




## Faculty Details proforma for DU Web-site

Title	Dr.	First Name	Pankaj	Last Name	Kumar	
Designation		Assistant Professor				
Address		Department of Geography Delhi School of Economics Faculty of Social Sciences University of Delhi (North Campus) Delhi- 110 007				
Phone No	Office	+91-11-27666491				
Residence						
Mobile		+91-9013799488				
Email		<a href="mailto:pankajdsedu@gmail.com">pankajdsedu@gmail.com</a> ; <a href="mailto:pkumar@geography.du.ac.in">pkumar@geography.du.ac.in</a>				
Web-Page		<a href="http://du.ac.in/du/index.php?page=geography">http://du.ac.in/du/index.php?page=geography</a>				
Educational Qualifications						
Degree		Institution			Year	
Ph.D.		Department of Geography, Delhi School of Economics, University of Delhi			2013 (Glacial Lake Outburst Flood)	
M. Phil		Department of Geography, Delhi School of Economics, University of Delhi			2006 (Mountain Tourism)	
PG		Department of Geography, Delhi School of Economics, University of Delhi			2004 (Geography)	
UG		Dyal Singh College, Department of Geography, University of Delhi			2001 (Geography)	
Any other qualification		UGC-NET, University Grants Commission (UGC), New Delhi, India			2006	
Career Profile						
<ul style="list-style-type: none"> <li>▪ Assistant Professor, Department of Geography, Delhi School of Economics, Faculty of Social Sciences, <b>University of Delhi</b>, Delhi, (21<sup>st</sup> February , 2014- onwards).</li> <li>▪ Assistant Professor, Department of Geography, Shaheed Bhagat Singh College, University of Delhi (27 April 2009 – 21st February, 2014).</li> </ul>						
Administrative Assignments						
<ul style="list-style-type: none"> <li>● Secretary, Commission on Biogeography and Biodiversity, International Geographical Union (IGU) for the period 2018-2022</li> <li>● Treasurer, Association of Geographical Study (AGS)</li> </ul>						
Areas of Interest / Specialization						
<ul style="list-style-type: none"> <li>▪ Environment Geography</li> <li>▪ Snow Cover and Cryosphere</li> <li>▪ Remote Sensing and GIS</li> <li>▪ Urban and Regional Planning</li> </ul>						

- Soil and Water Assessment
- Watershed Modelling

#### Subjects Taught

##### **M.A. Geography Program**

- Fundamentals of Remote Sensing and GIS [103]
- Computer Aided Mapping and Thematic Atlas [203]
- Rural Development – Planning and Policy
- Regional Development in India
- Project Report [401]

##### **M.Phil. Geography Program**

- Regional Development [Course-III]

##### **D.Phil. Geography Program**

- Thinking & Doing Research in Geography [Course-II]

#### Time table of the subjects taught during the current semester (2017-2018)

S.No.	Subject	Days	Time	Classroom
1	Fundamentals of Remote Sensing and GIS [103] (M. A. 1 <sup>st</sup> Semester)	Friday	<a href="http://geography.du.ac.in/time_table.html">http://geography.du.ac.in/time_table.html</a>	Lecture Hall-I
2	Rural Development – Planning and Policy	Thursday	<a href="http://geography.du.ac.in/time_table.html">http://geography.du.ac.in/time_table.html</a>	Lecture Hall-II
3	Regional Development (M.Phil. Course III)	Wednesday	<a href="http://geography.du.ac.in/time_table.html">http://geography.du.ac.in/time_table.html</a>	Faculty Room
4	Thinking and Doing Research in Geography (PhD Course I)	Monday	<a href="http://geography.du.ac.in/time_table.html">http://geography.du.ac.in/time_table.html</a>	Research Room

#### Research Guidance

##### **Supervision of Ongoing Doctoral Thesis**

- Landuse Planning and Livelihood Options in the Flood Affected Region of Saran Plain (2014) : Rashmi
- Geospatial Study of Snow Cover Dynamics in Lahual and Spiti District, Himachal Pradesh (2017) : Md. Arif Husain

