

DATA SHEET FOR RESEARCH SCHOLARS



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9. Funding Agency: CSIR HRDG.
10. Date of commencement of Fellowship: 15/02/2019
11. Period of Fellowship: Five Years
12. Title of Research Work: Salt water intrusion studies in the coastal aquifers of Kujang Block of Jagatsinghpur district, Odisha.
13. Name of the Guide: Prof.. Jagadish Kumar Tripathy
14. Registration Number: 58/2017/Geology
15. A Brief Abstract of your Research Work (Within 200 words):

The current work deals with the qualitative study of groundwater and its suitability assessment for drinking, irrigation and industrial purposes in the coastal aquifers of Kujang Block, Odisha. The main objective is to study the occurrence saltwater intrusion. To know the quality of groundwater of the proposed region, different parameters such as temperature, EC, pH, TDS, TA, TH, Ca^{2+} , Mg^{2+} , Na^+ , K^+ , HCO_3^- , Cl^- , and SO_4^{2-} in terms of chemical and physical properties will be analyzed for groundwater samples in the laboratory following the standard procedures suggested by the APHA (American Public Health Association), 1995. Besides these above data, data regarding the rainfall, humidity & vegetation will be collected. The analyzed data will be plotted in groundwater software for various quality diagrams to know the quality of groundwater. Geophysical investigations covering vertical electrical sounding (VES) will be employed in coastal aquifers of Kujang block to isolate the subsurface saline water intrusion and the different resistivity curve will be examined to obtain the number and nature of the layering and also to know the nature of the aquifer system. Certain ratio parameters such as Mg/Cl , Cl/HCO_3 and Na/Cl will be calculated to indicate the possibility of salt water intrusion. After Preparing the Thematic Maps they will be put into a GIS by means of digitization process. By the method of index overlay process, ultimately, ground water prospecting maps will be prepared.

16. Status of Research Work:

- a) Writing the Synopsis
- b) Review of Literature
- c) Data Collection
- d) Data Analysis
- e) Writing the Draft Thesis

17. Do you have your profile in the following research networks?

- a) Google Scholar
- b) Research Gate
- c) Academia

18. Do you access the following e-resources subscribed by the university


- a) E-sodh Sindhu from INFLIBNET
- b) ProQuest

19. Number of Papers published in referred journals with ISSN: 02 (2348-2397, 0973-4570)

20. Mention any two of your best publications in APA standard:

- a) Jena, M.R., Tripathy, J.K., Panda, S. R., & Barik, K. K. Groundwater hydrochemistry in Biswali Panchayat, Kujang Block, Jagatsinghpur district, Odisha.
- b) Sahoo, S., Tripathy, J. K., Panda, S. R., Sahoo, D., Sahu, P., & Jena, M. R. (2022). Geoelectrical Investigations of Ground Water in the Coastal aquifers of Krushnaprasad Block, Puri District, Odisha, India. *International Journal of Lakes and Rivers*, 15(2), 111-119.


Countersigned by the Research Supervisor & Head


Signature of the Research Scholar