



CURRICULUM VITAE

Education

- 2016 PhD in Remote Sensing, Department of Earth Sciences, Indian Institute of Technology, Roorkee
Title: Remote sensing-based coal fire studies in Jharia Coalfield, India
Supervisor: Dr. Pitambar Pati, Associate Professor, Department of Earth Science, Indian Institute of Technology Roorkee
- 2009 Master of Science in Geology, Department of Geology, University of Lucknow
M.Sc. Dissertation: Reconnaissance radiometric survey and Geological mapping of Lalsot area, District Dausa, Rajasthan
- 2007 Bachelor of Science, Department of Geology, University of Lucknow

Research and Professional Experience

- 2018 Assistant Professor in Department of Geology, Banaras Hindu University, India
Supervised 07 M.Sc. theses
- 2016 Senior Geologist in Geological Survey of India, Ministry of Mines, Government of India
- 2011 Geologist in Geological Survey of India, Ministry of Mines, Government of India
- 2009 Research Fellow in the Department of Earth Science, Indian Institute of Technology Roorkee, India

Research Interest

Application of Remote Sensing and GIS in mapping and monitoring of Earth resources

Specialization

Thermal and microwave remote sensing, GIS, Field Geology

Tool and Proficiency

SARPROZ, ERDAS, ENVI, QGIS, ArcGIS, Python for Regression and Forecasting

Teaching Interest

- Odd Semester PG Level (GLM 304/308): Theoretical Remote Sensing-GIS, Aerial Photography, Earth and Its Atmosphere
UG Level (GLB 101/102): Physical Geology
- Even Semester PG Level (GLM 201/206): Geomorphology

Fellowships

- 2010 Appears for Shyama Prasad Mukherjee (SPM) Fellowship dated July 24, 2010
- 2009 Council of Scientific & Industrial Research Junior Research Fellow: National Eligibility Test Fellowship (CSIR NET-JRF)
- 2009 Ministry of Human Resources & Development Junior Research Fellow: Graduate Aptitude Test in Engineering Fellowship (MHRD GATE-JRF)

Current Projects

- 2019 **Title:** Remote sensing-based risk assessment of coal fires in Jharia Coalfield, India
Funding agency: Department of Science & Technology (DST-SERB)
Project duration: 3 Years w.e.f June 2019
- 2020 **Title:** Identification, characterization and monitoring of landslide-prone zone in Teesta Half Window, Darjeeling-Sikkim Himalaya
Funding agency: BHU Institute of Eminence (IoE) Seed Grant
Project duration: 3 Years w.e.f July 2020

Invited Lectures

- 2019 Prepared an online lecture 'Geological Maps and Mapping Techniques' on Earth Science
- 2016 Delivered an invited lecture and demonstration of Geological features and instruments during One Day Workshop on 'Basic Concepts of Field Geology' on August 06 2016 organized by Department of Geology, School of Earth Sciences, Banasthali Vidyapith

Training/ Workshop

- 2021 'Online training programme on data analysis using Python', Science Tech University, Manraj Kuwar Singh Educational Society from April 15 2021 to April 19 2021
- 2017 'Refresher Course on Exploration of Ferrous Group of Minerals', Field Training Centre Sukinda from January 24 2017 to February 02 2017.
- 2016 2nd Promotion-linked training (JTS-STs) for Senior Geologist, Geological Survey of India Training Institute, Hyderabad from July 14 2016 to July 27 2016
- 2015 'Recent trend in exploration for industrial minerals with special reference to Graphite investigation in Betul belt, Madhya Pradesh', RTI Nagpur from June 23 2015 to June 26 2015.
- 2012 Advanced training for Geologist, Geological Survey of India Training Institute, Hyderabad from October 03 2011 to July 31 2012
- 2008 Training in Central Quality Control Lab, U.P. State Bridge Corporation, Lucknow from July 05 2008 to July 18 2008.

Publications

- 2023 ***Raju. A.,** Mehdi, K. (2022) Multiple DInSAR analysis of regional ground deformation due to coal fires in Jharia Coalfield, India. Geocarto International.

