Curriculum Vitae



Mohammed Sharif
Professor
Department of Civil Engineering
Faculty of Engineering and Technology
Jamia Millia Islamia (Central University)
New Delhi, INDIA

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Educational Qualification

DEGREE	UNIVERSITY	YEAR	Percentage Marks	RANK
Ph. D.	University of Edinburgh, United Kingdom	1999		
Master of Engineering (WR)	Indian Institute of Technology, Roorkee (Formerly University of Roorkee) INDIA	1993	78.0	FIRST, Gold Medalist
B. Sc. (Engineering) (Civil)	Jamia Millia Islamia, (Central University) New Delhi, INDIA	1991	95.5 (CPI)	FIRST, Gold Medalist
C++ Programming	Jamia-Tata Infotech Centre, JMI	2001		Grade A ⁺
Basic Computer Programming	Department of Mathematics, Jamia Millia Islamia	1986		Grade A ⁺

Previous Employment

 Assistant Design Engineer – 1993 to 1995, Projects and Development India Limited (A Government of India Undertaking), NOIDA

International Experience

- Worked as CFCAS fellow at the University of Waterloo, Canada on the project entitled "Assessment of Water Resources Risk and Vulnerability to Changing Climatic Conditions", funded by CFCAS (\$ 2 Million), during 2003-2004.
- Visiting Faculty at the Asian Institute of Technology, Bangkok, THAILAND, 2009
- Commonwealth Fellow at the School of Civil Engineering and Geosciences at Newcastle University, United Kingdom, 2010-2011
- Professor, Jazan Univeristy, 2013 to 2015

Awards Received

- Gold Medal for securing first position in M. E. Program, IIT Roorkee
- Gold medal for securing first position in B. Tech. Program, Jamia Millia Islamia
- Robert Carr Prize for Best Publication in the Journal of Water Management published by the Institution of Civil Engineers, United Kingdom, 2005

Scholarship/Fellowship

S. No.	Scholarship	Awarding Agency	Year
1	Commonwealth	Commonwealth Commission,	2010-2011
	Academic Staff	United Kingdom	
	Fellowship		
2	Edinburgh University	University of Edinburgh,	1996-1999
	Postgraduate	SCOTLAND, United Kingdom	
	Studentship		
3	Overseas research	Universities UK	1996-1999
	students (ORS) award		
4	GATE Scholarship	Department of Education,	1991-1993
		Ministry of Human Resource	
		Development, Govt. of India	
5	National Merit	Ministry of Human Resource	1985-1987
	Scholarship Scheme	Development, Govt. of India	
6	CFCAS Research	Department of Civil Engineering,	2003-2004
	Fellowship	University of Waterloo,	
		CANADA	

SCOPUS Citations

Scopus Author ID: 35874506200

Total Citations of Published Work on Scopus Database (www.scopus.com) - 1637

Google Scholar Citation Indices

(http://scholar.google.co.in/citations?user=UgyHDYsAAAAJ&hl=en)

Citations	2873	1232
h-index	18	15
i10-index	30	20

Computing Skills

Proficient in Programming in Python, and C++
Proficient in programming in MATLAB, R
Proficient in HEC-RAS, SWAT Modeling, HecGeoHMS, ArcGIS, Mike Flood
Familiar with development of spreadsheet based design models
Familiarity with optimization software – LINGO, LINDO and SOLVER

Major Computer Codes Developed

- 1. Genetic Algorithm Model for Optimal Operation of Multi-reservoir systems
- 2. Dynamic Programming Model for Multi-reservoir systems Optimization
- 3. Simulation Model for Operation of Lake Victoria
- 4. Improved K-Nearest Neighbour Weather Generating Model
- 5. Model for Trend Analysis of Hydrologic Data
- 6. Model for Evaluating Climate Change Impacts on Hydrologic Extremes

All the above models have been developed using C/C++ programming language

Graduate Aptitude Test in Engineering (GATE)

