Muzamil Amin, PhD

Contractual Lecturer- University of Kashmir, J&K, India.

Member- Indian Society of Geomatics. Member of – Indian Metrological Society

Email: muzamil.amin786@gmail.com; muzamil.scholar@kashmiruniversity.net

Mobile: +919596193495; +917889433940.

PROFILE:

GIS Specialist with a specialization in Land surface processes like Erosion modelling, land degradation modelling, Agent-based Modelling, and so on. I have done M.Sc. and a Ph.D. in Geoinformatics and have worked in multi-disciplinary projects for Pollution assessment and Land degradation assessment. I have worked for Governmental agencies Like ISRO, KU, Regional Remote sensing Department in J&K. My experience covers 12 years of environmental issues including 7+ years of expertise in desertification status mapping at regional and district levels in Jammu and Kashmir, India. My research has focused primarily on understanding and modelling land surface processes, and the role of various biophysical and environmental factors for land degradation assessment. I have used methodologies such as remote sensing, GIS, and geostatistical simulations which are now profoundly changing research in the field of earth sciences. My research efforts spotlight identifying and quantifying the spatial distribution of desertification vulnerable areas over the entire J&K state. J&K is one of the developing states in India with low economic status.

I am proficient in the use of software applications relevant to Land surface processes as well as agent based models such as Remote Sensing, Geographical Information System (GIS), QGIS, GeoDA, Envi, and many more Statistical Software. Contributed to a globally important issue announced by UNCCD for its classification scheme for mapping Land degradation mapping at country and state level.

KEY EXPERTISE:

Landscape monitoring, Environmental studies, and Monitoring, Audits, Environmental Impact Assessment (EIA), Conservation, Sustainability, Conservation and Management Plans for Combating land degradation.

EXPERIENCE:

2019- till date

Working as Contractual Lecturer at Department of Geoinformatics, University of Kashmir, Hazratbal, and Srinagar from 1st Jan 2021 till date.

Worked as a Senior Research Fellow in Department of Geoinformatics, University of Kashmir under the ISRO sponsored project Desertification and Land Degradation from 31st Aug 2019 to 31st Dec 2020.

2014 – 2018: Junior Research Fellow

Junior research fellow for ISRO (Indian Space Research Organization) sponsored project

Desertification and Land Degradation.

My tasks included the provision of technical input for projects in providing GIS format maps, strategies formulation for combating desertification. The key focus was on integrating socioeconomic information with environmental information and providing practical, achievable environmental management solutions and mitigation measures; this involved responsibilities such as project management, review and preparation of data for detailed analysis, identification and assessment of land degradation at micro and macro level.

As a result of these wide-ranging experiences, I have a good working knowledge of different land surface processes as well as different technological experiences of handling various softwares.

2012 – 2013: Junior Research Fellow

Junior research fellow for LAWDA (Lakes and Water development Authority) sponsored project Pollution Assessment of Dal Lake

As a member of the research team in the project, my main responsibility was to monitor lake degradation using different approaches.

2011-2012: GIS Expert

GIS Expert for Generation of Spatial Census Population Grid.

As an Expert, my responsibility was to generate geospatial dataset for population data

2011-2012: Research Assistant

Research Assistant for various projects in Department of Environment and Remote Sensing, Bemina, Srinagar.

- National Wasteland monitoring using multi-temporal Satellite Data.
- PMGSY.
- NUIS.

EDUCATION:

PhD (Geoinformatics) University of Kashmir

Doctoral Work: For my PhD research I worked as a Junior Research Fellow and Senior Research Fellow on a project titled "Desertification and land degradation mapping at department of Geoinformatics, University of Kashmir, India" funded by the Indian Space Research Organization and DST. The overall study objective was to generate information on the Land Degradation assessment at watershed and District level in order to formulate a suitable management strategy for long term conservation and formulation of action plans to combat land degradation from micro to macro level.

Masters (Geoinformatics) 2010-12 University of Kashmir

COMPUTER PROFICIENCY:

Operating System   : Windows.
Applications   : Microsoft office, Adobe-Photoshop.

GIS software   : QGIS, Arcview, ArcGIS, ERDAS, ENVI, etc. Statistical Program

          : SPSS, GeoDa

PUBLICATIONS:

Journals

2021:

Romshoo S., A, Yousuf, A., Altaf, S., and Amin, M., (2021). Evaluation of Various DEMs for Quantifying Soil Erosion under Changing Land Use and Land Cover in the Himalaya. Front. Earth Sci. 9:782128

2020:

Romshoo, S. A., Amin, M., Sastry K.L.N and Parmar M (2020). Integration of Social, Economic and Environmental Factors in GIS for Land Degradation Vulnerability Assessment in Himalaya. Applied Geography

2018:

Amin, M., and Romshoo, S. A. (2018). Comparative assessment of soil erosion modelling approaches in a Himalayan watershed. Modeling Earth Systems and Environment.

Romshoo, S.A., Altaf S., Amin, M., and Ameen U. (2018) Sediment Yield Estimation for Developing Soil Conservation Strategies in GIS environment for the Mountainous Marusudar Catchment, Chenab basin, J&K, India. J. Himalayan Ecol. Sustain. Dev.

2017:

Rashid, I., Romshoo, S.A., Amin, M., Khanday, S. A., and Chauhan, P. (2017). Linking human-biophysical interactions with the trophic status of Dal Lake, Kashmir Himalaya, India. Limnologica-Ecology and Management of Inland Waters, 62, 84-96.