- 2022 Singh, A., **Raju, A.**, Kumar S., Chandniha S.K., Singh, L., Tyagi I, Karri, R.R., Kumar, A. (2022) Hydrogeochemical characterization of groundwater and their associated potential health risks. Environmental Science and Pollution Research. <https://doi.org/10.1007/s11356-022-23222-2>
- 2022 Kannojiya, P., ***Raju, A.**, Singh, A., Singh, S., Singh, M. (2022) Human Health Risk Mapping from Exposure to Dissolved Trace Element Concentration in Drinking Groundwater Resources of Central Ganga Alluvial Plain: A Case Study of Lucknow region. Urban Water Journal. 19(8), 846-858.
- 2022 Singh, S., ***Raju, A.**, Banerjee, S. (2022) Detecting Slow-Moving Landslides in parts of Darjeeling-Sikkim Himalaya, NE India: Quantitative Constraints from PSInSAR and its Relation to the Structural Discontinuities. Landslides. 19, 2347-2365.
- 2022 ***Raju, A.**, Nanda, R., Singh, A., Malik, K. (2022) Multi-Temporal Analysis of Groundwater Depletion-Induced Land Subsidence in Central Ganga Alluvial Plain, Northern India. Geocarto International. <https://doi.org/10.1080/10106049.2022.2060322>.
- 2022 Bajpai, R., Shukla, V., **Raju, A.**, Singh, C.P., Upreti, D.K. (2022) A Geostatistical Approach to Compare Metal Accumulation Pattern by Lichens in Plain and Mountain Regions of North and Central India. Environmental Earth Science. 81, 203.
- 2022 Devi, V., Atique, M.M., **Raju, A.**, Upreti, G., Jigyasu, D.K., Yadav, J.K., Singh, S., Kar, R., Singh, M. (2022) Mercury Transport Dynamics in Ganga Alluvial Plain, India: Rainwater-Groundwater-Riverwater Interaction Study from Hotspot Region. International Journal of Environmental Science and Technology, 19, 4891-4900
- 2019 Singh, A., **Raju, A.** (2020). Application of Grace Satellite Data for Assessment of Groundwater Resources in Central Ganga Alluvial Plain, Northern India, Environment Concerns and Sustainable Development, Volume 1: Air, Water and Energy, Resources, 153-162, Ed. Vertika Shukla, Narendra Kumar, Springer, 2019
- 2019 **Raju, A.**, Singh, A., Srivastava, N., Singh, S., Jigyasu, D.K., Singh, M. (2019). Mapping Human Health Risk by Geostatistical Method: A Case Study of Mercury in Drinking Groundwater Resource of the Central Ganga Alluvial Plain, Northern India, Environmental Monitoring and Assessment, 191(S2), 298
- 2017 ***Raju, A.**, Singh, A. (2017). Assessment of Groundwater Quality and Mapping Human Health Risk in Central Ganga Alluvial Plain, Northern India., Environmental Processes, 4 (2), 375-397
- 2016 ***Raju, A.**, Singh, A., Kumar, S., Pati, P. (2016). Temporal Monitoring of Coal Fires in Jharia Coalfield, India, Environmental Earth Sciences, 75, 989
- 2016 Singh, A., **Raju, A.**, Pati, P., Kumar, N. (2017) Mapping of Coal Fire in Jharia Coalfield, India: A Remote Sensing Based Approach, Journal of Indian Society of Remote Sensing, 45, 369-376
- 2013 Prakash, A., Gens, R., Prasad, S., **Raju, A.**, Gupta, R. P. (2013). Coal Fires in the Jharia Coalfield, India, book chapter in 'Coal and Peat Fires: A Global Perspective, Volume 2: Photographs and Multimedia Tours', Ed. Glenn B. Stracher, Anupma Prakash, Ellina V. Sokol, Elsevier, 2013
- 2013 **Raju, A.**, Gupta, R.P., Prakash, A. (2013). Delineation of Coalfield Surface Fires by Thresholding Landsat TM-7 Day-Time Image Data, Geocarto International, 28

<https://scholar.google.com/citations?user=EDYKCU8AAAAJ&hl=en>

PhD Thesis Ongoing

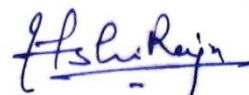
- 2019 Singh, S. Landslide evolution around Darjeeling-Sikkim Himalaya using semote sensing technique. Department of geology, Banaras Hindu University
- 2021 Kanaujiya, A. Risk assessment of coal fire in Jharia Coalfield, India: A Remote sensing based Approach. Department of geology, Banaras Hindu University

Master's Thesis Supervised

- 2022 Dalui, S. Detecting slow-moving landslides in part of southern Sikkim using Persistent Scatterer Interferometry. Department of Geology, Banaras Hindu University
- 2022 Sinha, M. Multi-temporal analysis for coal fire-induced land subsidence in Jharia Coalfield, India. Department of Geology, Banaras Hindu University
- 2021 Chayanika, M. A synergetic approach for characterization of coal fire-induced land subsidence in Jharia Coalfield, India. Department of Geology, Banaras Hindu University
- 2021 Mehdi, K. Studying the contextual relationship between coal fire-induced land surface temperature and vertical subsidence in Jharia Coalfield, India. Department of Geology, Banaras Hindu University
- 2020 Nanda, R. Measuring urban land subsidence in Central Ganga Alluvial Plain using Persistent Scatterer Interferometry. Department of Geology, Banaras Hindu University
- 2019 Yadav, C. Mineral spectroscopy and geomorphology of Robertson Crater using Moon Mineralogy Mapper (M3), Chandrayaan-I. Department of Geology, Banaras Hindu University
- 2019 Kannojiya, P.K. Mapping human health risk from exposure to trace element concentration in drinking groundwater resources of Lucknow using geostatistical approach. Department of Geology, Banaras Hindu University
- 2019 Diwedi, K. Landslide investigation around Rishikesh-Shivpuri area using D-InSAR technique. Department of Geology, Banaras Hindu University

Declaration

I hereby declare that the information provide above is true to the best of my knowledge


(Ashwani Raju)