SCORE: 94.35

Teaching Interests

Courses Taught at Undergraduate Level

S. No.	Course	No. of	Semester	Contact
		students		Hours
1	Fluid Mechanics	60	٧	50
2	Water Resources	60	VII	50
	Engineering			
3	Optimization Techniques	45	VIII	50
	(Elective Course)			
4	Engineering Mathematics	60	1	50
5	Design of Structures	60	IV	50
6	Structural Analysis	60	Ш	50
7	Fluid Mechanics	60	V	50
8	Numerical Analysis and	60	VI	50
	Computer Programming			
8	Open Channel Flow	60	IV	50

9 Mechanics of Solids 60 1 50

Courses Taught at Post-graduate Level

S. No.	Course	No. of	Course/ Level	Contact
		students		Hours
1	Research Methodology	50	M. B. A. (II year)	40
2	Operations Research	40	M. B. A. (II year)	50
3	Engineering	18	M. Tech. (Mech. Engg.)	50
	Optimization		(I Semester)	
4	Flood Modelling and	12	M. Tech. (Water	50
	Management		Engineering)	
5	Structural Optimization	15	M. Tech. (Earthquake	50
			Engg.)	
			(III Semester)	

Administrative Responsibilities

- 1. Assistant Superintendent, B. Tech. examinations
- 2. Superintendent, B. tech. Entrance Examinations, 2000-2015
- 3. Organising Member, University Games and Sports Committee, 2002-2003
- 4. Faculty-in-charge, Hydraulics Laboratory, Civil Engineering Department

Research Interests

Machine Learning
Design of Sewer Systems
Hydraulic Structures
Climate Change Impact Studies
Structural Optimization
Design of Pipes

Research Projects Executed

- Development of Artificial Intelligence Techniques for Water Resource Systems Optimisation", sponsored by All India Council of Technical Education, New Delhi, 2003, INR 3,50,000/-
- 2. Assessment of Water Resources Risk and Vulnerability to Changing Climatic Conditions", funded by Canadian Foundation for Climate and Atmospheric Sciences, (\$ 2 Million) 2005-2010.
- 3. Development of Flood Mitigation Plan for NOIDA and Greater NOIDA", April 2012, National Institute of Disaster Management, New Delhi, INR 400,000
- Assessment of Vulnerability of Satluj River Basin to Floods Under Scenarios Based on Representative Concentration Pathways. SERB (DST), Government of India. 31.22 lakhs, 2018 to 2021

Consultancy Projects

- Proof checking and vetting of NDRF Infrastructure Projects at Dwarka, 2016
- 2. Proof checking and vetting of NDRF Infrastructure Projects at Dehradun, 2016
- 3. Proof checking and vetting of NDRF Infrastructure Projects at Ghaziabad, 2017
- 4. Flood Estimation and Hydrological Modeling for Tapi Bridge on NH-8, Client: Feedback Infrastructure Private Limited, New Delhi, 2012
- 5. Third Party Inspection of Irrigation and Flood Control Works
- 6. Detailed Project Report for Infrastructure at National Disaster Response Response, Nagpur, Ministry of Home Affairs, government of India, 2017
- 7. Hydrological Investigation for Mathura Branch Canal, Mathura, uttar pradesh, UP Irrigation Department, 2017
- 8. Health Safety
- 9. Checking of Adequacy of Hydraulic Design of Storm Water Drains, Awasthi Constructions, New Delhi, 2015
- 10. Non-destructive Testing of Materials Hydraulic Drains in Rampur, UP, 2016
- 11. Concrete Mix design for PWD, Delhi, 2016
- 12. Design of Baldev Distributary Canal At Mathura, UP, 2016
- 13. Design of VR Bridges at Baldev Distributary Canal, UP, 2016
- 14. Flood Disaster Mitigation Plan for NOIDA and Greater NOIDA, NIDM, New Delhi, 2005
- 15. Third Party Inspection of Sewage Treatment Plant, Garhmukteshwar, UP Jal Nigam, 2018
- 16. Hydraulic Design of Sewer Network, UP Jal Nigam