Romshoo, S. A., Amin, M., Ahmad, I and Sastry K.L.N (2017) Soil Erosion Estimation of Lidder Watershed, Kashmir Himalaya Using Morgan-Morgan-Finley Model in a GIS Environment, J. Himalayan Ecol. Sustain. Dev.

Papers presented at Conferences

2019

Muzamil Amin and Shakil A. Romshoo (2019). Modelling Soil Erosion Risk in Kashmir Himalaya Using USLE and MMF Erosion Model, in National Symposium on Innovations in Geospatial Technology for Sustainable Development with special emphasis on NER Shillong, Meghalaya (Best Poster Award). **Poster presentation**

2018

Muzamil Amin, Shakil A. Romshoo and KLN Sastry (2018). Indicators of land degradation in Pir Panjal Himalaya, Kashmir valley, India.On13th J&K science congress and regional science conference, "Emerging Technologies and Human Society: Applications and Constraints". **Poster Presentation**

2017

Muzamil Amin, Shakil A. Romshoo and KLN Sastry (2017). Impact of spatial resolution

on mapping indicators of land degradation in watersheds of the Pir Panjal Himalaya, Kashmir valley, India. On occasion of five days ASIAN CONFERENCE ON REMOTE SENSING ACRS 2017 on the theme "Space Applications: Touching Human Lives." organized by ACRS-2017, New Delhi India. **Oral Presentation**

Muzamil Amin and Shakil A. Romshoo (2017). Land degradation vulnerability assessment using Modified weighted index method- a case study of Pir Panjal Himalayas, J&K India. On the occasion of Two days seminar on the theme- Science for Sustainable development organized by Department of Environment and water management, PG department of Environmental Science & Department of Geology, Sri Pratap College, MA road, Srinagar J&K. **Oral Presentation**

Muzamil Amin and Shakil A. Romshoo (2017). Remote sensing and GIS for mapping and monitoring land degradation indicators of district Budgam, J&K, India. On Geo-informatics for Natural Resource Management 7th-8th Feb 2017, organized by Department of Geography, Faculty of natural sciences Jamia Millia, New Delhi. **Oral Presentation**

2013

Muzamil Amin and Shakil A. Romshoo (2013). Socioeconomic characterization of district Anantnag and Srinagar and its impact on land use land cover change. On 9th J&K science congress and regional science conference. **Oral Presentation**

2012

Muzamil Amin and Shakil A. Romshoo (2012). Socioeconomic changes and its impact on Dal Lake. On the occasion of one day seminar on the theme- GREEN ECONOMY: DOES IT INCLUDE YOU?, proceedings of the World Environment Day, 5th June, 2012, in Paper Presentation Category, organized by Department of Environmental Science and Centre of Research for Development (CORD), University of Kashmir. **Oral Presentation**

Muzamil Amin and Shakil A. Romshoo (2012). Socioeconomic characterization of Dal Lake. On the occasion of 8th J&K science congress and regional science conference. **Oral Presentation**

Conferences and Symposium attended

2019

National Symposium on Innovations in Geospatial Technology for Sustainable Development with special emphasis on NER Shillong, Meghalaya (Best Poster Award).

2018

J&K science congress and regional science conference, "Emerging Technologies and Human Society: Applications and Constraints".

2017

CONFERENCE ON REMOTE SENSING ACRS 2017 on the theme "Space Applications: Touching Human Lives." organized by ACRS-2017, New Delhi India.

Two days seminar on the theme- Science for Sustainable development organized by Department of Environment and water management, PG department of Environmental Science & Department of Geology, Sri Pratap College, MA road, Srinagar J&K.

Geo-informatics for Natural Resource Management 7th-8th Feb 2017, organized by Department of Geography, Faculty of natural sciences Jamia Millia, New Delhi.

2013

9th J&K science congress and regional science conference.

2012

One day seminar on the theme- GREEN ECONOMY: DOES IT INCLUDE YOU?, proceedings of the World Environment Day, 5th June, 2012, in Paper Presentation Category, organized by Department of Environmental Science and Centre of Research for Development (CORD), University of Kashmir.

8th J&K science congress and regional science conference.

Technical Reports

- Wastelands atlas of India-2010.
- Desertification and Land Degradation Atlas ofIndia-2016.
- Desertification and Land Degradation Atlas ofIndia-2018.
- Desertification and Land Degradation Atlas ofIndia-2021.

Training program and Workshops

1. Certificate course in AutoCAD.
2. Diploma in Disaster management.
3. Diploma in Computer Applications.
4. Three months basic training course on "Remote sensing GIS and GPS technologies" by Indian Institute of Remote Sensing Dehradun from 19-09-2007 to 03-12-2007.
5. Training in "Generation of Spatial Census Population Grid using Geoinformatics", organized by department of Environment and Remote Sensing, Bemina, Srinagar.
6. Training Programme on "Desertification and Land Degradation Monitoring, Vulnerability Assessment and Combating Plans" at SAC, Bopal campus from 14-22 March, 2018.
7. Online Certificate Course on "Cartography" from ESRI (April 22 – June 3, 2020).
8. Online Certificate Course on "Going Places with Spatial Analysis" from ESRI (Aug 12, 2020 - Sep 24, 2020).
9. Three days Course on "ArcGIS Essential Workflows" from ESRI (Nov 4 – Nov 6, 2020).
10. Online Certificate Course on "Do-It-Yourself Geo Apps" from ESRI (Mar 31, 2021 - Apr 28, 2021).