

Curriculum Vitae

DR. SUMANA SARKAR



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Present Employer: The University of Burdwan, Burdwan, Purba Bardhaman District, West Bengal.
Pin- 713104

Present Designation: Assistant Professor (Stage-2) in Geography

Research Interest: Development and planning issues and application of geospatial and spatial statistics

Teaching Experience: 8 years 8 months

Teaching Areas:

Papers Taught in PG:

- Resources and Economic Activities,
- Population and Settlement Geography
- Quantative Techniques in Geography
- Contemporary Geographical Issues in India
- Region and Regional Planning
- Regional Planning and Development (Major Elective)

Papers Taught in M.Phil /Ph.D coursework:

- Research Methods and techniques in Geography
- Optional Paper -advanced level

Orientation Programme /Refreshers Course / Training Programme Attended:

1. Attended a Refresher Course in **Research Methodology and Online Pedagogy** conducted by UGC-HRDC, B.U., through online mode from **31.01.2023 to 13.02.2023**.
2. Participated in a short term course on **Remote Sensing** conducted by CPDHE (UGC-HRDC) through onlinemode from **24.06.2022-30.06.2022**.
3. Attended a short term Course on **Advanced Geoinformatics: Machine Learning in Geoinformatics** conducted by Department of Science and Technology and Biotechnology, Government of West Bengal through online mode from **20.09.2021 to 24.09.2021**.
4. Attended **One Week Online Training Program on ICT Tools for Teaching, Learning and Administration** organised by Department of Electronics and Communication J. K. Institute of Applied Physics & Technology, University of Allahabad from **4.08-2020 to 10.08.2020**.
5. Attended **One-Day workshop on the Digital initiative for Higher Education under SWAYAM** organised by Digital learning and Monitoring Cell, The University of Burdwan on **9th July, 2018**.
6. Attended winter school **GEOMATICS-2017** on application of Geospatial technologies under **NRDMS Programme DST** held at Department of Geography, The University of Burdwan from **17th February to 09th March, 2017**.
7. Attended UGC Sponsored Orientation Programme organised by HRDC, The University of Burdwan from **1st March to 28th March, 2016** and obtained grade 'A'.

8. Attended a **Short Term Course in Remote Sensing and GIS** conducted by **DST (West Bengal State Council of Science & Technology)** from **10.12.2015 to 23.12.2015**.
9. Attended 3 –Day **Workshop on Software Training in Geography** held on **27/02/2015, 28/02/2015** and **02/03/2015** at Department of Geography, B.U.
10. Attended a Short Course on **Digital Mapping & Geographical Information System** conducted at the Research, Development and training Division (NATMO, Kolkata) from **1st September to 26th September, 2008**.
11. Participated in the **1st BHU Summer School of Computing 2008** from **7th April to 19th April, 2008** and get ‘A’.
12. Attended Training on “**Rain Water Harvesting & Artificial Recharge to Ground Water**” organised by Central Ground Water Authority, State Unit Office, Allahabad on **25th & 26th March, 2008**, at B.H.U. Varanasi.

Chapter Contributed to Books:

