

# AKHTAR ALI

## Assistant Professor

Department of Water Resources Management  
The University of Agriculture, Peshawar, Pakistan  
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## Research Interests:

Water resources management, vadose-zone hydrology On-Farm water management, soil water Infiltration modeling, Soil and water conservation, irrigation system design, Crop water assessment.

## Personal:

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- Date of Birth: May 06, 1983
- Place of Birth: Khyber Pakhtunkhwa, Pakistan
- Citizenship: Pakistani

## Education:

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- 2017 – 2020    **Ph.D. – School of Civil and Hydraulic Engineering (Hydrology and Water Resources)**, Ningxia University (China), Infiltration evaluation using modified Green-Ampt model and Automatic ring infiltrometer in heterogeneous soil.
- 2007 – 2008    **M.Sc. (Hons) Agriculture (Water Management)**, NWFP Agricultural University, Peshawar, Pakistan
- 2003 – 2006    **B.Sc. (Hons) Agriculture (Water Management)**, NWFP Agricultural University, Peshawar, Pakistan

## Trainings/Short Courses Completed:

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- Flow Measurement and Socio-Economic Survey, Department of Water Management, The University of Agriculture, Peshawar, Pakistan (03 Days)
  - Water Management for Agriculture Development. Pakistan Academy for Rural Development Peshawar, Pakistan (03 Days)
  - Ensuring Training Effectiveness. Higher Education Commission of Pakistan, and The University of Agriculture, Peshawar, Pakistan (03 Days).
  - Prospects and Opportunities for Agriculture Development in Pakistan. Department of Agriculture, University of Haripur, Pakistan (03 Days).
  - Food security through sustainable plant protection strategies. Department of Plant Protection, The University of Agriculture Peshawar, Pakistan (one week).
  - Pressurized Irrigation system. Engro-Asahi Polymer and Chemicals, Karachi Pakistan (3 Months)
  - Chinese Language, Ningxia University, Yinchuan, China (01 Year)
  - Conduct Trainings at Pakistan Academy of Rural Development as a Moderator/instructor.
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## Distinctions/Awards:

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1. **Chinese Government Scholarship** (2016-2020), PhD studies, Chinese Government.
2. **Academic Distinction Certificate** (2003-2006), BSc (Hons), The University of Agriculture Peshawar, Pakistan.

## Professional Experience:

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|                        |                                                                                                                                 |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Nov. 2017 - Present    | Assistant Professor, Dept. of Water Resources Management, Amir Muhammad Khan Campus, Agricultural University Peshawar, Pakistan |
| May 2011 - Oct. 2017   | Lecturer, Dept. of Water Management, Amir Muhammad Khan Campus, Agricultural University Peshawar, Pakistan                      |
| Aug-2010 - Apr 2011    | Supervisor Civil Work, PDMA/PaRRSA, SWAT, Pakistan                                                                              |
| April-2010 - July-2010 | Supervisor Technical Survey, AAB Pvt, Ltd. Water course lining evaluation project under MINFAL Pakistan                         |
| Jul-2009 - Jan-2010    | Regional Manager, Orbit Links Pvt Ltd, Pressurized Irrigation System Project under MINFAL Pakistan                              |
| Dec-2008 - Jun-2009    | Field Engineer, IterCooperation, Small Dam project. Peshawar, Pakistan                                                          |
| Aug-2007 - Jul-2008    | Internee under N.I.P. Dept. of Water Management, NWFP Agricultural University Peshawar, Pakistan                                |
| Oct-2006 - June-2007   | Research Assistant, Pakistan Forest Institute Peshawar, Pakistan                                                                |

## Key Short-Term assignments/consultancies

We are having 450 acres research farm at our campus, where we grow different crops and perform research activities. I am in charge of irrigation channels designing, land levelling, and On-farm water management activities from time to time.