##### **Supervision of Awarded M.Phil dissertations**

- Integrated Coastal Zone Management in West Bengal (2016) : Syed Imran Hussain
- Snow Cover Dynamics and Hydrological Responses : A Case Study of Spiti Valley (2016) : Md. Arif Husain
- Assessment of Ecosystem Services in Luni River Basin (2017) : Jyoti Bohara
- Spatio-temporal Distribution of Air Pollution and its Impact on Environment of Bardhaman District (2015) : Saidur Rahman

##### **Supervision of Ongoing M.Phil dissertations**

- Land use Planning and Feasibility Analysis of Kalyan Dombivli Smart City, Maharashtra (2015) : Astha Smarth Kapur

- Assessment of Impact of Climate Variability and Landuse/ Land cover Change on Water Availability in Dhansiri Watershed (2016) : Narayani Gogoi
- Spatio-temporal Assessment of Urban Heat Island and Its Implications in Lucknow City (2016) : Anish Kumar Rai

#### Publications Profile

##### Journal Articles:

- **Kumar P**, Husain A, Singh RB, et al. (2018) Impact of land cover change on land surface temperature: a case study of Spiti Valley. *Journal of Mountain Science* 15(8). <https://doi.org/10.1007/s11629-018-4902-9>
- Manish Kumar, R.B.Sng, Ram Pravesh, **Pankaj Kumar**, Dinesh Kumar Tripathi and Netrananda Sahu, (2017) Urban Growth Dynamics and Modeling using Remote Sensing Data and Multivariate Statistical Techniques, *Current Science*, Vol. 114, Issue 10,pp. 280-291
- Nigam, G. K., Sahu, R. K., Sinha, M. K., Deng, X., Singh, R.B and **Kumar, P**. Field assessment of surface runoff, sediment yield and soil erosion in opencast mines in Chirimiri area, Chhattisgarh, India, *Journal of Physics and Chemistry of Earth*.DOI [10.1016/j.pce.2017.07.001](https://doi.org/10.1016/j.pce.2017.07.001)
- Sahu N, Singh RB, **Kumar P**, Silva RV, Behera SK: La Niña Impacts on Austral Summer Extreme High-Streamflow Events of the Paranaíba River in Brazil, *Advances in Meteorology*, Vol. 2013, Article ID 461693, <http://dx.doi.org/10.1155/2013/461693>, Impact Factor 1.23, (Scopus), ISSN: 1687-9309.
- Kumar M, **Kumar P** and Tripathi DK : Urban growth and its Impact on Surface Temperature in Greater Mumbai district, Maharashtra- A Geographical Analysis using Geospatial Techniques, *ANNALS NAGI*, Volume XXXII, No.2, December 2012, pp 71-82. ISSN: 0970-972X.
- **Kumar P** : Spatio-temporal nature of Mountain tourism in Uttarkashi District, *ACCST Research Journal*, Volume VII, No.2, April 2009, pp 111-120. ISSN: 0972-7779.
- Singh RB and **Kumar P**: "Land Use/ Land Cover change in Himachal Himalaya", in Himiyama Y. (eds.) *Land Use / Cover Changes in Selected Regions in the World*, Volume VII, IGU-LUCC Research Reports, Asahikawa, Japan .
- Kumar, Manish and **Kumar, Pankaj** (2016) Snow cover dynamics and geohazards: a case study of Bhilangna watershed, Uttarakhand Himalaya, India, *Geoenvironmental Disasters*, Springer, Vol.3:2, DOI: 10.1186/s40677-016-0035-z
- Singh, R.B, **Kumar, Pankaj** and Rahaman, Saidur (2016) Science and Geospatial Advice during Cyclone and Tsunami in Bengal Induced Emergency/Health Risk. *NAM Today*, Vol.LV, No.02, February, pp. 08-19.

