



Faculty Details Proforma



Name	Dr. Ashwani Kumar Agnihotri
Designation	Assistant Professor
Address	Department of Geography Shaheed Bhagat Singh College, University of Delhi, Sheikh Sarai, Phase-II, New Delhi 110017, India
Date of Birth	01/02/1989
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Google Scholar	Google Scholar
ResearchGate	ResearchGate



Educational Qualifications

Degree	Institution	Year
UG	CSJM University, Kanpur	2010
PG	Banaras Hindu University, Varanasi	2012
M.Tech	University of Madras, Chennai	2014
Ph.D	Indian Institute of Technology (BHU), Varanasi	2020

Career Profile

Designation	University	Date
Assistant Professor	Shaheed Bhagat Singh College, University of Delhi	2023 - till date

Areas of Interest / Specialization

- Fluvial geomorphology
- Remote sensing and GIS analysis
- InSAR time series analysis
- Drone-based imaging and data analysis

Papers Taught

- (DSC-01): Physical Geography
- (DSC-06): Statistical Methods in Geography

- (DSC-09): Fundamentals of Remote Sensing
- (DSC-12): Fundamentals of GIS
- (AEC-01): Environmental Science: Theory into Practice
- Sustainable Resource Development
- Cyber Sphere and Security Global Concerns

Research experience

1. Completed **Ph.D.** from the Department of Civil Engineering, Indian Institute of Technology (BHU), Varanasi, India, on the topic “*Geoinformatics-Based Modelling of Channel Planform Dynamics for River Ramganga*” during the period 2015–2020.
2. Worked as a **Junior Research Fellow** at the Indian Institute of Technology (BHU), Varanasi, on the project titled “*Automatic Map Generation from High-Resolution Images Applying Deep Learning Techniques*,”
3. Worked as a **Senior Project Associate** at Indian Institute of Technology Kanpur, on the project titled “*Geomorphic and Ecological Impacts of Sand Mining in Large Rivers as Revealed from High-Resolution Historical Remote Sensing Data and Drone Surveys: Assessment, Analysis, and Mitigation*”

Research Guidance

1. **Ms. Sakshi** registered for her Ph.D. in 2025 in the Department of Geography, University of Delhi. She is currently pursuing her doctoral research under my supervision on the tentative thesis titled “**Remote Sensing-Based Assessment of River Water Temperature Dynamics Under Climate Change in the Yamuna River Basin.**”

Publications Profile

1. **Agnihotri AK**, Anurag Ohri, and Sachin Mishra. (2018) “Channel planform dynamics of lower Ramganga River, Ganga Basin, GIS and Remote Sensing analyses.” *Geocarto International*, 1-37.
2. **Agnihotri A. K.**, Ohri A., Gaur S., Das N., & Mishra S. (2019). “Flood inundation mapping and monitoring using SAR data and its impact on Ramganga River in Ganga basin.” *Environmental Monitoring and Assessment*, 191(12), 760.
3. Maurya, Satya Prakash, and **Agnihotri AK**. “Corrigendum to ‘Evaluation of course change detection of Ramganga river using remote sensing and GIS, India’[Weather and Climate Extremes 13 (2016) 68–72].” *Weather and Climate Extremes*, 17 (2017): 59.
4. **Agnihotri AK**, Ohri A., Mishra S. (2018). “Impact of green spaces on the urban microclimate through landsat 8 and TIRS data in Varanasi, India.” *International Journal of Environmental Research and Development*, 7(1), 72-80.
5. Mishra S., Tiwary D., Ohri A., **Agnihotri AK**. (2018). “Spatial analysis of groundwater quality around MSW landfill site.” *Nature Environment and Pollution Technology*, 17(3): 393-395.
6. Mishra S., Tiwary D., Ohri, Agnihotri, **Agnihotri AK**. “Assessment of groundwater quality using WQI and GIS near the Karsara municipal landfill site, Varanasi, India.” *Arabian Journal of Geosciences* (2018), 11:252.

