

# Curriculum Vitae for MUHAMMAD SHAHID

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## PERSONAL DETAILS

**NAME:** Muhammad Shahid  
**DATE OF BIRTH:** 01-01-1990  
**NATIONALITY:** Pakistani  
**CIVIL STATUS:** Married  
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## PROFESSIONAL EXPERIENCE

Sep 2019 –Present Assistant Professor at National University of Sciences and Technology (NUST), H-12, Islamabad

March 2014- August 2015 Lecturer at Abasyn University Islamabad Campus

## EDUCATIONIAL BACKGROUND

2015 to 2019 PhD in Hydraulic Engineering, Tsinghua University, Beijing  
Thesis: Understanding the hydrological trends in the Indus basin

2011 to 2014 Master of Sciences in Water Resources Engineering and Management, National University of Sciences and Technology (NUST), Islamabad  
Thesis: Evaluation of Development and Land Use Change Impacts on Stream Flow and Sediment Yield in Margalla Hills

2007 to 2011 Bachelor of Sciences in Civil Engineering, University College of Engineering & Technology, B.Z.U Multan

## RESEARCH INTERESTS

Hydrological response under changing environment  
Ecohydrology  
Urban Hydrology

## REVIEWER FOR SCIENTIFIC JOURNALS

Environmental Research  
Water Supply, IWA Publishing  
Journal of Water and Climate change  
Cogent Engineering

## PUBLICATIONS

1. Khalil Ur Rahman, Songhao Shang, **Muhammad Shahid** and Yeqiang Wen, “Hydrological evaluation of ensemble satellite precipitation datasets for streamflow simulation using SWAT: A case study of Potohar Plateau, Pakistan” *Journal of Hydrology*, in Press.
2. Muhammad Waseem, **Muhammad Shahid**, Noor Muhammad Khan, Si Chen “Hydrological Drought Indexing Approach in Response to Climate and Anthropogenic Activities, Theoretical and applied climatology, in Press
3. **Muhammad Shahid**, Khalil Ur Rahman “Identifying the Annual and Seasonal Trends of Hydrological and Climatic Variables in the Indus Basin Pakistan. *Asia-Pacific Journal of the Atmospheric Sciences* DOI: 10.1007/s13143-020-00194-2.
4. **Muhammad Shahid**, Khalil Ur Rahman Khaled S. Balkhair, Amjad Nabi “Assessment of climate change and land use change impacts on the runoff of Margalla hills basins, Pakistan. *Arabian Journal of Geosciences* DOI : 10.1007/s12517-020-5231-1.
5. Rana Shahram Shaukat, Mudasser Muneer Khan, **Muhammad Shahid**, Muhammad Shoaib, Tanveer Ahmad Khan, Muhammad Asif Aslam” Quantitative Contribution of Climate Change and Land Use Change to Runoff in Tarbela Catchment, Pakistan” *Polish Journal of Environmental Studies* DOI: 10.15244/pjoes/112214.
6. Abdul jabbar Khan, Gulraiz Akhter, Hamza Farooq Gabriel, **Muhammad Shahid** “ Anthropogenic Effects of Coal Mining on Ecological Resources of the Central Indus Basin, Pakistan” *International Journal of Environmental Research and Public Health*. DOI: 10.3390/ijerph17041255.
7. Khalil Ur Rahman, Songhao Shang, **Muhammad Shahid**, Zeshan Khan “Application of Dynamic Clustered Bayesian Model Averaging (DCBA) algorithm for merging multi-satellite precipitation products over Pakistan” *Journal of Hydrometeorology* DOI: 10.1175/JHM-D-19-0087.1.
8. Khalil Ur Rahman, Songhao Shang, **Muhammad Shahid**, Yeqiang Wen “An appraisal of dynamic Bayesian model averaging-based merged multi-satellite precipitation datasets over complex topography and the diverse climate of Pakistan” *Remote Sensing* DOI: 10.3390/rs12010010.
9. Khalil Ur Rahman, Songhao Shang, **Muhammad Shahid**, Yeqiang Wen“ Performance Assessment of SM2RAIN-CCI and SM2RAIN-ASCAT Precipitation Products over Pakistan” *Remote Sensing* DOI: 10.3390/rs11172040.
10. Khalil Ur Rahman, Songhao Shang, **Muhammad Shahid**, Jiang Li “Developing an Ensemble Precipitation Algorithm from Satellite Products and Its Topographical and Seasonal Evaluations Over Pakistan” *Remote Sensing* DOI: 10.3390/rs10111835.
11. **Muhammad Shahid** , Zhentao Cong, Danwu Zhang “Understanding the impacts of climate change and human activities on streamflow: a case study of the Soan River basin, Pakistan” *Theoretical and applied climatology* DOI: 10.1007/s00704-017-2269-4.
12. Zhentao Cong, **Muhammad Shahid**, Danwu Zhang, Himin Li, Dawen Yang “Attribution of runoff change in the alpine basin: a case study of the Heihe Upstream Basin, China” (Published in *Hydrological Sciences Journal* DOI: 10.1080/02626667.2017.1283043.
13. **Muhammad Shahid** , Hamza Farooq Gabriel , Amjad Nabi, Sajjad Haider , Shaukat Ali Khan , Syed Muhammad Ali Shah “Evaluation of Development and Land Use Change Effects on Rainfall-Runoff and Runoff-Sediment Relations of Catchment Area of Simly Lake Pakistan” *Life Sciences Journal* DOI :10.7537/marslsj1107s14.02

