

DATA SHEET FOR RESEARCH SCHOLARS

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2. Gender: Male
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9. Funding Agency:
10. Date of commencement of Fellowship:
11. Period of Fellowship:
12. Title of the Research Work: **HYDROGEOLOGICAL STUDIES AROUND PALLAHARA BLOCK, ANGUL DISTRICT, ODISHA, INDIA**
13. Name of the Guide/~~Co-Guide~~ Dr.Nandita Mahanta
14. Registration Number:106/2016/Geology
15. A Brief Abstract of your Research Work (Within 200 words):

Groundwater is an essential and vital component of our life. The groundwater resources are being utilized for drinking, irrigation and industrial purposes. The area selected for investigation purpose is Pallahara Block which belongs to the same subdivision and lies in northern part of Angul District of Odisha. It` lies between north latitudes 20° 58' and 21° 38' and east longitudes 85° 00' and 85° 30' and falling in the survey of India Toposheet numbers 73G/3.

The proposed programme of research leading to Ph.D. include to understand the nature of aquifers of the area, study the application of remote sensing in occurrence of groundwater, estimate the groundwater resources of the area and to prepare water budget of the area, study the chemistry of groundwater and to evaluate its quality in terms of domestic, irrigational and industrial uses, geophysical investigation of groundwater, Prepare a plan for groundwater development and management, to study the environmental effect on groundwater due to urbanization, population growth and agricultural activities. The

methodology includes to Study of geomorphology, geology, soil type of that area and prepares the maps. Systematic collection of water samples for both pre-monsoon and post-monsoon period and analysis of their physicochemical parameters like temp., pH, total alkalinity, TDS, EC ,total hardness, and major cations like calcium, magnesium, sodium, potassium, chloride, carbonate, bicarbonate, chlorides. Sulphates, nitrate, fluorides. Hydrogeological mapping and presentation of data in terms of diagrams, curves, graphs etc. Various experiments and field studies are to be conducted to draw meaningful conclusion which can help to know the chemistry of groundwater and to evaluate its quality in terms of domestic, irrigational and industrial purposes. The final result will have a greater contribution towards the economic development of the area and greater benefits of the human beings.

16. Status of Research Work:

- | | |
|------------------------------|-------------------------------------|
| (a) Writing the synopsis | <input type="checkbox"/> |
| (b) Review of Literature | <input type="checkbox"/> |
| (c) Data Collection | <input type="checkbox"/> |
| (d) Data Analysis | <input type="checkbox"/> |
| (e) Writing the draft thesis | <input checked="" type="checkbox"/> |

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

- | | |
|--------------------|--------------------------|
| (a) Google Scholar | <input type="checkbox"/> |
| (b) ResearchGate | <input type="checkbox"/> |
| (c) Academia | <input type="checkbox"/> |

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

- | | |
|----------------------------------|--------------------------|
| (a) E-Sodh Sindhu from INFLIBNET | <input type="checkbox"/> |
| (b) ProQuest | <input type="checkbox"/> |

19. Number of Papers published in referred journals with ISSN:

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

Signature of the Research Scholar

Nandita Mahanta

Countersigned by the Research Supervisor