

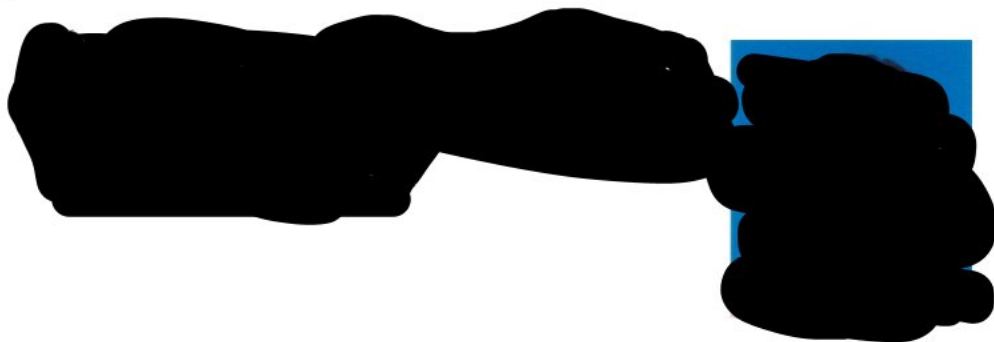
# CURRICULUM VITAE

**DR. KAMAL AHMED**

Address:

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## **Qualifications**

<b>Degrees</b>	<b>Year</b>	<b>University/ Board</b>
PhD in Civil Engineering	2016	University Technology Malaysia (UTM)
Master in Civil Engineering	2013	University Technology Malaysia (UTM)
BS Civil Engineering	2009	Sir Syed University of Engineering Technology, Karachi, Pakistan
Intermediate	2004	B.B.I.S.E Quetta, Balochistan Pakistan
Matriculation	2002	B.B.I.S.E Quetta, Balochistan, Pakistan

## **Journal Publications**

1. Salehie, O., Ismail, T., Shahid, S., **Ahmed, K.**, Adarsh, S., Asaduzzaman, M., & Dewan, A. (2021). Ranking of gridded precipitation datasets by merging compromise programming and global performance index: a case study of the Amu Darya basin. *Theoretical and Applied Climatology*, 1-15.
2. Safari, Z., Rahimi, S. T., **Ahmed, K.**, Sharafati, A., Ziarh, G. F., Shahid, S., ... & Wang, X. (2021). Estimation of Spatial and Seasonal Variability of Soil Erosion in a Cold Arid River Basin in Hindu Kush Mountainous Region Using Remote Sensing. *Sustainability*, 13(3), 1549.
3. Iqbal, Z., Shahid, S., **Ahmed, K.**, Ismail, T., Ziarh, G. F., Chung, E. S., & Wang, X. J. (2021). Evaluation of CIMP6 GCM rainfall in mainland Southeast Asia. *Atmospheric Research*, 105525.

4. **Ahmed, K.**, Nawaz, N., Khan, N., Rasheed, B., & Baloch, A. (2020). Inhomogeneity detection in the precipitation series: case of arid province of Pakistan. *Environment, Development and Sustainability*, 1-17.
5. Shiru M. S., Shahid S., Dewan A., Chung E.-S., Alias N., **Ahmed K.** and Hassan Q. K. 2020: Projection of meteorological droughts in Nigeria during growing seasons under climate change scenarios. *Scientific Reports*, 10, 10107.
6. Qutbudin, I., Shiru, M. S., Sharafati, A., **Ahmed, K.**, Al-Ansari, N., Yaseen, Z. M., ... & Wang, X. (2019). Seasonal drought pattern changes due to climate variability: case study in Afghanistan. *Water*, 11(5), 1096.
7. Iqbal, Z., Shahid, S., **Ahmed, K.**, Ismail, T., Khan, N., Virk, Z. T., & Johar, W. (2020). Evaluation of global climate models for precipitation projection in sub-Himalaya region of Pakistan. *Atmospheric Research*, 105061.
8. Sa'adi, Z., Shahid, S., Pour, S. H., **Ahmed, K.**, Chung, E. S., & Yaseen, Z. M. (2020). Multi-variable model output statistics downscaling for the projection of spatio-temporal changes in rainfall of Borneo Island. *Journal of Hydro-environment Research*.
9. **Ahmed, K.**, Shahid, S., Chung, E.-S., Nawaz, N., Khan, N., Rasheed, B., 2020. Divergence of potential evapotranspiration trends over Pakistan during 1967–2016. *Theoretical and Applied Climatology*. DOI:10.1007/s00704-020-03195-3
10. Khan, N., Sachindra, D.A., Shahid, S., **Ahmed, K.**, Shiru, M.S., Nawaz, N., 2020. Prediction of droughts over Pakistan using machine learning algorithms. *Advances in Water Resources*, 139: 103562. DOI:<https://doi.org/10.1016/j.advwatres.2020.103562>
11. **Ahmed, K.**, Sachindra, D., Shahid, S., Iqbal, Z., Nawaz, N. & Khan, N. 2019 Multi-model ensemble predictions of precipitation and temperature using machine learning algorithms. *Atmospheric Research*:104806.
12. **Ahmed, K.**, Iqbal, Z., Khan, N., Rasheed, B., Nawaz, N., Malik, I., Noor, M., 2019. Quantitative assessment of precipitation changes under CMIP5 RCP scenarios over the northern sub-Himalayan region of Pakistan. *Environment, Development and Sustainability*. DOI:10.1007/s10668-019-00548-5

