Internet Profiles: Google Scholar, Researchgate, ORCID, Linkedin

Gowhar Meraj, Ph.D.

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Summary

- An active researcher with a Ph.D. (PhD) in Environmental Science having more than 10+ years of experience in river basin management, hydrology, disaster risk assessment and mitigation, simulation modeling, spatial analysis, remote sensing, GIS, artificial intelligence, machine learning techniques, and data mining. I have 40+ publications in peer-reviewed international journals related to climate change, hydrology, water resources, natural hazards, atmospheric sciences, remote sensing, and GIS. **My i10 index is 28, and the h-index is 20 with 1417 citations. My cumulative impact factor score is 85.**
- An expert in hydrological modeling, water resource management, watershed management, spatial modeling with hands-on experience in all major hydrological modeling software such as HEC-RAS, Mike SHE, LISSFLOOD, SWAT, INVEST, and many others. I have extensively used the IPCC framework on emission scenarios for assessing the impacts of climate change in multiple water resource management-related projects in West Bengal and Kashmir valley
- Involved in the development and maintenance of high-level collaborative work among various interdisciplinary and multicultural research groups for overall spatial modeling related to Jhelum (in Kashmir) and Manu (in North-East) River basin management with responsibility for coordinating and researching complex land system processes focused on mountain watershed hydrology
- Team leader responsible for maintaining observational data collection standards, normalizing the effects of data errors, and formulating the exact spatial model development (Carbon footprinting and life cycle inventories)
- Leveraging my organizational skills and commitment to high-level research outputs for policy and decision-making at the grass root levels in the UT of Jammu and Kashmir

Working experience

1. Department of Ecology, Environment and Remote sensing,
Government of Jammu and Kashmir **September 2020 – Present**
Young Scientist/ Principal Investigator (Full-time)

Roles and Responsibilities:

- Assessing the impacts of climate change on the water resources of the *Jhelum*, *Manu*, and *Barak* River basins using the IPCC framework on emission scenarios.
- Seeking to address the problem of drinking water quality degradation, reduced dry-seasonal baseflow for drinking water availability, and flood risk for the flood-prone villages in the whole Kashmir Valley, J&K, India, under changing climate.
- From the 2014 floods of the Jhelum basin, I was particularly associated with the Government of Jammu and Kashmir in forecasting and managing the floods to minimize the risk to people and property. I developed a GIS-based flood forecasting tool to understand the expanse and retrieve floodwaters to help rescue submerged people. Appreciating my services, I was inducted into the core group of working state-level officials and experts to assist the state in formulating effective flood management plans for similar future events. Under this, I conducted a basin-level study to locate areas for constructing water reservoirs for managing the floodwaters. This study stands published in the journal remote sensing (one of the reputed journals in this domain).
- Involved in the development of an overarching environmental policy aimed at mainstreaming environment and climate resilience into development planning and implementation in the UT of Jammu and Kashmir by integrating the results of regional scale ecosystem services assessment.
- As a Scientist involved in identifying the areas that provide sediment and water retention for drinking, dry seasonal water availability and flood risk reduction purposes in Jhelum and Manu Rivers.
- Involved in the mapping and quantifying the biophysical supply of sediment and water retention of the Kashmir Valley

- Involved in modeling the change in biophysical supply of sediment and seasonal water retention under baseline and future climate projections in the Kashmir Valley
- Involved in translating the biophysical metrics of sediment and seasonal water retention into the provision of ecosystem services benefits.
- Involved in assessing the degree to which areas are important for providing the focal ecosystem services in the Kashmir valley coincide with biodiversity conservation priorities such as the protected area network of the valley.
- Involved in assessing the change in livelihood patterns due to climate-induced vulnerability in West Bengal, Brahmaputra basin, and Jhelum Basin.