7. Akhtar J., Mishra S., Ohri A., Tiwary D., **Agnihotri AK.** (2018). "Assessment of water quality of River Assi by using WQI, Varanasi, India." *International Journal of Environmental Research and Development*, 7(1), 114-121.
8. Ashish Kumar Vishwakarma, **Agnihotri AK**, Rajesh Rai, B. K. Shrivastva, Sachin Mishra (2018). "Impact assessment of a mine subsidence on native vegetation of southeastern coalfields, India." *The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*, Volume XLII-5.
9. Ankit Pandey, **Ashwani Kumar Agnihotri**, Akhilesh Kumar Mishra (2017). "Spatial Pattern of Land Resource Utilization in Mirzapur District, Uttar Pradesh, India." *Interdisciplinary Journal of Contemporary Research*, Vol. 4, No. 1.
10. Mishra S., Tiwary D., Ohri A., & **Agnihotri A. K.** (2019). "Impact of Municipal Solid Waste Landfill leachate on groundwater quality in Varanasi, India." *Groundwater for Sustainable Development*, 9, 100230.
11. Das N., Kumar V., Tewari A., **Agnihotri A. K.**, Gaur S., & Ohri A. (2019 November). "Periodic Monitoring of Rivers Using Portable Sensor System." In *2019th International Conference System Modeling and Advancement in Research Trends (SMART)* (pp. 110-114). IEEE.
12. Das N., Bhattacharjee R., Choubey A., **Agnihotri A. K.**, Ohri A., & Gaur S. (2022). "Analysing the change in water quality parameters along river Ganga at Varanasi, Mirzapur and Ghazipur using Sentinel-2 and Landsat-8 satellite data during pre-lockdown, lockdown and post-lockdown associated with COVID-19." *Journal of Earth System Science*, 131(2), 1-28.
13. Das N., Bhattacharjee R., Choubey A., **Agnihotri A. K.**, Ohri A., & Gaur S. (2022). "Analysis of the Spatio-Temporal Variation of the Thermal Pattern of River Ganges in Proximity to Varanasi, India." *Journal of the Indian Society of Remote Sensing*, 1-16.
14. Bhattacharjee R., Gupta A., Das N., **Agnihotri A.K.**, Ohri A., and Gaur S. (2022). "Analysis of algal bloom intensification in mid-Ganga river, India using satellite data and neural network techniques." *Environmental Monitoring and Assessment*, 194(8), pp.1-20.
15. Bhattacharjee R., Gaur S., Das N., **Agnihotri A.K.**, and Ohri A. (2023). "Analysing the relationship between human modification and land surface temperature fluctuation in the Ramganga basin, India." *Environmental Monitoring and Assessment*, 195(1), p.104.

Book Chapters

1. **Ashwani Kumar Agnihotri**, Anurag Ohri, Sachin Mishra, Ankit Pandey (2017). "Remote sensing Based Assessment of Urban Heat Island from TIRS data - A case study of Varanasi city, India" (Ed). *Advance in Urban Studies in India*.
2. Nilendu Das, Anurag Ohri, Sachin Mishra, Padam Jee Omar, **Ashwani Kumar Agnihotri** (2018). "Wetland Dynamics using Geo-Spatial Technology". *Advances in Water Resources Engineering and Management*.
3. Mishra Sachin, Shivam Tripathi, Dhanesh Tiwary, Anurag Ohri, **Ashwani Kumar Agnihotri**, and Ashish Kumar Vishwakarma. "Application of Visual MODFLOW in Groundwater Flow Modeling at the Left Crescent of the Ganga River, Varanasi, India." In *Fate and Transport of Subsurface Pollutants*, pp. 105-124. Springer Singapore.
4. Mishra, A., **Agnihotri, A. K.**, Pipil, S., Gaur, S., Ohri, A. (2024). Surveying techniques for urban areas. In *Earth Observation in Urban Monitoring* (pp. 69-91). Elsevier.

