#### **CURRICULUM VITAE**

## 1. Personal Information:

i. Name : Shakil Ahmad **Romshoo** 

ii. Sex : Male

iii. Date of Birth: 13 April, 1964

iv. Addresses for Correspondence:

Current Address : Department of Earth Sciences,

University of Kashmir, Srinagar, Kashmir-190006

Contact : +91-9419010924 (M), +91—9419003735 (M)

Email Address : shakilrom@kashmiruniversity.ac.in

#### 2. Expertise and Career Summary

My peers have acknowledged the multidisciplinary academic and research contribution, made by me, during 30 years of academic/research experience about the applications of remote sensing and GIS in earth and environmental sciences, evident by way of about 900 citations to my research work. The knowledge outcome from some of my research has fed into the policy and planning for framing strategies for disaster management, environmental management and climate change adaptation strategies at the national level. I was awarded the <u>National Geoscience award 2013</u> for my significant contribution to the use of geo-information technology for earth and environmental sciences.

My research focus has been on the use of remote sensing for developing hydrological, vegetation and climate change applications. I used Polarimetric (PolSAR) interferometric (InSAR) for assessing the soil moisture under varied field conditions. Using remotely sensed soil moisture in the hydrological models, I have researched the better characterization and quantification of the hydrological processes using distributed hydrological model. Extending the approach for SAR-based soil moisture estimation to plant moisture, I demonstrated the use of SAR for biomass estimation and for the implementation of Kyoto protocol to the UNFCCC.

I have made an extensive use of geomatics for watershed characterization in order to understand and model the land surface processes in the mountainous western Himalaya. I have quantified the sources of nutrient loading to the mountainous high altitude lakes and wetlands in the Kashmir Himalayan region using geospatial modelling approach for which I was awarded the Kasumigaura International prize by the Japanese government.

Under the collaborative research on climate change and its impacts on various sectors, I have come out with significant research findings. My research on understanding the glacier dynamics and assessing the impacts of climate change on cryosphere in the Indian Himalaya indicates that the Himalayan glaciers are responding differently to the climate change. I have researched and provided scientific basis to the depleting streamflows in the upper Indus basin, the waters of which are shared between India and Pakistan under the Indus Water Treaty. I have won more than a dozen awards from various scientific and civil societies for my research work on various aspects of the earth and environmental sciences.

#### 3. Educational Qualifications:

Name and Location of Institute	Major	Degree	GPA/ Division	Awards/Distinction
Department of Civil Engineering, IIS, University of Tokyo, Japan	Water Resource Engineering, Geoinformatics	Ph.D.	Excellent	Asian Development Bank International Fellowship
Dept. of Space Technology, Asian Institute of Technology (AIT), Bangkok, Thailand	Remote Sensing & GIS	M.S	3.88 out of 4.000	2 <sup>nd</sup> Position among 30 students; NORAD (Norway) Fellowship
Birsa Univ., Ranchi, India	Hydrology and Watershed Management	B. Sc.	4.00 out of 4.00	First Position among 35 Students, Gold Medallist, Outstanding Merit Scholarship

## 4. Employment History:

Name and Location of the organisation	Position Title	Date of Employment	
Department of Environment and Remote Sensing, J&K Government India.	Scientific Assistant (Gazetted)	Dec., 1988 to Dec., 1995	
Space Technology Application and Research (STAR) Program, Asian Institute of Technology, AIT, Bangkok Thailand	NORAD Scholar	From Jan., 1996-Oct., 1997	
Institute of Industrial Sciences (IIS), University of Tokyo, Tokyo, Japan	ADB Scholar	From Nov,1997 –Oct., 2000	
Earth Observation Research Centre (EORC), Japan Aerospace Exploration Agency (JAXA), Tokyo Japan.	Scientist	Nov., 2000- Oct., 2003	
The Energy and Resources Institute (TERI), New Delhi India.	Senior Fellow	Nov. 2003 to 20 May, 2004	
Department of Earth Sciences, University of Kashmir, Srinagar India	Assoc. Professor Head of Department	May, 2004-April, 2010 Dec, 2004- Jan. 2008 Mar. 2011-up-to-date	
	Professor	May, 2010-up-to-date	