2. Cactus Communications Pvt. Ltd. **February 2022 – Present**
Premium publication support aide (Freelance)
Roles and Responsibilities:

- Journal selection services
- Pre-submission peer review services
- Literature review and search guidance services
- Manuscript writing services from scratch services

3. EditChecks. LLC of 75 W Hampden Ave,
Suite 62, Englewood, Colorado, 80110. **October 2022 – Present**
Editor (Freelance)
Roles and Responsibilities:

- Manuscript editing services
- Plagiarism reduction services

3. INCIWORDS,
Mumbai, India **September 2022 – Present**
Editor (Freelance)
Roles and Responsibilities:

- Manuscript editing services
- Plagiarism reduction services

4. JKDEER&S, Government of Jammu and Kashmir **February 2016 – August 2020**
Sr. Programme Officer (Full-time)
Roles and Responsibilities:

- My role was to understand the environmental issues from the policy and decision-making perspectives and provide the legislators with on-ground solutions for addressing issues encountered during the region's sustainable development.
- In this project, I was also engaged in imparting green skills to the marginalized communities of the Kashmir valley under the Green Skill Development Program of the Government of India.
- I was particularly involved in coordinating awareness programs about rescue and disaster management in the Jhelum basin

5. World Bank, New Delhi office **January 2016 – August 2016**
Short Term Consultant (STC) (Part-time)
Roles and Responsibilities:

- My role was to write a project proposal for Understanding the Impact of Climate Change on the Indus Basin. The project was intended for cross-border research collaboration between India, Pakistan, China and Afghanistan.
- The project proposal cost around 7 million dollars
- I worked on developing the proposal with leading researchers of the four countries under the supervision of Dr. Christina Leb, World Bank.
- Under this project, I participated in meetings with the stakeholders in Thailand and ICIMOD, Kathmandu, to finalize the proposal.

6. Department of Earth Sciences, University of Kashmir **August 2011 – December 2015**
Researcher (Full-time) *(Web Links attached, wherever applicable)***:**
Roles and Responsibilities:

- Team Lead in assessing the Flood Vulnerability of Jhelum Basin using Geospatial Techniques (*Link*)
- Team Lead in Formulating Runoff Assessment Strategies for Jhelum Watersheds post-2014 Deluge (*Link*)
- Team Lead in Developing Sediment Yield Assessment model for Wular Lake (*Link*)
- Team Lead in Estimating river cross-sections of Jhelum river using satellite imagery to understand flood vulnerability of District Srinagar
- Worked with a core group of working state-level officials and experts to assist the state in formulating effective flood management plans for similar future events. Under this assignment, I conducted a basin-level study to locate areas for constructing water reservoirs for managing the floodwaters as one of the objectives of the integrated river basin management strategies for the Jhelum basin. (*Link*)
- Setting up the Snow and Glacier Studies in Western Himalayas Using RSGIS including ZANSKAR
- Involved in using Satellite images and GIS for Flood Disaster Management Plans in Kashmir Valley
- Inventorizing the Wetlands in the Kashmir valley
- Team Lead in Integrated Environmental Analysis of Lidder Using Remote Sensing and GIS (*Link*)
- Team Lead in Glaciological Studies of the Lidder Valley (*Link*)
- Water Quality Assessment of Jhelum Tributaries (*Link*)
- Team Lead in Total Station and Satellite-based Mapping of Machio Valley, Drass (*Link*)
- GIS-based survey of the Gulmarg Development Authority
- Glacial Lake Outburst Flood (GLOF) Risk assessment for the New Ganderbal Hydroelectric Power Project
- Locating the Tunnel Outlet using DGPS for the New Ganderbal Hydroelectric Power Project
- Team Lead in GIS Survey and Master Plan Development for the Gulmarg Development Authority
- Team Lead in EIA studies of the Yousmarg Development
- Participated and successfully completed Indo-Swiss Capacity Building Programme on Himalayan Glaciology LEVEL-II held from September 19 – November 22, 2013 at Chhota Shigri Glacier, Himachal Pradesh (Field Training) & School of Environmental Sciences, Jawaharlal Nehru University, New Delhi (Classroom sessions).
- Participated in and successfully completed Indo-Swiss Capacity Building Programme on Himalayan Glaciology LEVEL-I held from April 1 – 27, 2013 at School of Environmental Sciences, Jawaharlal Nehru University, New Delhi.

