

ASMITA MOHANTY (Ph. D.)

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WORK EXPERIENCE

Designation	Institute/University	Year	Details
Post-Doctoral Research Associate	National Institute of Advanced Studies, Bangalore	2018-October onwards	MoES funded project titled “Exploring India’s Medieval Coastline using Geospatial Analysis and Historical Records”
Temporary Faculty	National Institute of Technology Raipur, India	July-September, 2018	Teaching (M.Tech) and administrative work

EDUCATIONAL QUALIFICATIONS

Year	Degree	Institute / University	CPI /Percentage
2010 -2017	Ph. D. (Engineering Geosciences)	Indian Institute of Technology Kanpur, Kanpur	7.29/10
2008 – 2010	M.Tech (Geological Remote sensing and Geoinformatics)	Centre of Excellence in Remote Sensing, Bharathidasan University, Trichy – 23, Tamil Nadu.	87%
2006 - 2008	M.Sc. (Geology)	Berhampur University, Odisha	77%
2003 - 2006	B.Sc. (Geology)	Utkal University, Odisha	64%

AWARDS AND RECOGNITION

- 2010-15 Awarded Institute Fellowship (2010-2015), Indian Institute of Technology Kanpur to pursue doctoral thesis.

REFEREED JOURNAL PUBLICATIONS

- Naik, S.P., Mohanty, A., Porfido, S., Tuttle, M., Gwon, O. and Kim, Y.S., 2020. *Intensity estimation for the 2001 Bhuj earthquake, India on ESI-07 scale and comparison with historical 16th June 1819 Allah Bund earthquake: A test of ESI-07 application for intraplate earthquakes*. *Quaternary International*, 536, pp.127-143. doi.org/10.1016/j.quaint.2019.12.024
- Malik, J. N., Naik, S. P., Sahoo, S., Okumura, K., Mohanty, A., 2016. *Paleoseismic evidence of the CE 1505 (?) and CE 1803 earthquakes from the foothill zone of the Kumaon Himalaya along the Himalayan Frontal Thrust (HFT), India*. *Tectonophysics*, TECTO-127201; pp 1-13. <http://doi.org/10.1016/j.tecto.2016.07.026>
- Malik, J.N., Kumar, A., Satuluri, S., Puhan, B. and Mohanty, A., 2012. *Ground-Penetrating Radar Investigations along Hajipur Fault: Himalayan Frontal Thrust—Attempt to Identify Near Subsurface Displacement, NW Himalaya, India*. *International Journal of Geophysics*, vol. 2012, Article ID 608269, pp 1-7, [doi:10.1155/2012/608269](https://doi.org/10.1155/2012/608269)

SUBMITTED JOURNAL PUBLICATIONS

- Mohanty, A, Mukherjee, A., and Mohanta, H., 2020. *Geospatial analysis of Mangroves in selective study areas: India and Myanmar* (article has been shortlisted for publication in Special Issue of *Journal of Earth System Sciences*).

PAPERS IN PREPARATION

- Mohanty, A., Malik, J. N. *Active Tectonic Studies Using Geomorphic Indices along the Foothill zone of NW Himalaya, India*.
- Mohanty A., Rajani M. B. *Measuring the evolution of coastal geomorphology and detecting coastline changes from 17th century onward: A Case Study along the Kerala Coast, India*.
- Sambit Prasanajit Naik, Gong-Ruei Ho, Alessandro Maria Michett, Asmita Mohanty, Ohsang Gwon, Sabina Porfido, Young-Seog Kim, *Reassessment of Intensity for the 2018/02/06 Mw 6.4 Hualien earthquake, Taiwan using ESI-07 intensity scale: An attempt for seismic hazard estimation for the epicentral area*.