Key Note Speaker

- Application of R Package in Water Resources Management, IIPA, New Delhi, March 2018.Genetic Algorithms for Water Resources Systems Optimization, KCC Institute, Greater NOIDA, 2018
- R package for environmental modelling, Delhi Technological University, New Delhi, 2017
- Computational Challenges in Reservoir Systems Operation, National Seminar on Recent Trends in Computer Science, JMI, India, March, 2016
- Climate Change Impacts on Water Resources, National Conference, IIT, Roorkee, December 2008
- Detection of Linkages Between Climate Indices and Extreme Flow measures,
 Int. Conf. on Systems Science and Engineering, CESSE 2009, Bangok,
 Thailand
- Streamflow Trends at Bhakra, Int. Conf. on Climate Change in Developing Countries, Shillong, India, October 2015

Current and Past PhD Supervision

Azhar Hussain: Optimal Operation of Reservoirs in Satluj Basin Under Future Climate Change Scenarios (Awarded 2012)

Mudar Dayoub: Optimal Schedule for Loading and Unloading Operations at Container Terminals (Awarded 2009)

Ayman T Hamid: Evaluation of Climate Change Impacts in Satluj River Basin (Awarded 2015)

Mohammed Kifayatullah: Development of Decision Support Tool for Regional Climate Change Impact Assessment (Awarded 2012)

Mohammed Lateef: Flood Vulnerability Assessment of River Yamuna Using HEC-RAS Models (Awarded 2015)

Swamy Vageesha: Optimal Operation of Reservoir Systems in Kabini Basin (Awarded 2016)

Geeta Singh: Investigation of Linkages of Large-Scale Climate Indices with Extreme Precipitation and Flow Events (Awarded 2018)

Asha Singh: Operational Strategies for Bhakra Reservoir Under Changing Climate (Awarded 2020)

Tripti Dimri: Impact of Climate Change on Hydropower Generation in Tehri Garhwal Region Using Remotely Sensed Data (Awarded 2021)

Pratul Srivasta, Strategic planning, for optimal utilization of water resources under extreme events for Narmada River Basin (In Progress)

Rekha Verma, Climate Change Impact Asssessment Under RCPs for Sabarmati river Basin, India (In Progress)

My Dissertations

- 1. Optimal Canal Alignment, M. E. dissertation submitted to the Department of Civil Engineering, IIT, Roorkee, India.
- 2. Multi reservoir systems optimization using genetic algorithms, PhD dissertation submitted to the school of Civil and Environmental Engineering, University of Edinburgh, Edinburgh, United Kingdom.
- 3. Prediction of Shear Capacity of FRP Reinforced Concrete Beams Using Deep Neural Networks and Multiple Nonlinear Regression, Heriot-Watt University, United Kingdom, United Kingdom

Experience/Employment History

Jan 1993 to Mar 1995: Project Engineer with Projects and Development India Limited (A Govt. of India Undertaking), NOIDA, Uttar Pradesh, INDIA.

Responsibilities included design and analysis of structures and site supervision.

March 1994 to January 2002: Assistant Professor, Department of Civil Engineering, Jamia Millia Islamia, New Delhi

- Responsibilities included teaching at the undergraduate and post-graduate level.
 Actively involved in the research activities of the department.
- Made valuable contributions in the setting up of Hydraulics Laboratory for the students of B. Tech (Civil) course.
- Have been actively involved in the design of courses related to Water Resources Engineering.
- Also supervised projects at the undergraduate level at the University of Edinburgh, United Kingdom during my tenure as Ph.D. candidate.

Dec 2003- Aug 2004: Research Fellow at the University of Waterloo, Ontario, CANADA.

Jan 2002 to Jan 2010: Associate Professor, Department of Civil Engineering, Jamia Millia Islamia, New Delhi

- Responsibilities included teaching at the undergraduate and post-graduate level.
 Actively involved in the research activities of the department.
- Currently supervising two M. Tech. (Environmental Science and Engineering) candidate and five Ph.D. candidates.