Education

- **Ph.D.** Environmental Sciences
  Suresh Gyan Vihar University, India
- **M Phil** Environmental Sciences
- **M Sc.** Environmental Sciences
- Post Graduate Diploma **(PGD)** in Remote sensing and GIS
  University of Kashmir, India

Technical skills

- Arc GIS (all versions),
- ERDAS Imagine (all versions),
- R Statistical package, IBM-SPSS,
- Python and IDL programming,
- Google Earth Engine,
- Matlab programming,
- Microsoft word Package,

- Photoshop,
- Graphpad Prism

Funded projects/ Principal Investigator/ Post Doctoral Project

1. Mapping and Quantifying Ecosystem Service Provisioning in Kashmir, India under Changing Climate. Department of Science and Technology, Ministry of Science and Technology, Government of India (New Delhi), under Scheme for Young Scientists and Technologists (SYST-DST SEED) GRANT_NUMBER: SP/YO/2019/1362(G) & (C). Total Funding Awarded: INR 3.5 Million (Revised) (*Link*)

Awards

1. Young Scientist by the **BRICS** Young Scientist Forum 2022
2. Young Scientist by the Department of Science and Technology, Government of India 2020

Major Publications (*corresponding author)

1. Rayees Ahmed, Manish Rawat, Gowhar Farooq Wani, Syed Towseef Ahmad, Pervez Ahmed, Sanjay Kumar Jain, **Gowhar Meraj*,** Riyaz Ahmad Mir, Abid Farooq Rather and Majid Farooq. Glacial Lake Outburst Flood Hazard and Risk Assessment of Gangabal Lake in the Upper Jhelum Basin of Kashmir Himalaya Using Geospatial Technology and Hydrodynamic Modeling. Remote Sensing 14 (**JCR-IF: 5.349**)
2. Jatan Debnath, Dhrubajyoti Sahariah, Durlov Lahon, Nityaranjan Nath, Kesar Chand, **Gowhar Meraj*,** Majid Farooq, Pankaj Kumar, Shruti Kanga, Suraj Kumar Singh. Environmental Science and Pollution Research, 2022. Geospatial Modeling to assess the past and future land use-land cover changes in the Brahmaputra valley, NE India, for sustainable land resource management (*link*). (**JCR-IF: 5.190**)
3. Bhartendu Sajan, Varun Narayan Mishra, Shruti Kanga, **Gowhar Meraj**, Suraj Kumar Singh, Pankaj Kumar. Cellular automata-based artificial neural network model for assessing past, present, and future land use/land cover dynamics. Agronomy, 2022, 12(11), 2772 (*Link*). (**JCR-IF: 3.949**)
4. Fayaz, Mohsin, **Gowhar Meraj*,** Sheik Abdul Khader, and Majid Farooq. ARIMA and SPSS Statistics Based Assessment of Landslide Occurrence in Western Himalayas. Environmental Challenges (2022): 100624. (Elsevier) (*Link*)
5. Shruti Kanga*, **Gowhar Meraj*,** Brian Alan Johnson, Suraj Kumar Singh, Muhammed Naseef PV, Majid Farooq, Pankaj Kumar, Asif Marazi, and Netrananda Sahu. "Understanding the Linkage between Urban Growth and Land Surface Temperature—A Case Study of Bangalore City, India." Remote Sensing 14, no. 17 (2022): 4241. (**JCR-IF: 5.349**) (*link*)
6. Jatan Debnath*, **Gowhar Meraj*,** Nibedita Das Pan, Kesar Chand, Sagar Debbarma, Dhrubajyoti Sahariah, Carlo Gualtieri, Shruti Kanga, Suraj Kumar Singh, Majid Farooq, Netrananda Sahu, Pankaj Kumar. 2022. Integrated remote sensing and field-based approach to assess the temporal evolution and future projection of meanders: A case study on River Manu in North-Eastern India. PloS one 17, no. 7: e0271190. (**2022**) https://doi.org/10.1371/journal.pone.0271190 (**JCR-IF: 3.752**) (*link*)
7. **Gowhar Meraj,** Shruti Kanga, Abhijeet Ambadkar, Pankaj Kumar, Suraj K. Singh, Majid Farooq, Brian A. Johnson, Akshay Rai, and Netrananda Sahu. **2022**. Assessing the Yield of Wheat Using Satellite Remote Sensing-Based Machine Learning Algorithms and Simulation Modeling. Remote Sensing 14, no. 13: 3005. https://doi.org/10.3390/rs14133005 (**JCR-IF: 5.349**) (*link*)
8. Fayaz, Mohsin, **Gowhar Meraj,** Sheik A. Khader, Majid Farooq, Shruti Kanga, Suraj K. Singh, Pankaj Kumar, and Netrananda Sahu. **2022**. Management of Landslides in a Rural–Urban Transition Zone Using Machine Learning Algorithms—A Case Study of a National Highway (NH-44), India, in the Rugged Himalayan Terrains. Land 11, no. 6: 884. https://doi.org/10.3390/land11060884 -(**JCR-IF: 3.905**) (*link*)
9. Muzamil A. Rather, **Gowhar Meraj,** Majid Farooq, Bashir Ahmad Shiekh, Pankaj Kumar, Shruti Kanga, Suraj Kumar Singh, Netrananda Sahu, and Surya Prakash Tiwari. Identifying the potential Dam Sites to Avert the Risk of Cata-strophic Floods in the Jhelum Basin, Kashmir, NW Himalaya, India. Remote sensing 14(7), 1538 (2022). **IF: 5.349**) (*link*)

