

SATHI MONDAL

Geospatial Enthusiast

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SUMMARY

Motivated geospatial professional with a strong foundation in GIS, programming, and teaching, committed to addressing complex spatial challenges. Through hands-on experience in internships, research projects, and teaching roles, I have developed the skills to enhance data accuracy, support informed decision-making, and drive advancements in geospatial science. Passionate about both innovation and knowledge sharing, I am eager to contribute my expertise to a collaborative team, continually grow, and make a lasting impact in the field.

EDUCATION

Masters in Applied Geography and Geoinformatics - 65.43% Central University of Karnataka, Gulbarga, Karnataka	November 2022- July 2024
Bachelors in Geography - 79.4% The University of Burdwan, Burdwan, West Bengal	June 2019-July 2022
Higher Secondary in Arts -75.6% Ushangini Balika Vidyalaya(WBCHSE), Hooghly, West Bengal	May 2017-May 2019
Secondary -55% Ushangini Balika Vidyalaya(WBBSE), Hooghly, West Bengal	May 2017

EXPERIENCE

ADAMAS UNIVERSITY Laboratory Assistant	August 2024-Present
Engaged in teaching courses such as Digital Image Processing, Geoinformatics and Remote Sensing, Basic Programming, and core Geography subjects. Additionally, I provide guidance to students on their dissertation projects, helping them develop research skills and technical expertise for academic and professional growth.	
SPACE APPLICATION CENTER, ISRO, AHMEDABAD Project Intern	February 2024 - June 2024
Gained expertise in applying Remote Sensing and GIS for urban analysis, focusing on the study of urban growth and spatial metrics. This project provided hands-on experience with advanced geospatial tools in ArcGIS, ENVI, and QGIS, enhancing skills in data integration, spatial analysis, and visualization for urban studies.	
IIT BOMBAY National Geospatial Intern	September 2023 - February 2024
Worked on GIS analysis to explore healthcare service utilization, focusing on spatial inequities in hospital care. Utilized ArcGIS and QGIS for mapping and spatial analysis, while also leveraging SPSS for statistical analysis and data interpretation, enhancing insights into healthcare accessibility and distribution patterns.	

PROJECTS

Identifying Urban Nuclei: Integrated Growth Direction and Shape Metrics Characterization in Class 1 Cities of West Bengal.

Sathi Mondal, Dr. Gaurav V. Jain, Smt. Kriti Rastogi, Dr. Mahalingam Bose

This project analyzed urban growth patterns and spatial characteristics in Class 1 cities of West Bengal using Remote Sensing and GIS. It aimed to identify urban nuclei by integrating growth direction and shape metrics.

Inequity in Hospitalization Care: A Study on Utilization of Healthcare Services in West Bengal, India.

Sathi Mondal, Prof. Pennan Chinnasamy

This project examined the inequities in hospitalization care and healthcare service utilization across West Bengal. It used GIS analysis to identify spatial disparities and assess accessibility to healthcare facilities.

Assessment of Land Use and Land Cover Changes in Chandannagar Taluk, West Bengal. (2014-2023)

Sathi Mondal, Dr. Mahalingam Bose

This project assessed land use and land cover changes in Chandannagar Taluk, West Bengal, using Remote Sensing and GIS. It aimed to understand the impact of urbanization and land management practices on the region's environment.

“Students and Suicides- A Dynamic Analysis (2017-2021). Web map for suicide committed by students in India.

Sathi Mondal, Indrakant Behera

This project focuses on creating a web map to visualize and analyze student suicides across India, contributing valuable insights to discussions on mental health and the need for improved support systems.

Spatial Differential and Socio-Economic Correlates of Prevalence of Hypertension Among Women in Karnataka, India.

Sathi Mondal, Indrakant Behera

This study examines the spatial distribution and socio-economic determinants of hypertension among women in Karnataka, offering valuable insights to inform targeted public health strategies.

Mapping of Land Degradation in Kolar District, Karnataka Using Remote Sensing and GIS.

Sathi Mondal, Dr. Mahalingam Bose

This study utilizes Remote Sensing and GIS to analyze land degradation patterns in Kolar District, providing data-driven insights to support sustainable land management efforts.

Estimation of Soil Erosion Using Universal Soil Loss Equation (USLE) in GIS of Idukki District, Kerala .

Sathi Mondal, Dr. Mahalingam Bose

This project employs GIS and the USLE model to assess soil erosion rates in Idukki, contributing to informed soil conservation planning.

Identification of Hypsometric and Morphometric Features of the Indus Basin Through GIS Techniques .

