

## **Dr. Pravat Kumar Shit**

**Assistant Professor**

**Department of Geography**

**Raja N.L. Khan Women's College**

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### **Education:**

| <b>Degree</b>                      | <b>Year</b> | <b>University</b>     |
|------------------------------------|-------------|-----------------------|
| PG Diploma in Remote Sensing & GIS | 2015        | Sambalpur University  |
| Ph.D.                              | 2013        | Vidyasagar University |
| M.Sc.                              | 2005        | Vidyasagar University |
| B.Sc.                              | 2003        | Vidyasagar University |

### **Honours/ Awards:**

- DS Kothari Post-Doc Fellowship (2014-2015)

**Teaching Experience:** 01 Year UG Level, 04 Years PG Level

### **Area of Research:**

1. Rill-gully erosion and Management
2. Soil Erosion and Management
3. Fluvial or drainage network on badland topography
4. Weathering in badland topography
5. Spatial and Temporal analysis of gully erosion through Remote Sensing and GIS

6. Hydro-pedology
7. Environmental related issue.
8. Socio-economic problem of particular geographical places

### **Editorial Board Members**

1. International Journal of Geography and Geology (Online ISSN: 2305-7041, Print ISSN: 2306-9872)
2. Asian Review of Environmental and Earth Sciences (ISSN: 2313-8173)

### **Membership of Academic Institutions (Life Membership)**

1. Institute of Indian Geomorphologists, (Alahabad)
2. Indian Society of Remote Sensing,( Dehradun)
3. Indian association of hydrologists (Roorkee)
4. Indian Association of Soil & Water Conservationists (Dehradun)
5. Geographical Society of India (Kolkata)

### **Citation Indices (Source: Google Scholar)**

**Citations: 46**

**H-index: 04**

<https://scholar.google.co.in/citations?user=MdQ--V4AAAAJ&hl=en>

## Professional Training Courses

### Details

1. **Certificate Course on Digital Mapping and Geographical Information System**, National Atlas and Thematic Mapping Organization (**NATMO**), Govt. of India, Calcutta-64, During 30<sup>th</sup> August – 24<sup>th</sup> Sept, 2004.
2. **Remote Sensing and Geographical Information System Application in Geosciences**, Indian Institute of Remote Sensing (**IIRS - National Remote Sensing Agency**), Department of Space, Govt. of India, Dehradun, India. During 05-05-2008 to 27-06-2008.
3. **Advances in land Resource Inventory for Enhancing Productivity through Agro-Technology Transfer**, ICAR-National Bureau of Soil Survey and Land Use Planning (**NBSS & LUP**), Regional Centre Kolkata, During 7<sup>th</sup> January, 2015 to 27<sup>th</sup> January, 2015.
4. **Advance Course in Remote Sensing using PCI Geomatica 10.1**, PCI Software Private Limited, Kolkata-64, During 25<sup>th</sup> – 31<sup>st</sup> December, 2007.

## Book Publication: (Two)

1. Pravat Kumar Shit and Ramkrishna Maiti (2012). Rill Gully Erosion in Badland Topography: Field Measurement and Monitoring (A case study of Western Part of West Bengal, India) (ISBN: 978-3-659-27662-0), *LAP Lambert Academic Publishing, Germany*.
2. Pravat Kumar Shit and Ramkrishna Maiti (2013). Management Techniques of Rill-Gully Erosion in Badland Topography: Experimental Research at Laboratory, Plot and Catchments Scale (ISBN: 978-3-659-32409-3), *LAP Lambert Academic Publishing, Germany*.