10. Aparna Bera, **Gowhar Meraj,** Shruti Kanga, Majid Farooq, Suraj Kumar Singh, Netrananda Sahu, and Pankaj Kumar. Vulnerability and Risk Assessment to Climate Change in Sagar Island, India. Water 14, no. 5: 823 (**2022**). (**JCR-IF: 3.530) (2073-4441)** (*link*)
11. Megha Shyam, **Gowhar Meraj,** Shruti Kanga, Majid Farooq, Suraj Kumar Singh, Netrananda Sahu, and Pankaj Kumar. Assessing the Groundwater Reserves of the Udaipur District, Aravalli Range, India, Using Geospatial Techniques. Water 14, no. 4 : 648. **2022**. (**JCR-IF: 3.530)** (*link*)
12. Krishna K. Sinha, Mukesh K. Gupta, Malay K. Banerjee, **Gowhar Meraj,** Suraj K. Singh, Shruti Kanga, Majid Farooq, Pankaj Kumar, and Netrananda Sahu. **2022**. "Neural Network-Based Modeling of Water Quality in Jodhpur, India" Hydrology 9, no. 5: 92. (*Link*)
13. Anu Singh, Suraj Kumar Singh, **Gowhar Meraj,** Shruti Kanga, Majid Farooq, Nikola Kranjčić, and Bojan Đurin. "Designing Geographic Information System Based Property Tax Assessment in India. "Smart Cities 5, no. 1 (**2022**): 364-381 (*Link*) (ISSN: 2624-6511) (Citescore 5.5)
14. Shruti Kanga, Suraj K. Singh, **Gowhar Meraj,** Anup Kumar, Ruby Parveen, Nikola Kranjčić, and Bojan Đurin. (**2022**). "Assessment of the Impact of Urbanization on Geoenvironmental Settings Using Geospatial Techniques: A Study of Panchkula District, Haryana" MDPI Geographies 2, no. 1: 1-10. (*Link*)
15. Kesar Chand, Jagdish Chandra Kuniyal, Shruti Kanga, Raj Paul Guleria, **Gowhar Meraj,** Pankaj Kumar, Majid Farooq et al. "Aerosol Characteristics and Their Impact on the Himalayan Energy Budget." MDPI Sustainability 14, no. 1 (**2022**): 179. (**JCR-IF: 3.889)** (*link*) (ISSN: 2071-1050)
16. Irfan Khursheed Shah, Majid Farooq, Gowhar Meraj*, Suraj Kumar Singh, and Shruti Kanga. "Geological treasure of Guryul ravine section in Kashmir Himalaya." Essoar (**2022**).
17. Sachchidanand Singh, Harikesh Singh, Vishal Sharma, Vaibhav Shrivastava, Pankaj Kumar, Shruti Kanga, Netrananda Sahu, **Gowhar Meraj,** Majid Farooq, Suraj Kumar Singh (2021). Impact of Forest Fires on Air Quality in Wolgan Valley, New South Wales, Australia—A Mapping and Monitoring Study Using Google Earth Engine. MDPI Forests **2022**, 13(1), 4. (**JCR-IF**: **3.282**) (*link*) (ISSN: 1999-4907)
18. **Gowhar Meraj,** Shruti Kanga, Nikola Kranjčić, Bojan Đurin, & Suraj Kumar Singh (**2021**). Role of Natural Capital Economics for Sustainable Management of Earth Resources. MDPI, Earth, 2(3), 622-634. (*link*) (ISSN: 2673-4834)