13. Houmsi, M.R., Shiru, M.S., Nashwan, M.S., **Ahmed, K.**, Ziarh, G.F., Shahid, S., Chung, E.-S., Kim, S., 2019. Spatial Shift of Aridity and Its Impact on Land Use of Syria. *Sustainability*, 11(24): 7047.
14. **Ahmed, K.**, Sachindra, D.A., Shahid, S., Demirel, M.C., Chung, E.-S., 2019. Selection of multi-model ensemble of general circulation models for the simulation of precipitation and maximum and minimum temperature based on spatial assessment metrics. *Hydrol. Earth Syst. Sci.*, 23(11): 4803-4824.
15. Sediqi, M.N., Shiru, M.S., Nashwan, M.S., Ali, R., Abubaker, S., Wang, X., **Ahmed, K.**, Shahid, S., Asaduzzaman, M., Manawi, S.M.A., 2019. Spatio-Temporal Pattern in the Changes in Availability and Sustainability of Water Resources in Afghanistan. *Sustainability*, 11(20): 5836.
16. Khan, N., Shahid, S., **Ahmed, K.**, Wang, X., Ali, R., Ismail, T., Nawaz, N., 2019. Selection of GCMs for the projection of spatial distribution of heat waves in Pakistan. *Atmos. Res.*: 104688.
17. Demirel, M.C.; Özen, A.; Orta, S.; Toker, E.; Demir, H.K.; Ekmekcioğlu, Ö.; Tayşi, H.; Eruçar, S.; Sağ, A.B.; Sarı, Ö.; Tuncer, E.; Hancı, H.; Özcan, T.İ.; Erdem, H.; Koşucu, M.M.; Başakın, E.E.; **Ahmed, K.**; Anwar, A.; Avcuoğlu, M.B.; Vanlı, Ö.; Stisen, S.; Booij, M.J 2019. Additional Value of Using Satellite-Based Soil Moisture and Two Sources of Groundwater Data for Hydrological Model Calibration. *Water*, 11, 2083.
18. Alamgir, M., **Ahmed, K.**, Homsı, R., Dewan, A., Wang, J.-J., Shahid, S., 2019. Downscaling and Projection of Spatiotemporal Changes in Temperature of Bangladesh. *Earth Systems and Environment*: 1-18.
19. Noor, M., bin Ismail, T., Ullah, S., Iqbal, Z., Nawaz, N., **Ahmed, K.**, 2019. A non-local model output statistics approach for the downscaling of CMIP5 GCMs for the projection of rainfall in Peninsular Malaysia. *Journal of Water and Climate Change*.
20. Shiru, M.S., Shahid, S., Shiru, S., Chung, E.S., Alias, N., **Ahmed, K.**, Dioha, E.C., Sa'adi, Z., Salman, S., Noor, M., 2019. Challenges in water resources of Lagos mega city of Nigeria in the context of climate change. *Journal of Water and Climate Change*.

