# CURRICULUM VITAE


**Dr. NIRMALA, R.**
Assistant Professor
Dept. of Marine Geology
Mangalore University,
Mangalagangotri - 574199
nirmala.agara@gmail.com
geonirmala19@gmail.com
Mob: 9620574191


## ADDRESS:

**Office**
Assistant Professor
Dept. of Marine Geology
Mangalore University,
Mangalagangotri - 574199
Mob: 9620574191

**Residential**
C-6 University staff quarters,
Mangalore University,
Mangalagangotri,
Konaje – 574199

Date of Birth: 02/05/1984
Marital Status: Married

## EDUCATIONAL QUALIFICATION:

| Course studied | Institution | Year | |
|---|---|---|---|
| • Ph.D. | Mangalore University | 2022 | |
| • M.Sc. in Applied Geology | University of Mysore | 2009 | **Gold Medalist** and **First Rank holder** in Applied geology |
| • B.Sc. in CBG | University of Mysore | 2007 | **Gold Medalist** in Geology |

**Title of the Doctoral Thesis**: Assessment of heavy metal concentration in water, suspended load and river bed sediments of Suvarnavathi River, Chamarajanagar, Karnataka.

## WORKING EXPERIENCE:

- Worked as a Project Assistant in Karnataka State Remote Sensing Application Centre (KSRSAC), Bangalore: **3 yrs.**
- Professional Teaching Experience as an Assistant Professor : **10 yrs.** (till date)
- Successfully guided students for Minor and Major (dissertation work) Projects.
- Successfully trained students for competitive examinations like CSIR-UGC, KSET, GSI examinations.

## RESEARCH INTERESTS:

- Water Resources, Remote Sensing, Geographical Information System, Petrology and Geochemistry.

## SOFTWARE SKILLS:

- GIS Software - **ArcGIS, QGIS**
- RS/ Image Processing software - **Erdas Imagine, AutoCADD**
- Statistics software - SPSS Statistics 20

## SHORT/TRAINING COURSES ATTENDED:

- UGC sponsored 'Orientation Programme' held at Academic Staff College, University of Mysore, Mysore from 05/06/2014 to 02/07/2014 (28 days).
- **ISRO** sponsored NNRMS training programme on 'RS and GIS applications on Geosciences' from 13/05/2019 to 05/07/2019 (**48 days**) by Indian Institute of Remote Sensing (**IIRS**), ISRO, Dehradun, Uttarakand.
- UGC sponsored 'Refresher Course in Earth Sciences' held at Academic Staff College, Osmania University, Hyderabad from 05-12-2019 to 19-12-2019 (15 days)
- NRDMS-DST Winter School on Geospatial Technologies by Dept. of Ocean Engineering, **IIT Madras** from 3/1/2022 to 23/01/2022 (21 days).

## ACADEMIC DUTIES PERFORMED:

- Member of BOS: Geoinformatics, Dept. of Marine Geology, Mangalore University.
- Member of BOE: Geoinformatics, Dept. of Marine Geology, Mangalore University.
- Member of BOS: Marine Geology, Dept. of Marine Geology, Mangalore University.
- Member of BOE: Marine Geology, Dept. of Marine Geology, Mangalore University.
- Member of SC-ST cell, Mangalore University.
- Examination paper setter and evaluator for Mangalore University, University of Mysore, Bangalore University, Kuvempu University for Post-graduation courses.

## PARTICIPATION AS RESOURCE PERSON:

- Delivered number of lectures on 'Applications of GIS' and handled practical classes as a resource person in University level under 'Training programme on RS and GIS' 2018 and 2019 held at Dept. of Marine Geology, Mangalore University for Civil Engineering students of different colleges.