Total research/teaching experience=~30 years



5. Completed/On-going Research Projects:

	ed/On-going Research Projects:    Project Title	Changaring Aganay
S. No.	ed Sponsored Research Projects	Sponsoring Agency
1	Climate change impacts on water resources in Western Himalayas	ERSDAC, Japan
2	Snow and Glacier Studies in Zanaskar Himalayas (Phase-I)	SAC, ISRO, India
3	Use of RS/GIS for Flood Disaster Management Plans in Kashmir Valley	ActionAid, UK
4	Mapping the Indicators of Desertification using SAR data	ISRO, India
5	Developing a Desertification Vulnerability Index Model	ISRO, India
6	National Wetland Inventory and Assessment of J&K Himalayas	SAC, ISRO, India
7	Biodiversity Characterization at Landscape Level using Remote Sensing and GIS	NRSC, ISRO India
8	Integrated Environmental Analysis of Lidder Using Remote Sensing and GIS	MOEF, India
9	Assessing the Flood Vulnerability of Jhelum Basin using Geospatial Techniques	UGC, India
10	National Irrigated Area Assessment Project of J&K State	NRSC, ISRO India
11	Integrated Flood Vulnerability Assessment of Jhelum for Risk Reduction and Mitiga	tion DST, India
12	SAR for mapping the indicators of Desertification in Cold desert region of Ladakh	SAC, ISRO, India
13	Glaciological Studies of the Jhelum and Suru basins (Phase-II)	SAC-MOEF, India
14	Groundwater Quality Assessment under RGNDWM Phase-IV	NRSC, ISRO India
15	Desertification Status Mapping of J&K State	SAC, ISRO, India
16	Assessing impact of Climate Change on Hydrology of Jhelum (ending Mar. 2017)	MOES, India
Complete	ed Consultancy Projects	
1	EIA of Lasipora Industrial Estate, JK Industries Dept	J&K Govt
2	EIA of the Cement Industries, Khonmoh	Pvt. Sector
3	EIA of the Greater Pahalgam Master Plan	PDA, J&K Govt
4	EIA assessment of the Mukhdom sahib shrine ropeway	JK Cable car Corp.
5	GIS based survey of the Gulmarg Development Authority	GDA, J&K Govt.
6	EIA studies of the Gulmarg Development Authority	GDA, J&K Govt
7	EIA studies of the Yousmarg Development Authority	YDA, J&K Govt
8	Knowledge mapping of climate change and glacier studies in the Indus basin	WB
9	EIA studies of Sonmarg Development Authority (Ending Mar., 2016)	SDA, J&K Govt.
10	EIA of the Bursar Hydroelectric Power Project, Kishtwar (Ending Dec., 2015)	NHPC, Delhi
On-going	Sponsored Research Projects	
1	NMHS sponsored research project on developing System Dynamics Model for two .	
2	Seismic microzonation of Srinagar city	MoES, India
3	Inter-University Consortium on Cryosphere & Climate Change (IUCCCC) titled pro	oject DST, GOI
	Himalayan Cryosphere & Climate Change: Science & Society (ending Mar., 2018)	
	g Consultancy projects	
1	EIA of Wular Conservation Plan (Ending Dec., 2015)	J&K Govt.

## 6. Award/Achievement details (domestic and International)

Some of the outstanding achievements in the field of research and academics are chronologically listed below:

- 1. Won the **Best Paper Award** (Shared with student) for the paper in 2017 for the paper titled "Evaluating the remotely sensed precipitation estimates with in-situ observations during the September 2014 extreme rainfall event over Kashmir valley" from the Indian Meteorology Society (IMS) at INTROMET-207, Ahmedabad, India
- Won the CRDP Award of The Year-2016 in the Research category conferred by the Civil Society Jury on 19 March, 2017.
- 3. Won the President's Appreciation Award 2015 conferred by the Indian Society of Geomatics for outstanding contribution in the field of Geomatics in India.
- 4. Won the **National Geosciences Award 2013** conferred by the President of India for outstanding contribution in the field of Geographic information System
- 5. Won the **Best Paper Award** for the research paper titled "Futuristic land cover projects over Kashmir valley using CLUE Model" at the 100<sup>th</sup> *Indian Science Congress*, 2013 held at the Calcutta University, Kolkata, India.
- 6. Won the <u>Best Paper Award</u> (Shared with student) in 2011 for the paper titled "Modeling Hydrologic Responses to Changing Land System in Dal Lake Catchment" from the Indian Society of Geomatics (ISG), at Ajmer India
- 7. Won the <u>Best Teacher and Best Researcher Awards</u> (2010) from the University of Kashmir, Srinagar, Kashmir for overall achievement in the field of research, teaching and outreach activities.
- 8. Won the <u>Best ISG Chapter Award</u> (as Chairman of the Kashmir Chapter) from the Indian Society of Geomatics, ISRO for the year 2010 on 2 Feb., 2010 at Space Application Centre, ISRO, Ahmadabad, Gujarat