19. **Gowhar Meraj,** Majid Farooq, Suraj Kumar Singh, Md. Nazrul Islam, Shruti Kanga (**2022**). Modeling the sediment retention and ecosystem provisioning services in the Kashmir valley, India, Western Himalayas. Modeling Earth Systems and Environment, 1-20. (**SJR-IF: 0.715**) (*link*)
20. **Gowhar Meraj,** Suraj Kumar Singh, Shruti Kanga, and M. N. Islam (**2022**). Modeling on comparison of ecosystem services concepts, tools, methods and their ecological-economic implications: a review. Modeling Earth Systems and Environment, 1-20. (**SJR-IF: 0.715**) (*link*)
21. Shruti Kanga, **Gowhar Meraj,** M. S. Nathawat, Majid Farooq, and Suraj Kumar Singh (**2021**). Analyzing the risk to COVID-19 infection using remote sensing and GIS. Wiley Risk Analysis, 41(5), 801-813. (**JCR-IF: 4.3**) (*Link*)
22. **Gowhar Meraj,** & Suraj Kumar Singh (**2021**). Economics of the Natural Capital and The Way Forward. (MDPI-Preprints) (*Link*)
23. Aparna Bera, A. K. Taloor, **Gowhar Meraj,** S. Kanga, S. K. Singh, B Đurin, and S. Anand, (**2021**). Climate vulnerability and economic determinants: Linkages and risk reduction in Sagar Island, India; A geospatial approach. Quaternary Science Advances, 100038. Elsevier. (2666-0334) (*Link*)
24. Tomar, Pallavi, Suraj Kumar Singh, Shruti Kanga, **Gowhar Meraj,** Nikola Kranjčić, Bojan Đurin, and Amitanshu Pattanaik. "GIS-Based Urban Flood Risk Assessment and Management—A Case Study of Delhi National Capital Territory (NCT), India." Sustainability 13, no. 22 (2021): 12850. (**JCR-IF: 3.889)** (*link*) (ISSN: 2071-1050)
25. **Gowhar Meraj,** Majid Farooq, Suraj Kumar Singh, Shakil A. Romshoo, M. S. Nathawat and Shruti Kanga (**2020**). Coronavirus pandemic versus temperature in the context of Indian subcontinent: a preliminary statistical analysis. Environment, Development and Sustainability, 23, pages 6524–6534 (**JCR-IF: 4.080**) (*link*)
26. Shakil A. Romshoo, Midhat Fayaz, **Gowhar Meraj,** and I.M. Bahuguna. Satellite-observed glacier recession in the Kashmir Himalaya, India, from 1980 to 2018. Environmental Monitoring and Assessment, 192(9), 1-17 (**2020**). (**JCR-IF: 3.307**) (*Link*)
27. Shruti Kanga, Sudhanshu, **Gowhar Meraj,** Majid Farooq, M. S. Nathawat, and Suraj Kumar Singh (**2020**). Reporting the Management of COVID-19 Threat in India Using Remote Sensing and GIS-Based Approach. Geocarto International, 37:5, 1337-1344 (**JCR IF: 3.450**) (*Link*)