## PAPER PUBLICATION:

1. R. Nirmala (2023). Landslide and its Impact on Agriculture in Kottiyoor Panchayath, Kannur District, Kerala. Book of Advancement of GIScience and sustainable agriculture, GI-Science and Geo-environmental Modelling. *Springer Nature Switzerland* AG, ISSN 2730-7506.
2. R. Nirmala and K. S. Harikrishna Naik (2023). Land Use Land Cover Change Detection through the Spatial Approach: A Case Study of the Badiadka Panchayath, Kerala. Monitoring and Managing Multi-hazards, GIScience and Geo-environmental Modelling. *Springer Nature Switzerland AG*. ISBN 978-3-031-15377-8. DOI: 10.1007/978-3-031-15377-8.
3. S. Abhilash, R. Nirmala, and Aravind Sahay (2023). Seasonal and Inter-Annual Variation of Chlorophyll and Sea Surface Temperature in Northern and Southern Arabian Sea, India. Monitoring and Managing Multi-hazards, GIScience and Geo-environmental Modelling. *Springer Nature Switzerland AG*. ISBN 978-3-031-15377-8. DOI: 10.1007/978-3-031-15377-8.
4. R. Nirmala, N. Verma and R.P. Singh (2023). Spatiotemporal Controls of Heavy-Metal Distribution along A River Channel: A Case Study of Suvarnavathi River, Karnataka. Book of land utilization and resource management. Published by Scientific Publishers (India). *Springer Nature Switzerland* AG, eISBN: 978-93-90749-32-4.
5. Harshith Clifford Prince, R. Nirmala*, R.S. Mahendra1 and P.L.N. Murty (2022). Storm Surge Hazard Assessment along the East Coast of India using Geospatial Techniques. *Asian Journal of Water, Environment and Pollution*, Vol. 19, No. 6 (2022), pp. 51-57. ISSN - 09729860, 18758568. DOI 10.3233/AJW220088.
6. R. Nirmala (2022). Geospatial technique for classifying land use land cover in Suvarnavathi watershed area of Chamarajanagar district, Karnataka, India. Interdisciplinary Approaches in Agriculture and Forestry. Taran Publications, ISBN 978-93-92313-22-6, Issues-1, pp: 301-308.
7. R. Nirmala (2022). Geospatial technique for classifying land use land cover in Suvarnavathi watershed area of Chamarajanagar district, Karnataka, India. Interdisciplinary Approaches in Agriculture and Forestry edited by Sandeep Rout et al, Taran Publications, ISBN 978-93-92313-22-6, Issues-1, pp: 301-308.
8. Neelam Verma Ravindra Pratap Singh and Nirmala R (2020) Estimation and Mapping of Torrential Risk for Soil and Water Resource Management in the Chenab Catchment Using

Geo-Spatial Tools. Agriculture and Forestry: current trends, perspectives. ISBN 978-93-5437-038-0, Issues-4 pp: 179-188.

9. R. Nirmala (2020). Monitoring and Assessment of Heavy Metal Contamination in Suspended Load Sediments of the Suvarnavathi River, Karnataka. Food and agriculture edited by Sandeep Rout et al, ESN Publications, ISBN 978-81-950305-9-0, Issues-1, pp: 416-428.
10. R. Nirmala (2020). Evaluation of heavy metal contamination in bed sediments of the Suvarnavathi River, Karnataka. Agriculture and Forestry: current trends, perspectives. Immortal publications, ISBN 978-93-5437-038-0, Issues-2, pp: 179-188.
11. R. Nirmala and Neelam Verma (2020). A GIS-Based Approach in Drainage and Morphometric Analysis of Suvarnavathi River Basin and Sub-watersheds, Karnataka, India. *Asian Journal of Water, Environment and Pollution*, Vol. 17, No. 4 (2020), pp. 81-87. DOI 10.3233/AJW200054.
12. R. Nirmala and C. Krishnaiah (2019). Comparative study of heavy metal concentration in river water and groundwater of Suvarnavathi River, Chamarajanagar district, Karnataka, India. Climate change in water resources, ISBN 978-93-87997-82-0, pp: 97- 105.
13. R. Nirmala and C. Krishnaiah (2019), Evaluation of Groundwater Quality along Suvarnavathi River, Chamarajanagar District, Karnataka, India, *Journal of Indian Groundwater*, vol. 12, issue-1: pp 50-55, ISSN 23478063.
14. Nirmala.R, Shankara.M, Nagaraju.D, and Chinnaiah (2011). Artificial groundwater recharge studies in Sathyamangalam and Melur villages of Kulathur taluk, Pudukottai district, Chennai, using GIS techniques. International journal of environmental sciences, vol 1(7), pp 1592-1608, ISSN 0976 – 4402.

## PAPERS PRESENTED:

1. Determine Landslide Prone Areas in Harangi Subwatershed, Kodagu using Geospatial Tool in National Seminar on 'Recent Advancements in Marine Geology and Geoinformatics' held at Department of Marine Geology Mangalore on 23 - 24 February, **2023**.
2. Geological characterization of landslide Prone areas of malpa and adjoining areas in Pithoragarh district, Uttarakhand in 16$^{th}$ Kannada Vijnana Sammelana held by mangalore university on Sept. 15 – 17, **2021**.
3. Identification of Groundwater Potential zones using RS and GIS in Suvarnavathi Subwatershed, Chamarajanagar district, Karnataka in 16$^{th}$ Kannada Vijnana Sammelana held by Mangalore University on Sept. 15 – 17, **2021**.