21. **Ahmed, K.**, Shahid, S., Demirel, M.C., Nawaz, N., Khan, N., 2019. The changing characteristics of groundwater sustainability in Pakistan from 2002 to 2016. *Hydrogeol. J.* DOI:10.1007/s10040-019-02023-x
22. **Ahmed K**, Shahid S, Wang X, Nawaz N, Khan N. 2019. Spatiotemporal changes in aridity of Pakistan during 1901–2016. *Hydrol. Earth Syst. Sci.*, 23: 3081-3096. DOI: 10.5194/hess-23-3081-2019.
23. Ahammed SJ, Homsy R, Khan N, Shahid S, Shiru MS, Mohsenipour M, **Ahmed K**, Nawaz N, Alias NE, Yuzir A. 2019. Assessment of changing pattern of crop water stress in Bangladesh. *Environment, Development and Sustainability*. DOI: 10.1007/s10668-019-00400-w.
24. Salem N, Tarmizi Ismail, **Ahmed K**. 2019. Non-Stationary Analysis of Extreme Rainfall in Peninsular Malaysia. *Journal of Sustainability Science and Management*, 14: 17-34.
25. Qutbudin, I., Shiru, M.S., Sharafati, A., **Ahmed, K.**, Al-Ansari, N., Yaseen, Z.M., Shahid, S., Wang, X., 2019. Seasonal Drought Pattern Changes Due to Climate Variability: Case Study in Afghanistan. *Water*, 11(5): 1096.
26. Noor M, Ismail Tb, Shahid S, **Ahmed K**, Chung E-S, Nawaz N. 2019. Selection of CMIP5 multi-model ensemble for the projection of spatial and temporal variability of rainfall in peninsular Malaysia. *Theor. Appl. Climatol.* DOI: 10.1007/s00704-019-02874-0.
27. **Ahmed, K.**, Shahid, S., Sachindra, D.A., Nawaz, N., Chung, E.-S., 2019. Fidelity assessment of general circulation model simulated precipitation and temperature over Pakistan using a feature selection method. *Journal of Hydrology*, 573: 281-298. DOI:https://doi.org/10.1016/j.jhydrol.2019.03.092
28. Sachindra, D.A., **Ahmed, K.**, Rashid, M.M., Sehgal, V., Shahid, S., Perera, B.J.C., 2019. Pros and cons of using wavelets in conjunction with genetic programming and generalised linear models in statistical downscaling of precipitation. *Theor. Appl. Climatol.* DOI:10.1007/s00704-019-02848-2
29. Sharafati, A., Khosravi, K., Khosravinia, P., **Ahmed, K.**, Salman, S.A., Yaseen, Z.M., Shahid, S., 2019. The potential of novel data mining models for global solar radiation prediction. *Int. J. Environ. Sci. Technol.* DOI:10.1007/s13762-019-02344-0

30. Khan, N., Pour, S.H., Shahid, S., Ismail, T., **Ahmed, K.**, Chung, E.S., Nawaz, N., Wang, X.J., 2019. Spatial Distribution of Secular Trends in Rainfall Indices of Peninsular Malaysia in the Presence of Long-Term Persistence. *Meteorol. Appl.*
31. Khan N, Shahid S, Juneng L, **Ahmed K**, Ismail T, Nawaz N. 2019. Prediction of heat waves in Pakistan using quantile regression forests. *Atmos. Res.*, 221: 1-11. DOI: <https://doi.org/10.1016/j.atmosres.2019.01.024>.
32. **Ahmed, K.**, Shahid, S., Wang, X., Nawaz, N., Najeebullah, K., 2019. Evaluation of Gridded Precipitation Datasets over Arid Regions of Pakistan. *Water*, 11(2). DOI:10.3390/w11020210
33. Salman, S.A., Shahid, S., Ismail, T., **Ahmed, K.**, Chung, E.-S., Wang, X.-J., 2019. Characteristics of Annual and Seasonal Trends of Rainfall and Temperature in Iraq. *Asia-Pacific Journal of Atmospheric Sciences*. DOI:10.1007/s13143-018-0073-4
34. **Ahmed, K.**, Shahid, S., Chung, E.-S., Wang, X.-j., Harun, S.B., (2019). Climate Change Uncertainties in Seasonal Drought Severity-Area-Frequency Curves: Case of Arid Region of Pakistan. *Journal of Hydrology*. DOI:<https://doi.org/10.1016/j.jhydrol.2019.01.019>.
35. Iqbal, Z., Shahid, S., **Ahmed, K.**, Ismail, T., Nawaz, N., (2019). Spatial distribution of the trends in precipitation and precipitation extremes in the sub-Himalayan region of Pakistan. *Theoretical and Applied Climatology*. DOI:10.1007/s00704-019-02773-4
36. Khan N, Shahid S, **Ahmed K**, Ismail T, Nawaz N, Son M (2018) Performance Assessment of General Circulation Model in Simulating Daily Precipitation and Temperature Using Multiple Gridded Datasets *Water* 10:1793
37. **Ahmed, K.**, Shahid, S., Nawaz, N., Khan, N., (2018). Modeling climate change impacts on precipitation in arid regions of Pakistan: a non-local model output statistics downscaling approach. *Theoretical and Applied Climatology*: 1-18.
38. **Ahmed, K.**, Shahid, S., Nawaz, N., (2018). Impacts of climate variability and change on seasonal drought characteristics of Pakistan. *Atmospheric Research*.