Jan 2009 to May 2009: Visiting Faculty, Asian Institute of Technology, Bangkok

- Responsibilities included teaching at the post-graduate level.
- Actively involved in the research activities of the Water Engineering and Management Department at AIT

Sep 2013 to Aug 2015: Professor, Department of Civil Engineering, Jazan University, Kingdom of Saudi Arabia

Jan 2010 to Present: Professor, Department of Civil Engineering, Jamia Millia Islamia, New Delhi

- Responsibilities included teaching at the undergraduate level and post-graduate level.
- Actively involved in the research activities of the department of civil engineering

Departmental Responsibilities

- Faculty- incharge, Department Project Allottment
- Faculty-incharge, Departmental Academic Integrity Panel
- Faculty- incharge, AICTE matters, responsible for preparing applications to AICTE for extension of approval of various undergraduate and postgraduate courses being run in the Faculty of Engineering and Technology

- Faculty-incharge, Annual Report, responsible for preparing and compiling annual report for the Faculty of Engineering and Technology
- Faculty-incharge, hydraulics laboratory, responsible for upgrading and purchase of equipment for the laboratory
- Faculty-incharge, database maintenance, responsible for maintenance and compilation of department-related data

Reviewer

International Journal of Hydrology and Earth System Sciences Internatinal Journal of Hydrology International Journal of Applied Meteorology and Climatology International Journal of Hydrological Sciences International Journal of Pipeline Systems International Journal of Hydrology Research International Journal of Climatology International Journal of Earth Sciences and Engineering International Journal of Water Resources Management International Journal of Water and Climate Change International Journal of Soft Computing in Civil Engineering International Journal of Indian Society of International Journal of Hydraulic Engineering (ISH)

Research Publications

International Journals

- 1. Sharif, M. (2024). Shear capacity analysis of fiber reinforced polymer concrete beams. Discover Civil Engineering, 1, 121. https://doi.org/10.1007/s44290-024-00127-2
- 2. Kaushik, P, Hasan, O.U., and Sharif M (2024). Experimental study on the flexural behavior of ferrocement slab panels with supplementary cementitious silica fume and fiber materials., Discover Civil Engineering, In Press.
- 3. Khan, R., Sharif, M., & Shakeel, M. (2024). Integrating Climate Trends for Sustainable Water Resource Management in the Periyar River Basin, Eco. Env. & Cons. 30 (Nov. Suppl. Issue), pp. (S445-S455).
- **4.** Sharif, M. (2024). Prediction of Shear Capacity of FRP-reinforced Beams Using deep Neural Networks Based on Hyperparameter Optimization. J. Soft Computing in Civil Engineering, In Press.