**Papers Published in Journals: (in Peer-reviewed National and international Journals)**

| <b>Sl. No.</b> | <b>Author Name</b>  | <b>Title / Paper Name</b>   | <b>Vol. &amp; No.</b> | <b>Page</b> | <b>Journal</b>                   | <b>Year</b> | <b>ISSN No.</b> | <b>Impact Factor</b> |
|----------------|---|---|-----------------------|-------------|----------------------------------|-------------|-----------------|----------------------|
| 1              | Pravat Kumar Shit and Ramkrishna Maiti                      | Rill Morphology in relation to Topographic Pedologic and Hydrologic attributes – a case study at Rangamati, Paschim Medinipur, W.B          | 10(1)                 | 63-75       | Indian J. of Geo and Environment | 2008        | 0972-7388       | -                    |
| 2              | Pravat Kumar Shit and Ramkrishna Maiti                      | Link System Development on Gully-Basins at Paschim Medinipur and Bankura, West Bengal, India  | 71(3)                 | 322-332     | Geographical Review of India     | 2009        | 0375-6386       | -                    |
| 3              | Pravat Kumar Shit, Chandan Kumar Pati, and Sujoy Kumar Jana | Assessment of Plant Potential with Relation to Soil Properties in Different Forest Zones of Midnapur and Jhargram Subdivisions, West Bengal | 11(1)                 | 64-71       | Indian J. of Geo and Environment | 2010        | 0972-7388       | -                    |
| 4              | Pravat Kumar Shit and                                       | Plant species selection for controlling rill and  | 29(9)                 | 1049-1054   | Environment and Ecology          | 2011        | 0970-0420       | -                    |

|   |   |   |       |         |                                     |      |           |      |
|---|---|---|-------|---------|-------------------------------------|------|-----------|------|
|   | Ramkrishna Maiti  | gully erosion: an empirical analysis  |       |         |                                     |      |           |      |
| 5 | Pravat Kumar Shit,<br>Ramkrishna Maiti<br>and Chandan<br>Kumar Pati   | Methodological Framework to Select Grass Species for Controlling Rill and Gully Erosion   | 25(2) | 32-37   | Indian Science Cruiser              | 2011 | 0970-4256 | -    |
| 6 | Gouri Sankar<br>Bhunia,<br>Pravat Kumar Shit,<br>and Soumen<br>Dubari | Assessment of school Infrastructure at primary and upper primary level: A Geospatial Analysis.<br><br>Journal of Geographic Information System. | 4(5)  | 412-424 | J. of Geographic Info. Sys.         | 2012 | 2151-1950 | 0.37 |
| 7 | Gouri Sankar<br>Bhunia,<br>and Pravat Kumar<br>Shit                   | Appraisal of Teachers' Index in primary and upper primary level: a Geospatial Analysis  | 1(6)  | 08-15   | J. of Humanities and Social Science | 2012 | 2279-0845 | 1.59 |
| 8 | Pravat Kumar Shit<br>and<br>Chandan Kumar<br>Pati                     | Non-Timber Forest Products for Livelihood Security of Tribal Communities: A Case Study in Paschim Medinipur District of West Bengal, India.     | 40(2) | 149-156 | Journal of Human Ecology            | 2012 | 0970 9274 | -    |
| 9 | Pravat Kumar Shit,<br>Gouri Sankar<br>Bhunia, and<br>Ramkrishna Maiti | Effect of Vegetation Cover on Sediment Yield: An Empirical Study through Plots  | 2(5)  | 32-40   | Journal of Env. Earth Science       | 2012 | 2224-3216 | 5.56 |

