

Sabari Nathan, C.

Research Scholar

Centre for Disaster Mitigation and Management

Vellore Institute of Technology (VIT), Vellore, 632014, Tamil Nadu, India.

Mobile: +91 759 839 1393; Email: sabarinathan070@outlook.com

Degrees conferred

Degrees	Discipline	Year	University	CGPA
Doctorate	Earth sciences	2021-present	Vellore Institute of Technology, Vellore	NA
Post-Graduation	MSc (Applied geology)	2018-2020	University of Madras, Chennai.	8.4/10.00
Graduation	BSc (Geology)	2015-2018	Thiruvalluvar University, Vellore	8.2/10.00

Experience

Designation	Organization	Duration
Teaching cum Research Assistant (Fellowship)	Vellore Institute of Technology Vellore, 632014 Tamil Nadu, India.	Dec 2021 – Dec 2023
Intern – Geophysics	Wadia Institute of Himalayan Geology Dehradun, 248001, Uttarakhand,	June 2019
Intern - Hydrogeology	Central Ground Water Board Bangalore, 560102, Karnataka,	May 2019

Professional summary

Areas of interest	Landslides; Disaster Mitigation and Management; Micropaleontology; Environmental geochemistry.
Instruments handled	Vibration monitoring system, Multi-channel Analysis of Surface Waves (MASW), Electrical Resistivity Tomography (ERT), X-ray fluorescence (XRF), Spectrophotometer, Flame photometer, Resistivity meter, Atomic Absorption Spectrometer (AAS), Petrological and Paleontological Microscopes.
Software & programs	ArcGIS, QGIS, MS Office, Power BI, JMP pro17, Res 1D, 2D & 3D, Seisan, RStudio, WinMASW and Waves.

Publications

a) Papers in referred journals - published

1. **Sabari Nathan, C.**, & Ganapathy, G. P. (2024). Quantifying the impact of changing rainfall patterns on landslide frequency and intensity in the Nilgiris District of Western Ghats, India. *Progress in Disaster Science*, 23, 100351. <https://doi.org/10.1016/j.pdisas.2024.100351>.
2. V. Gopal, R.R. Krishnamurthy, R. Vignesh, **C. Sabari Nathan**, R. Anshu, R. Kalaivanan, P. Mohana, N.S. Magesh, K. Manikanda Bharath, A.Z. Ekoa Bessa, K. Abdelrahman, M. Abioui. (2023). Assessment of heavy metal contamination in the surface sediments of the Vedaranyam coast, Southern India, *Regional Studies in Marine Science*, 103081, ISSN 2352-4855, <https://doi.org/10.1016/j.rsma.2023.103081>.
3. Gopal, V., Krishnamurthy, R. R., Sreeshma, T., Chakraborty, P., **C. Sabari Nathan.**, Kalaivanan, R., & Jayaprakash, M. (2021). Effect of a tropical cyclone on the distribution of heavy metals in

the marine sediments off Kameswaram, Southeast coast of India. *Marine Pollution Bulletin*, 171, 112741. <https://doi.org/10.1016/j.marpolbul.2021.112741>.

b) Papers in conference proceedings – published

1. **Sabari Nathan, C.**, and Ganapathy, G. P. (2023, December). Evaluation of Precipitation Indices as a Landslide Triggering Factors in Parts of the Western Ghats, India. *AGU Fall Meeting Abstracts*, 2023, NH13D-0714.
<https://ui.adsabs.harvard.edu/abs/2023AGUFMNH13D0714N/abstract>

c) Papers completed not yet published

1. **Sabari Nathan, C.**, Rajeshwara Rao., Prakasewar, P., Gopal, V. (2022). An initial investigation of epiphytic foraminifera from seagrass and seaweed on Rameswaram Island, Southeast India.

c) Papers are in progress

1. V Gopal., R.R Krishnamurthy., R Deepika., **C. Sabari Nathan.**, R Manikanda Bharath., N.S Magesh., Ramamoorthy., A. (2024). Assessment of Heavy Metal Contamination in Urban Rivers: Spatial Distribution, Human Health Risks, and Statistical Analysis. *Aquatic Toxicology*. (Status: under review)
2. **Sabari Nathan, C.**, Ganapathy., G.P. (2024). Quantifying Land Subsidence and Characterizing Subsurface Conditions Using InSAR and Geophysical Techniques in the Nilgiris region, Western Ghats, India. (Status: under preparation)
3. **Sabari Nathan, C.** and Ganapathy, G.P. (2023). Understanding Hydrological Behavior and Slope Dynamics for Enhancing Early Warning Systems for Landslides: An Overview. *Earth and Environmental Sciences*. (Status: under review)

Awards

1. Awarded “International Travel Scheme (ITS)” grant from Anusandhan National Research Foundation (formerly SERB) to travel and present a paper at the American Geophysical Union (AGU) in San Francisco, USA.
2. Secured first rank in B.Sc., Geology from Thiruvalluvar University, Vellore, 632115 (through Jawahar Science College, Neyveli, 607308.)
3. Secured 1st Prize for Speech Competition on “Disaster Management and Mitigation” from the District Collector, Cuddalore through Jawahar Science College, Neyveli, 607308.

