

CHALANTIKA LAHA SALUI

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Current Position	Assistant Professor, Dept. of Geography, Rani Birla Girls College, University of Calcutta
Current Location	Kolkata
Latest Educational Status	Ph.D (Awarded : 2016)
NET (UGC)	2013
Date of Birth	22nd December, 1981
Professional Research Field	Analysis and Mapping of Geographical Phenomena with Geospatial Technology
Nationality	INDIAN
Language Known	Bengali (Mother Tongue), English, Hindi

Education:

Degree	Specialization	University/ Institution	% of marks	Year of Passing
Ph.D	Topic- <i>Changing course of the river Ganga in Malda District, West Bengal: Damage Assessment and Risk Zone Management</i>	Department of Geography, University of Calcutta	Awarded	2016
Post-Graduate Diploma	On "Hazard & Risk Analysis" (Specialization under Water Resource Division)	Indian Institute of Remote Sensing (IIRS), Dehradun	Grade-"A" (60-75%)	2006
M.Sc	Geography (Specialization in "Cartography and Remote Sensing")	Banaras Hindu University	68.4%	2004
B.Sc (Hons)	Geography Hons. (Specialization in "Cartography")	Lady Brabourne College, University of Calcutta	57.75%	2002
H.S (10+2)	Geography, Economics, Political Science	W.B.C.H.S.E	76.60 %	1999
Madhyamik (10)	General	W.B.B.S.E	76.75%	1997

Career history:

Teaching: (6 Years 9 Months)

02/2024 – Till date	RANI BIRLA GIRLS COLLEGE, UNIVERSITY OF CALCUTTA
11/2022 – 10/2023	Assistant Professor, Dept. of Geography, TRIPURA UNIVERSITY (CENTRAL), Agartala, Tripura
12/2020- 09/2022	Faculty (Contractual) JIS UNIVERSITY, Agarpara, West Bengal
02/2018 – 08/2020	Assistant Professor Indian Institute of Engineering Sciences and Technology (IEST), Shibpur, Howrah, W.B.
07/2015 – 01/2018	Assistant Professor (Temporary faculty) Indian Institute of Engineering Sciences and Technology (IEST), Shibpur, Howrah, W.B. Assistant Professor (Contractual)

Non-Teaching:

(8 Years 9 Months)

11/2008 – 07/2015	Dept. of Science & Technology, Govt. of West Bengal Senior Research Fellow Worked on Map Sales Division, Land Use Mapping for Land Bank project, Updating of River Courses Project
11/2006 – 11/2008	Dept. of Science & Technology, Govt. of West Bengal Junior Research Fellow Updating of River Courses Project
05/2006 - 11/2006	Forest Survey of India, Govt. of India Technical Associate Worked on Digital Classification for Types of Indian Forest Cover based on Champion & Sheth Classification Scheme

Award:

- National Merit Scholarship for high score in H.S. (10+2) exam.

- Fellowship for attending International Conference by University of Calcutta and CSIR.
- Won 1st Prize in 21st West Bengal State Science & Technology Congress

Membership:

- Life-membership in Indian Society of Remote Sensing (L-3190)
- Life-membership in Institute of Indian Geographers (IIG) (L-1172)
- Life-membership in The Geographical Society of India (L/L-10)
- Annual membership in European Geographical Union (ID 677721)

Publications:

- Thakur, P.K., **Laha, C.** & Aggarwal, S.P. River bank erosion hazard study of river Ganga, upstream of Farakka barrage using remote sensing and GIS. *Nat Hazards*. 61, 967–987 (2012). <https://doi.org/10.1007/s11069-011-9944-z>
- **Laha, C.** Forest Suitability Analysis through AHP Spatial Decision Modeling, Applications of Remote Sensing and GIS in Resource Management, Dept. of Geography and Applied Geography. University of North Bengal, 33-44 (2012). ISBN No.978-81-921692-2-4.
- **Laha, C.** Changing morphometry of Bhagirathi River, West Bengal using Remote Sensing and GIS techniques. *Jamia Geographical Studies*, 2, 8-24 (2013).
- **Laha, C.,** Bandyopadhyay, S. Analysis of the Changing Morphometry of River Ganga, shift monitoring and Vulnerability Analysis using Space-Borne Techniques: A Statistical Approach. *International Journal of Scientific and Research Publication*. 7(3), 1-10 (2013).
- **Laha, C.** Oscillation of meandering Bhagirathi on the alluvial flood plain of Bengal Basin, India; as controlled by the Palaeo-geomorphic architecture, *International Journal of Geomatics and geosciences*. 5(4), 564-572 (2015).
- **Laha, C.,** Hazra, P.B. Geospatial Analysis for Industrial Site Suitability Using AHP Modeling: A Case Study. *Environment and Earth Observation*. SPRINGER, ISBN No. 978-3-319-46008-6, pp-3-21 (2016).
- **Salui, C.L.** Methodological Validation for Automated Lineament Extraction by LINE Method in PCI Geomatics and MATLAB based Hough Transformation. *J Geol Soc India*. 92, 321–328 (2018). <https://doi.org/10.1007/s12594-018-1015-6>.
- **Salui, C. L.** Evaluating the reliability of various geospatial prediction models in landslide risk zoning. *Basics of Computational Geophysics*, ELSEVIER, ISBN No. 978-0-12-820513-6, 121-137

(2020).

