



ENLIGHTENMENT TO PERFECTION

UNIVERSITY OF NORTH BENGAL

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Raja Rammohunpur, Dist- Darjeeling, West Bengal, Pin-734013, India.



Department of Geography and Applied Geography

Print

## Dr. Sushma Rohatgi



Ph.D.

Professor

**Members of Learned Societies:** The Geographical Society of India (GSI), Kolkata; Institute of Landscape Ecology and Ekistics (ILEE), Kolkata; Indian Society of Remote Sensing (ISRS) Dehra Dun; Indian National Cartographic Association (INCA), Hyderabad; Association of North Bengal Geographers (ANBG), Siliguri; Indian Science Congress Association (ISCA), Kolkata; Regional Science Association, Kolkata; The Deccan Geographer, Pune.

### Contact Addresses:

<b>Contact No.</b>	+91- 9832465253
<b>Mailing Address</b>	Department of Geography and Applied Geography, University of North Bengal, P.O.- NBU, Dist- Darjeeling, West Bengal, Pin -734013, India.
<b>e-Mail</b>	<a href="mailto:rohatgisushma@gmail.com">rohatgisushma@gmail.com</a>

**Subject Specialization:** Cartography, Population Geography, Remote Sensing & GIS

**Areas of Research Interest:** Cartography, Remote Sensing & GIS, Population Geography, Gender Studies, Environmental Management.

**No. of Ph.D. students:** (a) Supervised: 06 (b) Ongoing: 06.

**No. of M.Phil. students:** (a) Supervised: 24 (b) Ongoing: Nil .

**No. of Publications:** 17

### Achievement & Awards:

- Nil

### Professional Experiences:

- Passed a certificate Course on “Programming through Basic Language” held during 16th August - 4th, October, 1982 under Continuing Education Centre, Jadavpur University.
- Participated in the All India Institute in Quantitative Geography, organized by the Department of Geography, Patna University, from 1st May to 21st May 1986, under the auspices of the UGC, New Delhi.
- Passed a course in Basic Photogrammetry and Remote Sensing (Core Course) with distinction (held from July 17th to 20th October, 1989, Indian Institute of Remote Sensing, N.R.S.A., Dehradun.
- Participated and successfully completed three weeks course on training in Remote Sensing and Geographical Information System conducted at the Regional remote sensing Centre, Kharagpur under the aegis of the National Natural Resource Management System from 29th Nov. - 17th Dec., 1999.
- Pre-conference tutorial on “High Resolution Data, its availability and utilization” on 2nd Feb. 2005 at NRSA, Hyderabad

### Administrative Experiences:

- Functioned as Head of the Department ,Department of Geography & Applied Geography, North Bengal University, for two years from 7.01.2001- 6.01.2003; (Day Shift and Morning Shift) and from 2012-2014 and Academic Coordinator of Geography & Applied Geography Department, North Bengal University, Jalpaiguri Campus since August 2013
- Director of Centre for Women’s Studies ,NBU since Feb. 2012
- Acting as a Joint Director of Centre for Remote Sensing Applications, North Bengal University since 2002, and Academic Co-ordinator and Joint Director since 2005; of which Vice-Chancellor is the Director.
- Chairperson, Expert Committee of: (i) Eco-Tourism Management (ii) Tourism & Travel Management under Career Oriented Programme, (Since 8.07.2005)
- Member, Monitoring Committee of the Hostels, NBU (Since 21.08.2008)

- Superintendent- Women Research Scholars Hostel, NBU (Since 21.08.2008)
- Member, Expert Committee of: Women's Studies under Career Oriented Programme, (Since 21.04.2009)
- Deputy Co-ordinator of SAP-DRS-1 of NBU, "Management of Geo-hazards in Sub-Himalayan West Bengal" 2009-2014
- Member – Advisory Committee of Centre for Women's Studies, North Bengal University (w.e.f. April 2009 till Feb. 2012)
- Member-Expert Committee for P.G. Diploma in Tea Management (Since 1.02.2011)
- Chairperson-Sexual Harassment Cell, North Bengal University (From 2.04.2012- Dec 2015) & Chairperson of Internal Complaint Committee since Dec 2015.
- Member- Anti Ragging Committee, North Bengal University (Since 2013)
- Member- Anti Ragging Squad, North Bengal University( Since 2013)
- Chairperson of U.G Board of Studies in Geography, N.B.U. (Since 2013).
- Chairperson P.G Board of Study, Geography Department, Gour Banga University (2013-2014) & Member P.G. Board of Study, Geography Department, Gour Banga University since 2014

