

PERSONAL INFORMATION

Firdos Khan



-  Flat # 304, Magalla Gateway Apartment, Street# 1-26B, near Alfalah Manzil, E-11/4, Islamabad (Pakistan)
-  +92-345 2433811
-  fkyousafzai@gmail.com
-  https://www.researchgate.net/profile/Firdos_Khan2

WORK EXPERIENCE

01/10/2017–31/03/2018

Consultant with Asian Development Bank (ADB)

Asian Development Bank (ADB)

Worked as a consultant with Asian Development Bank (ADB) in a project titled " Flood Emergency Reconstruction and resilience Project (FERRP)". In this project I worked on climate change assessment as well as hydrological assessment for the selected districts of Punjab.

21/07/2008–13/05/2013

Researcher (Scientific Officer)

Global Change Impact Studies Centre (GCISC), Cabinet Division, Government of Pakistan, Islamabad (Pakistan)

Involved in studies related to downscaling the climate information from coarser resolution to higher resolution using dynamical and statistical downscaling, impact of changing climate on water resources and agriculture. I worked there with the group working on the alternative energy sources using high resolution dynamical model in the coastal area of Pakistan. We used high resolution climate model, that is, Weather Research and Forecasting (WRF) model using nested domain to assess wind power potential in Pakistan. While working in GCISC, I was selected as a young scientist from Pakistan by the International Institute for Applied Systems Analysis (IIASA) to participate in their prestigious research program titled Young Scientists Summer Program (YSSP) in 2012. In IIASA, I worked with people from different nations and experts of IIASA's water team in the field of climate change and its impact on various key areas particularly on water resources of Pakistan. Being a statistician, I was involved in data analysis. While working as a scientist in GCISC, I attended various national and international training workshops and conferences.

Journal 's Publications:

- **Khan, F.**, Pilz, J., Ali S., 2017. Improved hydrological projections and reservoir management in the Upper Indus Basin under the changing climate. *Water and environment journal*, 31 (2), 235-244. DOI: 10.1111/wej.12237.
- **Khan, F.**, Pilz, J., Amjad, M., Wiberg, W., 2015. Climate variability and its impacts on water resources under IPCC climate change scenarios in the Upper Indus Basin, Pakistan. *Int. J. of Global warming*, 8(1), 46-69. DOI: 10.1504/ijgw.2015.071583.
- **Khan F.**, Pilz J., 2018. Modelling and Sensitivity analysis of River Flow in the Upper Indus Basin, Pakistan. *Int. J. Water*, Vol. 12, No. 1, 2018.
- **Khan F.**, Pilz J., Ali S., 2018 Evaluation of Statistical Downscaling Models by using Pattern and Dependent Structure in the Monsoon Dominated Region of Pakistan. *Weather* Vol. 73, No. 6. DOI: 10.1002/wea.3164
- **Ali, S., Li, D., Congbin, F., Khan, F.**, 2015. 21st Century climatic and hydrological changes over Upper Indus Basin of Himalayan region of Pakistan. *Environmental Research Letters*, 10 (1), 014007. DOI: 10.1088/1748-9326/10/1/014007.
- **Amjad, M., Zafar, Q., Khan, F., Munir, M.**, 2015. Evaluation of Weather Research and Forecasting Model for the Assessment of Wind Resource over Ghara, Pakistan. *International Journal of Climatology*, 35 (8) 1821–1832. DOI:10.1002/joc.4089.
- Zhao B., Han L., Pilz, J. Wu j., **Khan F.**, Zhang D., 2017. Metallogenic efficiency from deposit to

region—A case study in western Zhejiang Province, southeastern China. *Ore Geology Reviews*, 86, 957-970, DOI: 10.1016/j.oregeorev.2016.10.003.

- **Khan, F.**, Asghar, Z., 2010. Modelling and Volatility analysis of oil companies in Pakistan. *InterStat*, ISSN 1941-689X, *Statistics on Internet*.

Conference's Publications:

- **Khan, F.**, Pilz, J., S. Ali 2017. Impacts of Climate Change on Tarbela Reservoir; Hydrological Projections and Scenarios Analysis. International Science Policy Conference on Climate Change (SP3C), held in Islamabad from 18 to 20 December.
- **Khan, F.**, Pilz, J., S. Ali 2017. GCM Selection and Ensemble Projections using Statistical Methods under the latest Emission Scenarios. International Science Policy Conference on Climate Change (SP3C), held in Islamabad from 18 to 20 December.
- **Khan, F.**, Pilz, J., 2017. A Bayesian approach for GCMs selection and ensemble projections under the latest emission scenarios. *European Geosciences Union (EGU) General Assembly*, held from 23-28 April 2017, Vienna, Austria.
- **Khan, F.**, Pilz, J., 2016. Multi-site and multi-variables statistical downscaling technique in the Monsoon dominated region of Pakistan. *European Geosciences Union (EGU) General Assembly*, held from 17-22 April 2016, Vienna, Austria.
- **Khan, F.**, Pilz, J., 2015. Water availability in Indus River at the Upper Indus Basin under different climate change scenarios. *European Geosciences Union (EGU) General Assembly*, held from 12-17 April 2015, Vienna, Austria.
- **Khan, F.**, Pilz, J., 2014. The role of Indus River to the economy of Pakistan under IPCC climate change scenarios, the present and future. *Monsoon Asian Integrated Regional Study (MAIRS)*, open Science Conference, organized by Chinese Academy of Sciences with the collaboration of Institute of Atmospheric Physics (IAP) held in Beijing, China, April 7-10, 2014.
- **Khan, F.**, Pilz, J., 2014. Climate change and its impacts on water resources and management of Tarbela Reservoir under IPCC climate change scenarios in the Upper Indus Basin, Pakistan. *European Geosciences Union (EGU) General Assembly*, held from 27 April to 2 May, 2014, Vienna, Austria.
- Ali, S., Li, D., Congbin, F., **Khan, F.**, Yang, Y., 2013. Coupling of Regional Climate Model (RCM) and Hydrological model. *Proceeding of the 3rd international meeting of Amur-Okhotsk Consortium*. Published by Institute of Low Temperature Science, Hokkaido University, Research Institute for Humanity and Nature, Mitsui & Co., Ltd. *Environmental Fund*.
- Amjad, M., **Khan, F.**, Zafar, Q., 2012. Assessment of wind power potential in Pakistan using Weather Research and Forecasting (WRF) mesoscale model. International conference on "Climate Change: Opportunities and Challenges" organized by Pakistan Council of Science and Technology (PCST) and National University of Science and Technology (NUST), held in Islamabad, Pakistan, 9-11 May, 2012.
- **Khan, F.**, Asghar, Z., 2007. Modelling and Volatility analysis of Shell Pakistan in KSE. *International conference on statistical science with special reference to survival data analysis G.C. University Lahore*, 7-8 November 2007.