- **Kumar, Pankaj** and Rahaman, Saidur (2016) Pre and Post Regional Development Scenario in India. Journal of Urban and Regional Studies on Contemporary India, Vol. 3 (1): pp 1-10.
- Hussain, Md. Arif and **Kumar, Pankaj**: Extreme Events and Adaptation in Himalayan Region : Issues and Strategies, World Focus, May 2016, pp 112-116. ISSN: 2230-8458
- Sharma, V, **Kumar, P** and Kshetramayum, K (2016) Monitoring and Modelling Socio Economic Impact of Landuse/Cover and Pollution along Yamuna River, Delhi, DU Journal of Undergraduate Research and Innovation, vol 2, pp. 172-180.

#### **Book/Chapter in Book**

- Singh RB and **Kumar P**: "*Geographic and Socio-Economic Realities of Himachal Pradesh, Northwestern Himalaya*" Chapter 2, in Singh RB and Hietala R (eds) Livelihood Security in Changing Socio-Economic Environment in Northwestern Himalaya, India, Springer, Tokyo, Japan, pp.11-16.
- **Kumar, P** and Singh RB: "*Climate change, Glacier Lakes and Livelihoods*" Chapter 3, in Singh RB and Hietala R (eds) Livelihood Security in Changing Socio-Economic Environment in Northwestern Himalaya, India, Springer, Tokyo, Japan, pp. 27-40.
- Singh, RB and **Kumar, P**: "*Climate change and glacial lake outburst floods in Himachal Himalaya, India*", in Singh M, Singh RB and Hassan MI (eds) Climate Change and Biodiversity, Volume 1, Springer, Tokyo, Japan .pp. 3-14.
- Kumar, Manish and **Kumar, Pankaj** (2016) Snow Cover Dynamics and Timberline Change Detection of Yamunotri Watershed using Multi-temporal Satellite Imagery.In: Singh, R.B, Schickhoff, Udo and Mal, Suraj (eds) Climate Change, Glacier Response, and Vegetation Dynamics in the Himalaya. Springer, Switzerland, pp 391-399.
- Kumar, Manish, **Kumar, Pankaj** and Thakur, Pawan ( 2016 ) Seoul City: Landuse cover pattern and dynamics, In: Narsimhan, S and Young, K. D (eds) Evolving Indo-Korea Relations: Perspectives on South Asia, Manak Publication Pvt.Ltd, pp. 263-276.
- **Kumar, Pankaj** and Rahaman, Saidur (2017) Allied activities and Agricultural Patterns of Malda District, West Bengal In: Sahdev, S and Kumar, M (eds) Environment and Sustainable Development A Geographical Appraisal, Concept Publishing Company Pvt. Ltd, pp.76-100.
- **Kumar, Pankaj** and Rashmi (2017) Environment and Community Resilience In: Sahdev, S and Kumar, M (eds) Environment and Sustainable Development A Geographical Appraisal, Concept Publishing Company Pvt. Ltd, pp.76-100.

- Husain, A and **Kumar, P** (2017) Drinking Water and Health related issues A case study of Patparganj Society, New Delhi In: Pandey BW (eds) Water Resources Potentiality Vulnerability and Management: Indian Experiences, Research India Press, New Delhi, pp. 166-183.

#### Publications in the Last one year

##### Research Journal

- **Kumar P**, Husain A, Singh RB, et al. (2018) Impact of land cover change on land surface temperature: a case study of Spiti Valley. Journal of Mountain Science 15(8). <https://doi.org/10.1007/s11629-018-4902-9>
- Manish Kumar, R.B.Sng, Ram Pravesh, **Pankaj Kumar**, Dinesh Kumar Tripathi and Netrananda Sahu, (2017) Urban Growth Dynamics and Modeling using Remote Sensing Data and Multivariate Statistical Techniques, *Current Science*, Vol. 114, Issue 10,pp. 280-291
- Nigam, G. K., Sahu, R. K., Sinha, M. K., Deng, X., Singh, R.B and **Kumar, P**. Field assessment of surface runoff, sediment yield and soil erosion in opencast mines in Chirimiri area, Chhattisgarh, India, *Journal of Physics and Chemistry of Earth*.DOI [10.1016/j.pce.2017.07.001](https://doi.org/10.1016/j.pce.2017.07.001)