Sathi Mondal, Dr. Mahalingam Bose

The study analyzes hypsometric and morphometric characteristics of the Indus Basin through GIS, enhancing knowledge of its water flow patterns and hydrological processes.

Identification Of Groundwater Potential Zones in Idukki District Using Remote Sensing and GIS.

Sathi Mondal, Dr. Mahalingam Bose

This study identifies groundwater potential zones in Idukki District using Remote Sensing and GIS, analyzing factors like soil, land use, slope, and drainage for sustainable resource planning.

Identify Suitable Sites for Landfill in Hooghly District, West Bengal Using AHP Method with GIS and Remote Sensing.

Sathi Mondal, Dr. Mahalingam Bose

The research utilizes the Analytic Hierarchy Process (AHP) combined with GIS and remote sensing to identify optimal landfill sites in Hooghly District, West Bengal.

PUBLICATION

- Behera, I., & Mondal, S. (2024). Spatial differential and socio-economic correlates of prevalence of hypertension among women in Karnataka, India. *International Journal of Progressive Research in Engineering Management and Science (IJPREMS)*, 4(10), 882-892. <https://doi.org/10.58257/IJPREMS36370>
- Published a book chapter titled “Assessment of Land Use and Land Cover Changes in Chandannagar Taluk, West Bengal” in the book “Geoinformatics Application in LULC Mapping and Natural Hazards.” The chapter analyzes LULC changes using Remote Sensing and GIS techniques, offering insights into the impacts of urbanization and environmental transformations.

ACHIEVEMENTS

- Winner, IIT Bombay FOSSEE Mapathon Recognized as winner (Category A) in Mapathon conducted by IIT BOMBAY for our excellent contribution in map making entitled- “Students and Suicides- A Dynamic Analysis (2017-2021). Web map for suicide committed by students in India” can be accessed by using the given URL: <https://indrakantbehera.github.io/Suicide-Committed-byStudents-in-India/>
- Summer Fellow at IIT Bombay(2023). Acquired significant expertise during a Summer Fellowship at IIT Bombay, engaging in impactful research and project initiatives that enriched the institute's academic pursuits.
- Presented a Paper titled “Assessment of Land Use and Land Cover Changes in Chandannagar Taluk, West Bengal”

WORKSHOPS & COURSES

- “IIT Bombay Fossee Mapathon-2023(Winner)” Conducted by IIT Bombay.
- “Application of Machine Learning in Various Field” Conducted by IIGST.
- “Machine Learning With Python” Conducted by RSIGST.
- “Doppler Weather Radar and Lidar Data” Conducted by IIGST.
- Completed a comprehensive one-month ArcPy course from Carto Geospatial Solution .
- “Heatwave Induced Heat Stress in India” Organized by Centre for Disaster Risk Reduction (CDRR).
- “Uses of Census data in social sciences research” Conducted by Department of Population Studies, Fakir Mohan University, Blasore.
- “GIS Workshop Certificate “ Conducted by IIT Bombay.
- “Space Situation Awareness and Space Traffic Management (SSA&STM)”at ISRO Headquarters, Bengaluru (3 days)

AREA OF INTERESTS

- **In GIS field:**
- Geospatial data analysis.
- Image Processing,
- Network Analysis
- Overlay Analysis
- Hydrology Analysis
- Multivariate Analysis
- Geo spatial Modeling for Landslide Vulnerability Zones, Optimal site for Landfill, Identification of LULC, Calculation for Soil Erosion, Identification for Ground Water potential Zone.
- Space-Based Technology
- Python Programming
- Statistical Analysis
- **Outdoor Activities:** Hiking, camping, Cycling, running(school champion), or playing sports like , Badminton, Table Tennis.
- **Creative Pursuits:** Painting, drawing, photography, writing, poetry, or crafting
- . Musical Interests: Playing a musical instrument (guitar, Harmonium), singing.

SKILLS

- Microsoft Office
- Quantum GIS (Mapping Software)
- ArcGIS Pro (Mapping Software)
- Erdas Imagine (Image Processing Software)
- ArcPy
- ENVI
- Fragstats
- Google Earth Engine
- Python Programming
- Google Earth Pro
- Use of SPSS Software for Data Analysis .
- VOSViewr for Bibliometric Analysis.

STRENGTHS

- Eagerness to Learn
- Adaptability
- Strong Work Ethic
- Effective Communication
- Problem-Solving Skills



I attest that all the statements provided above are true and accurate to the best of my knowledge and belief.