Professional training received

1. Training on “Hands-on training on Earthquake Scenario” (2022) organized by District Disaster Management Authority (DDMA)– Vellore, National Disaster Response Force (NDRF), In coordination with Centre for Disaster Mitigation and Management (CDMM), Vellore Institute of Technology, Vellore, 632014, Tamil Nadu, India.
2. A practical approach to the seismic method using Python and Machine learning, Institute of Smart Structures and Systems (ISSS), by Indian Institute of Science (IISc), Bangalore, Karnataka.
3. Informea Diploma on the International Legal Framework on the Protection of the Atmosphere, UNITAR.
4. E-training of the fundamentals of Aero-geophysical survey, GSI Training Institute, Hyderabad.
5. Introduction to Human Rights and the Environment, International Legal Framework on Transboundary Air Pollution, and Global Framework for Pollution Free Planet, UNITAR.

Workshop/seminars/conferences etc.

a) Organized

1. Two-week workshop on Geospatial Applications in Disaster Management, sponsored by ISRO and organized as a student coordinator committee member at Vellore Institute of Technology (VIT), Vellore, 632014, Tamil Nadu, India.
2. “Earthquake mock drill Scenario” by District Disaster Management Authority (DDMA) – Vellore organized by National Disaster Response Force as a member coordinator in coordination with Centre for Disaster Mitigation and Management (CDMM), Vellore Institute of Technology (VIT), Vellore.

b) Attended

1. 13th International Congress on Climate Change, Territorial Classification and Socio-economic Crisis” (2019) conducted by the Department of Geology and Department of Applied Geology, University of Madras, Chennai.
2. International Association of Sedimentologists – Special Lecture (towards a new generation of facies models for fluvial system and their deposit) (2019) conducted by the Department of Earth Sciences, Annamalai University, Chidambaram.
3. Coastal Management with reference to water resources. (2019). Workshop conducted by the Department of Applied Geology, University of Madras, Chennai.
4. Workshop on Applied Micropaleontology, with special reference to Foraminifera and Ostracoda. (2020). Workshop conducted by the Department of Applied Geology, University of Madras, Chennai.
5. International Conference on Paleoclimate Changes (IPCC-2020) (2020) conducted by the Geosciences Research Lab, School of Civil Engineering, Vellore Institute of Technology (VIT), Chennai.
6. Webinar on “Petrological Studies” (2020) organized by the Department of Geology, Alagappa University, Karaikudi, Tamil Nadu.
7. Lecture on “The Ladakh Ophiolites: The Story of Ancient Cells” (2020) organized by KJ Somaiya College of Science and Commerce, Mumbai, Maharashtra.
8. Webinar on “Advanced Techniques in Groundwater Resources Management” (2020) organized by Centre for Water Resources Development and Management, Kozhikode, Kerala.
9. Workshop on Statistical Discovery workshop using JMP® (2022) organized by Vellore Institute of Technology and JMP® at Vellore Institute of Technology, Vellore, Tamil Nadu.
10. Workshop on “Satellite data ordering and workshop through BHOONIDHI – 2022” (2022) by National Remote Sensing Centre, ISRO.
11. Geospatial Technology for Coastal Disaster Studies and Management - (GEO-CODISM). (2022). Workshop organized by Annamalai University, Chidambaram, Tamil Nadu.
12. The basic concept of numerical modeling of the Atmosphere and Ocean. (2022). Workshop organized by DST-Science and Engineering Board (SERB) and Vellore Institute of Technology (VIT), Vellore, Tamil Nadu.
13. A one-day workshop on Data Analysis in Python & R using STATCRAFT on 6th March 2024, Vellore Institute of Technology (VIT), Vellore, Tamil Nadu, India.
14. A one-day online workshop titled “Utilities of Sun-Induced Chlorophyll Fluorescence in Vegetation Studies” was conducted by the Indian Institute of Remote Sensing (IIRS), Dehradun, India.

Newspapers/review

1. Rain and roads: Both spell landslides for Nilgiris, Says study. (2024, August 1). Times of India. Retrieved August 3, 2024, from <https://timesofindia.indiatimes.com/city/chennai/rain-and-roads-both-spell-landslides-for-nilgiris-says-study/articleshow/112146984.cms>

Membership in professional societies

1. Terra (Jawahar Science College)
2. American Geophysical Union – Student member
3. Seismological Society of America – Student member
4. Society of Exploration Geologists – Student member
5. Tamil Nadu Geologist's Association

Other details

- Google Scholar: <https://scholar.google.com/citations?user=31xfF3UAAAAJ&hl=en&authuser=2>
- Orcid ID: <https://orcid.org/0000-0001-9876-1657>

I solemnly declare that the information provided above is entirely accurate and truthful to the best of my knowledge.

Date: 06.01.2025

Sabari Nathan, C.

Place: Vellore