**Courses Taught:** All courses taught in English as a course instructor

| Level                         | Course Title                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Undergraduate<br>Postgraduate | <ol style="list-style-type: none"> <li>1. Improvement of Watershed Areas</li> <li>2. Soil Water Plant Relation</li> <li>3. Physical Properties of Soil</li> <li>4. Irrigation System</li> <li>5. Water Quality</li> <li>6. Fundamentals of Water Management</li> <li>7. Research project and Scientific Writing</li> <li>8. Soil and Water Conservation</li> <li>9. Environmental Pollution and Management</li> <li>10. Soil Salinity</li> </ol> |

Note: 3(2-1) credit hour

**Research Supervised:**

- 01 M.Sc. (Hons) student as Supervisor.
- 02 M.Sc. (Hons) Students as Co.Supervisor.

**Computer Skills**

|                                             |                                                                                                                                       |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| <b><i>Simulation and Design models:</i></b> | <ul style="list-style-type: none"> <li>• Hydrus 1D</li> <li>• RETC</li> <li>• RUSLE</li> <li>• DISC</li> <li>• SWAT</li> </ul>        |
| <b><i>Design and evaluation</i></b>         | <ul style="list-style-type: none"> <li>• WinSRFR</li> </ul>                                                                           |
| <b><i>Statistic and Mathematical</i></b>    | <ul style="list-style-type: none"> <li>• SPSS</li> <li>• MATLAB</li> <li>• Origion Pro</li> </ul>                                     |
| <b><i>DSS Models:</i></b>                   | <ul style="list-style-type: none"> <li>• AQUA CROP</li> <li>• CROPWAT</li> </ul>                                                      |
| <b><i>General:</i></b>                      | <ul style="list-style-type: none"> <li>• Windows 10/7/XP.</li> <li>• Microsoft Office</li> <li>• Mendeley</li> <li>• -----</li> </ul> |

**Publications:****A. Publications in Peer Reviewed Journals:**

1. Gul Daraz Khan, Daulat khan, Khalid khan, Akhtar Ali and Muhammad Nazeer. (2009), Impact of Controlled and Free drainage on soil salinity in Mardan scarp, through long term simulation of solute transport model (Leachc). *Journal of Engineering & Applied sciences*. 28 (1): 19-22
2. Muhammad Hanif Khalil, Muhammad Aamir khan, Muhammad Ramzan, Masood Ur Rahman, Maazullah Khan, Muhammad Amin and Akhtar Ali. (2012), Drying of Apricots Using a Proficient Dish Type Solar Air Heater. *World Applied Sciences Journal*. 18 (8): 1102-1106
3. Hayat Zada, Bashir Ahmad, Hayat Badshah, Ahmad Ur Rahman Saljoqi, Muhammad Sajid, Qamar zeb, Muhammad Qasim, Akhtar Ali and Muhammad Younas. (2012), Comparative Study of sugarcane Genotypes Against Borer infestation at Sargodha-Punjab. *Sarhad Journal of Agriculture*. 28(4): 377-383
4. Akhtar Ali, Gul Daraz Khan and Farid Akbar. (2014), Performance Assessment of Existing Drip Irrigation Systems' Parameters (Uniformity, Efficiency and Adequacy Degree Installed In Selected Sites of Peshawar Valley. *Innovative Systems Design and Engineering*. 05(04): 66-72
5. Gul Daraz Khan, Akhtar Ali and Farid Akbar. (2014), Assessment of Estimated Design Discharge with Physical Need Based Installed Drip Irrigation Systems in Selected Sites of Peshawar Valley. *Journal of Energy Technologies and Policy*, 04(04): 75-81
6. Gul Daraz Khan, Akhtar Ali and Farid Akbar. (2014), Assessment of Coefficient of Variation of Emitters Flow Rate with Respect to Design, Manufacturer and Plugging in Installed Drip Irrigation Systems at Selected Sites of Peshawar Valley. *Advances in Life Science and Technology*, 19(-): 27-32
7. Akhtar Ali, Zhang Wei Jiang and Li Juan. (2020), Field scale ponding infiltration Assessment using modified Green-Ampt approach. *Pakistan Journal of Agricultural Sciences*, 57 (5): 1459-1468
8. Muhammad Mannan Afzal, Li Qiaoling, Haseeb Akbar, Fazli Hameed, Yingchi Mao, Akhtar Ali, Zhijia Li and Muhammad Shafeeque. (2021), Trends of precipitation and temperature extremes and climate variability over dongwan watershed, henan, china. *Pakistan Journal of agricultural Sciences*, 58 (1): 331-340
9. Li Jin-yan, Cui Lan-bo, Dou Miao, Akhtar Ali. (2021), Water resources allocation model based on ecological priority in the arid region. *Environmental Research*, 199(111201): 2-11, <https://doi.org/10.1016/j.envres.2021.111201>
10. Akhtar Ali, Bashir Ahmad. Muhammad Suhail, Irfan Ullah. (2021), Measurement of In-Situ Unsaturated Hydraulic Conductivity Using Inverse Approach. *International Journal of Modern Agriculture*, 10 (2): 3382-3403
11. Irfan Ullah, Fayaz Ahmad, Waheed Ullah, Ijlal Haider, Syed Fahad Shah, Akhtar Ali. (2021), Organic Fruit Farming: An Empirical Analysis of Consumers' Willingness to Pay in Khyber Pakhtunkhwa Province of Pakistan. *International Journal of Modern Agriculture*, 10 (2): 3364-3381
12. Irfan Ullah, Akram Ali, Waheed Ullah, Akhtar Ali, Muhammad Suhail, Ijlal Haider, Iqra Babar. (2021), An Estimation of Expenditures, Own and Cross Price Elasticities of Milk in Pakistan. *International Journal of Modern Agriculture*, 10 (2): 4280-4290