1. *Assessment of LULC Changes and Its Impact on Agricultural Landscape in Peri-urban Space of Bolpur Town, West Bengal (India)* in U. Chatterjee et al. (eds.), **Urban Commons, Future Smart Cities and Sustainability, Urban Environment and Smart Cities in Asian Countries. Human Dynamics in Smart Cities**, pp. 341–373, **Springer Geography, 2023**. ISBN 978-3-031-24766-8 ISBN 978-3-031-24767-5 (eBook). https://doi.org/10.1007/978-3-031-24767-5_16 (Co-author: S. Dolui)
2. *Site Suitability Analysis for New Urban Development Using Fuzzy-AHP and DEMATEL Method: A Case of Mixed Agricultural-Urbanized Landscape of Burdwan Town, West Bengal, (India)* in Chatterjee, U., Antipova, A., Ghosh, S., Majumdar, S., Setiawati, M.D. (eds) **Urban Environment and Smart Cities in Asian Countries. Human Dynamics in Smart Cities**, pp. 389–423, **Springer, Cham, 2023**. https://doi.org/10.1007/978-3-031-25914-2_17. (Co-author: S. Dolui)
3. *Project Rural Craft Hub and Socio-economic Life of Local Artisans- A Case of Wooden Doll Makers in Natungram of Purba Bardhaman District, W.B.* in N. Chakma (ed.) **Resonance of Environment, Society and Space Global Perspective through Regional Perspective**, pp. 239-258, **La Strada, Kolkata**. (Co-author: T. Singha)
4. *Land Suitability Analysis for Settlement Concentration in Fringe Area of Siliguri Town, West Bengal (India)—A GIS-Based Multi-Criteria Decision-Making Approach* in Jana N.C., Singh A., Singh R.B. (eds.) **Livelihood Enhancement Through Agriculture, Tourism and Health. Advances in Geographical and Environmental Sciences**, pp. 349-387, **Springer, January 2022**. ISBN (P): 978-981-16-7309-2. https://doi.org/10.1007/978-981-16-7310-8_18. (Co-author: S. Dolui)
5. *Non-Timber Forest Products Based Household Industries and Rural Economy—A Case Study of Jaypur Block in Bankura District, West Bengal (India)* in Shit P.K., Pourghasemi H.R., Das P., Bhunia G.S. (eds.) **Spatial Modeling in Forest Resources Management. Environmental Science and Engineering**, pp.505-528, **Springer, Cham, October 2020**. ISBN (P): 978-3-030-56542-8. https://doi.org/10.1007/978-3-030-56542-8_21. (Co-author: D. Nandi)
6. *Spatial Analysis of Intra-Regional Disparities in Socio-Economic Development Murshidabad District, West Bengal* in B. Biswas (ed.) **Discourses on Human Nature Interaction in Eastern India**, pp. 146-166, **RhitoPrakashan, Kolkata, November 2018**. ISBN: 978-81-938090-8-2. (Co-author: Samsunnehar)
7. *Livelihood Pattern of Women Household Industry Workers and Their Coping Up Strategies in Lean Seasons –An Empirical Study of Jaypur Block in Bankura District, West Bengal* in B. Rupini et. al (ed.) **Environmental and Ecological Sustainability**, pp. 134-138, **IGNOU, New Delhi, October 2018**. ISBN: 978-93-87960-94-7. (Co-author: D. Nandi)

Research Articles in Journals:

1. **Modelling landuse dynamics of ecologically sensitive peri-urban space by incorporating an ANN cellular automata-Markov model for Siliguri urban agglomeration, India**, *Modeling Earth Systems and Environment*, **2023**, [Impact factor: 3.90] <https://doi.org/10.1007/s40808-023-01771-w> (Co-author: S. Dolui)