|    |   | Experiment   |      |         |   |      |           |      |
|----|---|--|------|---------|---|------|-----------|------|
| 10 | Pravat Kumar Shit and Ramkrishna Maiti                    | Effect of plant roots on soil anti-scourability of topsoil during concentrated flow  | 1(4) | 1-7     | Int. J. of Engineering Research & Tech. | 2012 | 2278-0181 | 1.76 |
| 11 | Pravat Kumar Shit and Ramkrishna Maiti                    | Mechanism of Gully head Retreat - A study at Ganganir Danga, Paschim Medinipur, West Bengal                                    | 5(4) | 332-342 | Ethiopian J of Env.Studies and Magt     | 2012 | 1998-0507 | -    |
| 12 | Pravat Kumar Shit and Ramkrishna Maiti                    | Effects of plant root density on the erodibility of lateritic topsoil by simulated flume experiment                            | 2(3) | 137-142 | Int. J.of Forest, Soil and Erosion      | 2012 | 2251-6387 | -    |
| 13 | Pravat Kumar Shit, and Ramkrishna Maiti                   | Rill Hydraulics - An experimental study on gully basin in lateritic upland of Paschim Medinipur, West Bengal                   | 4(4) | 1-11    | Journal of Geography and Geology        | 2012 | 1916-9779 | -    |
| 14 | Manojit Mondal, Gouri Sankar Bhunia and Pravat Kumar Shit | Vulnerability Analysis of Embankment Breaching - A Case Study of Moyna Drainage Basin in Purba Medinipur, West Bengal (India). | 2(3) | 89-102  | Int J. of Geology, Earth and Env. Sci   | 2012 | 2277-2081 | 5.16 |

|    |   |   |       |               |   |      |               |      |
|----|---|---|-------|---------------|---|------|---------------|------|
| 15 | Pravat Kumar Shit,<br>Gouri Sankar<br>Bhunia, and<br>Ramkrishna Maiti | Developments of Rill<br>Networks: An<br>Experimental plot scale<br>study.   | 5(1)  | 133-<br>141   | Journal of<br>Water<br>Resource<br>and<br>Protection  | 2013 | 1945-3094     | 0.27 |
| 16 | Pravat Kumar Shit,<br>Gouri Sankar<br>Bhunia, and<br>Ramkrishna Maiti | Assessment of factors<br>affecting ephemeral gully<br>development in badland<br>topography: A case study<br>at Garbheta badland | 4(2)  | 461-<br>470.  | Int. J. of<br>Geoscience                              | 2013 | 2156-8359     | 0.26 |
| 17 | Pravat Kumar Shit<br>and<br>Ramkrishna Maiti                          | Confluence Dynamics<br>in an Ephemeral Gully<br>Basin (A case<br>Study Rangamati, Paschim<br>Medinipur,<br>West Bengal, India)  | 5(15) | 3895-<br>3911 | Res.J. of<br>Applied<br>Sciences,<br>Eng and<br>Tech, | 2013 | 2040-7467     | -    |
| 18 | Pravat Kumar Shit,<br>Gouri Sankar<br>Bhunia, and<br>Ramkrishna Maiti | Assessing the<br>performance of check<br>dams to control<br>rill-gully erosion: Small<br>catchment scale study                  | 5(4)  | 899-<br>906   | Int J. of<br>Current<br>Research                      | 2013 | 0975-<br>833X | -    |
| 19 | Gouri Sankar<br>Bhunia,<br>and Pravat Kumar<br>Shit                   | Identification of<br>temporal dynamics of<br>vegetation<br>coverage using Remote<br>Sensing and<br>GIS                          | 5(3)  | 652-<br>658   | Int J. of<br>Current<br>Research                      | 2013 | 0975-<br>833X | -    |

|    |  |  |       |         |  |      |           |      |
|----|--|--|-------|---------|--|------|-----------|------|
| 20 | Gouri Sankar Bhunia, and Pravat Kumar Shit                   | Usefulness of geospatial technology to appraise the agriculture potential zone of Nawada district, Bihar (India)         | 3(2)  | 118-128 | Int.J. of Food, Agriculture and Veterinary Science | 2013 | 2277-209X | 5.38 |
| 21 | Sumita Gayen, Gouri Sankar Bhunia, Pravat Kumar Shit         | Morphometric Analysis of Kangshabati-Darkeswar Interfluves Area in West Bengal, India using ASTER DEM and GIS Techniques | 2(4)  | 1-10    | Geology & Geosciences                              | 2013 | 2329-6755 | -    |
| 22 | Pravat Kumar Shit, Gouri Sankar Bhunia, and Ramkrishna Maiti | Vegetation Influence on Runoff and Sediment Yield in the Lateritic Region: An Experimental Study                         | 4(1)  | 1-9     | Geography & Natural Disasters                      | 2014 | 2167-0587 | -    |
| 23 | Pravat Kumar Shit, Gouri Sankar Bhunia, and Ramkrishna Maiti | Morphology and Development of selected Badlands in South Bengal (India)  | 13    | 161-171 | Indian J. of Geo and Environment                   | 2014 | 0972-7388 | -    |
| 24 | Pravat Kumar Shit, and Ramkrishna Maiti                      | Gully Erosion Control: Lateritic Soil Region of West Bengal  | 28(3) | 54-61   | Indian Science Cruiser                             | 2014 | 0970-4256 | -    |



