.1007/s00024-010-0141-x). (I.F.=1.787) (Cited by 4)
20. Walling, M. Y. and **Mohanty, W.K.**, 2009. An overview on the seismic zonation and microzonation studies in India. **Earth Science Reviews**, Vol. 96, pp. 67-91. (I.F.=7.772) (Cited by 13)
21. Walling, M. Y., **Mohanty, W.K.**, Nath, S.K., Mitra, S. and Jhon, A., 2009. Microtremor survey in Talchir, India to ascertain its basin characteristics in terms of predominant frequency by Nakamura's ratio technique. **Engineering Geology**, Vol. 106, pp. 123-132. doi.10.1016/j.enggeo.2009.03.013. (I.F.=1.643) (Cited by 11)

22. **Mohanty, W.K.**, Prakash Rajesh, Suresh G., Shukla A.K., Walling M. Yanger and Srivastava J.P., 2009. Estimation of Coda wave attenuation for the National Capital Region, Delhi, India, using local earthquakes. **Pure and Applied Geophysics**, Vol. 166, pp.429-449.(I.F.=1.787) (cited by 6)
23. **Mohanty, W. K.** and Walling, M. Y. 2008. First order seismic microzonation of Haldia, Bengal Basin (India) using a GIS Platform. **Pure and Applied Geophysics**, Vol. 165, No.7, pp 1325 -1350.(I.F.=1.787) (Cited by 13)
24. **Mohanty W.K.**, Walling M.Y., Vaccari Franco, Tripathy, T, Panza, G.F., 2009. Modelling of SH- and P-SV- wave fields and seismic microzonation based on response spectra for Talchir basin, India. **Engineering Geology**, Vol. 104, pp 84-97. [\(I.F.=1.643\)](http://dx.doi.org/10.1016/j.enggeo.2008.08.007) (I.F.=1.643) (Cited by 6)
25. **Mohanty W.K.** and Walling M. Y., 2007. Seismic Hazard in mega city Kolkata, India, **Natural Hazards**, Vol. 47, No. 1, pp 39-54. (I.F.=1.639) (Cited by 9)
26. Thingbaijam K.K.S., Nath S. K., Yadav A., Raj A., Walling M. Y., **Mohanty W. K.**, 2007. Recent Seismicity in Northeast India and its Adjoining Region, **Journal of Seismology**, Vol.12, No.1, pp.107-123. (I.F.=1.388) (Cited by 41)
27. **Mohanty, W.K.**, Walling, M.Y., Nath, S.K. and Pal, I., 2007. First order seismic microzonation of Delhi, India using Geographic Information System (GIS), **Natural Hazards**, vol. 40, pp.245-260. (I.F.=1.639) (Cited by 26)
28. **Mohanty, W.K.**, 2006. A CUSUM based phase detector for seismic signals using an Adaptive Markov Model, **Seismological Research Letters**, Vol. 77, No. 2, pp. 285. (I.F.=1.826)
29. Vyas, M., Nath, S.K., Pal, I., Sengupta, P., and **Mohanty, W.K.**, 2005, GSHAP revisited for the prediction of maximum credible earthquake in the Sikkim region, India, **Acta Geophysica (springer) (Formerly Acta Geophysics Polonica)** Vol.53, pp. 143-152. (I.F. = 0.910) (Cited by 3)
30. Singh, S.K., **Mohanty, W. K.**, Bansal, B. and Roonwal, G.S., 2002. Ground motion in Delhi from future large/great earthquakes in the central seismic gap of the Himalayan arc. **Bulletin of Seismological Society of America**, Vol. 92, No 2, pp. 555-569. (I.F.= 2.027) (Cited by 52)

NATIONAL REFERRED JOURNALS

1. S. Jana, **W.K. Mohanty**, S. Gupta, C.S. Rath, R.R. Behera and P. Patnaik, 2016. Multi-pronged search for paleo-channels near Konark temple, Odisha – implications for the mythical river Chandrabhaga by , Current Science (Accepted).
2. Mandal, A., **W. K. Mohanty**, S. P. Sharma, and S. Gupta, 2015 (Accepted) Laterite covered mafic-ultramafic potential target for chromite exploration – A case study from southern part

of Tangarparha, Odisha, India: Journal of the Geological Society of India (Submission ID: JGSI-D-14-00158).