2. **Assessment of the Nutritional Status and Level of Health Awareness among the Adolescent Girls of Rural West Bengal, India**, *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*, **2022**, Vol.27, Issue. 4, pp-53-61. (e-ISSN: 2279-0837, p-ISSN: 2279-0845). (Co-author: Mousumi Dholey)
3. **Spatio-Temporal Pattern of Gender Disparity in Literacy – A Case of Murshidabad District, West Bengal**, *Journal of Social Work & Social Development (JSWSD)*, **2021**, Vol.12, No. 01, pp-68-81. (ISSN- 2229-6468). (Co-author: Samsunnehar)
4. **Decision Making Power of Homemakers in a Rural Muslim Community of West Bengal: An Empirical Study**, *Space and Culture, India*, November **2021**, Vol.9, No. 3, pp-45-60. (ISSN-2052-8396). <https://doi.org/10.20896/saci.v9i3.1198> (Co-author: Samsunnehar)
5. **Barriers to Access Health Care Services among Rural Adolescent Girls in Raina I Block, Purba Bardhaman District, West Bengal**, *Space and Culture, India*, November **2021**, Vol.9, No. 3, pp-61-72. (ISSN-2052-8396). <https://doi.org/10.20896/saci.v9i3.1181> (Co-author: Mousumi Dholey)
6. **Identifying potential landfill sites using multicriteria evaluation modeling and GIS techniques for Kharagpur city of West Bengal, India**, *Environmental Challenges* [<http://www.elsevier.com/locate/envc>], **2021**, Vol.5. (ISSN- 2667-0100) <https://doi.org/10.1016/j.envc.2021.100243> (Co-author: Sanu Dolui)
7. **Upstream effects of dam on livelihoods of agriculture-dependent communities: A micro-level study of Itamara mouza in Hirbandh C.D. block, Bankura District, West Bengal (India)**, *Journal of Cleaner Production* [<https://www.elsevier.com/locate/jclepro>], September **2021**, Vol. 313, No.1. [Impact factor: 9.297] (ISSN-0959-6526) <https://doi.org/10.1016/j.jclepro.2021.127893> (Co-author: Debmita Nandi)
8. **Seasonal Migration as a Livelihood Strategy of Women Agricultural Labourers in Soul Ponamara Mouza of Hirbandh Block, Bankura District, West Bengal**, *Space and Culture, India*, November **2020**, Vol. 8, No.3, pp. 71-85. (ISSN-2052-8396) <https://doi.org/10.20896/saci.v8i3.886> (Co-author: Debmita Nandi)
9. **Generation of Spatial Database for the Study of Socio-economic Development in Bankura District, West Bengal: A geospatial approach**, *Transaction of the Institute of Indian Geographers*, June **2019**, Vol.41, No.1, pp.21-31. (ISSN-0970-9851) (Co-author: Krishnendu Maji)
10. **Application of Spatial Database for Rural Development and Planning in Indian Context- A Theoretical Overview**, *International Journal of Research And Analytical Reviews (IJRAR)*, July-Sept. **2018**, Vol. 5, No. 3, pp. 131z-135z. (E-ISSN-2348-1269 & P-ISSN- 2349-5138)
11. **Remote Sensing based Technique for Identification of Geomorphic Features and Associated LULC-A Case of Chandauli District, Uttar Pradesh (India)**, *International Journal of Research And Analytical Reviews (IJRAR)*, July- Sept. **2018**, Vol. 5, No. 3, pp. 68z-76z. (E-ISSN-2348-1269 & P-ISSN- 2349-5138)
12. **Analysis of Rural Service Centres using Spatial Database Approach-A Case Study of Chandauli District, Uttar Pradesh**, *International Journal of Research And Analytical Reviews (IJRAR)*, July- Sept. **2018**, Vol.5, No.3, pp. 694-704. (E-ISSN-2348-1269 & P-ISSN- 2349-5138)
13. **Gender Disparity in Literacy Level among Scheduled and Non-Scheduled Population: A Case Study of Bankura District, West Bengal (India)**, *International Journal of Basic and Applied Research*, July **2018**, Vol. 8, No. 7, pp. 537-554. (P-ISSN: 2249-3352 & E-ISSN: 2278-0505) (Co-author: Krishnendu Maji)
14. **Spatial Pattern of Rural Industrial development in Chandauli District, Uttar Pradesh-A Geographical Analysis**, *International Journal of Research and Analytical Reviews (IJRAR)*, April-June **2018**, Vol.5, No.2, pp. 534-539. (E-ISSN-2348- 1269, P-ISSN-2349-5138)
15. **Comparative Analysis of Educational Attainment among Different Social Groups in some selected Mouzas of Saltora C.D. Block of Bankura District West Bengal, India: An Empirical Study**, *Space and Culture, India*, June **2018**, Vol. 6, No.1, pp.72-90. (ISSN-2052-8396) (Co-author: Krishnendu Maji) <http://doi.org/10.20896/saci.v6i1.308>

16. **Assessment of Level of Rural Infrastructure Development using Geospatial Technique: A Case Study of Chandauli District (Uttar Pradesh)**, India, *International Journal of Research in Geography(IJRG)*, April 2018, Vol.4, No.2, pp. 34-46 (ISSN-2454-8685).
<http://dx.doi.org/10.20431/2454-8685.0402004>
17. **Intra-District Disparities in Primary Education: A Case Study of Bankura District, West Bengal**, *Space and Culture, India*, March 2017, Vol. 4, No. 3, pp. 77-92.(ISSN-2052-8396)
(Co-author: Krishnendu Maji) <https://doi.org/10.20896/saci.v4i3.214>
18. **Agricultural Productivity and Level of Agricultural Development in Chandauli District, U.P.**, *National Geographical Journal of India*, June 2013, Vol.59, Pt.2, pp.51-62. (ISSN- 0027-9374/2012/1481-1489)(Co-author: S.P. Mishra)
19. **Land Use /Land Cover Mapping Using DIP Technique: A Case Study**, *Indian Journal of Landscape Systems and Ecological Studies*, December 2010, Vol.33,No.2, pp.-151-158.
(ISSN- 0971-4170)(Co-author: S.P. Mishra)