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|----|---|--|------|------------|--|------|---------------|---|
| 25 | Pravat Kumar Shit,<br>Rumpa Paira,<br>Gouri Sankar<br>Bhunia, and<br>Ramkrishna Maiti | Modeling of potential<br>gully erosion hazard<br>using geo-spatial<br>technology at Garbheta<br>block, West Bengal in<br>India | 1(2) | 1-16       | Model. Earth<br>Syst.<br>Environ   | 2015 | 2363-6203     | - |
| 26 | Pravat Kumar Shit,<br>Arup Sankar Nandi<br>and<br>Gouri Sankar<br>Bhunia              | Soil erosion risk mapping<br>using RUSLE model on<br>jhargram sub-division at<br>West Bengal in India                          | 1(3) | 1-12       | Model. Earth<br>Syst.<br>Environ   | 2015 | 2363-6203     | - |
| 27 | Pravat Kumar Shit,<br>Gouri Sankar<br>Bhunia, and<br>Ramkrishna Maiti                 | Soil crack morphology<br>analysis using image<br>processing techniques   | 1(4) | -          | Model. Earth<br>Syst.<br>Environ<br><br>DOI: 10.100<br>7/s40808-<br>015-0036-z | 2015 | 2363-6203     | - |
| 28 | Pravat Kumar Shit,<br>Gouri Sankar<br>Bhunia, and<br>Ramkrishna Maiti                 | Farmers' perceptions of<br>soil erosion and<br>management strategies in<br>South Bengal in India                               | 6(2) | 85-<br>100 | European<br>Journal of<br>Geography  | 2015 | 1792-1341     | - |
| 29 | Pravat Kumar Shit,<br>Gouri Sankar<br>Bhunia, and<br>Ramkrishna Maiti                 | An experimental<br>investigation of rill erosion<br>processes in lateritic<br>upland region: A pilot<br>study                  | 5(2) | -          | Eurasian J<br>Soil Sci   | 2016 | 2147-<br>4249 | - |

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**Papers presented in Conferences, Seminars, Workshops, Symposia.**

| S.N. | Title of the paper presented  | Title of Conference/Seminar etc.                        | Date(s) of the event   | Organized by  | Whether International/National/State/Regional/University or College Level |
|------|---|---|------------------------|---|---|
| 1.   | Analysis of Rill and Gully Morphology- A Case study at Rangamati Area, Medinipur, W.B   | Globalization and Sustainability                        | 25th – 26th Sept. 2007 | Achhruram Memorial College, Jhalda, Purulia,                  | State level   |
| 2    | The Role of the gradient and relief for the development and growth of link systems in a discontinuous gully – A critical study at Rangamati, Paschim Medinipur, West Bengal | Geomorphology in Disaster Mitigation and Management     | February 15-17, 2008   | Banaras Hindu University, Dept. Of Geography Varanasi- 221005 | National  |
| 3    | Intensive Study on Development of Drainage Network in an Ephemeral Gully Basin, Rangamati, Paschim Medinipur, W.B.  | Man-Environment Relation: A Vision Plan for Green Earth | 29th - 31st Oct, 2009  | University of Allahabad Dept. Of Geography, Allahabad         | National  |