##### Chapter in Books

- Kumar, Manish and **Kumar, Pankaj** (2016) Snow Cover Dynamics and Timberline Change Detection of Yamunotri Watershed using Multi-temporal Satellite Imagery.In: Singh, R.B, Schickhoff, Udo and Mal, Suraj (eds) Climate Change, Glacier Response, and Vegetation Dynamics in the Himalaya. Springer, Switzerland, pp 391-399.
- Kumar, Manish, **Kumar, Pankaj** and Thakur, Pawan ( 2016 ) Seoul City: Landuse cover pattern and dynamics, In: Narsimhan, S and Young, K. D (eds) Evolving Indo-Korea Relations: Perspectives on South Asia, Manak Publication Pvt.Ltd, pp. 263-276.
- **Kumar, Pankaj** and Rahaman, Saidur (2017) Allied activities and Agricultural Patterns of Malda District, West Bengal In: Sahdev, S and Kumar, M (eds) Environment and Sustainable Development A Geographical Appraisal, Concept Publishing Company Pvt. Ltd, pp.76-100.
- **Kumar, Pankaj** and Rashmi (2017) Environment and Community Resilience In: Sahdev, S and Kumar, M (eds) Environment and Sustainable Development A Geographical Appraisal, Concept Publishing Company Pvt. Ltd, pp.76-100.
- Husain, A and **Kumar, P** (2017) Drinking Water and Health related issues A case study of Patparganj Society, New Delhi In: Pandey BW (eds) Water Resources Potentiality Vulnerability and Management: Indian Experiences, Research India Press, New Delhi,

Conference Organization/ Presentations (in the last three years)

**International Conference**

- Attended a workshop on **“Ecological modeling”** organized by Center for Chinese Agricultural Policy, Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, Beijing, China during 10th June to 20th June, 2014.
- Presented a research paper titled **“Glacial Lake Outburst Flood (GLOF): A Case Study of Parechu Lake Outburst, Himachal Himalaya, India”** in a workshop on **“Ecological Modeling”** organized by Center for Chinese Agricultural Policy, Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, Beijing, China during 10th June to 20th June, 2014.
- Delivered a talk on **“Contemporary Regional Development in India”** in HINDAS 2015 4th Regular Seminar at Hiroshima University on October 10th, 2015 organized by The Center for Contemporary India Studies.
- Presented a paper entitled **“Glacial Lake Outburst Floods and Integrated River Basin Management: A Case of Lahaul and Spiti District, Himachal Pradesh”** in the 33rd International Geographical Congress (IGC) session of Research on Water Scarcity and Water Allocation for Integrated River Basin Management held between 21-25 August, 2016 Beijing, China.
- Attended an **“International Training Workshop on Scientific Big Data Sharing and Publication for Developing Countries”** organized by Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, Beijing, China during 16th October to 4th November, 2017.

**National Conference**

- Presented a paper entitled **“Socio-Economic Analysis of Land Use and Land Cover Change: A Geo Spatial Study of Spiti Valley, Himachal Pradesh”** in the 9th International Geographical Union (IGU) Conference on Land use Change, Climate Extremes and Disaster Risk Reduction held in Shaheed Bhagat Singh College, University of Delhi, New Delhi, from March 18th- 20th, 2016.
- Presented a paper entitled **“Monitoring Potential Geo-hazard Risk of Lake Outburst: A Case of Samudratapu Glacial Lake, Lahaul and Spiti District, Himachal Pradesh”** in the 9th International Geographical Union (IGU) Conference on Land use Change, Climate Extremes and Disaster Risk Reduction held in Shaheed Bhagat Singh College,

University of Delhi, New Delhi, from March 18<sup>th</sup>- 20<sup>th</sup>, 2016.