4. **Best Women Presenter** award at 16th Kannada Vijnana Sammelana conducted by Mangalore University on Sept. 15 – 17, 2021 for the research titled 'Identification of Groundwater Potential zones using RS and GIS in Suvarnavathi Subwatershed, Chamarajanagar district, Karnataka
5. Hydro-chemical analysis for the assessment of groundwater quality along Suvarnavathi River, Chamarajanagar district, Karnataka, India in 'National level conference on recent advances in Material science' held at Field marshal K. M.Cariappa College, Madikeri on 5th February **2019**.
6. Spatial distribution of Total Hardness and Total Dissolved Solids in ground water of Suvarnavathi Subwatershed, Chamarajanagar district, Karnataka, India, using GIS techniques in 'International conference on Impact of climate change on water resources' (ICWR2018)' held at Periyar University, Salem on July 12 -13, **2018**.
7. Comparative study of heavy metal concentration in river water and groundwater of Suvarnavathi River, Chamarajanagar district, Karnataka, India in 'International conference on Impact of climate change on water resources' (ICWR2018)' held at Periyar University, Salem on July 12 -13, **2018**.

## DISSERTATION/MINI PROJECTS GUIDED:

| Sl.no. | Project title |
|---|---|
| 1 | Variability in phytoplankton size classes in northern arabian sea using in situ and satellite data by Mr. Shreeharsha (2019), Geoinformatics. |
| 2 | Storm surge hazard assessment along the east coast of india using geospatial techniques by Mr. Hashith Prince (2019), Geoinformatics. |
| 3 | Analysis of ward wise urban sprawl in mangalore city using Remote Sensing data by Mr. Midhun Raj (2020), Geoinformatics. |
| 4 | A study of landform changes at chandragiri estuary in west coast, india, using gis & remote sensing techniques by Mr. Jithin Thomas (2020), Geoinformatics. |
| 5 | Assessment of inherent optical properties and algal blooms in arabian sea and it's correlation with sea surface temperature by Mr. Arpith K. (2020), Marine Geology. |
| 6 | Growing and shrinking volcanic islands: A study based on remote sensing techniques by Ms. Anu Itteera (2020), Marine Geology. |
| 7 | Flood hazard mapping due to dam breach of selaulim dam using geospatial technology by Mr. Gudekar Amogh Arun (2021), Geoinformatics. |
| 8 | A study of shoreline changes at chellanam coast, kochi, kerala, india using geospatial techniques by Mr. Mahadevan A. R. (2021), Marine Geology. |
| 9 | Evaluation of Urban heat Island changes in Mangalore Taluk, Dakshina kannada, Karnataka by Ms. Saivi Mohana Shetty (2021), Geoinformatics. |

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| 10 | Land use land cover changes in and around badiadka panchayat, kasaragod taluk, kerala based on multidated satellite imagery by Mr. Harikrishna Naik K. S. (2021), Geoinformatics. |
| 11 | Factors responsible for drinking water scarcity: case study of bedadka panchayath, Kasaragod district, kerla by Mr. Sanoj C. M. (2021), Geoinformatics. |
| 12 | Monitoring of landslide and its impact in Kottiyoor panchayat, kannur district, kerala by using geospatial technology by Ms. Gopika P. (2021), Marine Geology. |
| 13 | Flood Susceptibility Mapping of Netravathi River Basin using Analytical Hierarchy Process Technique by Pranith, P. (2022), Marine Geology. |
| 14 | Mapping & change detection in Chandragiri river estuary of Kasaragod district using geospatial techniques by Rakshith C.M. (2023), Marine Geology. |
| 15 | Groundwater flow modelling of Keecheri-puzhakkal river basin applying finite difference method by Syamjith P. V. (2022), Marine Geology. |
| 16 | Study of tectonic geomorpholgy of netravti river basin, karnataka using gis and remote sensing by Sooraj Raj S. (2022), Geoinformatics. |
| 17 | Urban flood management using GIS: A case study of Calicut city, India by Aswin Saji (2022), Geoinformatics. |
| 18 | Site selection for quarry and planning using open source GIS at Chandanamatti Village, Dharwad Taluk, Dharwad District, Karnataka by Sandesh Shetty M. (2022), Geoinformatics. |
| 19 | Determine Landslide prone areas in Harangi subwatershed, Kodagu using geomatic tool by Hemanth Kumar (2022), Geoinformatics. |

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