- **5.** Khan, R., Sharif, M., & Shakeel, M. (2024, June). Trend Analysis of Rainfall and Temperature of Periyar River Basin. In IOP Series: Earth and Environmental Science (Vol. 1326, No. 1, p. 012143). IOP Publishing.
- **6.** Dimri, T., Ahmad, S., & Sharif, M. (2023). Impact of climate change on water availability in Bhagirathi River Basin, India. ISH Journal of Hydraulic Engineering, 29(5), 642-651.
- 7. Dhillon, M. S., Sharif, M., Madsen, H., Jakobsen, F (2023), Seasonal Precipitation Forecasting for Water management in Kosi Basin, India Using Large Scale Climate Predictors, Journal of Water and Climate Change, 14 (6): 1868–1880. https://doi.org/10.2166/wcc.2023.479
- **8.** Kazim, Z., Sharif, M., Ahmad, A., 2023. Strategies for Reducing Construction Project Delays and Cost Overruns, Journal of Civil and Structural Engineering Research, ISSN 2348-7607, 11 (1).
- **9.** Dimri, T., Ahmad, S., & Sharif, M. (2023). Hydrological modelling of Bhagirathi River basin using HEC-HMS. Journal of Applied Water Engineering and Research, 11(2), 249-261.
- **10.** Singh C, Sharif M, Husain A (2023) "Identification of Optimal Alignment for a Real-World Canal in India". J Earth Sci Clim Change, 14: 736.
- **11.** T. Dimri, S. Ahmad, and Sharif, M. (2022). Hydrological modelling of Bhagirathi River basin using HEC-HMS., Journal of Applied Water Engineering and Research, https://doi.org/10.1080/23249676.2022.2099471
- 12. Verma, R., Sharif, M., Husain, Azhar (2022). Application of HEC-HMS for Hydrological Modeling of Upper Sabarmati River Basin, Gujarat, India. J. Modeling Earth Systems and Environment. https://doi.org/10.1007/s40808-022-01411-9
- **13.** T. Dimri, S. Ahmad, and Sharif, M. (2022). Statistical analysis of precipitation, temperature and snow cover in Bhagirathi river basin. MAUSAM, vol. 73, no. 2, pp. 263–272.
- **14.** Moeeni, S. A., Ahsan, N., & Sharif, M. (2022). Artificial Neural network technique for groundwater modelling of Jaspura block. EEC.
- **15.** Rehman A, Sharif M, Shakeel M (2021) Influence of Pacific and Indian Ocean Temperatures on Monsoonal Rainfall in India. J Earth Sci Clim Change 12: 566.
- **16.** M. K., Gupta, Sharif, M. (2021) Spatio-temporal analysis of temperature projections based on representative concentration pathways for Satluj River

- Basin, India, Cogent Engineering, 8:1, 1933683, DOI: 10.1080/23311916.2021.1933683
- 17. Asghar Moeeni, S., Sharif, M., Ahsan, N., Iqbal, A. (2021). Simulation of Groundwater level by Artificial Neural Networks of Parts of Yamuna River Basin. In: Bajpai, M.K., Kumar Singh, K., Giakos, G. (eds) Machine Vision and Augmented Intelligence—Theory and Applications. Lecture Notes in Electrical Engineering, vol 796. Springer, Singapore. https://doi.org/10.1007/978-981-16-5078-9 32
- **18.** T. Dimri, S. Ahmad, and M. Sharif (2020) Time series analysis of climate variables using seasonal ARIMA approach J. Earth Syst. Sci. (2020) 129:149. https://doi.org/10.1007/s12040-020-01408-x
- 19. Kampanad Bhaktikul & Mohammed Sharif (2020): Evaluating changes in flood regime in Canadian watersheds using peaks over threshold approach, ISH Journal of Hydraulic Engineering, DOI: 10.1080/09715010.2020.1764873
- **20.** Moeni, S. Ahsan, N., Sharif, M. (2020), Estimation of Longterm Recharge and Disharge for Effective River Basin Management. Water and Energy International. 63(04),
- 21. Kumar, M., Sharif, M. & Ahmed, S. (2019): Impact of urbanization on the river Yamuna basin, International Journal of River Basin Management, DOI: 10.1080/15715124.2019.1613412
- 22. Singh, A. D. and Sharif, M. (2019). "Bi-directional Storage Capacity and Elevation Level Calculator for Reservoir Operation Management." American Journal of Water Resources, vol. 7, no. 3 (2019): 121-127. doi: 10.12691/ajwr-7-3-5.
- 23. Husain, A., Sharif, M., & Ahmad, M. L. (2019). Simulation of Floods in Delhi Segment of River Yamuna Using HEC-RAS, . American Journal of Water Resources, 6(4), 162–168. http://doi.org/10.12691/ajwr-6-4-3
- 24. Husain, A., & Sharif, M. (2018). Simulation of weather data in Brahmaputra Basin using K-Nearest Neighbor Model. American Journal of Water Resources, 6(3), 137–142. http://doi.org/10.12691/AJWR-6-3-4
- 25. Khattak, M. S., Babel, M. S., Khan, T. A., Sharif, M., Khalil, S. A., & Delhi, N. (2017). Global Climate Model for Projecting Future Climate Changes Over Upper Indus River Basin, Journal of Agriculture, Agricultural Engineering and Veterinary Sciences, 33(2), 227–242.
- **26.** Kumar, M., Sharif, M., & Ahmed, S. (2018). Flood estimation at Hathnikund Barrage, River Yamuna, India using the Peak-Over-Threshold method. ISH