Paper Presented in Seminar/ Conferences and Lecture Deliberation:

International Level:

1. *Intergenerational Occupational Mobility among SC &ST Communities in Jangipara Block, Hooghly District* in **International Seminar on Essence of Geography what, where, why and how** organized by Department of Geography, Cooch Behar Panchanan Barma University from **11 th to 12 th November, 2022**.
2. *Application of Remote Sensing Technique and Fuzzy-AHP Method in Analysis and Assessment of Settlement Concentration in Siliguri City and its Surrounding* in **XIV International Geographical Union (IGU)- India International Conference** organised by Department of Geography, The University of Burdwan from **6th to 8th March, 2020**. (Co-presenter: Mr. S. Dolui)
3. *Livelihood Security of Women Household Industry Workers of Jaypur Block In Bankura District(West Bengal)* in **XIV DGSI International Conference on Global Economy, Sustainable Tourism and Climate Change** organised by Department of Geography, University of Rajasthan from **27th to 29th September, 2019**.(Co-presenter: Ms. D. Nandi)
4. *Estimation of Spatial Pattern of Vegetation Cover and Its Relationship with Surface Temperature in Burdwan Town and Surroundings-A Geospatial Analysis* in **ANGIS Meeting 2018 and & 7th International Conference** organised by Department of Geography & Geospatial Science, B.U. from **29th November to 1st December, 2018**.(Co-presenter: Mr. S. Dolui)
5. *Socio-economic profile of Women Household Industry workers in Jaypur Block of Bankura District-A Micro Level Analysis* in **4th International Seminar on Population, Urbanization and Environment: Contemporary Issues and Challenges** organised by Department of Geography, University of Gour Banga from **21st to 22nd March, 2018**.(Co-presenter: Ms. D. Nandi)
6. *Remote Sensing Based Indices for Estimation of Spatial Pattern of Vegetation Cover and Its Relationship with Surface Temperature* in **XXIX Biennial Conference of North East India Geographical Society(NEIGS) and XI International Geographical Union Commission Seminar** organised by B. Borooah College, Guwahati from **8-10 February, 2018**. (Co-presenter: Mr. S. Dolui)
7. *Work Participation of Scheduled Tribes Population in Rural Segment of Bankura District (West Bengal) – A Spatial Analysis* in **3rd International Seminar** held at Department of Geography, B.U. on **18th November, 2017**. (Co-presenter: Ms. D. Nandi)
8. *Comparative Study of Gender Disparity in Literacy of Murshidabad District* in **2nd International Seminar on Environment and Society: Historical Perspectives and Contextual Reality** organised by Department of Geography, The University of Burdwan on **28th March, 2017**. (Co-presenter: Ms. Samsunnehar)
9. *Spatial Database for Rural Service Centre Analysis-A Case Study of Chandauli District, Uttar Pradesh* in **International Seminar & 48th Regional Science Conference on Rural Habitat, Institutions and Development: Changing Nature & Challenges** organised by Department of Geography and Disaster Management, Tripura University from **5-7th January, 2017**.

10. *Application of Geo-spatial Technique in Identification of Potential Ground water Resource Zone Based on Hydrogeomorphological Approach-A Case study of Chandauli District (U.P.)* in **International Conference on the theme –Mother Earth: Save it to Achieve a Sustainable Future for ALL** organised by Department of Environmental Science, The University of Burdwan from **10 -12th December 2014**.
11. *Remote Sensing and GIS in Rural Land Resource Assessment: A Case Study* in **International Seminar on Technology, Energy and Sustainable Rural Development** held in Department of Geography, Banaras Hindu University from **23rd to 25th February, 2011**.
12. *Remote Sensing in Land Use/Land Cover Mapping: A Case Study of Chandauli District(U.P.)* in **XXXIII Indian Geographers' Meet and International Conference on Climate Change ,Geo-Hazards And Disaster Management** held in Department of Geography, The University of Rajasthan from **17th to 19th January, 2011**.