- 9. Won the <u>Best Paper Award</u> in 2009 for the paper titled "A Comprehensive GIS-based Modeling Approach for Assessing the Sediment Load of Dal Lake" from the Indian Society of Geomatics (ISG), at Ahmadabad, India
- 10. Won the <u>Kasumigaura International Prize</u> (2009) from the International Lake Organization, sponsored by Japanese Government, for the research titled "Geospatial Modeling Approach for Assessing the Nutrient Load of a Himalayan Lake"
- 11. Won the **Best Research Award** in 2009 for the paper titled "Geoinformatic Tools for Comparative Studies of Pollution Analysis in two Micro-watersheds from the Indian Society of Remote Sensing, (ISRS), at Ahmadabad.
- 12. Won the <u>Merit of Appreciation</u> (2007) from the University of Kashmir when I headed the Department of Geology and Geophysics from 2004-07.
- 13. Won the <u>Best Research Award</u> (Scientist category) in 2007 for the research paper titled "Satellite Remote Sensing for Determining the Changes in the Glacier Geometry and Dynamics" from the Indian Society of Geomatics, at Bhopal, India.
- 14. Won the <u>Best Paper Award</u> (Scientist category) in 2006 for the research paper "Estimation of Forest Biomass in Temperate Forests Using Airborne Multi-frequency Polarimetric SAR Data" from the International Society of Photogrammetry and Remote sensing (ISPRS) and Indian Society of Remote Sensing (ISRS) at the joint symposium held at Goa, India.
- 15. Won the **Best Paper Award** from the Indian Society of Remote Sensing (ISRS) for 2003 for the research paper titled "Influence of Surface and Vegetation Characteristics on C-band Radar Measurements for Soil Moisture Content. *Journal of Indian Society of Remote Sensing*, vol. 30, No. 4, pp. 229-244."
- 16. Won the <u>Best Presentation Award</u> from the Japan Society of Hydrology and Water Resources, Tokyo for the research paper titled "Soil Moisture Estimation Using Microwave Remote Sensing Techniques and simulation Modeling" in the Annual Sym of the Society held from 17-19 September, 2000 at Kyoto, Japan

## 7. Membership of the Scientific and Policy Making Bodies:

- i. Convenor, Working Group on Climate Change Research (WG-CCR), University of Kashmir, Srinagar since May 2009.
- ii. Coordinator, The Energy Research and Training Consortium for Jammu and Kashmir (ERTC),
- iii. Convenor, Action Group on Spatial Data Infrastructure (SDI), University of Kashmir
- iv. Chairman of the Kashmir Chapter of the Indian Society of Geomatics, ISRO
- v. Member, Executive Council, Indian Society of Geomatics
- vi. Asian Development Bank (ADB) Consultant for EIA of Hydropower Projects
- vii. Member of the Shri Amarnathji Shrine Board Sub-committee on Environmental Protection (Co-opted)
- viii. Member of the Scientific Advisory Council of the Lakes and Waterways Development Authority (LAWDA) J & K Government
- ix. Member of the J & K State Level Nodal Agency on Integrated Watershed Management Projects (IWMP), Ministry of Rural Development, J & K Govt.
- x. Member, State Disaster Management Committee, J&K Government
- xi. Member, JK Working Group for State Level Climate Change Action Plan, J&K Government
- xii. Member, Expert Committee on conservation of Karewa lands, J&K Government.
- xiii. Member, Expert Committee on Uttarakhand Disaster, DST, GOI, New Delhi
- xiv. Marquis Who's who in the world 2013 30<sup>th</sup> Edition in print and electronic database
- xv. Member, Executive Council, Indian Geological Congress (IGC)
- xvi. Member, State Council for Climate Change
- xvii. Expert Member, J & K Water Policy Making Committee, I & FC Dept., J & K Govt.
- xviii. Expert Member, India-Pakistan Track-II Dialogue on Water by Atlantic Council, US since 2011
- xix. Member, Indian-Pakistan Track-II Dialogue on Water By Jinnah Institute-CDR since 2010
- xx. Member, Task Force on Climate Change, Chaophraya Dialogue by Australia India Institute since 2015
- xxi. Member, Indus Forum (a think tank of the World Bank on Indus River)
- xxii. Member, National Institute of Hydrology Society (2016-2019)
- xxiii. Member (invited), State Executive Committee, J&K State Disaster Management Authority (SDMA).
- xxiv. Director, Board of Directors, Centre for Dialogue and Reconciliation (CDR), New Delhi

