### **Faculty Member's Profile**



#### Dr. Irfan Ahmed Shaikh

**Associate Professor** 

PhD. (Water Resources Engineering) University Putra Malaysia, Malaysia, 2015

<u>Department of Irrigation & Drainage</u>, <u>Faculty of Agricultural Engineering</u>

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Resume	https://fae.sau.edu.pk/id/profiles/irfan-ahmed-shaikh-cv.pdf
HEC Approved Supervisor	No

# **Description:**

A devoted teacher and researcher, who finds ways to involve students into their lessons and work with different learning styles to get the most out of each student. Additionally, he explains new ideas and unfamiliar concepts with authority and in a clear and concise way so that students can understand. Irfan has experience in teaching, research, hydraulic structures design, optimization and project management.

# **Research Profile**

# **Research Interests:**

- Modelling Evapotranspiration

- Soft Computing
- Water Resources Optimization
- Application of GIS and Remote Sensing in Water Resources Management
- Designing Hydraulic Structures
- Surface Water Modelling

# **Projects**

Evaluation of Traditional and Micro Irrigation Methods for Better Mango Production (2011 – 2012) sponsored by HEC: Worked as a Co-PI

# **Research Publications**

1	<b>Shaikh, I. A</b> , M. A. Mangrio, M. A. Talpur, U. Mirjat and G. M. Khushk. Performance of pan evaporation-based methods under arid climate of Tandojam, Sindh, Pakistan. Pakistan JournalAgriculture, Agricultural. Engineering, Veterinary. Science. 2018, 34 (2): 155-160.
2	<b>Shaikh, I.</b> A, Aimrun Wayoyk, M.A.Mangrio, and Aashifa Soomro. Comparative Study of Irrigation Advance Based Infiltration Methods for Furrow Irrigated Soils. Pertanika Journal of Science and Technology, Malaysia,25 (4): 1223 - 1234.
3	Nazar Gul, Muhammad Munir Babar, Asadullah Sarki, <b>Irfan Ahmed Shaikh</b> and Munir Ahmed Mangrio. Assessing the Effect of Different Water Table Depths on Water Use, Yield and Water Productivity of the Okra Crop. Mehran University Research Journal of Engineering & Technology (Accepted).
4	Mirjat, M., Talpur, M., Mangrio, M., Tagar, A., Junejo, S., & <b>Shaikh, I.</b> (2017). Water Delivery Performance of a Secondary Canals in terms of Equity and Reliability in Sindh Pakistan. Sindh University Research Journal-SURJ (Science Series), 49(3), 563-570.
5	Chattha, S. H., Mirani, B. N., Soomro, S. A., Ibupoto, K. A., <b>Shaikh, I. A.</b> , Khushk, G. M., & Khan, Z. A. (2017). Study on Cultivators Associating Post Harvest Losses of Onion Vegetable in Sindh's Mirpurkhas District. Journal of Basic and Applied Sciences, 13, 426-430.
6	<b>Shaikh, I. A.</b> , Munir Ahmed Mangrio, Shamim Ara Memon, Asadullah Sarki, and Shoukat Soomro. Impact assessment of watercourse lining in barani area: a case study of Karachi. Science International. 28(5),4607-4610
7	<b>Shaikh, I. A,</b> M.A.Mangrio, M.S. Mirjat, S H.Chattha, S A. Memon and G.M Khuskh.(2016). Mass Transfer Reference Evapotranspiration Empirical Methods for Arid Region. International Journal of Agriculture and Applied Sciences. Vol. 8, No.1