28. Shruti Kanga, **Gowhar Meraj,** Barun Das, Majid Farooq, Subhamati Chaudhuri and Suraj Kumar Singh (**2020**). Modeling the Spatial Pattern of Sediment Flow in Lower Hugli Estuary, West Bengal, India by Quantifying Suspended Sediment Concentration (SSC) and Depth Conditions using Geoinformatics. Applied Computing and Geosciences, Volume 8, 2020, 100043. (Elsevier) (*link*) (2590-1974)
29. Shruti Kanga, **Gowhar Meraj,** M. S. Nathawat, Majid Farooq, and Suraj Kumar Singh (**2020**). Risk assessment to curb COVID-19 contagion: A preliminary study using remote sensing and GIS. (Springer-Researchquare)
30. Ishfaq Ahmad Pall, **Gowhar Meraj*** and Shakil A. Romshoo (**2019**). Applying Integrated Remote Sensing and Field Based Approach to Map Glacial Landform Features of the Machoi Glacier valley, NW Himalaya. SN Applied Sciences. (*Link*) 1, 488 (2523-3971)
31. **Gowhar Meraj,** Tanzeel Khan, Shakil Romshoo, Majid Farooq, Kumar Rohitashw, Bashir Sheikh (**2018**). An integrated geoinformatics and hydrological modelling-based approach for effective flood management in the Jhelum Basin, NW Himalaya. Proceedings of 3rd International Electronic Conference on Water Sciences (ECWS-3), 1 (doi: 10.3390/ECWS-3-05804), MDPI, Switzerland.
32. Muzamil Ahmad Rather, Majid Farooq, **Gowhar Meraj*,** Mudasir Ahmad Dada, Bashir Ahmad Sheikh and Ishfaq Ahmad Wani (**2018**). Remote Sensing and GIS Based Forest Fire Vulnerability Assessment in Dachigam National Park, North Western Himalaya. Asian Journal of Applied Sciences, ISSN 1996-3343 DOI: 10.3923/ajaps.2018.
33. **Gowhar Meraj,** Shakil A. Romshoo, Sameena Ayoub and Sadaff Altaf (**2017**). Geoinformatics based approach for estimating the sediment yield of the mountainous watersheds in Kashmir Himalaya, India. Geocarto International, Taylor and Francis. 33:10, 1114-1138 (**JCR- IF: 3.450**) (*Link*)
34. Ishfaq Gujree, Ishfaq Wani, Muhammad Muslim, Majid Farooq and **Gowhar Meraj*** (**2017**). Evaluating the variability and trends in extreme climate events in the Kashmir Valley using PRECIS RCM simulations. Model. Earth Syst. Environ, Springer DOI 10.1007/s40808-017-0370-4 (**SJR-IF: 0.715**) (*Link*)
35. Salim Aijaz Bhat, **Gowhar Meraj*** and Ashok K. Pandit (**2016**). Assessing the Influence of Stream-flow and Precipitation Regime on Water Quality of the Major Inflow Stream of Wular Lake in Kashmir Himalaya. Arabian Journal of Geosciences 9(1):1-15, DOI: 10.1007/s12517-015-2083-1. Springer (*Link*)
36. **Gowhar Meraj*,** Shakil A. Romshoo, A. R. Yousuf, Sadaff Altaf, and Farrukh Altaf (**2015**). Assessing the influence of watershed characteristics on the flood vulnerability of Jhelum basin in Kashmir Himalaya. Natural Hazards 77:153–175 DOI 10.1007/s11069-015-1605-1 (**JCR-IF: 3.158**) (*Link*)
37. **Gowhar Meraj,** Shakil A. Romshoo, A. R. Yousuf, Sadaff Altaf, and Farrukh Altaf (**2015**). Assessing the influence of watershed characteristics on the flood vulnerability of Jhelum basin in Kashmir Himalaya: reply to comment by Shah 2015. Natural Hazards 78, 1–5 DOI 10.1007/s11069-015-1861-0 (**JCR-IF: 3.158**) (*Link*) (1573-0840)
38. Sadaff Altaf, Gowhar Meraj*, and Shakil A. Romshoo (**2014**). Morphometry and Land Cover Based Multi-criteria Analysis for Assessing the Soil Erosion Vulnerability of the Western Himalayan Watershed. Environmental Monitoring and Assessment 186:8391–8412. DOI 10.1007/s10661 014-4012-2. Springer. (**JCR-IF: 3.307**) (*Link*)
39. Saleem Aijaz Bhat, **Gowhar Meraj*,** Sayar Yaseen and Ashok Kumar Bhat (**2014**). Statistical Assessment of Water Quality Parameters for Pollution Source Identification in Sukhnag Stream: An Inflow stream of Lake Wular (Ramsar Site), Kashmir Himalaya. Journal of Ecosystems, Vol. 2014, Article ID 898054, http://dx.doi.org/10.1155/2014/898054 (Hindawi) (*Link*)
40. Farrukh Altaf, **Gowhar Meraj*** and Shakil A. Romshoo (**2013**). Morphometric Analysis to Infer Hydrological Behaviour of Lidder Watershed, Western Himalaya, India. Geography Journal, Vol. 2013, Article ID 178021, http://dx.doi.org/10.1155/2013/178021 (Hindawi) (*Link*)