## 8. Life membership of Scientific/academic societies:

- I. Life Member, Indian Science Congress
- II. Member IEEE Transactions on Geosciences and Remote Sensing
- III. Member, Remote sensing Society, UK
- IV. President and Life member of the Indian Society of Geomatics (ISG), Kashmir Chapter
- V. EC Member of the Indian Society of Geomatics (ISG)
- VI. Life Member of the Indian Society of Remote Sensing (ISRS)
- VII. Life Member, Indian Geological Congress (IGC)
- VIII. EC Member of the Indian Geological Congress (IGC)

# 9. Reviewer/Associate Editor/Editor of the National/International Journals:

- i. Geosciences Research Journal (Chief Editor)
- ii. Journal of Environmental Earth Science
- iii. Journal of Environmental Monitoring and Assessment
- iv. Remote Sensing of Environment
- v. IEEE Transactions in Geosciences and Remote Sensing
- vi. Journal of Spatial Hydrology
- vii. International Journal of Geography and Regional Planning
- viii. Arabian Journal of Geosciences
- ix. Indian Journal of Remote Sensing
- x. Indian Journal of Geomatics
- xi. Journal of Environment and Development
- xii. Journal of Applied Hydrology
- xiii. Annals of Glaciology

# 10. Conference/Workshops/Seminars organized as Coordinator/Organizing Secretary

S. N	Title/Theme of the	Status	Duration	Name of the funding agencies
	Conference/Seminar/ workshop			
1	GIS for Tourism Promotion	Regional	4-5 May, 2018	Tourism Dept. JK Govt.
2	JK Science Congress 2015	National	12-15 Oct., 2015	JKDST, DST Govt. of India
3	Indo-French Field Training	International	20-29 July, 2014	CEFIPRA, New Delhi
	Workshop on Himalayan Tectonics			
4	DST SERB Fast Tracking Group Monitoring Workshop	National	7-8 June, 2014	DST, Govt. of India
5	Climate change and Adaptation Strategies	National	23 April, 2014	FNST, New Delhi
6	Earth Day 2014	National	22 April-2014	Ministry of Earth Sciences
7	PAMC Meeting on Geosciences	National	8-9 June, 2013	Ministry of Earth Sciences, GOI
8	Earth Day 2013	National	22-30 Apr, 2013	Ministry of Earth Sciences, GOI
9	Environmental Sustainability of	National	19 January, 2013	Department of Science and Technology,
	J&K: Trends and Indicators		,	J&K Govt., Indian Society of Geomatics (I
10	Indo-Australian Workshop on	International	19-23 October,	Department of Science and Technology,
	Gneisses Domes & Core Complex		2012	GOI
11	Urban Earthquake Risk Reduction	National	13-15 October,	Ministry of Earth Sciences, GOI, National
	_		2012	Disaster Management Authority (NDMA)
12	Earth Day 2012	National	22-28 Apr, 2012	Ministry of Earth Sciences, GOI
13	MAC USERS Meeting	National	8-9 April, 2012	Department of Science and Technology
14	Geomatics for G-Governance	National	13-14 Sept., 2011	MOES, DST, ISRO, Various State Remote Sensing Centers and Industry
15	INSPIRE Program	Regional	25-31 July, 2011	Dept. of Science and Technology, GOI
16	Earth Day 2011	National	22-28 Apr, 2011	Ministry of Earth Sciences, GOI
17	Lidder Valley Sustainable	National	27 Mar, 2010	Ministry of Environment and Forests and
	Development		,	Shri Amarnathji Shrine Board (SASB)
18	Earth Day 2010	National	22 Apr, 2010	Ministry of Earth Sciences, GOI
19	Energy Challenges in J&K	International	19-21 May, 2009	J&K State Power Development
			3,	corporation (SPDC), JK Bank
				SSM college of Engineering
				Ministry of New and Renewable Energy
				University of Jammu
20	Spatial Planning for G-Governance	National	29-30 June, 2009	J&K Government, WAPMERR India and
			,	Sapphire Corp, India
21	Climate Change and Glacial retreat	International	12-14 Oct., 09	Jammu and Kashmir Government
22	Water Resources in India:	National	1-3 Nov, 2008	Ministry of Water Resources, Ministry of
	Concerns, Conservation and		,	Environment and forests, Ministry of Earth
	Management (WRIIN08)			Science, J&K Government, CSIR
23	Geoinformatics for sustainable	National	7 May, 2008	Indian Society of Geoinformatics, ISRO,
	development			Kashmir chapter of the Indian Society of Geoinformatics
24	One week Capacity building	Regional	25-31 Mar., 2007	University of Kashmir
∠4	program in Geoinformatics	Regional	25-51 Wiai., 2007	Oniversity of Kasinini