|    |   |   |  |  |                          |
|----|---|---|--|--|--------------------------|
| 4. | Land degradation through the development of discontinuous gully system – A case study at Rangamati, Paschim Medinipur | Modern Perspective of Resource management                           | 10th Feb., 2010                                | Dept. Of Geography<br>Hijli College,<br>Kharagpur                | State level              |
| 5. | Drainage Network Development in a discontinuous gully basin: A case study at Rangamati, Paschim Medinipur             | Regional Environmental Problems and Societal Development            | 24-25 <sup>th</sup> Feb, 2010                  | Vidyasagar University<br>Dept. Of Geography,<br>Medinipur-721102 | National                 |
| 6. | Optimal confluence angle in a discontinuous gully system-A case study at Rangamati, Paschim Medinipur                 | Environment, Resource and Regional Development                      | 8 <sup>th</sup> and 9 <sup>th</sup> March 2010 | Dept. Of Geography<br>Burdwan,<br>The University of Burdwan      | International Conference |
| 7. | Channel confluence angle in a discontinuous gully system-A case study at Rangamati, Paschim Medinipur                 | Sustainable Development & Management                                | 27th and 28th March 2010                       | Rabindra Bharati University<br>Dept. Of Geography                | National                 |
| 8. | Understanding Confluence Dynamics in Ephemeral Gully Basins: An integrated approach using Geomorphology and Hydrology | Global Environmental Change: Geomorphological Issues and Challenges | 20th-22th Nov. 2010                            | Guahati University,<br>Dept. Of Geography,<br>Guahati, Assam     | National                 |
| 9. | Channel confluence angle in a discontinuous gully   | Natural Resource  | 10-12 <sup>th</sup> March,                     | Dept. Of Geography,  | National                 |

|     |  |   |                       |   |                          |
|-----|--|---|-----------------------|---|--------------------------|
|     | system- An Empirical Analysis  | Management  | 2011                  | University of Calcutta                        |                          |
| 10. | Flume experiment on grass roots properties and erodibility of lateritic topsoil by Concentrated flow | Coastal Dynamics and Geomorphology                  | October 19 – 22, 2011 | Anna University, Dept. Of Geology, Chennai-25 | National                 |
| 11. | Rill-Gully erosion: Geo-hazards in West Bengal and Management implication                            | Social Dimensions of Hazard Management              | Nov. 04-05, 2011      | Dept. Of Geography, Hijli College, Kharagpur  | National                 |
| 12. | Experiments on Erodibility of Lataritic Topsoil by Surface Flow                                      | Dimensions of Development and Resource Conservation | 10-12 March 2012      | Dept. Of Geography, University of Calcutta    | International Conference |

### Research Guidance

| Sl. | Ph.D/ M. Phil./ Dissertation (UG/ PG) | Title of the Research Work   | Name of the Scholar | University                               | Status [Completed (Year)/ Ongoing] |
|-----|---------------------------------------|--|---------------------|--|------------------------------------|
|     | Dissertation (PG level in Geography)  | Farmers' perception of soil erosion problems and their conservation knowledge: Village level study | S.Dutta             | Vidyasagar University (DDE in Geography) | 2013                               |
|     | Dissertation (PG level in)            | Potential gully erosion hazard using geo-spatial   | Rumpa Paira         | Vidyasagar University                    | 2014                               |

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|--|--------------------------------------|--|--|--|------|
|  | Geography)                           | technology at Garbheta block, West Bengal in India   |  | (DDE in Geography)                       |      |
|  | Dissertation (PG level in Geography) | Field investigation of rill erosion in Rangamati experimental area, Medinipur (West Bengal, India) | Sourav kanti Roy, Tutun Dandapat, Sukumar Patra, Arijit Mallik | Vidyasagar University (DDE in Geography) | 2015 |

### Invite Lectures

| Sl. | Topic of the Lectures                           | Institute   | Year       |
|-----|---|---|------------|
| 01  | Fundamental of Remote Sensing & GIS Application | Subarnarekha Mahavidyalaya, Gopiballvpur, Paschim Medinipur | 07.12.2015 |