3. Mohapatra, A.K., **Mohanty, W.K.**, and Verma, A.K., .2014. Estimation of Maximum Magnitude (M_{max}): Impending large earthquakes in Northeast Region, India, *Journal of Geological Society of India*, **83**, 635–640.
4. Mandal, A., **W.K. Mohanty**, S.P. Sharma, 2015. (Accepted), Integrated gravity-magnetic study for delineation of structural guided uranium mineralization zones at Kutni, Purulia, West Bengal, India: Journal of the Geological Society of India, Vol. 85.pp.
5. Mandal Animesh, Arkoprovo Biswas, Saurabh Mittal, **William K. Mohanty**, Shashi Prakash Sharma, Debashish Sengupta, Joydip Sen, and A. K. Bhatt, 2013. Geophysical anomalies associated with uranium mineralization from Beldih mine, South Purulia Shear Zone, India. *Journal of Geological Society of India* Volume 82,pp.601-606.
6. **Mohanty, William K.**, Akhilesh K. Verma, Franco Vaccari, Giuliano F. Panza. 2012. Influence of Epicentral Distance on Local Seismic Response in Kolkata city, India. *Journal of Earth System Science*, ODI 10.1007/s12040-013-0275-1 (I.F.=0.82)
7. **Mohanty, W.K.**, Routray, A. and Nath, S.K., 2007. A new strategy for phase detection in seismic signals using an adaptive Markov amplitude model, *Current Science*, Vol. 93, No.1, pp.54-60. (I.F.=0.567) (Cited by 2)
8. Nath, S. K., Bhattacharya, S. N., Vyas, M., Pal, I., Sengupta, P., Mitra, S., **Mohanty, W. K.** and Ganguly, S., 2005. The Great Sumatra-Andaman Earthquake of 26 December 2004 as perceived from the broadband seismograms of Indian Institute of Technology, Kharagpur Seismological Observatory, *Current Science*, vol. 88, no. 9, pp. 1381-1383. (I.F.=0.897) (Cited by 3)
9. Rao, K.S. and **Mohanty, W.K.**, 2001. Microzonation of Delhi Region: An approach, *Journal of Indian Building Congress*, Vol.8, No 1 pp.102-114.
10. Srivastava, J. P., Pattnaik, S. K., Giridhar, M., Chauhan, P .K. S. and **Mohanty, W. K.**, 1999, Petrochemical studies on the epicentral region of the recent Jabalpur earthquake, *Current Science*, vol. 77(8), pp. 1100-1104. (I.F.= 0.897) (Cited by 4)
11. Verma, R.K. Chauhan, P.K.S., **Mohanty, W.K.** and Purkayastha, S., 1999. An analysis of seismicity, maximum magnitude and acceleration for Kashmir, Punjab, Kumaun and Garhwal Himalayan region, *Himalayan Geology*, vol. 20 (1), pp.123-129.
12. Gupta, Y., **Mohanty, W.K.**, Chauhan, P.K.S., Verma, R.K. and Roonwal, G.S., 1996. P_g and S_g Wave Velocities in Delhi and the surrounding Region from the Microseismicity data. *Bull. Indian Society for Earthquake Technology*, Vol. 33, no. 3, pp 229-239 (Cited by 1).
13. Verma, R.K., Roonwal, G.S., Gupta, Y., **Mohanty, W.K.**, Chatterjee, D., Rao, C.V.R.,1996.

The Latur earthquake and intra-plate seismicity of Peninsular India, **Himalayan Geology**, Vol.17, pp.119-125.

14. Verma, R.K., Roonwal, G.S., Kamble, V.P., **Mohanty, W.K.**, Dutta, U., Gupta, Y., Chatterjee, D., Kumar, N., Chauhan, P.K.S., 1995. Seismicity of Delhi and its surrounding region. **J. Himalayan Geology**, Vol. 6(1), pp. 75-82 (cited by 15).

