DATA SHEET FOR RESEARCH SCHOLARS

1. Name of the Scholar: SAMIKSHYA MISHRA
2. Gender: Female
3. Department: P.G. Department of Environmental Sciences
4. Designation: JRF [√] SRF [ ] Any Other [✓]
5. Permanent Address: College Road, Kansa Gali, W. No. -13, Bargarh, Odisha, Pin-768028
6. Address for Communication: Department of Environmental Sciences, Sambalpur University, Jyoti Vihar, Burla, 768019
7. Email ID: samikshya.bgh@suniv.ac.in
8. Contact Number:7894208526
9. Funding Agency: R & D Cell, Sambalpur University.
10. Date of commencement of Fellowship: 23/12/2022
11. Period of Fellowship: Three Years (SURF)
12. Title of Research Work: **Geospatial approaches for comparative assessment of pesticide exposure linked with temporal dimension in cancer mortality rates in Bargarh: A Retrospective case-control study**
13. Name of the Guide: Dr. Malaya Ranjan Mahananda
14. Registration Number: 112/2021/Env. Sc.
15. A Brief Abstract of your Research Work (Within 200 words):

Pesticide drift possess a major source of nonoccupational exposure in the most agriculturally productive, popularly known as Rice-Bowl of Western Odisha. Bargarh district is implemented with intensive rice cultivation and enormous use of synthetic pesticides which leads to increase the prevalence of cancer cases. It relies on epidemiological retrospective case control study of Bargarh District, the unofficial cancer capital of Odisha which accounts for a high number of cancer patients of stomach, cervix, prostate, apart from oral cancer. No work has been performed particularly in Bargarh district showing a link between pesticide and cancer with geospatial-temporal evaluation. There is no documentation about health hazards related to pesticide content in human blood, soil, vegetables, water and rice of the proposed study site. A comprehensive retrospective case–control study of cancer risk from exposure to pesticides will be conducted by using GIS in Bargarh district of Western Odisha. Socio-demographic conditions of recruited subjects and controls will be obtained by questionnaire methods after collecting primary data from farmers and cancer subjects as well as secondary data from Government/Non Government hospitals of Bargarh district and the official websites of the State and the Country.The historic pesticide exposure will be determined through GIS based landsat method that combines state reported pesticide use data, land use survey and geo coded survey address to provide estimates of pesticide exposure within 500m buffer and residential and occupational locations. Pesticide residues in the environment and blood samples of both experimental and control subjects recruited will be analysed using GC-MS to estimate the bioconcentration factors of the pesticides of interest. Statistical tool will be implemented for data manipulation and analysis. It will assist policy makers to make decision on pesticides safety and to fulfil the demand of local people for establishing a cancer hospital.

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 ☑

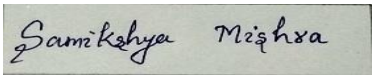
b) ProQuest ☑

19. Number of Papers published in referred journals with ISSN: 5(DOI:10.12691/aees-9-10-2), (https://doi.org/10.25303/2708rjce055065),(E-ISSN: 2347-7520), (*ISSN 0971–765X*),(ISSN:0253-7141)

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

1. M.R.Mahananda, Sambit Kumar Behera, Bidut Prava Mohant, Samikshya Mishra (2021). Adsorption Efficiency of Albizia lebeck (Indian sris) as Bio-adsorbent for quantitative removal of lead metal ion from contaminated water. *Applied Ecology and Environmental Science*. 9(10): 856-864.
2. Malaya Ranjan Mahananda, Sambit Kumar Behera, Samikshya Mishra and Bidut Prava Mohanty (2022). Successive treatment of chromium contaminated water by Indian siris. *International journal of scientific research in Biological sciences.* 9(3): 1-9.
3. Malaya Ranjan Mahananda, Sambit Kumar Behera, Samikshya Mishra and Bidut Prava Mohanty (2022).Quantitative elimination of cadmium metal from contaminated waters by Albizia lebbeck as bioadsorbent. Indian Journal of Environmental protection. *43 (3):* 210-218.
4. Rashmita Behera, Bidut Prava Mohanty, Malaya Ranjan Mahananda and Samikshya Mishra (2022).Endocrine Disruption and Physiological Alteration In Fish Exposed to Hexavalent Chromium. *Eco*logy *Environment & Conservation*. *28 (3): 550-557.*
5. Bhagyashree Nayak, Bidut Prava Mohanty, M.R. Mahananda and Samikshya Mishra(2023). Bioadsorption potency of *Albizia ferruginea* in the removal of fluoride from contaminated water. Research Journal of Chemistry and Environment. *27 (8): 55-65*.

Countersigned by the Research Supervisor



Signature of the Research Scholar

Countersigned by Head