39. Khan N, Shahid S, Ismail T, **Ahmed K**, Nawaz N (2018) Trends in heat wave related indices in Pakistan Stochastic Environmental Research and Risk Assessment:1-16
40. Salman, S.A., Shahid, S., Ismail, T., **Ahmed, K.**, Wang, X.-J., (2018). Selection of climate models for projection of spatiotemporal changes in temperature of Iraq with uncertainties. *Atmospheric Research*.
41. **Ahmed, K.**, Shahid, S., Ismail, T., Nawaz, N., & Wang, X.-j. (2018). Absolute homogeneity assessment of precipitation time series in an arid region of Pakistan. *Atmósfera*, 31(3), 301-316.
42. Nashwan, M. S., Shahid, S., Chung, E.-S., **Ahmed, K.**, & Song, Y. H. (2018). Development of Climate-Based Index for Hydrologic Hazard Susceptibility. *Sustainability*, 10(7), 1-22.
43. Sachindra, D., **Ahmed, K.**, Shahid, S., & Perera, B. (2018). Cautionary note on the use of genetic programming in statistical downscaling. *International Journal of Climatology*.
44. Sachindra, D. A., **Ahmed, K.**, Rashid, M. M., Shahid, S., & Perera, B. J. C. (2018). Statistical downscaling of precipitation using machine learning techniques. *Atmospheric Research*, 212, 240-258. doi: <https://doi.org/10.1016/j.atmosres.2018.05.022>
45. Ismail, T., **Ahmed, K.**, Alamgir, M., Kakar, M.N., Fadzil, A.B., 2018. Bivariate Flood Frequency Analysis Using Gumbel Copula. *Malaysian Journal of Civil Engineering*, 30(2).
46. Nashwan, M.S., Ismail, T., **Ahmed, K.**, 2018. Flood susceptibility assessment in Kelantan river basin using copula. *International Journal of Engineering & Technology*, 7(2): 584-590.
47. **Ahmed K**, Shahid, S Chung E-S, Ismail T, Wang X-J (2017) Spatial Distribution of Secular Trends in Annual and Seasonal Precipitation over Pakistan. *Climate Research*. DOI:[doi.org/10.3354/cr01489](https://doi.org/10.3354/cr01489)
48. **Ahmed K**, Chung E-S, Song J-Y, Shahid S (2017) Effective Design and Planning Specification of Low Impact Development Practices Using Water Management Analysis Module (WMAM): Case of Malaysia. *Water* 9:173