- Basu, E., **Salui, C. L.** Estimating Particulate Matter Concentrations from MODIS AOD Considering Meteorological Parameters Using Random Forest Algorithm. Spatial Modeling and Assessment of Environmental Contaminants. Environmental Challenges and Solutions. SPRINGER, 591-609 (2021). https://doi.org/10.1007/978-3-030-63422-3_29.
- Yadav, S., **Salui, C. L.** Artificial Neural Network for Identification of Groundwater Potential Zones in Part of Hugli District, West Bengal, India, Groundwater and Society. SPRINGER, Cham. 247-257 (2021). https://doi.org/10.1007/978-3-030-64136-8_11.
- Biswas, A., **Salui, C. L.** Change analysis of biophysical parameters of mangrove forests over Indian Sundarbans using geospatial techniques: A special emphasis on Leaf Area Index and Percentage Canopy Cover. Sundarbans Mangrove Systems: A Geo-Informatics Approach. CRC Press. Taylor & Francis Group. 125-144 (2021). ISBN 9780367538811.
- Dey, D., **Salui, C.L.**, Biswas, B. Impact Assessment of Open Cast Mining Activity in ADDA Region, Paschim Bardhaman on Land Surface Temperature. Geospatial Technology for Environmental Hazards. Advances in Geographic Information Science. Springer, Cham. 63-74 (2022). https://doi.org/10.1007/978-3-030-75197-5_4. ISBN: 978-3-030-75196-8.
- Sudarshan, N., Kumar T., **Salui, C. L.**, Chandrasekar, K. and Bandyopadhyay, S. An Innovative Approach to Delineate and Differentiate Clear and Turbid Water Ponds in Indian Sundarban Area Using Sentinel-2 MSI Data. J. Indian Soc. Coastal Agric. Res., 40(2): 14-32 (2022). <https://doi.org/10.54894/JISCAR.40.2.2022.125302>. ISSN No. 0972-1584
- **Salui, C. L.**, Prasain, G.P. Status of Women Education and Empowerment and Importance of the Implementation of NEP 2020 in Tripura – A Review. The Indian Journal of Commerce, 77(1): 244-268 (2024).

Paper presentation:

- “Land Use / Land Cover Mapping for LAND BANK with RS-GIS-A Case Study”, Last 100 Years of Science in India, 9-10 January, 2013- Saha Institute of Nuclear Physics, Kolkata.
- “Changing Course of River Ganga, Upstream of Farakka Barrage, Damage Assessment and Risk Zone Management”, IIG (The Institute of Indian Geographers), 8-11 February, 2012- Tripura University, Agartala.
- “Changing Course of River Ganga, Damage and Risk Assessment”, Geomorphology, 14 – 15 January, 2011, University of Calcutta, Kolkata

- “Changing course of Bhagirathi River, West Bengal”, West Bengal Science Congress, 28 – 29 February, 2008 – BESU, Kolkata
- “River course change detection, Damage assessment due to Bank erosion and risk zone mapping for river Ganga”, IIG (The Institute of Indian Geographers), 15 – 17 February, 2008- Banaras Hindu University, Banaras.
- “Geospatial Analysis for Industrial Site Suitability Using AHP modelling: A Case Study”, National seminar on Remote Sensing and Environment, 20 – 22 March, 2014, Jadavpur University.
- “Preparation of Zoning Maps for LAND BANK with Spatial and Non-spatial data linkage”, 20th West Bengal State Science & Technology Congress, 28th Feb-2nd March, 2013, BESU, Kolkata.
- “Geospatial Analysis for Industrial Site Suitability Mapping Based on Remote Sensing and GIS”, 21st West Bengal State Science & Technology Congress, 20-21 Feb, 2014 Burdwan University.
- “Geospatial Review and Validation of Various Prediction Models for The Landslide Susceptibility Mapping in Darjeeling Himalaya”, 9th International Conference on Geomorphology, AIG/ IGI, 6-11 November, 2017, Vigyan Bhawan, New Delhi.
- “Geospatial analysis for industrial site suitability based on space borne techniques.”, Indian Society of Remote Sensing, August, 2013.
- “Open cast mining and its relation with land surface temperature and air quality status: A geospatial study on ADDA region, West Bengal”, 31st IGI conference on Application of Geospatial Technology in Geomorphology and Environment, 12 – 14 November, 2019, North Bengal University.
- “Oscillation of River Ganges through time and its predicting tendency for vulnerability analysis with Remote Sensing and GIS”, 8th International Conference on Geomorphology, AIG/ IGI, 27-31 August, 2013, Paris, France.

