



# Dr. RAMANAND YADAV

## Assistant Professor

### Thesis title

*“Reconstruction of monsoon variability, associated upper water-column structure productivity, and carbonate content from equatorial Indian Ocean during the late Quaternary”*

**Ph.D. Awarded- AcSIR-CSIR- National Institute of Oceanography under the Guidance of Dr. Sushant S. Naik**

### Career Objective

**To extend my knowledge, skills and merits for better understanding of the marine earth system science and to work in scientific and relevant societal perspective.**

### Contacts



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### Educational Qualifications

**Assistant Professor-** Department of Geology, University of Lucknow, Lucknow (Dec-2023 to Till Date).

**Research Associate**–Central University of Sagar, Madhya Pradesh (10/04/23-26/12/23)

**Temp. Assistant Professor**-Department of Geology, The M.S. University of Baroda, India (07/09/2022 to 06/04/2023)

**PhD Awarded-** CSIR-National Institute of Oceanography, India (Dec-2021).  
CSIR-JRF-NET Qualified (Dec-2015).

**M.Sc. (Tech) Geology**

Institute of Science,  
B.H.U. Varanasi, CGPA 8.20 2013-2016

**B.Sc. (Hons) Geology,**

Institute of Science,  
B.H.U. Varanasi, CGPA 7.17 2010-2013.

### Personal Details

Date of Birth :5<sup>th</sup> Jul 1991

Gender :Male

Nationality :Indian

Linguistic ability: English and Hindi

[https://www.researchgate.net/profile/Ramanand\\_Yadav2](https://www.researchgate.net/profile/Ramanand_Yadav2)

<http://udrc.lkouniv.ac.in/department/ViewProfile?EId=696>

### Research Interest

#### Paleoclimatology/Paleoceanography/Paleomonsoon

- Paleomonsoon reconstruction based on marine microfossil (Foraminifera) and geochemical proxies on Million year to Centennial time scale.
- Using stable isotopic composition of Oxygen and Carbon-infer the paleomonssonal study from the marine realm.
- Using Carbonate chemistry- document the concentration of CO<sub>2</sub> in marine realm and revealing the dissolution of atmospheric CO<sub>2</sub> in to the ocean water and leakage of deep ocean CO<sub>2</sub> to the atmosphere at different time scale.
- To unfold the study of past oceanic carbon cycling and mixing of different water masses.
- Reconstruction of paleoproductivity using  $\delta^{13}\text{C}$  and other geochemical proxy.

### Research Experience and Field Training

- Participation in cruise RV Sindhu Sadhana during its 67<sup>th</sup> expedition started from off Chennai to Goa. Learned sampling collection techniques using Multi corer, Gravity Corer and Piston corer (**Nov-Dec, 2019**).
- Down core variation of CaCO<sub>3</sub>% and Total Organic Carbon (TIC) & Total Nitrogen % from the Central & Eastern Equatorial Indian Ocean during late quaternary (**Jan-2018 to July -2018**).
- Full one year (two semester) Ph.D. course work by AcSIR-CSIR-National Institute of oceanography: Introduction to Oceanography, Ocean Observation sampling, Research methodology, Research proposal and three elective papers (**Aug-2016 to July- 2017**).

- Dissertation in M.Sc. (Tech) Geology Course:-VI semester – Systematic study of Bivalves from Late Cretaceous succession of Cauvery Basin, Tamilnadu India, under the supervision of Prof. A. K. Jaitly, Department of Geology, B.H.U., Varanasi (**Sep 2015 to May 2016**).
- M.Sc. (Tech) IV Semester- Geological studies in Eastern Ghats area (Jharsuguda, Keonjhar, Puri districts) Odisha (**Feb to Mar 2015**).
- M.Sc. (Tech) II Semester- Geological Mapping around Renukoot area in Sonbhadra district-Uttar Pradesh (**Feb 2014**).
- B.Sc. VI Semester- Geological field study of Chitrakoot Region, Madhya Pradesh (**Mar 2013**).
- B.Sc. IV Semester– Detailed Outcrop study of Lower Vindhyan Supergroup in Sone Valley (Semri and Kaimur Groups) (**Feb 2012**).
- B.Sc. II Semester–Field work and overview of the Geology of Vindhyan Super Group exposed in nearby Chunar and Mirzapur Uttar Pradesh (**Feb 2011**).