- Journal of Hydraulic Engineering. http://doi.org/10.1080/ 09715010.2018.1485119
- **27.** Kumar, M., Sharif, M., and Ahmed, S. (2017). Flood risk management strategies for national capital territory of Delhi, India. Journal of Hydraulic Engineering. http://doi.org/10.1080/09715010.2017.1408434
- 28. Sharif, M, Husain, A, Lateef, M., Dayoub, M. (2017) "Optimization of Makespan of Container Loading -Unloading Problem Using Mixed Integer Programming", J. of Earth Sc. & Enng., 10(1), 53-57.
- 29. Saad Asghar Moeeni & Naved Ahsan and Mohammed Sharif (2017). Stochastic Groundwater Modelling with Artificial Neural Networks," International Journal of Environmental Sciences & Natural Resources, Juniper Publishers Inc., vol. 6(2), pages 40-41.
- **30.** Hamid, A, Sharif, M, Narsimlu, B. (2017). "Assessment of Future Climate Change Impacts on Hydrology of Satluj River Basin, India Using SWAT Model" Journal of Hydrology Science and Technology, 2(7), DOI: 10.1504/IJHST.2017.084140
- **31.** Sharif M, Khattak, S, and Joshi, R K. (2017) "Extreme Precipitation Events Simulation Under Plausible Scenarios of Climate Change in Satluj River Basin, India" Journal of Hydrology Science and Technology, 4(7).
- **32.** Sharif, M, Husain, A. (2017). "Estimation of Design Flood at Kol Dam Using Hydro-meteorological approach", Int. Journal of Environmental Sciences and Natural Resources, 4(1), 1-6.
- **33.** Sharif, M, Kumar, M., Ahmad, S. (2017). "Flood Estimation in River Yamuna Using Peak-Over-Threshold Method, J. Water Science and Engineering. In review.
- **34.** Burn, D, Whitfield, P, and Sharif, M. (2016) "Identification of changes in floods and flood regimes in Canada using a peaks over threshold approach", Journal of hydrological processes, 30(18), 3303-3314.
- **35.** Khattak, M. S., Rehman, N, Sharif, M, Khan, M. A. (2015). "Analysis of Streamflow Data for Trend Detection on Major Rivers of the Indus Basin", Journal of Himalayan Earth Sciences, 48 (1), 99-111.
- **36.** Kumar, M, Sharif, M, Jain, V. K., Ahmad, S. (2016). Delhi urban flooding An overview. Proc. Indian Building Congress, Vol 23(2).
- **37.** Khattak, M. S., Anwar, F, Saeed, T. U., Sharif, M. (2016) Floodplain Mapping Using HEC-RAS and ArcGIS: A Case Study of Kabul River, Arb J. of Sc. & Engg. (Springer), 41(4), 1375-1390

