

Curriculum Vitae

DR. SUMANA SARKAR



Email Id.: ssarkar@geo.buruniv.ac.in

Mobile: 9474940603

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: 10 years 4 months 17 days

Teaching Areas:

Papers Taught in PG:

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

Papers Taught in Ph.D. coursework:

- Research Methods and techniques in Geography

Orientation Programme /Refreshers Course / Training Programme Attended:

1. Participated in **National Training Programme on Disaster Mitigation in Sundarbans: Addressing the Issues of Infrastructure, Livelihood and Ecosystem Services** under National Institute of Disaster Management (NIDM), GoI, held at Department of Geography, The University of Burdwan from **22nd April to 26th April, 2024**.
2. Participated **NEP 2020 Orientation & Sensitization Programme** conducted by MMTTP, B.U. from **5th March to 14th March 2024**.
3. Attended a Refresher Course in **Research Methodology and Online Pedagogy** conducted by UGC-HRDC, B.U., through online mode from **31st January to 13th February, 2023**.
4. Participated in a short- term course on **Remote Sensing** conducted by CPDHE (UGC-HRDC) through online mode from **24th June to 30th June, 2022**.
5. 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 **20th September to 24th September, 2021**.
6. Attended **One Week Online Training Program on ICT Tools for Teaching, Learning and Administration** organized by Department of Electronics and Communication J. K. Institute of Applied Physics & Technology, University of Allahabad from **4th August to 10th August, 2020**.

7. Attended **One-Day workshop on the Digital initiative for Higher Education under SWAYAM** organized by Digital learning and Monitoring Cell, The University of Burdwan on **9th July, 2018**.
8. 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**.
9. Attended **UGC Sponsored Orientation Programme** organized by HRDC, The University of Burdwan from **1st March to 28th March, 2016** and obtained grade 'A'.
10. 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**.
11. 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.
12. 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**.
13. Participated in the **1st BHU Summer School of Computing 2008** from **7th April to 19th April, 2008** and get 'A'.
14. 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, **Rhito Prakashan, 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, WestBengal**, *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. *Scenario of Rural Muslim Women's Empowerment in West Bengal-A Case study of Murshidabad District* in **International Seminar on Geography for Development: Economy, Society and Environmental Interactions** organized by Department of Geography, Presidency University, Kolkata in association with **The Institute of Indian Geographers (IIG)** from **27th January to 29th January, 2025**.
2. *Assessment of LULC Dynamics in Small City-A Case Study of Balurghat City, West Bengal* in SERB, ICSSR, MoES, CSIR, & ECL sponsored **2nd International Seminar on Innovative Approaches in Geographical Research(IAGR)-Exploring New Dimensions for Sustainable Development Goals (SDGs)**, organized by Department of Geography, Rampurhat College, West Bengal from **November 29-30, 2024**.
3. *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**.

4. *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)
5. *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** organized by Department of Geography, University of Rajasthan from **27th to 29th September, 2019**.(Co-presenter: Ms. D. Nandi)
6. *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** organized by Department of Geography & Geospatial Science, B.U. from **29th November to 1st December, 2018**.(Co-presenter: Mr. S. Dolui)
7. *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** organized by Department of Geography, University of Gour Banga from **21st to 22nd March, 2018**.(Co-presenter: Ms. D. Nandi)
8. *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** organized by B. Borooah College, Guwahati from **8-10 February, 2018**. (Co-presenter: Mr. S. Dolui)
9. *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)
10. *Comparative Study of Gender Disparity in Literacy of Murshidabad District* in **2nd International Seminar on Environment and Society: Historical Perspectives and Contextual Reality** organized by Department of Geography, The University of Burdwan on **28th March, 2017**. (Co-presenter: Ms. Samsunnehar)
11. *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* organized by Department of Geography and Disaster Management, Tripura University from **5-7th January, 2017**.
12. *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** organized by Department of Environmental Science, The University of Burdwan from **10 -12th December 2014**.
13. *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**.
14. *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** organized 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)** organized 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. Samsunnehar)

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. Dissertation Supervised: (04)

1. *Rural Economy and Livelihood Diversification in Jangipara Block, Hooghly District* by Mr. Rajat Chakraborty in **2022**.
2. *Gender Issues and Health of School –Going Rural Adolescent Girls in Raina –I Block, Purba Bardhaman District* by Ms. Mousumi Dholey in **2021**.
3. *Reproductive Health Care Status of Married Women in Kaliachak-II Block of Malda District, West Bengal* by Ms. Roni Sikdar in **2020**.
4. *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**.

PhD Thesis Supervised: (04)

1. Education and Empowerment of Rural Muslim Women in Murshidabad District, West Bengal by Samsunnehar (Submitted on **26th September, 2024**)
2. Academic Achievement of Secondary School Students in Saltora Block of Bankura District, West Bengal by Krishnendu Maji (Awarded in **December, 2024**)
3. Changing Landscape in Fringe Areas of Selected Cities in West Bengal by Sanu Dolui (Awarded in **June, 2023**)
4. Work Participation and Livelihood Security of Rural Women in Bankura District, West Bengal by Debmita Nandi (Awarded in **February, 2023**)

Received Awards: (02)

1. Received the **Best Paper Award** in the **Technical Session no.14** on *Population and Development-III* in the **International Seminar on Geography for Development: Economy, Society and Environmental Interactions** organized by **Department of Geography, Presidency University, Kolkata** in association with **The Institute of Indian Geographers (IIG)** on **28th January, 2025**. The title of the paper is “*Scenario of Rural Muslim Women’s Empowerment in West Bengal-A Case study of Murshidabad District*”.
2. Received the **Best Paper Award** in the Technical Session on *Urbanization and Sustainable Cities* in the **2nd International Seminar on ‘Innovative Approaches in Geographical Research (IAGR)-Exploring New Dimensions for Sustainable Development Goals (SDGs), organized by **Rampurhat College, West Bengal** on **30th November 2024**. The title of the paper is “*Assessment of LULC Dynamics in Small City-A Case of Balurghat City, West Bengal*”.**

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 organizing secretary in **XIV International Geographical Union (IGU)-India International Conference** Dept. B.U, **2020**.
2. Acted as a member of joint organizing secretary in **3rd International seminar** in Geography Dept. B.U, **2017**.
3. Act as member of joint organizing secretary in **one day International Seminar** on “**Environment, Public health and GIS (EPH&GIS)**” in **2016**.
4. Acted as joint organizing 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 31/01/2025