Publications in proceedings of seminars/Conferences

1. Verma, A.K., Kumar P., Mohanty, W.K., Routray, A. and Cheadle, B.A., (2014) Modeling of reservoir property using fractal interpolation and geostatistics, SEG Technical Program Expanded Abstracts 2014, pp. 2460-2464, DOI: <http://dx.doi.org/10.1190/segam2014-1567.1>.
2. Animesh Mandal, S. P. Sharma, and W. K. Mohanty (2014) Simultaneous inversion of gravity and very low frequency electromagnetic real anomaly - A compact inversion approach. SEG Technical Program Expanded Abstracts 2014: pp. 2109-2113.
3. Chaki, S., Verma, A.K., Routray, A., Mohanty, W.K., Jenamani, M., (2014) A Novel Framework based on SVDD to Classify Water Saturation from Seismic Attributes, Fourth International Conference on Emerging Applications of Information Technology (EAIT 2014), Dec 19-21, 2014 at Indian Statistical Institute, Kolkata (Accepted).
4. Chaki, S., Verma, A.K., Routray, A., **Mohanty, W.K.**, Jenamani, M., (2014) A Framework based on One-class Classification using SVDD for an Imbalanced Geological Dataset, *IEEE TechSym 2014, 28 February - 2 March, IIT Kharagpur, India*.
5. Mandal, A., **W. K. Mohanty**, and S. P. Sharma, (Extended Abstract), 3D compact inverse modeling of gravity data for chromite exploration – A case study from Tangarparha, Odisha, India: SEG International Exposition and Eighty-Third Annual Meeting (2013), Houston, Texas, September 22–27, 2013. Ref. No. 898. (Oral Presentation, Accepted).
6. Verma, A.K., Chaki, S., Routray, A., **Mohanty, W.K.**, Jenamani, M., Chaudhuri, P. K., Das S. K., (2013) Quantifying Sand Fraction from Seismic Attributes using Modular Artificial Neural Network, *10th Biennial International Conference and Exposition, 23–25 November, 2013, Le Meridien Convention Center, Kochi*.
7. Chaki, S., Verma, A.K., Routray, A., Jenamani, M., **Mohanty, W.K.**, Chaudhuri, P. K., Das S. K., (2013) Prediction of Porosity and Sand Fraction from Well Log Data using Neural and Neuro-Fuzzy Systems: a comparative study, *10th Biennial International Conference and Exposition, 23–25 November, 2013, Le Meridien Convention Center, Kochi*.
8. **Mandal, A.**, S. P. Sharma, and W. K. Mohanty, 2014, Joint inversion of gravity and very low frequency electromagnetic anomaly: 50th Annual Convention of Indian Geophysical Union, National Geophysical Research Institute (NGRI), Hyderabad, India, January 9–12, 2014, (Accepted for Oral Presentation).

9. **Mandal, A.**, Kumarvardhanam Daga, W. K. Mohanty, and S. P. Sharma, 2014, Compact inverse modeling of gravity data - a potential approach for delineation of concealed chromite deposits: A case study from Tangarparha, Odisha, India: 50th Annual Convention of Indian Geophysical Union, National Geophysical Research Institute (NGRI), Hyderabad, India, January 9–12, 2014, (Accepted for Poster Presentation)
10. Animesh Mandal, Surajit Misra, **William K Mohanty**, Saibal Gupta, 2012, Geological and geophysical variations across the Talchir Gondwana basin - evidence for episodic reactivation of the North Orissa Boundary Fault, India, American Geophysical Union (AGU) Fall Meeting 2012, San Francisco, December 3-7, 2012 (Accepted).
11. Animesh Mandal, **William K. Mohanty**, and S.P. Sharma, (Extended Abstract), 2012, Integrated gravity-magnetic study for subsurface investigation and correlation with hydro-uranium anomalous zones of Manbazar-Kutni area of South Purulia Shear Zone, West Bengal, India. Annual International conference of Geological and Earth Sciences (GEOS 2012), December 3-4, 2012 in Singapore (Accepted).
12. Animesh Mandal, Arkoprovo Biswas, Saurabh Mittal, S.P. Sharma, **W.K. Mohanty** and D. Sengupta, 2012, Integrated exploration strategy for uranium mineralization from Beldih mine, Purulia, West Bengal, India, Abstract volume of 49th Annual Convention of Indian Geophysical Union on “Towards the energy security - Exploration, Exploitation and new strategies”, Abs. vol. page 107 (Poster Presentation, ONGC-IGU Best poster awarded).
13. Verma, A.K., Chaki S., Routray, A. and **Mohanty, W.K.**, (2012) Estimation of Permeability from Well Log Data using Neuro-Fuzzy Techniques for Reservoir Characterization, 49th Annual Convention of IGU on Towards the energy security - Exploration, Exploitation and new strategies, 29th October to 4th November, 2012 at GERMI/PDPU/ISR/NGRI, Gandhinagar, India.
14. **Mohanty, W.K.** and Verma, A.K., (2012) Probabilistic Seismic Hazard Analysis for Nuclear Power Plant: A Case Study from Western India, in the Annual International Conference on Geological and Earth Sciences(GEOS 2012) to be held during 3rd–4th December 2012 in Singapore.
15. Verma, A.K., Cheadle, B.A., Routray, A., **Mohanty, W.K.** and Mansinha, L., Porosity and Permeability Estimation using Neural Network Approach from Well Log Data, GeoConvention-2012, Calgary, Alberta, Canada, May 14 – 18 (2012).
16. Verma, A.K., Cheadle, B.A., Routray, A., **Mohanty, W.K.** and Mansinha, L., Reservoir Properties Estimation from Geophysical Well Log Data using the Adaptive Neuro-Fuzzy Inference System (ANFIS), International Conference on Engineering and Applied Science (ICEAS), Beijing, China, July 24 – 27 (2012)
17. Mohapatra, A.K., **Mohanty, W.K.**, Khisley, K and Tiampo, K. F., Earthquake