- Malik, J. N., Mohanty, A., Sahoo, S., Gadhavi, M. S., Arora, S., Naik, S. P., *Signatures of 16th and 19th centuries paleoearthquakes along the Himalayan Frontal Thrust (HFT) from the left bank of Beas River, Punjab, NW Himalaya, India: Implications to Seismic Hazard Assessment.*
- Mohanty, A.; Krishnamurthy, M., S.; Rajani, M., B., *Geo-archeological investigation along the Cauvery river near Talakadu.*
- Mohanty, A.; Rajani, M., B., *Coastal landscape evolution along Odisha coast.*

CONFERENCES

- **Mohanty, A.**, 2019, *Preliminary investigation of active tectonic signature in the foothill zone of NW Himalaya using remote sensing and GIS*, International Conference on Luminescence and its Applications (ICLA-2019), January 7-10, 2019, Raipur, India.
- **Mohanty, A.**, Malik, J. N., Okumura, K., 2016, *Tectonic geomorphology of Late Pleistocene-Holocene landscape evolution and drainage migration, NW Himalaya, India*, 2016, 7th International INQUA Meeting on Paleoseismology, Active Tectonics and Archeoseismology, Crestone (USA), Guidebook No. 12; ISBN: 978-0-9974355-2-8
- Malik, J. N., Sahoo, S., **Mohanty, A.**, Naik, S. P., Okumura, K., *Surface rupture of a Great Himalayan 1905 Kangra earthquake (Mw7.8), NW Himalaya, India*, 2016, 7th International INQUA Meeting on Paleoseismology, Active Tectonics and Archeoseismology, Crestone (USA), Guidebook No. 12; ISBN: 978-0-9974355-2-8
- **Mohanty, A.**, Malik, J. N., Okumura, K., 2014, *Study of geomorphic indices through DEM and GIS environment towards understanding of active tectonics in Janauri anticline, NW Himalaya, India*, Asia Oceania Geosciences Society (AOGS) AOGS, 28th July-01 August 2014, Sapporo, Japan.
- Malik, J. N., Okumura, K., Sahoo, S., **Mohanty, A.**, Naik, S. P., 2013, *Evidence of Right Lateral strike slip fault in Kangra Valley, India*, American Geophysical Union (AGU), San Francisco, USA.
- Okumura, K., Malik, J. N., Dikshit, O., Kato, I., Sahoo, S., Pasari, S., **Mohanty, A.**, Takemoto, H., 2012, *Preliminary study on active fault in Kangra valley, NW Himalaya, India*, Japan Geoscience Union (JGU), Tokyo.

COLLABORATIVE PROJECT

- Collaborative project work with IUAC, Delhi (14C Dating) and BSIP, Lucknow (OSL Dating) towards establish chronology of a famous Archeological site, Talakadu. (PI- Asmita Mohanty)

PROJECTS INVOLVED

- Exploring India's Medieval Coastline using Geospatial Analysis and Historical Records. (*Sponsored: MoES (Ministry Of Earth Sciences), India*).
- Active Fault, Paleoseismic and crustal deformation in NW and Central Himalaya India: An integrated approach towards seismic hazard assessment (*Sponsored: MoES (Ministry of Earth Sciences), India*).
- Paleo-seismic and paleo-tsunami investigations along south-middle Andaman & Car Nicobar Islands towards earthquake & tsunami hazard assessment of A&N Islands (*Sponsored: INCOES (Indian National Centre for Ocean Information Services), India*).
- Paleoseismic and GPS studies for active fault mapping and slip rate estimation in NW Central Himalaya, India (*Sponsored: DISANET- Japan International Cooperation Agency (JICA)-Japan Science and Technology (JST)*).
- Active tectonic influence on landscape evolution around northern fringe of Janauri anticline along Himalayan Frontal Zone, NW Himalaya. (*Sponsored: Department of Science & Technology (DST), India*).