# 11. Research Supervision on Topics of Contemporary Research Ph. D/M. Phil Dissertations Titles:

## a) Completed:

- i) Geomorphological & Hydrological Control on Flood vulnerability of Jhelum [Shakeel Bhat-> Ph. D] 2009
- ii) Assessing the Geo-indicators of Land Degradation in the Jhelum Basin [Sumira Zaz->M. phil] 2009

- iii) Integrated Impact Analysis of Environmental and Socioeconomic Factors on Pollution Status of Dal Lake using Geospatial Tools [Bazigha Badar-> **Ph. D**] 2011
- iv) A Geospatial Approach to Study Environmental Characterization of a Kashmir Wetland (Anchar) Catchment with Special Reference to Land use/Land cover and Changing Climate [Mansha Nisar-> **Ph. D**] 2012
- v) Predicting Climate Change over Kashmir and Its Impact on Paddy Crop [Mohammad Muslim-> Ph. D] 2013
- vi) Assessing the impacts of differential environmental setting on hydrological processes at watershed scale in Jhelum basin [Gowhar Meraj→M.Phil] 2013
- vii) Tectono-geomorphic study of loess-paleosols in the Himalayan intermontane Karewa Basin of Kashmir Valley, J&K, India [Reyaz A Dar → **Ph.D**] 2014
- viii) Assessing the climate change impacts on Forests in Kashmir Himalayas [Irfan Rashid-> Ph.D] 2015
- ix) Investigating the effects of changing land cover and climatic variability on the hydrology of the Upper Indus Basin (Jhelum basin) [Sumira Zaz -> **Ph.D**] 2016
- x) Glacial lake outburst flooding (GLOF) studies of Cholabari lake, Kedarnath, Uttarakhand, India [Mohammad Rafiq → M.Phil] 2016
- xi) Assessing the Hydrology of Himalayan catchments as a function of changing climate and watershed characteristics [Sadaf Altaf-→M.Phil] 2016
- xii) Black Carbon studies over the Kashmir Himalayas [Mudasir A Bhat → M.Phil] 2016
- xiii) Modelling the contributions of snow-melt, glacier-melt and rainfall to stream flow [Asif Marazi]-> Ph.D] 2018
- xiv) High-resolution spatio-temporal integrated analysis of surface water quality, aquatic vegetation and bio-optical properties to assess the pollution status of Dal lake in Kashmir Himalaya [Shabir Khanday] → Ph.D 2018
- xv) Glacier dynamics and LGM in Lidder valley
- [Khalid Omar  $\rightarrow$  **Ph. D**] 2018

xvi) Land degradation modeling

- [Muzamil Amin  $\rightarrow$  **Ph. D**] 2018
- xvii) Remote sensing based study and characterization of supraglacial debris in parts of Indus Basin, Kashmir Himalaya (Iram Ali→ **Ph. D**] 2018

## b) On-going:

- i) Hydrology and climate change in Jhelum [Nahida Ali → Ph. D]
- ii) Glacier Dynamics in Western Himalayas [Tariq Abdullah -→ **Ph. D**]
- iii) Atmospheric Aerosols over Kashmir valley
- [Waheed Shah  $\rightarrow$  **Ph. D**]
- iv) Ground and satellite based aerosol study over Srinagar city [Mudasir Bhat  $\rightarrow$  **Ph. D**]
- v) Reconstructing glacial history of Kashmir Himalayas using cosmogenic radionuclide dating [Omar Paul → Ph. D]
- vi) DSS for Water Balance and Flood forecasting under Changing Climate and Weather [Sadaf Altaf → Ph. D]
- vii) Multi-model climate data evaluation to determine changing climate scenarios of J&K [Jasia Bashsir→ Ph.D]

## c) Master's dissertations:

Have guided 216 Master's dissertations on various topics related to the applications of Remote Sensing and GIS to various fields in earth and environmental sciences

# 12. International Academic and Research Exposure

In my academic and research career spread over 28 years, I have visited and/or lived in a number of countries across various continents of the world. I have spent more than 6 years in Japan researching on various aspects of Earth System Science at University of Tokyo and Japan Aerospace Xploration Agency (JAXA). I have lived in Thailand researching at the Asian Institute of Technology (AIT), Bangkok. During my academic career, I have visited more than a score of countries and the list of countries visited for research collaboration and academic exchange are mentioned below:

Argentina, Australia, Bangladesh, Britain, Canada, China, Egypt, France, Germany, Hong Kong, Indonesia, Iran, Japan, Kingdom of Saudi Arabia, Malaysia, Nepal, Pakistan, Singapore, South Korea, Spain, Sri Lanka, Switzerland, Taiwan, Thailand, United States of America (USA), Unite Arab Emirate (UAE), and Vietnam,