### Technology Expertise

- Handling of (coulometer) *CM140 Total Inorganic analyzer* for sediment sample with Acidification module.
- Handling of Thermo Scientific *Flash2000 Series Nitrogen and Carbon analyzer* for the sediment sample
- Handling of *Laser Particle Size Analyser* (LPSA) for sediment sample.
- Handling of *Auto-analyzer* to analyze the Nutrient concentration.
- Chemical analysis like dissolve oxygen, nitrate and pH can analyze.
- Software's for data analysis and interpretation like Corel Draw, ODV and Origin plots.

### Workshops, Trainings and Conferences

- Participated in 3 days program “**International Webinar Series**” on the topic “Advances in Earth and Environmental Geosciences”, organized by **Department of Geophysics ISC, BHU** in association with **AGU** during **10-11 March, 2022**.
- International Conference on Paleoclimate Changes (**ICPC 2020**) held during **9-10 July, 2020** on virtual platform organized by **School of Civil Engineering, VIT Chennai**.
- Attended an e-Training on “**Micropaleontology and <sup>14</sup>C dating**” from **21.07.2020 to 31.07.2020** Organized by **Geological Survey of India, Regional Training Division, Northern Region, Lucknow**.
- Participated in a 3 days Webinar entitled, “**Avenues in Ocean Research**” conducted by **BECH-RUSA 2.0 & Department of Marine Science, Bharathidasan University, Palkalaiperur, Tiruchirappalli**, from **27<sup>th</sup> to 29<sup>th</sup> May 2020**.
- Participated in a 3 days Faculty program on “**Art of writing research article and funding proposals**” Organized by **Manakula Vinayagar Institute of Technology (IEEE STB-10831) Puducherry** from **21<sup>st</sup> May 2020 to 21<sup>rd</sup> May 2020**.
- Delivered a public lecture on the topic “**Introduction to the Earth System Science**” at **H CJ Academy, Ayodhya** on **26<sup>th</sup> February, 2019**.

- Participated in a 3 day “**National Workshop on Isotopes in Earth, Ocean & Atmospheric Sciences**” jointly organized by **IUAC-NEW DELHI & CSIR-NIO** and hosted by **CSIR-NIO, Goa** during **18-20, February, 2019**.
- Participated in a 2 day “**National Level Workshop on wetland Restoration**” organized by **Dr. Balasaheb Khardekar College, Vengurla, Maharashtra, India** during **2 -3, February, 2019**.
- Participated in a 3 day “**SCOR-InterRidge Workshop on Mid-Ocean Ridges and other Geological Features of the Indian Ocean**”, jointly organized by the **SCOR, InterRidge** and co-hosted by **CSIR-National Institute of Oceanography, Goa, India** from **14th-16th November, 2018**.
- Participated in a 3 day **AAPG (American Association of Petroleum Geology) Annual Meet** held in **Indian Institute of Technology (Indian School of Mines), Dhanbad** during **22 -24, February, 2014**.

### Posters and oral presentation

- Oral presentation – **Ramanand Yadav\***, Sushant S.Naik, P.D.Naidu. on “**Calcite dissolution from a sediment core from the Equatorial Indian Ocean**” in the **XXVIII Indian Colloquium on Micropaleontology and Stratigraphy** organized by Department of Environmental Sciences, **Savitribai Phule Pune University, Pune**, during **4-6 May, 2022**.
- Oral presentation – **Ramanand Yadav\***, Sushant S.Naik. on “**Variation in carbonate burial in the equatorial Indian Ocean during the late Glacial-Holocene: Implication to the deglacial rise of atmospheric CO<sub>2</sub>**” in the **International Indian Ocean Science Conference (IIOSC)-2022** organized by **CSIR-National Institute of Oceanography, Goa**, during **14-18 March, 2022**.
- Poster Presentation – **Ramanand Yadav\***, Smita N. Naik, Sushant S. Naik, Kumari Nisha. On “**Planktic foraminiferal response to the surface hydrography of the southeastern Arabian Sea during last 140ka: linkage to the tropical/or equatorial climate dynamics**” virtually organized by **Indian Quaternary Congress** during **19-21 January, 2022**.
- Oral presentation – **Ramanand Yadav\***, Sushant S.Naik. on “**Indian Monsoon variability inferred from Planktic foraminiferal faunal record from the central equatorial Indian Ocean during the last 33kyr**” in **XXVII Indian Colloquium of Micropaleontology and Stratigraphy (ICMS)** during **4-6, November, 2019** at **BHU, Varanasi**.
- Oral presentation – **Ramanand Yadav\***, Sushant S Naik, P.D.Naidu. On “**Productivity variations from the Eastern Equatorial Indian Ocean since the mid-Pleistocene**” in **55th Annual Convention on the theme "changing Water Cycle & Water Resources"** jointly organized by **Indian Geophysical Union & Rabindranath Tagore University**, held in **RNTU- Bhopal** during **5- 7, December, 2018**.