Invited Lectures

1. Invited as a Resource Person to deliver lectures for a value-added course on the topic '*Satellite Image Processing*' at Kalindi College, University of Delhi, from April 22 to April 25, 2024.
2. Resource person in the Capacity Building Workshop on "*UAV/Drone Applications in Environment and Natural Resources Management: A Hands-on Training Program*", organized by TERI School of Advanced Studies (TERISAS) in collaboration with Hokkaido University (Japan), IIT Roorkee, and IIT BHU. Delivered lectures on the topic "*Drone Regulations in India*" during April 22–25, 2024.
3. Invited as Judge for the Undergraduate Students' Paper Presentation Competition during the Annual Geo-Fest Kshitij 2025, organized by the Department of Geography, Indraprastha College for Women, University of Delhi, on the theme "Himojas: Advancing Sustainable Energy in the Himalayas," held on 25th April 2025 at the University of Delhi.

Conference/ workshop organized

1. Successfully organized a one-day national workshop as a member of the organizing committee on "**Mitigating the impact of climate change on Indian Agriculture**" jointly organized by the Department of Civil Engineering IIT (BHU) and the Department of Civil Engineering IIT Roorkee.
2. Successfully organized a three-day International conference as a member of the organizing committee on "**River Health: Assessment to Restoration**" (RHAR-2019) Department of Civil Engineering IIT (BHU) from Feb 14-16, 2019.
3. Successfully organized a one-day International G20 Conference as a member of the organizing committee on "**Resilient Approaches for New World Order Viksit Bharat**," held by Shaheed Bhagat Singh College, University of Delhi, on September 25, 2023, at Dr. Ambedkar International Centre, New Delhi, India.
4. Successfully organized a One-Day Workshop on "**Mastering Mendeley: Enhancing Research Paper Writing with Effective Referencing**" jointly conducted by the Research Cell and the Internal Quality Assurance Cell (IQAC) of Shaheed Bhagat Singh College, University of Delhi, under the aegis of IQAC, on 16th September 2023.

Awards and Distinctions

1. **Doctoral Fellowship 2014** to carry out PhD thesis at IIT BHU from University Grants Commission (UGC) of India for five years.
2. **Young Geospatial Scientist Award 2019** in Geosmart India 2019 at HICC Hyderabad on 3 December 2019 by Surveyor General of India
3. **Rachapudi Kamakshi Memorial Gold Medal** in Geosmart India 2019 at HICC Hyderabad on 3 December 2019 by Surveyor General of India
4. **Travel support Grant** from IIT BHU, 2018 to attend International Conference on ISPRS, Spatial Exchange Program in Thailand.
5. **Travel support Grant** from IIT BHU, 2018 to attend International Conference on Ajman 5th International Environment Conference 2018 in Dubai.
6. **Travel support Grant** from DST, to attend the 35th International Geographical Congress (IGU) - Dublin 2024, Ireland (24 August 2024 to 30 August 2024).

Association With Professional Bodies

1. Lifetime member of the *Civil Engineering Society Organization (India)*
2. Lifetime member of the *International Association of Hydrological Sciences*

