Altaf Ali Siyal

Designation: Professor
Nationality: Pakistani
Countries Visited: USA, UK, Australia, Turkey, Iran, Bangladesh, Oman, Singapore, Thailand, Macau (China), Nepal, Netherlands.
Google Scholar: https://scholar.google.com.pk/citations?user=sSMbppcAAAAJ&hl=en
ResearchGate: https://www.researchgate.net/profile/Siyal_Aa
Publons: https://publons.com/author/1277295/altaf-ali-siyal#profile
ORICID: 0000-0002-2058-0562
Mailing Address:
i. Office: Faculty of Agricultural Engineering, Sindh Agriculture University, Tandojam, Sindh, Pakistan
ii. Home: House No. A#17, Al-Wahid Housing Society, Near Madina Masjid, Qasimabad, Hyderabad, Sindh, Pakistan
Cell #: +92 (0)335-334-0405
Email: siyal@yahoo.com; aasiyal@sau.edu.pk; siyal1990@gmail.com

JOB EXPERIENCE

i. Administrative

2022- to date	**Dean** Faculty of Agricultural Engineering, Sindh Agriculture University Tandojam, Pakistan [Feb. 17, 2022 – to date]
2021 to 2022	**Chairman,** Department of Land and Water Management, Faculty of Agricultural Engineering, Sindh Agriculture University Tandojam, Pakistan [May 25, 2021 – to Feb. 25, 2022]
2020 to 2022	**Director ORIC,** Sindh Agriculture University Tandojam, Pakistan [Sept. 24, 2020 – to April 21, 2022]
May 2016 – Jan. 2020	Head of Integrated Water Resources Management, U.S.-Pakistan Centre of Advanced Studies in Water (USPCAS-W), Mehran University of Engineering & Technology, Jamshoro, Pakistan
March-May 2014	Incharge Dean, Faculty of Agricultural Engineering, Sindh Agriculture University Tandojam, Pakistan.
2011-2015	Chairman, Department of Land and Water Management, Sindh Agriculture University Tandojam, Pakistan.
2009-2011	Incharge Director, Information Technology Centre, Sindh Agriculture University Tandojam.

ii. Teaching

Thirty-two years' experience of Teaching and Research in the field of Irrigation, Drainage, Land & Water Recourses Engineering & Management, Soil Salinity & land reclamation, GIS & Remote Sensing applications, Soil & Water Conservation, Wetlands

2010- to date	Professor, Department of Land and Water Management, Faculty of Agricultural Engineering, Sindh Agriculture University, Tandojam Pakistan.

ACADEMIC QUALIFICATION

Post-Doc	**i. CSIRO**, Land and Water, Australian Tropical Science and Innovation precinct (ATSIP), James Cook University, Townsville, QLD, Australia, 2011. **ii. USDA-ARS**, US Salinity Laboratory and University of California Riverside, CA 92507, United States of America., 2007-2008.
Ph. D. (Soil & Water)	Institute of Water and Environment, Faculty of Agricultural Engineering, Food Production and Rural Land Use, Cranfield University at Silsoe, Cranfield University, United Kingdom.
M. E. (Irri. & Drain.)	Department of Irrigation and Drainage, Sindh Agricultural University Tandojam, Pakistan (Second Position, 83.25%), 1998.
B. E. (Agri. Engg.)	Sindh Agricultural University Tandojam, Pakistan (Second Position, 86.43%), 1990.

AWARDS

Fulbright Scholar Award, Netherlands Fellowship Program, Endeavour Fellowship Award, Borlaug Fellowship, Best University Teacher Award, Quaid-e-Azam Merit Scholarship

TEACHING AND RESEARCH

More than 60 research articles published in local and international journals related to soil and water issues with total ISI impact factor of 60. The courses taught include GIS and remote Sensing applications, Agricultural Land Drainage, Groundwater Modelling, Soil Water & Salinity Management, Irrigation Engineering, Soil and Water