Books (04 No.)

1. Suraj Kumar Singh, Shruti Kanga, **Gowhar Meraj** (lead editor), Majid Farooq, Sudhanshu (2021). Geographic Information Science for Land Resource Management. Wiley-Scrivener Publishing LLC Print ISBN:9781119786320; Online ISBN:9781119786375. (2021; 434) (*Link*)
2. **Gowhar Meraj** (lead editor), Shruti Kanga, Majid Farooq, Suraj Kumar Singh, and Sudhanshu (2022). GIScience for the Sustainable Management of Water Resources. Print ISBN: 9781774910481. CRC Press, Taylor and Francis Group/ Apple Academic Press. (*in production*) (440) (*Link*)

3. Shruti Kanga, **Gowhar Meraj** (lead editor), Majid Farooq, Suraj Kumar Singh, and M. S. Nathawat (2021). Disaster Management in the Complex Himalayan Terrains: Natural Hazard Management, Methodologies and Policy Implications. Springer Nature Switzerland AG Gewerbestrasse 11, 6330 Cham, Switzerland. **Series ISSN 2366-8865** (*Link*) XI, 182
4. Shruti Kanga, Suraj Singh, **Gowhar Meraj** (lead editor), and Majid Farooq (2021). Geospatial Modeling for Environmental Management: Case Studies from South Asia. Taylor & Francis Group, LLC, 6000 Broken Sound Parkway NW, Suite 300, Boca Raton, Florida 33487, U.S.A. ISBN: 9780367702892 (*Link*) (2022; 390)