13. Ehtesham Ahmed, Firas Al Janabi, Wenyu Yang, Akhtar Ali, Naeem Saddique, Peter Krebs. (2022), Comparison of flow simulations with sub-daily and daily GPM IMERG products over a transboundary Chenab River catchment. *Journal of Water and Climate Change* 2022; jwc2022420. doi: <https://doi.org/10.2166/wcc.2022.420>
14. Anis Ur Rehman Khalil, Junzeng Xu<sup>1</sup>, Fazli Hameed, Akhtar Ali, Shah Fahad Rahim, Ahmed Awad, Qi Wei and Atif Muhammad Ali. (2022), Controlled drainage, to cope with the adverse impacts of climate change on paddy field's hydrology: a simulation study using the drainmod model, Kunshan, China. *Pakistan Journal of Agricultural Sciences*, 59(2) 187-198
15. Shaista Naz, Muhammad Arif, and Akhtar Ali. (2022), Women's Participation and its Determinants in Livestock Management Across the Developing World: A Systematic Review. *Sarhad Journal of Agriculture*, 38(5) 383-396
16. Akhtar Ali, Zhang Wei Jiang, Wang Xu Dong, Ehtesham Ahmed, Fazli Hameed, Ali Muhammad. (2023), Investigation of estimation of hydraulic parameters in heterogeneous soil. *Proceedings of the Institution of Civil Engineers – Water Management*, 176(2): 66-81. <https://doi.org/10.1680/jwama.20.00048>
17. Fazli Hameed, Shah Fahad Rahim, Anis Ur Rehman Khalil, Ram L. Ray, Xu Junzeng, Alhaj Yousef Hamoud, Akhtar Ali, Ning Tangyuan. (2025), Comparing Genotype and Climate Change Effects on Simulated Historical Rice Yields Using AquaCrop – *Rice Science*, 32(6): 845–856. <https://doi.org/10.1016/j.rsci.2025.09.001>

### **Convener / Member of Committees:**

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1. Member of Senate, Agriculture University Peshawar (2016 - 18)
2. Member, Purchase committee, AMK Campus (2012- 2015)
3. Coordinator Examination, AMK Campus (2012- 2016)
4. Staff Proctor, AMK Campus (2011to date)
5. Member Departmental Board of Studies.

### **Reviewer of Peer reviewed journals:**

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1. *Water Resources Management* (Springer)
2. *Applied Water Science* (Springer)
3. *Sarhad Journal of Agriculture*

### **References**

1. Dr Naveedullah  
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2. Professor. Zhang Wei Jiang  
School of Civil and Hydraulic Engineering, Ningxia University, 539#, Helanshan West Road, Xixia Region, Yinchuan City, Ningxia Hui Autonomous Region, P.R. China 750021  
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