49. **Ahmed, K.**, Shahid, S. & Harun, S., Wang X-J. (2017) Evaluation of the Performance of Gridded Precipitation Products over Balochistan Province, Pakistan. *Desalination and Water Treatment*. 79:73-86
50. **Ahmed, K.**, Shahid, S. & Harun, S., Wang X-J. (2016) Characterization of Seasonal Droughts in Balochistan Province, Pakistan. *Stochastic Environmental Research and Risk Assessment*.30: 747–762
51. **Ahmed, K.**, Shahid, S., Haroon, S. & Xiao-Jun, W. (2015) Multilayer perceptron neural network for downscaling rainfall in arid region: A case study of Baluchistan, Pakistan. *Journal of Earth System Science* 124(6):1325-1341.
52. **Ahmed, K.**, Shahid, S. & Harun, S. (2015) Statistical Downscaling of Rainfall in an Arid Coastal Region: A Radial Basis Function Neural Network Approach. *Applied Mechanics and Materials*. Trans Tech Publ, vol. 735, pp. 190-194.
53. Alamgir, M., Shahid, S., Mohsenipour, M. & **Ahmed, K.** (2015) Return Periods of Extreme Meteorological Droughts during Monsoon in Bangladesh. *Applied Mechanics and Materials*. Trans Tech Publ, vol. 735, pp. 186-189.
54. **Ahmed, K.**, Shahid, S. & Harun, S. (2014) Spatial interpolation of climatic variables in a predominantly arid region with complex topography. *Environment Systems and Decisions*: 1-9.
55. **Ahmed, K.**, Shahid, S., bin Harun, S., Ismail, T., Nawaz, N., & Shamsudin, S. (2014) Assessment of groundwater potential zones in an arid region based on catastrophe theory. *Earth Science Informatics*, 1-11.
56. **Ahmed, K.**, Shahid, S., Harun, S. (2014) Performance assessment of different bias correction methods in statistical downscaling of precipitation. *Malaysian Journal of Civil Engineering*, pp 311-324

### **Conference papers**

1. **Ahmed, K.**, Shahid, S., Nawaz, N., 1. Khan, N (2019) Understanding the Changing Patterns of Droughts during Cropping Seasons of Pakistan from 1901 to 2010. *Presented in Water and*

*Health Conference: Where Science Meets Policy, organized by the Water Institute at University of North Carolina, USA.*

2. **Ahmed, K.**, Shahid, S., Nawaz, N. (2019) Quantitative Assessment of Rainfall under CMIP5 RCP Scenarios in a Data Scarce Arid Region of Pakistan. *Presented in Scenario Forum-2019, Forum on Scenarios for Climate and Societal Futures in Denver, March 10-13, 2019* University of Denver, Denver, Colorado, USA.
3. **Ahmed, K.**, Shahid, S., Nawaz, N. (2018) Quantitative Assessment of Precipitation Changes under CMIP5 RCP Scenarios over the Northern Sub-Himalayan Region of Pakistan. Presented in *Workshop on Status of Climate Science And Technology In Asia-For IPCC AR6,* held on 15-16 November 2018 at Sheraton Imperial Kuala Lumpur Hotel, Malaysia.
4. **Ahmed, K.**, Shahid, S., Harun, S. (2016) Rainfall-Runoff Modelling in an Arid Catchment under CMIP5 RCP Scenarios. Presented in *Flood Catastrophes in a Changing Environment* held on 15<sup>th</sup> November at Kuala Lumpur, Malaysia.
5. **Ahmed, K.**, Shahid, S., Harun, S. (2016) Spatial and Temporal Variability of Rainfall under CMIP5 RCP Scenarios in an Arid Region of Pakistan. Presented in *CLIVAR Open Science Conference "Charting the course for climate and ocean research"* held on 18-25 September at Qingdao, China.
6. **Ahmed, K.**, Shahid, S., Harun, S. (2015) Inhomogeneity Detection in the Precipitation Series of Balochistan Province of Pakistan. Presented in *Third International Conference on Water Resources (ICWR-2015)* held on 24<sup>th</sup> - 25<sup>th</sup> November at BAYVIEW Hotel, Langkawi, Kedah, Malaysia.
7. Shahid, S., **Ahmed, K.**, Harun, S. (2015) Assessment of the quality of gauged-based gridded Precipitation data in an arid region. Presented in *Third International Conference on Water Resources (ICWR-2015)* held on 24<sup>th</sup> - 25<sup>th</sup> November at BAYVIEW Hotel, Langkawi, Kedah, Malaysia.
8. **Ahmed, K.**, Shahid, S., Harun, S. (2015) Validation of Reanalysis Data as an Alternative of Observed Precipitation. Presented in *Second IWA Malaysia Young Water Professional Conference 2015* held on 17<sup>th</sup> - 20<sup>th</sup> March at VIVATEL Hotel, Kuala Lumpur, Malaysia.
9. **Ahmed, K.**, Shahid, S., Harun, S. (2014) Radial basis function neural network for downscaling precipitation in an arid coastal region, *Proceedings of 5th International Graduate Conference on Engineering Science & Humanity 2014 (IGCESH 2014)*, Universiti Teknologi Malaysia (UTM)