National Level:

1. *Dam, Displacement, and Livelihood: A Case Study of Itamara Mouza in Hirbandh Block, Bankura district, West Bengal* in ICSSR sponsored **3Day National seminar on Development, Displacement and rehabilitation in India: Administration & Policy Studies** organised by Central University of Kerala from **11-13 July, 2018**. (Co-presenter: Ms. D. Nandi)
2. *Socio-economic Profile of Women Sal Leaf Plate Makers in Some Selected Mouzas of Joypur Block, Bankura District (W.B.)* in **39th Annual Meet and Conference of Institute of Indian Geographers(IIG)**organised by Department of Applied Geography, Ravenshaw University, Cuttack from **26-28th December 2017**. (Co-presenter: Ms. D. Nandi)
3. *Service Centre-A Old Approach in a New Frame for Rural Development and Planning: A Case Study of Burdwan District* in **UGC-SAP-DRS National Seminar** organised by Department of Geography, The University of Burdwan from **26 -27th March, 2015**.

State Level:

1. *Application of Geospatial Technique for Monitoring Changes in Vegetation cover using Different Vegetation Indices: A Case Study of Burdwan Block I and II of Purba Bardhaman District* in **2nd Regional Science & Technology Congress, 2017, W.B.(Western Region)**organised by The University of Burdwan from **16- 17, November,2017**. (Co-presenter: Mr. S. Dolui)
2. *Ponds in Urban Area: Use and Misuse-A Case study of Bardhaman Municipality* in **2nd Regional Science & Technology Congress, 2017, W.B.(Western Region)** organised by The University of Burdwan from **16- 17, November, 2017**.(Co-presenter: Ms. D. Nandi& Ms. Samsunehar)

Acted as Resource person:

Delivered a special lecture on topic- '**Revisiting Man-Environment Relationship from Geographical Perspective**' in Special Lecture Series organised by Geography Department, Chapra Bangalji Mahavidyalaya, Bangalji, Nadia on **20.07.2020**.

M.Phil. Thesis Supervised: (03)

1. *Gender Issues and Health of School –Going Rural Adolescent Girls in Raina –I Block, Purba Bardhaman District* by Ms. Mousumi Dholey in **2021**.
2. *Reproductive Health Care Status of Married Women in Kaliachak-II Block of Malda District, West Bengal* by Ms. Roni Sikdar in **2020**.
3. *Educational Disparities among Different Social Groups in Saltora Block of Bankura District (W.B.), India: A Micro-level Geographical Study* by Mr. Krishnendu Maji in **2017**.

Ongoing M.Phil. Supervision: (01)

Rural Economy and Livelihood Diversification in Jangipara Block, Hooghly District by Rajat Chakraborty

PhD Thesis Supervised: (02)

1. Work Participation and Livelihood Security of Rural Women in Bankura District, West Bengal by Debmita Nandi (Awarded in February, **2023**)
2. Changing Landscape in Fringe Areas of Selected Cities in West Bengal by Sanu Dolui (Submitted on **27/12/2022**)

Ongoing PhD Supervision: (02)

1. Education and Empowerment of Rural Muslim Women in Murshidabad District, West Bengal by Samsunnehar
2. Academic Achievement of Secondary School Students in Saltora Block of Bankura District, West Bengal by Krishnendu Maji

Memberships of Professional Societies:

- National Geographical Society of India, Varanasi
- National Association of Geographers, India, Delhi
- Indian Institute of Geographers, Pune
- Association of Bengal Geographers, Bardhaman

Other Activities:

1. Acted as a member of joint organising secretary **in XIV International Geographical Union (IGU)-India International Conference** Dept. B.U, **2020**.
2. Acted as a member of joint organising secretary in 3rd International seminar in Geography Dept. B.U, **2017**.
3. Act as member of joint organising secretary in one day International Seminar on “Environment, Public health and GIS (EPH&GIS)” in **2016**.
4. Acted as joint organising secretary in DRS –SAP national seminar held at Department of Geography, The University of Burdwan in **2015**.

Additional Academic Activities:

Acted as Invitee Lecturer in PG department of Women’s studies, B.U. for the session **2022-24**

Additional Administrative Responsibilities:

Acted as part-time superintendent of Pritilata Girls’ Hostel, B.U. since **2018**

Last Updated on 29/05/2023