- Presented a paper entitled **“Glacial lake outburst flood and Integrated River Basin Management: A case of Lahaul and Spiti district, Himachal Pradesh”** in a session on Research on Water Scarcity and Water Allocation for Integrated River Basin Management in the 33<sup>rd</sup> International Geographical Congress organized by Geographical Society of China, Beijing during August 21<sup>st</sup> to 25<sup>th</sup> 2016.
- Presented a paper entitled **“The effects of snow cover dynamic on agricultural economy and its sustainability: A case study of Spiti Himalaya”** in DST & Ministry of Earth Sciences Sponsored International Conference on Spatial Decision Support Systems for United Nations Sustainable Development Goals Organized by Kalindi College, University of Delhi on February 1&2, 2017.
- Presented a paper on focal theme **“ Glacial Lake Outburst Floods : A Case of Lahaul and Spiti Dsistrict, Himachal Pradesh”** in Second National Seminar on Mountain Economics and Environment Change in Himalayas organized by D.D.College, Dehradun, Uttarakhand on 29<sup>th</sup> and 30<sup>th</sup> December, 2017.
- Presented a paper entitled **“Seasonal and Spatial Characteristics of Urban Heat Island : A Case Study of Mumbai”** in International Conference of Livable Cities : Transforming Sustainability and its Challenges organized by Department of Geography, Shaheed Bhagat Singh College, University of Delhi from 5<sup>th</sup> to 7<sup>th</sup> February, 2018.

#### **Talk delivered as Resource Person / Invited Speaker**

- Delivered a lecture on **“Open Source Geographic Information System (GIS) Software, QGIS”** in a 21 days training programme on **“Geospatial Technologies”** under Natural Resources Data Management System (NRDMS) of Department of Science and Technology (DST) organized by Department of Geography, University of Rajasthan, Jaipur during 16<sup>th</sup> July to 5<sup>th</sup> August, 2014.
- Delivered a lecture on **“Role of Map in Social Science Research”** in the 10 days Research Methodology Course for SC/ST Ph.D students in Social Sciences, organized by Department of Geography, Delhi School of Economics, University of Delhi from 26<sup>th</sup> December 2014 to 04<sup>th</sup> January 2015.
- Delivered guest lecture on the topic **“Application of Geoinformatics in Spatial Sciences”** in K.N memorial Lecture Series organized by KNIPSS, Sultanpur, Uttar Pradesh on 28-11-2015.
- Delivered lectures on the topics **“Introduction of Soil and Water Assessment tool and**

**QSWAT Interface**", "Watershed Delineation using SWAT Model", "Introduction to SWAT Input Data and Its Application", "Hydrological Response Unit (HRU) Delineation and Visualization of SWAT Output " to the participants of Department of Science & Technology (DST) sponsored winter school Application of Remote Sensing and GIS in Natural Resource Management organized by the Department of Geography, Aligarh Muslim University, Aligarh, on 20 & 21 January, 2017.

- Delivered a lecture on "**Spatial Information Technology For Sustainable Development Goals**" in International Training Workshop on Scientific Big Data Sharing and Publication for Developing Countries organized by Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, Beijing, China during 16<sup>th</sup> October to 4<sup>th</sup> November, 2017.
- Delivered a lecture in National Workshop on "**Rethinking About Climate Change : A Psychological Perspective**" organized by Faculty Development Centre, Banasthali Vidyapeeth, Rajasthan during 16<sup>th</sup> to 22<sup>nd</sup> December, 2017.

#### **Training Programme**

- Participated in the 108th four week orientation programme organized by UGC- ASC, Academic Staff College, Jamia Millia Islamia, New Delhi, from 9th April to 9th May, 2014 and obtained **Grade "A"**.
- Participated in a one day workshop on "**Rockfall Simulation Model and Debris Flow Calculations**" conducted by SLF Snow and Avalanche Research, Switzerland in collaboration with DTRL, DRDO, New Delhi, India on 4th February, 2015.
- Successfully completed a training programme of Indian Himalayan Climatic Adaptation Program (IHCAP) Training and Capacity Building Program on "**Applied Glaciology (Glacier Inventories, Volumes and Hazards)**" organized by Shaheed Bhagat Singh College during February 2-5, 2016.
- Successfully completed a certificate course on "**Remote Sensing and Geographical Information System Applications in Geo-Sciences**" conducted by ISRO-NNRMS, Indian Institute of Remote Sensing (IIRS) Dehradun from May 02, 2016 to June 24, 2016.
- Successfully completed a course on "**Hydro-informatics for Integrated Water Resources Management**" conducted by Indian Institute of Technology (IIT) Madras in collaboration with MHRD, Government of India, on the theme **Global Initiative of Academic Networks** from November 28th, 2016 to 9th December 2016.
- Successfully completed "**International Training workshop on Big Data for Science and Sustainability in Developing Countries**" organized jointly by CODATA and Department of Geography, Osmania University, Hyderabad during 17<sup>th</sup> to 19<sup>th</sup> March 2017.