10. **Ahmed, K.**, Shahid, S., Harun, S. (2014) Performance of bias correction methods in downscaling precipitation in arid region, presented in “*Blazing new trails towards innovative, sustainable and greener world*” organized by Faculty of Civil Engineering University Technology Malaysia.
11. **Ahmed, K.**, Asikin, N.R., Zardari, N.H. and Nurfarhain, M.R. (2013) Evaluation of Weighting Methods in Multi-Criteria Water Resource Problem, *Proceedings of 2013 IWHA Kunming Conference of “The Role of Water in the History: Exploring Historical Wisdom for Current Water Management”*, Kunming China, 28-30 January 2013, pp. 115-124.

### Book Publication

Zardari, N. H., **Ahmed, K.**, Shirazi, S. M. & Yusop, Z. B. (2015) Weighting Methods and their Effects on Multi-Criteria Decision Making Model Outcomes in Water Resources Management. Springer.

### Book Chapter

**Ahmed, K.**, Watto, M. A., Shahid, S., Nawaz, N., & Khan, N. (2021). Spatial Variability of Groundwater Storage in Pakistan. In M. A. Watto, M. Mitchell, & S. Bashir (Eds.), *Water Resources of Pakistan* (1st ed.). Springer International Publishing. <https://doi.org/10.1007/978-3-030-65679-9>

### Projects

S #	Title	Role	Sponsor
1	Groundwater Sustainability Assessment over Pakistan for Adaptation to Changing Environment funded by International Foundation for Science, Sweden.	Principal Investigator	The International Foundation For Science, Sweden
2	Modelling the Potential Impacts of Climate Change on the Precipitation and Temperature Patterns in Balochistan, Pakistan	Principal Investigator	Higher Education Commission, Pakistan
3	Spatial Assessment of Drought Risk During Crop-Growing Seasons In Balochistan, Pakistan	Principal Investigator	Higher Education Commission, Pakistan
4	A Decision Support System for Strategic Planning of Sustainable Water Security in Some Asian Belt & Road Countries	Co-Investigator	The Belt and Road Science and Technology Fund on

### **Reviewer**

Served as a reviewer for top international journals including Journal of Hydrology, Hydrological Sciences Journal, International Journal of Climatology, Plos One, Scientific Reports, Stochastic Environmental Research and Risk Assessment, Climate Research, Meteorological Applications, Weather, Journal of Hydraulic Engineering, Atmospheric Research, Theoretical and Applied Climatology.

### **Guest Editor**

Guest Editor of "Sustainability": "**Climate Change Impacts on Hydrology, Water Quality and Ecology**"  
[https://www.mdpi.com/journal/sustainability/special\\_issues/Climate\\_Change\\_Impacts\\_Hydrology\\_Water\\_Quality\\_Ecology](https://www.mdpi.com/journal/sustainability/special_issues/Climate_Change_Impacts_Hydrology_Water_Quality_Ecology).

### **Awards and Achievements**

- Received “Certificate of Excellence for achieving (B1 Grade) in PhD Thesis (School of Graduate Studies, University Technology Malaysia)
- Received “Certificate of Merit Thesis Award (School of Graduate Studies, University Technology Malaysia)
- Received Best student award (Faculty of Civil Engineering, University Technology Malaysia)
- Masters leading to PhD scholarship (From Lasbela University of Agriculture, Water & Marine Sciences under Higher Education Commission of Pakistan)
- Recipient of Graduate University Scholarship (From Sir Syed University of Engineering and Technology Karachi, Pakistan)