#### Others if any:

- Worked as a U.G.C. Research Fellow for Ph. D. degree from March.1981 to June 1984, on "The Demographic Profile of West Bengal" in the Department of Geography, Calcutta University.
- Three years (1993-1996) Major Research Project entitled "Development of Wastelands in Darjiling Himalayas" with a supporting staff of 2 research Assistants and one Field Assistant, financed by GBPIHED.
- Grant received from N.B.U. for Research (small project)
  - Spatio - Temporal aspects of growth of population in North Bengal, 1986.
  - Population – resource regions of North Bengal, 1988.
  - Assessment and classification of Darjeeling Forests: Application of Remote Sensing Techniques, 1992
- Grant received from U.G.C. for Minor Research Project.
  - "Population Human Activity and Ecological Imbalance: Case Study of interaction between cultural environment and natural environment, their inter dependence in the East district of Sikkim", 1998-2000.
- Deputy Coordinator of Five Years UGC SAP DRS I Project entitled - Geo hazards in the sub Himalayan North Bengal, 2009-2013
- Master Plan of Dalkhola Municipality-2010-2011 – funded by Dalkhola Municipality
- Documentation & mapping of Heritage Sites of five Districts of North Bengal (Excluding Maldah), 2010-2011, funded by West Bengal Heritage Commission, West Bengal.
- PI of Two years Major Research Project (2010-2012) entitled 'Predicting Flood Inundation Using Remote Sensing & GIS Techniques: A Case Study of North Bengal: funded under the RESPOND Programme of Indian Space Research Organisation, Bangalore (ISRO/RES/4/563/09-10).
- PI of UGC Major research Project entitled "Economic status of Tea Garden workers in vulnerable Tea Gardens and alternative strategies for income generation: Study of Darjeeling Terai and Jalpaiguri Duars regions of West Bengal", 2012-2014.
- Prepared DPR of "Rainwater harvesting for Magurmari basin at North Bengal University Campus, 2003-04. The project has been sanctioned for implementation by Central Ground Water Board, Govt. of West Bengal. (vide order no. 487, (sanc.)/EHP/Univ/IU(NB), dt. 14.02.2003-04.

#### Consultancy Projects:

- "Socioeconomic Perspective Plan for North Bengal-2001-10"-Project Co-Supervisor-funded by Uttar Banga Unayan Parisad—(Jointly) – 2000-2001 – (Prepared Flood Adversities & Planning for Flood Mitigation—Infrastructure in North Bengal section of the joint project), (3 lakhs)
- Project Expert (Jointly) of National Hydro Power Corporation funded University major project on "Environmental Impact Assessment and Environmental Management Plan (EIA/EMP) of Teesta Low Dam Hydel Project (TLDP)-Stage IV" - 2001-2002( Prepared – Delineation of Catchment, Physical environment of catchment based on Remote Sensing, Climate, Landuse pattern, Land degradation, Soil erosion based on Silt yield index, Catchment Area Treatment Plan section of the joint project), (26 lakhs)
- Project Expert (Jointly) of National Hydro Power Corporation funded University major project on "Environmental Impact Assessment and Environmental Management Plan (EIA/EMP) of Teesta Low Dam Hydel Project (TLDP), Stage III", 2001-2002 (Prepared – Delineation of Catchment, Physical environment of catchment based on Remote Sensing, Climate, Landuse pattern, Land degradation, Soil erosion based on Silt yield index, Catchment Area Treatment Plan section of the joint project), (26 lakhs)
- Prepared Landuse Map of North Bengal University Campus, 2004
- Project Expert (Jointly) of National Hydro Power Corporation funded University major project on "Environmental Impact Assessment and Environmental Management Plan (EIA/EMP) of Mangdhechhu H.E.P, Bhutan", 2008-2009 (Prepared – Delineation of Catchment, Physical environment of catchment based on Remote Sensing, Climate, Landuse pattern, Land degradation, Soil erosion based on Silt yield index, Catchment Area Treatment Plan section of the joint project), (26 lakhs)