Forecasting in Bhuj, Western India Indo-US Workshop on "Intraplate Seismicity" Institute of Seismological Research (ISR), Raisan, Gandhinagar, Gujarat, India, 16 to 18 January 2012.

18. Animesh Mandal, **W. K. Mohanty**, S. P.Sharma, , and S. Gupta, Integrated gravity and magnetic studies for delineation of chromite deposit at Tangarparha, Orissa, Proceedings of International Seminar on Recent Advances in Geoscience (RAG 11) 1, Indian School of Mines, Dhanbad, 11-13 January, 2011 (2011)
19. Gupta, S., Misra, S., **Mohanty, W.K.**, and Mandal, A., Chromite investigation in Tangarparha Orissa an example of integrated geological and geophysical study for mineral exploration, National conference on Recent developments in Geology, Mineral, and Groundwater resources of India, , (2011)
20. Animesh Mandal, **W.K. Mohanty** and S.P. Sharma, Subsurface structural investigation using gravity-magnetic method and possible corelation with uranium mineralization across South Purulia Shear Zone, 48th Annual Convention of IGU on Modern trends in geophysical exploration of continental margins of India and adjoining Seas, Visakhapatnam, 20-22 December, 2011 (2011)
21. **Mohanty W.K.**, Mohapatra A.K., Kislay K., Tiampo K.F. and Verma A.K., Earthquake forecasting and estimation of maximum magnitude in Bhuj, Western India, The 2011 International Union of Geodesy and Geophysics (IUGG) General Assembly, Melbourne, Australia, (2011)
22. Mohapatra, A.K., **Mohanty, W.K.**, Khisley, K and Tiampo, K. F., "Earthquake Forecasting in Northeastern India using Pattern Informatics Method" *Eastern Section of Seismological Society of America, Boston College Chestnut Hill, USA*, October 18-19, Page 22, 2011.
23. Mohapatra, A.K. and **Mohanty, W.K.**, Estimation of Seismic Source Parameters in Northeast (NE) India from body wave spectra. *International Symposium on Advances in Earthquake Science, AES 2011, DST of Gujarat, ISR, Gandhinagar. S3_C4*, page 20, 2011.
24. Mohapatra, A.K. and **Mohanty, W.K.**, Attenuation of Coda Waves of Local Earthquakes In the Northeastern India. *International Symposium on Advances in Earthquake Science, AES 2011, DST of Gujarat, ISR, Gandhinagar, S6_P1*, page 50, 2011.
25. Mohapatra, A.K. and **Mohanty, W.K.**, Coda Q Attenuation and Source Parameters Analysis in North East India Using Local Earthquakes *American Geophysical Union (AGU), Fall meeting San Francisco, California, USA ,S51C-04,Dec 14-17, 2010.*
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