### **Experience**

Jan 2018 till date	<b>Assistant Professor</b> Department of Water Resources Management, Lasbela University of Agriculture, Water and Marine Sciences, Uthal, Balochistan, Pakistan
16 July 2009 to 14 Jan 2018	<b>Lecturer</b> Faculty of Water Resources Management, Lasbela University of Agriculture, Water and Marine Sciences, Uthal, Balochistan, Pakistan
22 July 2009 to 01 Feb	<b>Assistant Engineer</b>

2012 Planning and Works Department  
Lasbela University of Agriculture, Water and Marine Sciences, Uthal,  
Balochistan, Pakistan

01 January 2010 **Assistant Director Planning and development**  
to 01 Feb 2012 Planning and development Department  
Lasbela University of Agriculture, Water and Marine Sciences, Uthal,  
Balochistan, Pakistan

### **Workshops/ Trainings**

18 August 2016 Attended workshop on “**Training Workshop on Urban Water Simulation**” organized by University Technology Malaysia and Seoul Tech University South Korea.

08 to 09 September 2015 Attended “**International Workshop on Climate Change and Water Resources in Asian Countries**” organized by Department of Hydraulics and Hydrology, Faculty of Civil Engineering, University Technology Malaysia.

01 August 2015 Participated in “**Journal Author Academy Part 1: Writing your Manuscript**” by Springer online academy.

08 August 2015 Participated “**Journal Author Academy Part 2: Submitting and Peer Review**” by Springer online academy.

04 March 2015 Attended “**Publishing Connect Author Workshop**” jointly organized by University Technology Malaysia and Elsevier Publishing Campus.

3 to 5 November 2014 Attended workshops on “**Journal Publication**” organized by Water Research Alliance, University Technology Malaysia.

11 to 13 August 2014 Attended “**International Symposium on Groundwater resources in Varying Environment: Opportunities and Challenges**” organized by Department of Hydraulics and Hydrology, Faculty of Civil Engineering, University Technology Malaysia.

14 to 15 April 2014 Attended National seminar on Civil Engineering Research “**Blazing new trails towards innovative, sustainable and greener world**” organized by Faculty of Civil Engineering, University Technology Malaysia.

19 Feb 2014 Attended workshop on “**Graduate on Time (GOT)**” organized by Postgraduate student society of University Technology Malaysia.

15 Feb 2014 Attended workshop on “**Make Figures for publishing in thesis and research paper**” organized by Postgraduate student society Faculty of Civil Engineering, University Technology Malaysia.

- 22 Jan 2014 Attended workshop on “**SPSS Software Package**” organized by Postgraduate student society of University Technology Malaysia.
- 25 to 26 March 2013 Attended workshop on “**2-Days Matlab: Hands on Workshop**” organized by UTM SPACE.
- 10 to 19 March 2012 Attended workshop on “**Research Methodology**” organized by Faculty of Civil Engineering University technology Malaysia.
- 28 Dec 2010 to 21Jan 2011 Twenty three days Training as **Professional Competency Enhancement Program for Teachers (PCEPT)**. Jointly Organized by LUAWMS, National Academy of Higher Education, Learning Innovation Division, and Higher Education Commission Islamabad.
- 20 March 2009. Completed One Month Professional Course on **Primavera Project Planner 3.0**, From Skill Development Council Karachi Conducted at Techno men Institute of Computer Science & Engineering Karachi.
- 27 to 30 May 2008. Completed Two Months Professional Course on **Auto Cad 2004**. From Skill Development Council Karachi Conducted at Techno men Institute of Computer Science & Engineering Karachi.

### **Research areas/interests**

Climate Change, Drought, Water Resource Management

### **Computer Skills**

ArcGIS, SPSS, Minitab, SYSTAT, R, Statistica, MatLab, AutoCAD

### **Personal**

Father’s Name  
Date of Birth  
Nationality  
NIC



### **References**

**Dr. Shamsuddin Shahid**  
Associate Professor,  
Universiti Teknologi Malaysia

**Dr. Eun-Sung Chung**  
Seoul National University of  
Science and Technology, South  
Korea

**Prof Xiao-Jun Wang**  
Nanjing Hydraulic Research  
Institute, China





Signature

Date:22/12/2023