Conferences, workshops and training attended:

- Participated in international conference titled "International conference on statistical science with special reference to survival data analysis" organized by G.C. University Lahore with the collaboration of Higher Education Commission (HEC) and Pakistan Science Foundation (PSF) held Lahore, Pakistan, 7-8 November 2007.
- Participated in a workshop titled "International workshop on Green Technologies" organized by COMSTECH and WWF held at COMSTECH, Islamabad, Pakistan, 28-30 June, 2011.
- Participated in International conference on climate change and development held in Islamabad organized by Ministry of Environment, Pakistan, 21-22 October, 2010.
- Participated in a workshop titled "National Conference on learning from disasters" organized by UN-HABITAT Pakistan held in Islamabad, Pakistan, 22-23 February, 2012.

EDUCATION AND TRAINING

10/2013–07/2017	PhD Degree in Statistics (with Distinction) University of Klagenfurt University Road 65-67, 9020 Klagenfurt (Austria) www.aau.edu.at	EQF level 8
	■ Statistical Downscaling ■ Process-based Modelling □ Climate modelling □ Hydrological modelling ■ Bayesian Statistics ■ Computational statistics ■ Statistical Design of Experiments ■ Environmental Statistics ■ Stochastic Process ■ R Programming	
14/02/2005–10/09/2007	Master of Philosophy (M. Phil) Quaid-i-Azam University, Islamabad (Pakistan)	
	■ Advance Experimental Design ■ Advance Probability Theory ■ Econometrics and Time Series Analysis ■ Bayesian Statistics and Decision Theory ■ Survey Sampling ■ Linear Models	
01/10/2001–30/09/2003	Master of Science (MSc) Degree University of Peshawar, Peshawar (Pakistan)	
	■ Design of Experiments ■ Stochastic Process ■ Statistical Methods (Hypothesis Testing and Estimation) ■ Econometrics and Regression Analysis ■ Probability theory and Distributions	
09/01/2008–30/11/2008	Technical Skills Training Global Change Impact Studies Centre (GCISC), Islamabad (Pakistan)	
	Training on the use of Regional Climate Models (RCMs) starting with the basic simulation of cyclone and heavy precipitation events and post processing of output of RCMs. This training was on the following three RCMs: 1. Weather Research and Forecasting Models (WRF) 2. Regional Climate Model (RegCM) 3. Providing Regional Climate for Impact Studies (PRECIS) In the end, post processing of output of these RCMs was done with GrADS visualization software.	
01/03/2010–10/03/2010	Training on High Performance Computing (HPC) Global Change Impact Studies Centre (GCISC), Islamabad (Pakistan)	

A short training on how to build a parallel computing system (Supercomputer) by using computer software to connect different computer machines to make a cluster which have more computational power.

Distinctions:

- Selected as a young scientist by the International Institute for Applied Systems Analysis (IIASA) to participate in water group of their Young Scientists Summer Program (YSSP) in 2012.
- Selected as a young scientist by Monsoon Asia Integrated Study (MAIRS) to participate in international conference titled MAIRS Open Science Conference held in Beijing, China from April 7-10, 2014.

PERSONAL SKILLS

Foreign language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
Urdu	C2	C2	C2	C2	C2
English	C2	C2	C2	C2	C2
German	B1	B1	B1	B1	B1

Levels: A1 and A2: Basic user - B1 and B2: Independent user - C1 and C2: Proficient user
Common European Framework of Reference for Languages

Communication skills Excellent communication skills in English and other languages mentioned above.

Digital skills

General Computer Skills

- MS Windows
- MS Office
- Linux
- LaTeX

Data visualization and data analysis Software

- R
- SPSS
- GrADS
- EViews
- Minitab
- Statistica
- ArcGIS

ADDITIONAL INFORMATION

Sports activities

I have keen interest in sports like Cricket, Volleyball, Badminton, Basketball, Football, Tennis, Table tennis, Gym etc.

- Got first place (Badminton Champion 2017) in Badminton tournament in 2017 in the University of Klagenfurt, Austria.

Reviewer

Working as a reviewer for International Journals:

1. Environmental Research Letters (IOP)
2. Geosciences (Springer)
3. Water (MDPI)
4. Mountain Science (Springer)