## 13. International and National Research Collaborations

I have collaborated with the following national and international organizations:

## **International**

- i) Water Resources Research Lab, Institute of Industrial Sciences (IIS), University of Tokyo, Japan
- ii) Earth Observation Research Centre (EORC), Japan Aerospace Exploration Agency (JAXA), Tokyo Japan
- iii) South Asian Institute, Heidelberg University Germany
- iv) Department of Earth Sciences, University of Gottingen, Germany
- v) Space Technology Application Program (STAR), Asian Institute of Technology (AIT), Bangkok, Thailand.
- vi) Department of Physical Sciences, Australian National University (ANU), Canberra, Australia
- vii) Department of Geosciences, University of Fribourg, Switzerland

#### National

- viii) Space Application Centre (SAC), Indian Space Research Organization (ISRO), Ahmadabad
- ix) National Remote Sensing Centre (NRSC), Hyderabad, India
- x) National Geophysical Research Institute (NGRI), Hyderabad, India

- xi) Centre for Mathematical and Computer Simulations (CMACS), Bangalore, India
- xii) Indian Institute of Tropical Meteorology (IITM), Pune, India
- xiii) Geological Survey of India, Kolkata India
- xiv) National Atmospheric Research Laboratory, Dept. of Space, Chittoor, Andhra Pradesh, India
- xv) Jawaharlal Nehru University (JNU), New Delhi, India
- xvi) National Physical Laboratory (NPL), New Delhi
- xvii) Jamia Millia Islamia (JMI), New Delhi

#### 14. Recent Publications:

Refereed International/national Journal Articles

## **Under Review:**

- 1. Khalid Omar Murtaza, Shakil A. **Romshoo,** Irfan Rashid and Waheed Shah and (**2017**). Geo-spatial assessment of groundwater quality in Udhampur Sub-Himalaya, Jammu and Kashmir, India. National Academy of Science-Physical Sciences (IF: 0.89)
- 2. Dar, R. A, Mir, S. A. and Romshoo, S. A. (2017). Impact of channel morphology on flooding in River Jhelum Kashmir Valley, NW Himalayas. Quarternary International (**IF: 2.128**)
- 3. Khanday, S. A., Romshoo, S. A., Jehangir, A., Sahay, A., and Chauhan, P. (2017). Environmetric and GIS techniques for hydrochemical characterization of the Dal lake, Kashmir Himalaya, India. *Stochastic Environmental Research and Risk Assessment* (**IF:2.629**)
- Rashid, I. and Romshoo, S. A. (2018). Impact of climate change on vegetation distribution over Kashmir Himalayas. In Dar, G. H. (Ed.), Biodiversity of Jammu & Kashmir State, Northwest and Trans-Himalaya (India). Springer
- Romshoo, S. A., Rashid, I., Altaf, S., and Dar, G. H. (2018). Jammu and Kashmir State: An Overview. In Dar, G. H. (Ed.), Biodiversity of Jammu & Kashmir State, Northwest and Trans-Himalaya (India). Springer.

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- Sumira N. Zaz, Shakil A. Romshoo, T. K. Ramkumar and and V. Yesu Babu (2018). Climatic and extreme weather variations over Mountainous Jammu and Kashmir, India: Physical explanations based on observations and modelling. *Atmos. Chem. Phys. Discuss.*, <a href="https://doi.org/10.5194/acp-2018-201">https://doi.org/10.5194/acp-2018-201</a> (IF: 5.896)
- Chandra, R., Dar. J., Romshoo, S. A., Rashid, I., Parvez, I. A., Mir, S. A. and Fayaz, M. (2018). Seismic Hazard and Vulnerability Assessment of Kashmir Valley, NW Himalaya, India. *Natural Hazards* (IF:1.833)
- 3. Asif Marazi and Shakil A. **Romshoo** (2018). Streamflow response to shrinking glaciers under changing climate in Lidder Valley, Kashmir Himalayas, India. *Journal of Mountain Science* 15(). <a href="https://doi.org/10.1007/s11629-017-4474-0">https://doi.org/10.1007/s11629-017-4474-0</a> (**IF: 0.875**)
- 4. Zainab Hakim, Gufran Beig, Srinivas Reka, Shakil A. **Romshoo**, and Irfan Rashid (2018). Winter Burst of Pristine Kashmir Air. *Nature Scientific Reports*. 8, Article number: 3329, doi:10.1038/s41598-018-20601-z (**IF: 4.847**).
- Shakil A Romshoo, Mohammad Rafiq and Irfan Rashid (2018). Spatio-temporal Variation of Land Surface Temperature and Temperature Lapse Rate over Mountainous Kashmir Himalaya, India. *Journal of Mountain Science*, 15(3):563-576 (IF: 1.151)
- Shakil A. Romshoo, Sadaf Altaf, Irfan Rashid and Reyaz A. Dar (2018). Climatic, Geomorphic and Anthropogenic Drivers of 2014 Kashmir Extreme Flooding in Kashmir, India. *Geomatics, Natural Hazards and Risk*, Vol. 9 (1): 224-248 (IF: 1.7)
- 7. Irfan Rashid, Tariq Abdullah, Neil F. Glasser, Heena Naz, Shakil Ahmad **Romshoo** (2018). Surge of Hispar Glacier, Pakistan, between 2013 and 2017 detected from remote sensing observations. *Geomorphology*, Vol. 303:410-416. https://doi.org/10.1016/j.geomorph.2017.12.018. (**IF: 3.352**)
- 8. Javid A. Ganai, Shaik A. Rashid, Shakil A. **Romshoo** (2018). Evaluation of terrigenous input, diagenetic alteration and depositional conditions of Lower Carboniferous carbonates of Tethys Himalaya, India. *Solid Earth Sciences*, vol. 3 (2018):33-49