## BOOK CHAPTERS/DISSERTATION

1. **Muhammad Shahid** “Understanding the hydrological trends in the Indus basin” Thesis submitted as a partial requirement of PhD in Hydraulic Engineering, Department of Hydraulic Engineering Tsinghua University June, 2019
2. **Muhammad Shahid** "Land use Change Evaluation in a Humid Subtropical Watershed ", ISBN 978-3-659-63860-2, November, 2014 LAP LAMBERT Academic Publishing Germany.
3. Dr. Muhammad Salik Javaid, **Muhammad Shahid**, Hamza Farooq Gabriel , Amjad Nabi “Use of Hydrological Modeling Techniques to Evaluate, Develop and Enhance Irrigation Potential of a Humid Subtropical Watershed” DOI: 10.5772/58915
4. **Muhammad Shahid** “Evaluation of Development and Land use Change Impacts on Stream Flow and Sediment Yield in Margalla Hills Using GIS & Remote Sensing. (Case Study of Rawal Dam and Simly Dam) Thesis submitted as a partial requirement of M.S.C. in Civil Engineering, Department of Civil Engineering, National University of Sciences and Technology (NUST), Pakistan March 2014.

## CONFERENCE PAPERS/POSTERS

1. Ammara Nusrat, Hamza Farooq Gabriel, Sajjad Haider, **Muhammad Shahid** “A meta-model assisted framework of optimization of the Hydrological model parameters for accurate calibration” EGU, 2020.
2. **Muhammad Shahid** , Zhentao Cong, Danwu Zhang “Understanding the Hydrological trend change in catchment area of Simly Lake Pakistan” (Poster Published in AGU <http://adsabs.harvard.edu/abs/2016AGUFM.H41C1341S>).
3. **Muhammad Shahid** , Hamza Farooq Gabriel , Amjad Nabi , Muhammad Salik Javaid “Assessment of Effect of Land Use Change on Hydrological Response and Sediment Yield for Catchment Area of Simly Lake, Pakistan” ICETEMS, 2014.

## WORKSHOPS & CONFERENCES (PARTICIPANT)

1. September 2011: One Week Workshop on “Natural Resource Management” organized by Akhtar Hameed Khan National Center for Rural Development and Municipal Administration – AKHNCRD (<http://www.ncrd.gov.pk/>).
2. December 2011: Three Days “International Training Workshop for Stakeholders Capacity Building in Flood Warning and Management” held at NUST Institute of Civil Engineering (NICE)
3. January 2013: Three Days International Training Workshop on “Modeling Water Futures Using Environmental Sustainability Approach” held at NUST Islamabad.
4. June 2013: Two Days Workshop on “Innovations and advances in Mineral exploration, Identification, Extraction, Processing and Sustainable Mining Practice” held at NUST Islamabad.
5. August 2013 : Certificate Course on “Underground Space Utilization & Tunneling” held at NUST Islamabad.
6. May 2014: Two Days International Workshop on “Construction health and Safety” held at National Institute of Transportation (NIT) NUST-H12 Islamabad
7. September 2014: Two Days International Workshop on “Capacity Building of Community Elders & Media towards Flood Vigilance and Disaster Reporting” held at NUS Institute of Civil Engineering (NICE) Islamabad