8	<b>Shaikh, I. A.</b> , Wayayok, A., & Lee, T. S. (2015). Preference Index-Based Allocation of Optimized Cropping Area at the Mirpurkhas Subdivision: Jamrao Irrigation Scheme in Sindh, Pakistan. Journal of Irrigation and Drainage Engineering, 141(12):1-10. (IF=1.09)
9	Shaikh, I. A., Wayayok, A., Abdullah, A. F. B., Soom, A. B. M., & Mangrio, M. (2015). Assessment of Water Application Losses through Irrigation Surveys: A Case Study of Mirpurkhas Subdivision, Jamrao Irrigation Scheme, Sindh, Pakistan. Indian Journal of Science and Technology, 8(11).1-15 (ISI and Scopus Indexed)
10	<b>Shaikh, I.A.,</b> & Lee, T.S. (2015). Estimating Earthen Tertiary Water Channel Seepage Losses as a Function of Soil Texture. Journal of Hydrologic Engineering, ASCE.21(2):17 (IF = 1.58)
11	M. A. Mangrio, M. S. Mirjat, N. Leghari, N. H. Zardari and <b>I. A. Shaikh</b> .(2015). Evaluating Water Application Efficiencies of Surface Irrigation Methods at Farmer's Field. Pakistan Journal Agriculture, Agricultural. Engineering, Veterinary. Science. 31 (2): 279-288
12	Mangrio, M. A., Mirjat, M. S., Leghari, N., Buriro, R. A., Talpur, M. A., <b>Shaikh, I. A.</b> , & Mirjat, M. U. (2015). Evaluating Farmers Perceptions and Technical Approach Regarding Ground Water Extraction in Lower Sindh. Science International, 27(1): 359-364
13	Mangrio, M. A., Buriro, R. A., <b>Shaikh, I. A.</b> , Leghari, N., Issani, M. A., Talpur, M. A., & Soothar, R. K. (2015). Evaluation of Recharge Behavior through Different Water Balance Approaches in Canal Command. Science International, 27(1). 371-476
14	<b>Shaikh, I. A.</b> , Chandio A. S., Mangrio M. A., and Faryad N.(2012). Calibration of adjustable orifice semi-modules at Bulgai distributary. Pakistan Journal of Agriculture Agricultural Engineering and Veterinary Sciences, 28: 177-185
15	G.M Chanar, AS Arain, AS Memon, MA. Mangrio and <b>I.A.Shaikh</b> , (2011). Moisture Movement in Silt Loam Soil under Trickle and Furrow Irrigation. Life Sciences International Journal, 5(1): 2075 -2081
16	Munir Ahmed Mangrio, G.M Chanar, <b>Irfan Ahmed Shaikh</b> and Imran Arshad (2011).Design And Calibration Of Newly Fabricated Broad Crested Weir And Its Comparison By Winflume Model" Life Sciences International Journal,10 (1)
17	Bhutto H.B; <b>Shaikh I.A</b> ; and Kuber R.A. (2010). Estimation of Transmissibility and Storage Coefficient of an Aquifer by Three Standard Methods. Journal of Mehran Engineering and Technology. 29(2): 239-246
18	M.A. Mangrio, <b>I.A. Shaikh</b> and M.S Mirjat, (2010). Optimizing Operational Strategies for Effective Drainage Management; A Case Study at HDCA Sanghar, Journal of Agriculture Agricultural Engineering and Veterinary Sciences.25(2): 66-82

### **Teaching Profile**

#### **Courses**

### **Courses (Under Graduate Level)**

- Hydrology
- Fluid Mechanics
- Pumps and Tube Wells
- Drainage Engineering
- Irrigation Engineering
- Soil Mechanics

### **Courses (Post Graduate Level)**

- Design of Hydraulic Structures
- Advanced Hydrology
- Soil Plant Water Relationship

### **Students Projects:**

- Status of Irrigation Supply and Demand of Selected Watercourses
- Calibration of Some Selected Adjustable Proportionate Modules (APM) At Bulgai Distributary
- Empirical Methods to Estimate Seepage Losses through Earthen Channels
- Design and fabrication of long-throated flume for measuring flow rate of earthen channels
- Effect of different irrigation frequencies on growth and water productivity of Barley crop
- Effect of different irrigation frequencies and gypsum application on sodic soil and yield of corn
- Consumptive use of Okra crop under different water table depths
- Reclamation of saline-sodic soils using organic amendments
- Effect of storage methods, storage periods and bulb size on quality of stored onion
- Investigating agriculture water management issues in selected union councils of district Pashin, Baluchistan.
- Economic and water use efficiency of rice crop in the command of Mohata Distributary.
- Grain size based empirical hydraulic conductivity methods.
- Investigating relationship between water quality and soil physio-chemical properties.
- Effect of different depletion levels on the yield of Maize crop.

## **Additional Tasks:**

- Incharge Computer and GIS LAB, FAE, Sindh Agriculture University, Tandojam
- Subject Editor of Pakistan Journal of Agriculture, Agricultural Engineering and Veterinary Sciences (PJAAEVS)