Paper Presented in Conferences

1. Paper presented on International Conference in Ajman 5th International Environmental Conference on “Impact of green spaces on the urban microclimate through Landsat 8 and TIRS data, in Varanasi” organized by Ajman Municipal and Planning Department, Ajman University, UAE.
2. Paper presented on International Conference on Urban Geo-Informatics on “Urban green space assessment using Remote Sensing and GIS: A case study of Varanasi city” organized by Teri University Delhi.
3. Paper presented in International Conference in Remote Sensing and GIS for Applications in Geosciences conference on “Assessment of groundwater quality using WQI and GIS near the Karsara Municipal landfill site, Varanasi.” organized by Department of Geology, Aligarh Muslim University, Aligarh, India.
4. Paper presented on International Conference in Liable Cities: Transforming Sustainability and its challenges on “Remote Sensing based assessment of urban heat island from TIRS data- A case study of Varanasi city, India” organized by Department of Geography, Sheed Bhagat Singh College University of Delhi.
5. Paper presented in International Conference on Liable Cities: Transforming Sustainability and its challenges on “Spatial Analysis of Ground water quality around MSW landfill site” organized by Department of Geography, Sheed Bhagat Singh College University of Delhi.
6. Paper presented on National seminar on perspective on land, water and population: issue and challenges on “Impact of land use land cover change on LST in Varanasi” organized by Department Of Geography, BHU, Varanasi.
7. Paper presented in International Conference on “River Health: Assessment to Restoration (RHAR-2019)” from February 14-16, 2019 in the department of Civil Engineering IIT (BHU) on “Monitoring of thermal pattern in rivers using landsat- 8 satellite data”.
8. Paper presented in International Conference on “River Health: Assessment to Restoration (RHAR-2019)” from February 14-16, 2019 in the department of civil engineering IIT (BHU) on “Geospatial Analysis of land use changes in the Ramganga river Basin using Google Earth Engine”.
9. Poster presentation in International conference on “Flood Inundation Mapping and Monitoring of Ramganga River Using Dual-Polarized SAR Data”. From 3-5 December 2019 at GeoSmart India HICC, HYDERABAD INDIA.
10. Paper presented in International Conference on “River Health: Assessment to Restoration (RHAR-2023)” from Oct 12-14, 2023 in the department of civil engineering IIT (BHU) on “Effects of hydrological events on channel planform of Ramganga River, India”.
11. Presented a paper on ‘Development of Early Warning Systems for GLOFs in the Himalayan Region using Radar Interferometry’ at the National Seminar on ‘Disaster Risk Reduction in the Himalayas: Recent Advancements,’ held from 20-21 September 2024 at CSDR, JNU, New Delhi.”
12. Presented a paper titled ‘Longitudinal and Temporal Thermal Pattern of the Yamuna River Using Google Earth Engine’ at the International Conference on “Geospatial Innovations for Biodiversity Conservation, Climate Resilience, and Sustainable Development Across Multi-Domain Ecosystems” , organized by the Department of Geography, Kalindi College, University of Delhi, in association with the Centre for Himalayan Studies, University of Delhi, on April 8–9, 2025.

Participated in Workshops

1. Thailand one-week training program on the spatial exchange program at Sirindhorn Center for Geoinformatics (SCGI) Space Krenovation Park of GISTDA, Chonburi, Thailand.
2. One week National workshop on Techniques in Hyperspectral data analysis and processing jointly organized by IESD (BHU) Department of Physics IIT (BHU) 2017.
3. One week International workshop on “Geo-statistical Analysis of Environmental Data” organized by National Institute of Technology Surathkal, Karnataka.
4. One week on “GIS and Spatial modelling” jointly organized by the University of Salzburg, Austria and the University of Madras, Chennai.
5. One week training on Western Ghats biodiversity using free and open source Geospatial Tool (FOSS4G) organized by Karnataka State Council for Science and Technology, and Indian Institute of Science Campus, Bangalore.
6. One week program of GIAN on sustainable urban planning using remote sensing and GIS organized by Indian Institutes of Technology Kanpur.
7. One week training program on Tools for scientific documentation: LATEX, JabRef, DocEar and other open source software organized by DST- center for Interdisciplinary Mathematical Science (DST-CIMS) BHU, Varanasi.
8. One week short course on principles and applications of GIS organized by the Department of Civil Engineering Indian Institutes of Technology (BHU), Varanasi from January 7-12, 2019.
9. One week special course on “Machine learning and it’s application” organized by the Indian Institute of Remote Sensing (IIRS), Dehradun during June 3-7, 2019.
10. Two-week training program on SAR data Processing for land deformation Studies organized by Indian Institute of Remote Sensing (IIRS), Dehradun during Nov 14- 25, 2022.
11. One week training program on ‘Hydrology of Ungauged Basins’ organized by National Institute of Hydrology, Roorkee during 25–30 November 2024.

Refresher/ Orientation

1. Successfully completed the NEP 2020 **Orientation and Sensitization Programme** under the Malaviya Mission Teacher Training Programme (MM-TTP) of the University Grants Commission (UGC), organized by the UGC-Malaviya Mission Teacher Training Centre, Jawaharlal Nehru University, New Delhi, from 18th March to 28th March 2024.
2. Participated in the **Faculty Induction Programme** – Guru Dakshata, organized by the Mahatma Hansraj Malaviya Mission Teacher Training Centre (MH-MMTTC), Hansraj College, University of Delhi, under the aegis of the Malaviya Mission Scheme, UGC, held from 2nd June to 28th June 2025.

Place New Delhi
Date July 9, 2025

Name Dr. A. K. Agnihotri
Signature