Important Book Chapters

1. Kanga, Shruti, **Gowhar Meraj,** Majid Farooq, Suraj Kumar Singh, and Mahendra Singh Nathawat. "Disasters in the Complex Himalayan Terrains." In Disaster Management in the Complex Himalayan Terrains, pp. 3-10. Springer, Cham, **2022**.
2. Rafiq, Mohammd, **Gowhar Meraj,** Amit Parashuram Kesarkar, Majid Farooq, Suraj Kumar Singh, and Shruti Kanga. "Hazard Mitigation and Climate Change in the Himalayas–Policy and Decision Making." In Disaster Management in the Complex Himalayan Terrains, pp. 169-182. Springer, Cham, **2022**.
3. Farooq, Majid, Soheib Gazali, Mudasir Dada, Neelu Gera, and **Gowhar Meraj**. "Forest Fire Alert System of India with a Special Reference to Fire Vulnerability Assessment of the UT of Jammu and Kashmir." In Disaster Management in the Complex Himalayan Terrains, pp. 155-167. Springer, Cham, **2022**.
4. Ishfaq Gujree, Zhang, Fan, **Gowhar Meraj,** Majid Farooq, Muhammad Muslim, and Arfan Arshad. "Soil and Water Assessment Tool for Simulating the Sediment and Water Yield of Alpine Catchments: A Brief Review." Geospatial Modeling for Environmental Management: 37-57. (**2022**)
5. Wani, Ahsan Afzal, Bikram Singh Bali, Sareer Ahmad, Umar Nazir, and **Gowhar Meraj**. "Geospatial Modeling in Landslide Hazard Assessment: A Case Study along Bandipora-Srinagar Highway, NW Himalaya, J&K, India." In Geospatial Modeling for Environmental Management, pp. 113-125. CRC Press. (**2022**)
6. Farooq, Majid, **Gowhar Meraj,** Shruti Kanga, Ritu Nathawat, Suraj Kumar Singh, and Vikram Ranga. "Slum Categorization for Efficient Development Plan—A Case Study of Udhampur City, Jammu and Kashmir Using Remote Sensing and GIS." In Geospatial Technology for Landscape and Environmental Management, pp. 283-299. Springer, Singapore, **2022**. (9789811673726)
7. Mohammad Nayeem Shah, **Gowhar Meraj**, Majid Farooq. Climate Change and the Need for REDD+. In Climate Change Alleviation for Sustainable Progression. 280-288 CRC Press. (2022) (9781003106982)
8. Majid Farooq, Humayun Rashid, **Gowhar Meraj**, Shruti Kanga, Suraj Kumar Singh. Assessing the Microclimatic Environmental Indicators of Climate Change of a Temperate Valley in the Western Himalayan Region. In Climate Change, Disaster and Adaptations: Contextualising Human Responses to Ecological Change. Springer Nature. 47. (9783030910105)

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PeerJ - Life and Environment
Academic Editor
peerj.com/gowharmeraj

PLOS ONE
Editorial Board

International Journal of Ecology (Hindawi)
Sustainability (MDPI)
Conservation (MDPI)

Internet Profiles: Google Scholar, Researchgate, ORCID, Linkedin

Personal information

Name	Gowhar Meraj
D. O. B	31/07/1985
Married	Yes
Nationality	Indian

References

1. Dr. Shakil A. Romshoo, Professor and Vice-Chancellor, Islamic University of Science and Technology, Kashmir India. Email: shakilrom@uok.edu.in; shakilrom@yahoo.com
2. Dr. Pankaj Kumar, Senior Policy Researcher, Institute for Global Environmental Strategies (IGES), 2108-11 Kamiyamaguchi, Hayama, Kanagawa, 240-0115 Japan Email: kumar@iges.or.jp
3. Dr. Anshuman Bhardwaj, Senior Lecturer, School of Geosciences, University of Aberdeen, G08 St. Mary's Building Old Aberdeen Campus Elphinstone Road AB24 3UF Email: anshuman.bhardwaj@abdn.ac.uk