Paper Presentation in International Conference:

- ❖ Presented paper on “*Oscillation of River Ganges through time and its predicting tendency for vulnerability analysis with Remote Sensing and GIS*” in 8th International Conference on Geomorphology by Association of International Geomorphologists in Paris, France from 27th August to 31st August, 2013.
- ❖ Presented paper on “*INTEGRATED DISASTER RISK MANAGEMENT (IDRiM) APPROACH FOR COASTAL AREAS USING PARTICIPATORY GIS: A CASE STUDY OF INDIAN SUNDARBANS*” in the EGU General Assembly 2023, 24–28 Apr 2023, in Vienna, Austria.

Workshop / Training:

- Workshop on BHUVAN, ISRO’s Geo-portal, 02 Feb, 2012, Kolkata
- Training program on GPS in Forest Survey & Demarcation, 12-16 June, 2006, Forest Survey of India, Dehradun
- Training program on Introduction to ArcGIS 9, 26 October to 1st November, 2007.

- Short Course on Digital Mapping & Geographical Information System, 30.8.2004 to 24.9.2004 NATMO, Kolkata
- Training program on Hyperspectral Remote sensing, in NRSC, Hyderabad, 8-12 August, 2016
- Training by CEED, Govt. of India, on Application of R-STAT software in research methodology, 20-21 July, 2018.
- Online workshop by Dept. of computer sc. And IQAC, ECGC and WBSU, Working with Python programming, 15-21 May, 2020.
- Online workshop by Dept. of computer sc. And IQAC, ECGC on Mapping and Data Analysis using Python Libraries and Statistical Tools, 2 – 8 June, 2020.
- Faculty Development Program on Quality Enhancement in Teaching, Learning and Assessment during Covid 19 and post Covid time – Opportunities and Challenges, 27 – 31 May, 2020.
- Capacity Building Program, Ministry of Education and Centre for disaster management studies, Shaheed Bhagat Singh College, DU, on Hydro-Meteorological Disaster: Techniques of measuring, monitoring and management of floods, 1 – 7 March, 2021.

M.Tech / M.Sc Dissertation supervised:

- Development of a web based spatial decision support system for agricultural production, 2016.
- Arsenic risk zonation mapping by multi-criteria analysis with space-borne technology in GIS platform, 2016.
- Malaria risk zonation and validation using RS-GIS, 2018
- Spatial decision modeling for prospect mapping to establish wind and solar energy plant, 2018
- Water quality analysis of aquaculture ponds, 2018
- Soil moisture estimation using SAR and optical satellite imagery, 2019
- Prediction of urban sprawl and total agriculture land loss, 2019
- Delineation and differentiation of clear and turbid water ponds in Indian Sundarban, 2019
- Open cast mining and its relation with land surface temperature and air quality status, 2019
- Estimation of Forest stands mean height using SAR, 2020.
- Identification of Ground water potential zones using ANN, 2020.
- Interpretation of pollution trend in Kolkata by finding out a relationship between AOD and Particulate matter concentration using Machine learning algorithm, 2020.
- Forest fire risk zonation using Logistic Regression Method, 2020.
- GIS and Remote Sensing based analysis on shifting cultivation at Nongpathaw village in East Khasi Hills, Meghalaya, 2021.
- Landslide Susceptibility Analysis in Jaintia Hills using Fuzzy Analytical Hierarchy Process (FAHP) method, Meghalaya, 2021.
- Impact of Rat-hole coal mining and opencast limestone mining on environmental degradation,

Meghalaya. 2021.

- Impact of tourism on the environmental degradation in parts of Meghalaya. 2021.
- Watershed management in hilly areas, case study of East Khasi Hills District, Meghalaya. 2021.
- Predicting the Settlement expansion and consequent agricultural land loss in parts of Purba and Paschim Barddhamn districts, West Bengal. 2021.
- Land use / cover changes due to river course shifting of Ganga River in Malda district, 2022.

Consultancy projects:

❖ Consultancy-1:

Key Objectives: Reviewing the full GIS based layers generation for 19 towns and Agartala for master plan preparation under the guidance of AMRUT (**ATAL MISSION FOR REJUVENATION AND URBAN TRANSFORMATION**), Govt. of India, project.

Funding agency: SREI Infrastructure Finance Ltd.

❖ Consultancy-2:

Key objectives: Proposal preparation for WebGIS based Disaster Management and mitigation planning for Sundarbans for SREI Infrastructure PVT. LTD.

Funding agency: SREI Infrastructure Finance Ltd.

❖ Consultancy-3:

The preparation of GIS Map based on Auto-CAD survey for Bishramganj, Tripura.

Funding agency: Fargo consultants Pvt. Ltd.

Invited lectures/meetings:

- Kazi Nazrul University Parts of GIS syllabus to PG students.
- CERC meeting with UDD, Govt. of Tripura.
- External examiner – Burdwan University, Rabindra Bharati University

Reviewer in reputed journals:

- Indian Journal of Remote Sensing.
- Mindspace Journal, RBGC

Administrative experience:

- Placement coordinator
- Nodal coordinator for ISRO e-learning program
- Internship Nodal Officer

DECLARATION

I hereby, declare that all the particulars given above are true to the best of my knowledge.

Place: Kolkata

(CHALANTIKA LAHA SALUI)