# <u>2017</u>

9. Mir, R. R., Parvez, I. A., Gaur, V. K., Chandra, R., and **Romshoo, S. A.** (2017). Crustal Structure beneath the Kashmir Basin Adjoining the Western Himalayan Syntaxis. *Bulletin of the Seismological Society of America*, 107(5), 2443-2458. (**IF:2.469**)

- 10. Mudasir A. Bhat, Shakil A. **Romshoo** and Gufran Beig (2017). Black carbon aerosol over a Himalayan urban city, Srinagar, India: Seasonality, sources and meteorological influences, *Atmospheric Environment*, *Vol.* 165:336-348 (*IF*: 3.841)
- 11. Gowhar Meraj, Shakil A. **Romshoo**, Sameena Ayoub, Sadaff Altaf (2017). Geoinformatics based approach for estimating the sediment yield of the mountainous watersheds in Kashmir Himalaya, India. *Geocarto International*, http://dx.doi.org/10.1080/10106049.2017.1333536. (IF: 1.6)
- 12. Riyaz A Dar, Omar Paul, Khalid Omar and Shakil A **Romshoo** (2017). Glacial-geomorphic study of the Thajwas glacier valley, Kashmir Himalayas, India. *Quaternary International*, 444, pp. 157-171 DOI: 10.1016/j.quaint.2017.05.021 (**IF: 2.383**)
- 13. Shakil A. Romshoo, Sadaf Altaf, Muzamil Amin and Ummer Ameen (2017). Sediment Yield Estimation for Developing Soil Conservation Strategies in GIS Environment for the Mountainous Marusudar Catchment, Chenab Basin, J&K, India. *Journal of Himalayan Ecology and Sustainable Development. Vol.* 12(2017): 16-32, ISSN No. 0973-7502
- 14. Irfan Rashid, Shakil Ahmad **Romshoo**, and Tariq Abdullah (2017). The Recent Deglaciation of Kolahoi Valley in Kashmir Himalayas, India in response to the Changing Climate. *Journal of Asian Earth Sciences*, 138 (2017) 38–50 (**IF: 3.245**)
- 15. Irfan Rashid, Shakil Ahmad **Romshoo**, Muzamil Amin, Shabir Ahmad Khanday Linking Human-Biophysical Interactions with the trophic status of Dal lake (2017). *Limnologica- Ecology and Management of Inland Waters*, 62: 84–96 (**IF: 1.541**)
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- 127. Shakil A. **Romshoo**, T. Nakaegawa, T. Oki and Katumi Mushiake (2000). Understanding the Influences of Surface and Vegetation Parameters on Soil Moisture Scattering in the Light of Theory and Experimental Data. 2000 Western Pacific American Geophysical Union (AGU) Meeting, Tokyo, Japan, Vol. 81, No. 22, May 30, 2000, pp. WP41
- 128. Shakil A. **Romshoo**, T. Nakaegawa, T. Oki and Katumi Mushiake (2000). Estimation of Soil Moisture Using Space-borne SAR Data and Scattering Models, proceedings of the 28<sup>th</sup> Remote Sensing Society of Japan Conference, Tsukuba, Tokyo, Japan, 19-21 May, 2000, pp. 59-60.
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# **Invited Presentations:**