#### Selective List of Publications:

##### *Books:*

1. Demographic Profile of West Bengal - Dr. Sushma Rohatgi, Science Vision, 2000.

##### *Paper in Edited Book:*

2. Landslide and its impact on Human Society Using GIS (co-author – Pranay Pradhan) Edited book - Applications of RS & GIS in Resource Management, Edited by D. K. Mandal, North Bengal University, 2012.
3. Impact of Slums on Water Quality : A case Study of Siliguri Slums Using RS & GIS Applications (co-author – Yasir Ahmad) Edited book - Applications of RS & GIS in Resource Management, Edited by D. K. Mandal, North Bengal University, 2012.
4. "CAT Plan for catchment Area of Teesta Low Dam Project, Stage-III: Scope of RS And GIS" Proceedings of the National Seminar on Challenging Areas in Earth Science Research Towards Empowering the Society (Sponsored by Ministry of Earth Sciences, GOI, New Delhi, Editors Dr. Ajai, SAC, ISRO, Ahmedabad & Dr. Devesh Walia, NEHU, 2013.
5. Extraction of Linear Cultural features from Digital Satellite Data using Filtering Method (co-author – Mahua Bose), Edited Book, Application of Geospatial Technology for Sustainable Development, Edited by D. K. Mandal, North Bengal University, 2015, 354-362.

**Monograph:**

6. Watershed management – An Approach to Disaster Management: A case study of Darjeeling District in the edited book "Geo-Hazards in the Sub-Himalayan North Bengal" Monograph SAP-DRS-1, published by the Registrar, North Bengal University, 2010.
7. "Paradigm Shifts in Management of Disasters in India: A Review of Five Year Plans Approach Towards Disaster Management" in the edited book "Disaster: Perception and Mitigation" Monograph SAP-DRS-1, published by the Registrar, North Bengal University, 2011.
8. A Study of Flood Hazard in Lower Gish Basin" (co-author Jayashree Dey) in the edited book "Mapping Hazards & Disasters" – Monograph SAP DRS-1, published by the Registrar, North Bengal University, 2012.
9. Impact of Flood & its Mitigation Planning Using Application of RS & GIS Techniques: A case Study of Flood of 2012 in Mahananda Basin, West Bengal (Co author Samarпита Saha) in the edited book "Living With Hazards" Monograph SAP-DRS-1, published by the Registrar, North Bengal University, 2014.

**Journals:**

10. Spatio Temporal aspects of growth of population in West Bengal 1901-1981; in Research Bulletin, Calcutta, No. 1, 1981.
11. Regional differences in Population Resource in West Bengal and its planning; in Seminar papers on Applied Geography in the Perspective of Planning the Environment, Urbanscape and Regional Population, Department of Geography & Applied Geography, North Bengal University, November, 1984.
12. Impact of Economic Development on Social Environment of West Bengal; in Geographical Review of India, Golden Jubilee Issue, Vol. 1, 1985.
13. D.I.P.: A technique in Remote Sensing; Geographical Thoughts, North Bengal University, 1991.
14. Some Aspects of Quantification in Geography-Growth, Problems and Prospects; in Geographical Thought, North Bengal University, September, 1997.
15. Forests in West Bengal; in Geographical Thoughts, Special Issue on West Bengal, Vol. I, North Bengal University, 2000.
16. .Prioritisation & Management of Rilli Khola Catchment Region of Darjiling district of West Bengal; in Indian Journal of Landscape Systems and Ecological Studies, Kolkata, Vol. 27, No. 1, June, 2004.
17. Delineation & Classification of Wastelands based on satellite Imagery: A case Study of Darjeeling Himalayas; in Geographical Review of India ,Vol. 67, No. 4, Dec., 2005
18. Catchment Area Treatment Plan of Catchment area of TLDP Stage – IV of Darjeeling District of West Bengal in Geographical Thoughts, Vol. VI, 2007-2008.
19. Identification of Educationally Backward Blocks of North Bengal through Multivariate Regression Analysis (co-author Piyali Ghosh) in Geographical Thoughts, Vol. VII, 2008-2009.
20. Identification of Economically Backward Wards of English Bazar (Co-author Piyali Ghosh) in Geographical Thoughts, Vol. IX, 2011-2012.
21. .Level of Literacy among the GPU's of Yuksam Development Block, West District, Sikkim (Co-author) Tara Sharma in Geographical Thoughts, Vol. IX, 2011-2012.
22. Gender Gap & its implication in India, Womens' Studies, Vol. III, 2012.
23. Status & trend of Human Development in India :A Critical Review- Geographical Thoughts, Vol. X, 2012-13.
24. Paradigm Shifts from Women's Well Being to Women's Empowerment in India A Review of Five Year Plans Approach, Journal of Women's Studies, Vol. IV, No. 1, 2013, ISSN 2320-3625
25. Changing Status of Women in India: Issues & Challenges - Seminar Women's Studies-2013.
26. Reviewing Rights' Realisation: SERF Index & its efficacy - Journal of Women's Studies, Vol. V, No. 1, 2014, ISSN 2320-3625