TEACHING EXPERIENCES

Designation	Institute/University	Year	Courses
Post-Doctoral Research Associate	National Institute of Advanced Studies, Bangalore	January – May, 2020 (Taught 2 lectures)	Remote Sensing and GIS and its application
Post-Doctoral Research Associate	National Institute of Advanced Studies, Bangalore	January – May, 2019	Coastal Geomorphology
Temporary Faculty	National Institute of Technology Raipur	July-September, 2018	1. Precambrian Stratigraphy 2. Fuel Geology 3. Engineering Geology
Tutor	Department of Civil Engineering, Indian Institute of Technology Kanpur	July - December, 2015	Engineering Geology (CE 321A),

Teaching Assistant	National Programme on Technology Enhanced Learning (NPTEL) courses: (Funded by the Ministry of Human Resource Development (MHRD))	8th July-25th Sep., 2016 & 23rd Jan.-26th Mar., 2017	Earth Sciences for Civil Engineering (Part -I & II)
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LAB & FIELD EXPERIENCE (Department of Civil Engineering, Indian Institute of Technology Kanpur)

- Handled the **Optically Stimulated Luminescence (OSL) Laboratory** at IIT Kanpur
- Active fault and Paleoseismic investigation around Dharmasala-Kangra region, NW Himalaya, India
- Active fault and Paleoseismic investigation around Hajipur-Pathankot, NW Himalaya, India
- Ground Penetrating Radar survey around Hajipur-Pathankot, NW Himalaya, India
- Topographic surveying with help of RTK, PPK and Robotic Total station, Terrestrial Laser Scanner survey around Hajipur-Pathankot, Dharmasala-Kangra, NW Himalaya, India
- Ground Penetrating Radar survey around Noida region, Delhi.
- Active fault and Paleoseismic investigation around Chandigarh region, NW Himalaya, India
- Paleoseismic and Paleotsunami investigation around Port Blair and Mayabunder region, S & M, Andaman & Nicobar Island.
- Structural Mapping of Athagada Patna-Taratarini-Bhabandha area of Ganjam District, Odisha - India

TRAINING / WORKSHOP

- 21-days Advanced Training Program/Summer School in Coastal and Ocean Vulnerability Assessment using Geospatial Technologies organized by the Department of Ocean Engineering, IIT Madras from 22 April 2019 to 12 May 2019 (Sponsored by : DST-NRDMS (Department of Science & Technology, India-Natural Resources Data Management System).
- National Symposium on Luminescence Dating, at Birbal Sahni Institute of Palaeosciences, Lucknow from 29th -30th March, 2019.
- Training Workshop on **Active Fault Mapping and Paleoseismology Program**, Sponsored by Ministry of Earth Sciences, New Delhi from 04-12 October 2015 in Indian Institute of Technology Kanpur, Kanpur, Uttar Pradesh.
- Wadia Institute of Himalayan Geology, Dehradun, Uttarakhand, India, June, 2014.
- Understood the basic principles and methodology of **Optically Stimulated Luminescence (OSL)** dating.
- Training Programme on **Active Tectonics**, sponsored by **Ministry of Earth Sciences**, New Delhi, from 21-28 December 2013 in the department of Geology, Maharaja Sayajirao University, Baroda.

LABORATORY AND INSTRUMENTATION SKILLS

- TL/OSL Dating: Magnetic Separator, Sieve Shaker, Pulveriser, RISO TL/OSL Reader, Gamma
- Spectrometer (HPGe)
- Robotic Total Station
- Terrestrial Laser Scanner
- PPK, RTK (GPS)
- Ground Penetrating Radar
- Stereoscope
- UAV- DGI Phantom 4 Pro

TECHNICAL SKILLS

- **Software:** ArcGIS, ERDAS, ENVI (IDL), RADAN, Global Mapper, GMT, LISCAD, LEICA Geo-office, LEICA Infinity, LEICA Photogrammetric Suite, River Tool, Golden Surfer, RISO Analyst, Adobe Photoshop, Adobe Illustrator, ORIGIN, Grapher, Pix4D, R, Seadas, Ferret.
- **Platforms:** Windows, Linux, Mac OS,

RESEARCH INTERESTS

- Active Fault and Paleoseismology
- Tectonic Geomorphology (Active Tectonics)
- Surface and Subsurface Mapping (Surveying)

- Ground Penetrating Radar
- TL/OSL Dating
- Remote Sensing and GIS
- Photogeology

DECLARATION

I hereby declare the above information furnished is true to my knowledge.

Sincerely,

(ASMITA MOHANTY)

NIAS, Bangalore