

# Curriculum Vitae

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## Education

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- **2019-2024:** PhD from Centre for Ocean, River, Atmosphere and Land Sciences, Indian Institute of Technology (IIT) Kharagpur, India.  
(Thesis Title- Assessment of Seismic Hazard, Vulnerability and Risk in the Himalayas)
- **2016-2018:** Master of Technology (M.Tech) in Earth System Science and Technology from Centre for Ocean, River, Atmosphere and Land Sciences, Indian Institute of Technology (IIT) Kharagpur, India. (CGPA 9.33/10)
- **2012-2016:** Bachelor of Technology (B.Tech) in Aerospace Engineering from Amity University, Noida, India. (CGPA 8.21/10)

## Research and Professional Experience

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- **Senior Research Fellowship (2021-2024):** Indian Institute of Technology Kharagpur, India.
- **Junior Research Fellow (2019-2020):** Indian Institute of Technology Kharagpur, India.
- **Qualified** UGC-NET, 2022.
- **Qualified** WB-SET, 2022
- **Qualified** Graduate Aptitude Test in Engineering (GATE) - 2016

## Publications

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### First Author/Corresponding Authors

1. **Sukanta Malakar**, Abhishek K. Rai; Earthquake vulnerability in the Himalaya by integrated multi-criteria decision models; **Natural Hazards**, Springer 111, 213–237 (2021). <https://doi.org/10.1007/s11069-021-05050-8>
2. **Sukanta Malakar**; Geospatial modelling of COVID-19 vulnerability using an integrated fuzzy MCDM approach: a case study of West Bengal, India; **Modeling Earth System Environment**, Springer 8, 3103–3116 (2021). <https://doi.org/10.1007/s40808->

021-01287-1

3. **Sukanta Malakar**, Abhishek K. Rai; Seismicity clusters and vulnerability in the Himalayas by machine learning and integrated MCDM models; **Arabian Journal of Geosciences**, Springer 15, 1674 (2022). <https://doi.org/10.1007/s12517-022-10946-1>
4. **Sukanta Malakar**, Abhishek K. Rai, Arun K. Gupta; Earthquake risk mapping in the Himalayas by integrated analytical hierarchy process, entropy with neural network; **Natural Hazards**, Springer 116, 951–975 (2022). <https://doi.org/10.1007/s11069-022-05706-z>
5. **Sukanta Malakar**, Abhishek K. Rai; Estimating seismic vulnerability in West Bengal by AHP-WSM and AHP-VIKOR; **Natural Hazards Research**, Elsevier (2023). <https://doi.org/10.1016/j.nhres.2023.06.001>
6. **Sukanta Malakar**, Abhishek K. Rai, Vijay K. Kannaujiya, Arun K. Gupta; Revised empirical relations between earthquake source and rupture parameters by regression and machine learning algorithms; **Pure and Applied Geophysics**, Springer 180, 3477-3494 (2023). <https://doi.org/10.1007/s00024-023-03340-9>
7. **Sukanta Malakar**, Abhishek K. Rai, Vijay K. Kannaujiya, Arun K. Gupta; Probability and recurrence interval of large earthquakes ( $M_w \geq 6$ ) in the Himalayan seismicity zone; **Geomatics, Natural Hazards and Risk**, Taylor and Francis 15, 2393667 (2024). <https://doi.org/10.1080/19475705.2024.2393667>

#### **Book-Chapter**

8. **Sukanta Malakar**, Abhishek K. Rai, Mohd Sayeed Ul Hasan, Vijay K. Kannaujiya; Geospatial Modelling of Seismic Vulnerability using Entropy-AHP: A Case Study of the Himalayas; In: Gowhar Meraj, Shizuka Hashimoto, Pankaj Kumar (eds) **Navigation Natural Hazards in Mountainous Topographies-Exploring the Challenges and Opportunities of Living**, Springer, Switzerland (2024). [https://doi.org/10.1007/978-3-031-65862-4\\_3](https://doi.org/10.1007/978-3-031-65862-4_3)

#### **Co-Author Research Articles**

9. Abhishek K. Rai, **Sukanta Malakar**, Susmita Goswami; Active source-zones and earthquake vulnerability around Sumatra subduction zone; **Journal of Earth System Science**, Springer 132, 66 (2023). <https://doi.org/10.1007/s12040-023-02070-9>
10. Vijay K. Kannaujiya, Abhishek K. Rai, **Sukanta Malakar**; Nature and impact of tropical cyclone Tauktae over Arabian Sea, May 2021; **Discover Oceans**, Springer 1, 4 (2024). <https://doi.org/10.1007/s44289-024-00004-x>

11. Vijay K. Kannaujiya, Abhishek K. Rai, **Sukanta Malakar**; Coastal shoreline change in eastern Indian metropolises; **PFG-Journal of Photogrammetry, Remote Sensing and Geoinformation Science**, Springer (2024). <https://doi.org/10.1007/s41064-024-00286-y>
12. Abhishek K. Rai, **Sukanta Malakar**, Susmita Goswami; Evaluating seismic risk by MCDM and machine learning for the eastern coast of India; **Environmental Monitoring and Assessment**, Springer 196, 471 (2024). <https://doi.org/10.1007/s10661-024-12615-0>
13. Monalisa Malakar, **Sukanta Malakar**, Mohd Sayeed Ul Hasan, Abhishek K. Rai, Vijay K. Kannaujiya; Seismic risk modelling in West Bengal, India, using the AHP-Entropy integrated method; **Evolving Earth**, Elsevier 2, 100036 (2024). <https://doi.org/10.1016/j.eve.2024.100036>

### Conference Abstracts/Presentation

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1. International Workshop on "**Biodiversity and Climate Change**", Centre for Ocean, River, Atmosphere and Land Sciences, IIT Kharagpur, India (24th-27th Feb 2018).
2. "**Climate Change Impacts, Vulnerabilities, and Adaptation: Emphasis on India and Neighborhood**", Centre for Ocean, River, Atmosphere and Land Sciences, IIT Kharagpur, India (26th Feb-2nd Mar 2019).
3. "**International Student Conference on Environment and Sustainability**", Tongji University, Shanghai, China (10th-15th June 2019).
4. "**58th Annual Convention of Indian Geophysical Union (IGU)**", North-Eastern Hill University, Shillong, Meghalaya, India (2nd- 4th Feb 2022).
5. "**EGU General Assembly 2024**", Vienna, Austria (14th-19th April 2024).

### Awards and Achievements

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1. **Gold Medal**- Got gold medal, being the topper of the department (2016), Amity University.
2. **Merit Certificate Awardee**- Merit certificate awardee, being the topper of the department (2013-2016), Amity University.
3. **Best in Innovation and Technology**- Award for best in innovation and technology (2016), Amity University.

4. **Representing the College and Bringing Laureates-** Award for representing the college and bringing laureates (2016), Amity University.
5. **Travel Grant-** International Student Conference on Environment and Sustainability (2019), Tongji University, Shanghai, China.