- 131. Shakil A Romshoo (2017). Hydrological and Glacial Changes in Indus Basin. Workshop on Transboundary Water Governance and Water Diploma in India and Pakistan at Chandigarh India from 27–28th February, 2017
- 132.Shakil A Romshoo (2017): Climate Change Impacts on Water Resources in the Indus Basin. during National Conference on Geoinformatics for Natural Resources Management, JMI New Delhi from 7-8 February, 2017.
- 133.Shakil A **Romshoo** (2016): emission of BC and other SLCPs and impacts on regional climate and cryosphere. International Conference on Mobilizing University Research for Tackling Water, Climate Change and Adaptation Challenges in the HKH Region during Himalayan University Consortium Meeting, New Delhi from 24-26 October, 2016.
- 134.Shakil A **Romshoo** (**2015**). Upper Indus Basin under Change. International Workshop on Sustainable Water Resources Management: Perspectives from Europe and South Asia. Organized by the German House for Research and Innovation at New Delhi from 28-29 September, 2015
- 135. Shakil A **Romshoo** (2015). 2014 Extreme Floods in Kashmir: Genesis and Magnitude. India Water Week, New Delhi 17 January, 2015
- 136. Shakil A **Romshoo** (2014. Indus River Basin: Need for Joint Research Project. Indo-Pakistan Water Dialogue held under aegis of the Atlantic Council, USA at Lahore, Pakistan from 20-21 August, 2014
- 137. Shakil A Romshoo (2014). Shakil A Romshoo (2013). Assessing the impacts of climate change on food security of Kashmir valley. Abstract Proceedings of the 100<sup>th</sup> Indian Science Congress held at the Calcutta University, Kolkata, from 3-7 January 2013.
- 138. Shakil A **Romshoo** (2012). Indus water system under threat: a case study of Jhelum. Symposium on Dying rivers and Living rivers held at India International Centre (IIC), New Delhi on 25 July, 2012.
- 139. Shakil A **Romshoo** (2011). Geoinformatics for Sustainable Natural Resource Management. Indian Society of Geomatics (ISG) Regional Workshop on "Geomatics for G-Governance" held at the University of Kashmir from 13-14 September, 2011, Srinagar (India). (**keynote Speech**)

- 140. Shakil A **Romshoo** (2011). The Environmental Scenario of J&K State under the Changing Climate. National Workshop on "Environmental Scenario of Kashmir" organized by the Kashmir Education, Culture and Science Society, 15 May, 2011, New Delhi, India. (**keynote Speech**)
- 141. Shakil A **Romshoo** (2010). Sediment Control Strategies for Improving Water Quality of Dal Lake. National Symposium of the Central Groundwater Board (CGWB), Srinagar Kashmir, 25 March, 2010.
- 142. Shakil A **Romshoo** (2009). Climate Change Scenario in J&K State and the Road Ahead :Integrated analysis of time series of hydrometeorological and satellite data. Proceedings of the National Symposium of the Indian Association of Hydrologists on Climate Change Impacts on Water Resources, NIH, Roorkee, Uttrakhand, India 17-18 Nov., 2009 (**Key note speech**)
- 143. Shakil A. **Romshoo** (2003). Carbon Accounting: What Does it Take and Where do we Stand? NASDA-NASA Joint Symposium on Space Platforms for Water and Climate Observation, Awaji-island, Kobe, Japan, 12-14 March, 2003.
- 144. Shakil A. **Romshoo** (2002). Temporal Monitoring of the Hydrological and Vegetation Changes in Tropical Peatland Ecosystems Using Remote Sensing. AGU Fall Meeting, 2002, Mascone Convention Center, San Francisco, USA, 6-10 December, 2002.

# **Popular Articles on Scientific themes**

I have written a few scores of popular articles on issues of scientific, social and environmental importance in the daily/weekly, national and local newspapers, Magazines and Newsletters in state and outside.

Internet Search Engine Keyword: Shakil Romshoo

Researchgate webpage: <a href="https://www.researchgate.net/profile/Shakil">https://www.researchgate.net/profile/Shakil</a> Romshoo/

My researchage page has RG score of 32.60 with ~40,000 reads/downloads and ~180 publications

Google Scholar webpage: http://scholar.google.co.in/citations?user=6qNj3 0AAAAJ&hl=en

My publications on earth and environmental sciences have ~1020 citations as recorded by the Google Scholar

Slideshare webpage: http://www.slideshare.net/ShakilRomshoo

(Name, Designation and Signature ) **Name**: Shakil Ahmad Romshoo

**Designation**: Professor and Head of the Department

**Institute**: Department of Earth Sciences, University of Kashmir, Srinagar-India