- Attended and Successfully completed **“International Training Workshop on Scientific Big Data Sharing and Publication for Developing Countries”** organized by Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences, Beijing, China during 16<sup>th</sup> October to 4<sup>th</sup> November, 2017.
- Delivered Invited talk in the International Training Course **“ Monitoring and Study on the Ecosystem of Central Asia: Results and Scientific practical Implications”** organized by Tian Shan Hingh Mountain Research Center, Issyk-kul, Bishkek, Kyrgyzstan between August 26-30, 2018.

#### **Chaired / Co-Chaired Seminars and Conferences**

- Acted as a Rapporteur in a Technical Session in **the International Geographical Union (IGU) Conference on Geoinformatics for Biodiversity and Climate Change** organized by Maharshi Dayanand University, Rohtak, Haryana from 14<sup>th</sup> March to 16<sup>th</sup> March, 2013.
- Co-chaired a session during the **UGC Sponsored National Seminar on Environmental Ethics, Resource Depletion and Sustainable Development** organized by Kalindi College, University of Delhi on 25<sup>th</sup> and 26<sup>th</sup> February, 2016.
- Co-Chaired session entitled **“Spatial Decision Support Systems to Combat Climate Change and Its Impacts”** in DST and Ministry of Earth Sciences International Conference on Spatial Decision Support Systems for United Nations Sustainable Development Goals organized by Kalindi College, University of Delhi on 1<sup>st</sup> and 2<sup>nd</sup> February, 2017.
- Chairperson for the session entitled **“Spatial Decision Support Systems to Conservation of Terrestrial Ecosystem”** in DST and Ministry of Earth Sciences International Conference on Spatial Decision Support Systems for United Nations Sustainable Development Goals organized by Kalindi College, University of Delhi on 1<sup>st</sup> and 2<sup>nd</sup> February, 2017.
- Co-chaired in the Technical Session Five of **National Conference on Making Cities Resilient : Post Habitat III** organized by Department of Geography, Shaheed Bhagat Singh College, University of Delhi on 3<sup>rd</sup> and 4<sup>th</sup> February, 2017.
- Chaired Technical Session II in Second National Seminar on **“Mountain Economics and Environment Change in Himalayas”** organized by D.D.College, Dehradun, Uttarakhand on 29<sup>th</sup> and 30<sup>th</sup> December, 2017.

<b>Research Projects (Major Grants/Research Collaboration)</b>
<ul style="list-style-type: none"> <li>• Project Title <b>“Monitoring and modeling socio economic impact of Land use/cover and Pollution along Yamuna River, Delhi”</b> sanctioned under Innovative Project 2013-14 scheme of University of Delhi. Amount Sanctioned Rs.3,00,000.</li> <li>• Project Title <b>“Snow cover dynamics and its impact on livelihoods: A case study of Spiti river, Lahaul and Spiti district, Himachal Pradesh”</b> sanctioned by University of Delhi under Research and Development Grant 2014-15. Amount Sanctioned Rs.1,00,000.</li> <li>• Project Title <b>“Assessment of Glacial Lake Outburst Flood (GLOF) of Samudratapu Glacial Lake, Himachal Pradesh”</b> for the year 2015-16.” sanctioned by University of Delhi under Research and Development Grant 2014-15. Amount Sanctioned Rs.1,00,000.</li> </ul>
<b>Awards and Distinctions</b>
<b>Association With Professional Bodies</b>
<ul style="list-style-type: none"> <li>• National Association of Geographers India (NAGI)</li> <li>• Association of Geographical Study (AGS)</li> </ul>
<b>Other Activities</b>