- **38.** Ahmad, M.L., Ayman, H, Sharif, M. (2014) "Analysis of Relationship between Meteorological Variables for the City of Delhi". International Journal of Chemical, Metallurgical and Civil Engg, (1), 1, 1-7
- **39.** Sharif, M and Vageesha, S. V. (2014) "Development of LINGO-Based Model for Water Resource Systems Optimization", Journal of Hydrology Science and Technology, 4(2), 126-138.
- **40.** Sharif, M. (2014). "Analysis of Projected Temperature Changes Over Saudi Arabia", Arabian Journal of Geosciences, Springer, DOI 10.1007/s12517-015-1810-y
- **41.** Ahmad, M.L., Shakeel, M., Husain, A, Sharif, M. (2014) "Comparison of Observed and CRU Precipitation Data for Satluj Basin". International Journal of Earth Sciences and Engineering, Vol 7 (2), 434-440.
- **42.** Sharif, M, Burn, D, and Hofbauer, K. (2014) "Generation of Daily and Hourly Weather Variables for use in Climate Change Vulnerability Assessment", Journal of Water Resources Management, 27, 1533-1550, DOI 10.1007/s11269-012-0253-4
- **43.** Hamid, A, Sharif, M, Lateef, M. (2013) "Evaluation of trends in meteorological data of Delhi", Int. J. of Sustainable Development and Green Economics, Vol 2, 117-124
- **44.** Sharif, M., Hamid, A. T. and Husain, A., 2013. Simulation of Karangkates reservoir operation, International Journal of Innovative Research in Science, Engineering and Technology, 2(5), pp.1850–1857
- **45.** Alam, S, M, S, and Sharif, M. (2013) Assessment of Climate Change Scenario in the Middle-East Region, IJETAE, Vol 3(6), 367-372
- **46.** Sharif, M., Alam, S, M, S, Lateef, M, and Hamid, A. T. (2013) Extreme Precipitation Events Simulation Using An Improved K-Nearest Neighbour Weather Generating Model, IJETAE, Vol 3 (8), 478-486
- **47.** Sharif, M, Archer, D, Fowler, H, and Forsythe, N. (2013) "Trends in magnitude and timings of flow in the Upper Indus River Basin", Journal of Hydrology and Earth System Sciences, doi:10.5194
- **48.** Ayman, H, Sharif, M, Archer, D. (2013a). "Analysis of Temperature Trends in Satluj River Basin, India", J. Earth Science and Climatic Change, 5(8), doi:10.4172/2157-7617.1000222

- **49.** Azhar, H and Sharif, M (2012) "Optimal Operation of Kol Reservoir Under Plausible Climate Scenarios, International Journal of Earth Sciences and Engineering, 05, 25-33
- **50.** Husain, A, Sharif M. (2012) "Estimation of Design Flood for Kol Dam and Rampur in Satluj River Basin", International Journal of Emerging Technology and Advanced Engineering Volume 2, Issue 8,:163-166
- **51.** Khattak, M. S, Babel, M. S., and Sharif, M. (2011). "Hydro-meteorological trends in upper Indus river basin.", J. Climate Research, 46: 103-119
- **52.** Sharif, M., Husain, A. (2011) "Assessment of Precipitation trends in Satluj river Basin", International Journal of Earth Sciences and Engineering, 04: 305-308
- **53.** Burn, D, Sharif, M., and Zhang, K. (2010) "Detection of Trends in Hydrological Extremes for Canadian Watersheds", Journal of hydrological processes, 24 (13), 1781-1790
- **54.** Sharif, M, and Burn, D. (2009) "Detection of Linkages Between Extreme Flow Measures and Climate Indices", Journal of World Academy of Science, Engineering and Technology, Vol 60, 1189-1201
- **55.** Sharif, M, and Burn, D. (2007) "Improved K- nearest neighbour weather generating model', J. Hydrologic Engineering, American Society of Civil Engineers, (120, 1, 42-51
- **56.** Sharif, M, and Burn, D. (2006) "Simulating climate change scenarios using an improved K-nearest neighbor model', Journal of hydrology, (325), 179-196
- **57.** Wardlaw, R., Sharif, M., and Kimaite, F. (2005). "Real-time hydro-power forecasting on the Victoria Nile.", J. Water Management, Institution of Civil Engineers, United Kingdom, 158(2), 45-54
- **58.** Sharif, M, Wardlaw, R, and Ahuja, P. (2002) "Operation of lake Victoria for Reliable Power Production", Water and Environment Management, International Water Association, 57-62
- **59.** Sharif, M., and Wardlaw, R. (2000). "Multi reservoir systems optimization using genetic algorithms", J. Computing in Civil Engineering, American Society of Civil Engineers, 14(1), 255-263
- **60.** Wardlaw, R., and Sharif, M. (1999) "Evaluation of genetic algorithms for optimal reservoir system operation." J. Water Resour. Plang. and Mgmt., American Society of Civil Engineers, 125(1), 25-33