### Extra-Curricular

- **Certificate of participation** for one day Hindi seminar on the “**Indian monsoon variability inferred from Planktic foraminiferal record in the central equatorial Indian Ocean during last 33ka** ” organized by **CSIR-National Institute of Oceanography, Dona Paula, Goa** on **9<sup>th</sup> September, 2019**.
- **Certificate of participation** for one day Hindi seminar on the theme of “**Blue Economy**” the topic of presentation was, “**Productivity variation from Eastern Equatorial Indian Ocean with special reference to the Indian ocean Dipole** ” organized by **CSIR-National Institute of Oceanography, Dona Paula, Goa** on **24<sup>th</sup> September, 2018**.
- **2nd position** in volleyball event **2014-2015** organized by **Dalmia hostel, Institute of Science, Athletic Association, B.H.U., Varanasi**.

- **3rd position** in volleyball event **2014-2015** organized by Institute of Science, Athletic Association, B.H.U., Varanasi.
- **2nd position** in volleyball event **2012-2013** organized by Institute of Science, Athletic Association, B.H.U., Varanasi.

## Honours & Awards

- **Best Oral Paper Presentation Award-** in **X X V I I I Indian Colloquium on Micropaleontology and Stratigraphy** organized by Department of Environmental Sciences, **Savitribai Phule Pune University, Pune**, during **4-6 May, 2022**.
- **Senior Research fellow** of **Council of Scientific and Industrial Research, New Delhi India** with fellowship for PhD Programme (**Aug 2018 –Aug-2021**).
- **Junior Research fellow** of **Council of Scientific and Industrial Research, New Delhi India** with fellowship for PhD Programme (**Aug 2016-Aug2018**).

## Publications

- Naik, Smita. N., Naik, S. S., **Yadav, R.**, Nisha, K. Planktic foraminiferal response to the surface hydrography of the southeastern Arabian Sea during last 140ka: linkage to the tropical/or equatorial climate dynamics? (**Under Preparation**)
- Prasad, P., Loveson, V.J., Kumar, V., Shukla, A.D., Chandra, P., Verma, S., **Yadav, R.**, Magotra, R., Tirodkar, G.M., 2023. Reconstruction of Holocene relative sea-level from beach ridges of the central west coast of India using GPR and OSL dating. **Geomorphology**, 442, 108914. **IF=3.9** <https://doi.org/10.1016/j.geomorph.2023.108914>.
- **Yadav, R.**, Naik, S.S., 2022. Glacial-interglacial differences in carbonate burial in the equatorial Indian Ocean. **Geo-Marine Letters**, 42, 12 **IF=2.1** <https://doi.org/10.1007/s00367-022-00736-9>.
- **Yadav, R.**, Naik, S.S., Naidu, P.D., 2022. Contrasts in calcium carbonate dissolution above the Lysocline in the equatorial Indian Ocean over the last ~ 40 ka. **Marine Geology**, 444, 106717. **IF= 2.9** <https://doi.org/10.1016/j.margeo.2021.106717>.
- **Yadav, R.**, Naik, S.S., Narvekar, J., 2022. The equatorial Indian Ocean upper water-column structure influenced by cross-basinal water exchange over the last~ 40000 years. **Quaternary International**, 642, 84-92. **IF=2.2** <https://doi.org/10.1016/j.quaint.2021.04.002>.
- Saraswat, R., Kurtarkar, S.R., **Yadav, R.**, Mackensen, A., Singh, D.P., Bhadra, S., Singh, A.D., Tiwari, M., Prabhukeluskar, S.P., Bandodkar, S.R., Pandey, D.K., 2020. Inconsistent change in surface hydrography of the eastern Arabian Sea during the last four glacial–interglacial intervals. **Geological Magazine**, 157(6), 989-1000. **IF=2.3** <https://doi.org/10.1017/S0016756819001122>.
- Prasad, P., Loveson, V.J., Kotha, M., **Yadav, R.**, 2020. Application of machine learning techniques in groundwater potential mapping along the west coast of India. **GIScience & Remote Sensing**, 57(6) 735- 752. **IF=6.7** <https://doi.org/10.1080/15481603.2020.1794104>.
- Nigam, R., Luis, A.J., Prasad, P., Kuttikar, S., **Yadav, R.**, Vaz, E., Kotha, M., 2022. Spatio- temporal assessment of COVID-19 lockdown impact on beach litter status and composition in Goa, India. **Marine Pollution Bulletin**, 174, 113293, **IF=5.8** <https://doi.org/10.1016/j.marpolbul.2021.113293>.