International Conference Proceedings

- **61.** Sharif, M. (2023) 'Simulation of Extreme Precipitation events Using K-Nearest Neighbor Model", 2023 World Environmental and Water Resources Congress, 20-25 May Las Vegas, USA.
- **62.** Singh, A. D., and Sharif, M. 2017). "Representative Concentration Pathways ased Temperature Projections at Bhakra Station", Int.l Conf. on Civil and Architectural Engineering, June 22, 2017, Kathmandu, Nepal
- **63.** Hamid, A, Lateef, M, and Sharif, M (2013) "Analysis of Relationship Between Meteorological Variables for the City of Delhi", Int.I Conf. on Research in Science, Engineering and Technology, Nov 13-14, Kuala Lumpur, Malaysia
- **64.** Sharif, M, Archer, D, and Hamid, A. (2012) "Trends in Streamflow Magnitude and Timings in Satluj River Basin", Proc. American Society of Civil Engineers, World Environmental and Water Resources Congress, 2012, 20-24 May, New Mexico, USA.
- **65.** Hamid, A, and Sharif, M (2012) "Temperature Trends in Satluj River Basin", Int. Conf. On Global Warming, Istanbul Turkey, June 08-12
- **66.** Sharif, M, Vageesha, S. V. (2012) "Development of LINGO-Based Model for Water Resource Systems Optimization", Int. Conf. On Civil and Environmental Engineering for Sustainability, April 3-5, Johor Bahru, Malaysia.
- **67.** Sharif, M, Fowler, J, Kilsby, C. (2011) "Implications of Climate Change on Drinking Water Supplies in Satluj River Basin, Int. Conf. Drinking Water Safety, Security and Sustainability, Hangzhou, China.
- **68.** Sharif, M, Burn, D. and Husain, A, (2010) "Detection of Climate Change Impacts on Hydrological Extremes in Satluj River Basin", Intl. Conf., American Society of Civil Engineers, Rhode Island, USA.
- **69.** Bhandarkar, S., and Sharif, M. (2009) "Comparative Study of Vehicle Pollution Load with Conventional and Clean Fuel in Delhi", Int. Conf. on Emerging Technologies in Environmental Science and Engineering, October 26-28, AMU, Aligarh.
- **70.** Burn, D. and Sharif, M, (2009) "Detection of Linkages Between Climate Indices and Extreme Flow measures", 2009, Int. Conf. on Systems Science and Engineering, CESSE 2009, Bangkok, Thailand.
- **71.** Khattak, S, Babel M. S., and Sharif, M. (2009) 'Evaluating trends in hydroclimatic variables in Upper Indus River Basin, Pakistan", International conference, ASCE, Dec, Chennai, India.
- **72.** Burn, D. and Sharif, M, (2009) "Climate Change Detection in Hydrological Extremes", 2009 Joint Assembly, American geophysical Union, 24-27 May Toronto, Canada.
- **73.** Burn, D., and Sharif, M. (2008) "Climate change impacts on flood risks", 4th International Symposium on Flood Defence", May 2008, Toronto, Canada.
- **74.** Sharif, M., D.H. Burn and K. Wey (2007), Daily and Hourly Weather Data Generation using a K-Nearest Neighbour Approach, Proceedings of the 18th

- CSCE Canadian Hydrotechnical Conference, Winnipeg, Manitoba, 22-24 August 2007, 10 p
- **75.** Sharif, M, Burn, D. and Hussain, A. (2006) "Evaluating climate change impacts using an improved k- nearest neighbor model", Proc., International conference, ASCE, Dec 18-20, New Delhi.
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