PUBLICATIONS

Total impact factor = 63.6

1. **Siyal, A.A.;** Solangi, G.S.; Siyal, Zain; Siyal, P.; Babar, M.M.; Ansari, K. 2022**.** Shoreline change assessment of Indus delta using GIS-DSAS and satellite data. Regional Studies in Marine Science. 53: 102405. https://doi.org/10.1016/j.rsma.2022.102405 **[Impact factor = 1.624]**
2. Soomro, S. A.; Chen, K.; **Siyal A. A.** et al. 2021. Implications of variability in mechanical characteristics of rice straw under different moisture, variety, and loading rate. Fresenius Environmental Bulletin, 30(9): 10049 - 10456 **[Impact factor = 0.483]**
3. Siyal, P., Nafady, A., Memon, R., Sherazi, S. T. H., Nisar, J., **Siyal, A. A.**, ... & Bhagat, S. 2021. Highly selective, sensitive, and simpler colorimetric sensor for Fe2+ detection based on biosynthesized gold nanoparticles. Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, 254, 119645 **[Impact factor = 4.098]**
4. Ippolito, J., Ullman, J. L., Awan, S., Ansari, K., Cui, L. **Siyal, A. A.** 2021. Biochars Reduce Irrigation Water Sodium Adsorption Ratio. Biochar. **3,** 77–87. https://doi.org/10.1007/s42773-020-00073-z **[Impact factor = 11.452]**
5. Arfan, M., Ansari, K., Ullah, A., Hassan, D., **Siyal, A. A.**, & Jia, S. 2020. Agenda Setting in Water and IWRM: Discourse Analysis of Water Policy Debate in Pakistan. Water, 12(6): 1656. **[Impact factor = 2.524]**
6. Wajid, I.; Mahar, R. B.; Ansari, K.; **Siyal, A. A.**; Anjum, M. N. 2020. Integrated Assessment of Contemporary Hydro-geomorphologic Evolution of the Indus River Estuary, Pakistan in Context to Regulated Fluvial Regimes. Estuarine, Coastal, and Shelf Science. 236: 106657 **[Impact factor = 2.929]**
7. Bristow, K.L., Šimůnek, J., Halalia, S.A., and **Siyal, A.A**. 2020. Numerical simulations of the effects of furrow surface conditions and fertilizer locations have on plant nitrogen and water use in furrow irrigated systems. Agricultural Water Management. 232, 106044. https://doi.org/ 10.1016/j.agwat.2020.106044. **[Impact factor = 4.516]**
8. Solangi, K.A; **Siyal, A.A.**; Wu, Y.; Abbasi, B.; Solangi; Lakhiar, I.A; Zhou, G. 2019. An Assessment of the Spatial and Temporal Distribution of Soil Salinity in Combination with Field and Satellite Data: A Case Study in Sujawal District. Agronomy. 9(12), 869 **[Impact Factor: 2.603]**
9. Solangi, G.S.; **Siyal, A.A.**; Babar, M.M.; Siyal, P. 2019. Application of Water Quality Index, Synthetic Pollution Index, and Geospatial tools for the Assessment of Drinking-water Quality in the Indus Delta, Pakistan. Environmental Monitoring and Assessment. 191-731 https://doi.org/10.1007/s10661-019-7861-x **[Impact Factor: 1.959]**
10. Bhatti N.B; **Siyal, A.A.**; Qureshi, A.L.; Solangi G.S. 2020. Impact of small dam's construction on groundwater quality and level using a water-quality index model (WQI) and GIS in the Nagarparkar area of Sindh, Pakistan. Human and Ecological Risk Assessment: An International Journal. 26(10): 2586-2607. DOI: 10.1080/10807039.2019.1674634 **[Impact factor = 2.012]**
11. Solangi, G.S.; **Siyal, A.A**.; Babar, M; and Siyal, P. 2019. Evaluation of drinking water quality using the water quality index (WQI), the synthetic pollution index (SPI), and geospatial tools in Thatta district, Pakistan. Desalination and Water Treatment, 160(2019): 202-213 **[Impact factor = 1.234]**
12. Wajid, I; Mahar, R. B.; Ansari, K. and **Siyal, A. A.** 2019. Optimization of salinity intrusion control through freshwater and tidal inlet modification for the Indus River Estuary. Estuarine, Coastal, and Shelf Science. 224: 51-61. **[Impact factor = 2.611]**
13. Solangi, G.S.; **Siyal, A.A**.; Babar, M; and Siyal, P. 2019. Groundwater Quality Evaluation using the Water Quality Index (WQI), the Synthetic Pollution Index (SPI), and Geospatial tools: A case study of Sujawal district, Pakistan. Human and Ecological Risk Assessment: An International Journal. 26(6): 1529-1549. https://doi.org/10.1080/10807039.2019.1588099. **[Impact factor = 2.012]**

14. Solangi, G.S.; **Siyal, A.A.**; Babar, M. and Siyal, P. 2018. Evaluation of surface water quality using the Water Quality Index (WQI), and the Synthetic Pollution Index (SPI): A case study of the Indus Delta region of Pakistan. Desalination and Water Treatment. 118: 39-48. DOI: 10.5004/dwt.2018.22407 **[Impact factor = 1.234]**
15. Memon, M. S., Ali, K., **Siyal, A. A.**, Guo, J., Memon, S. A., Soomro, S. A., ... & Ji, C. 2018. Effects of plastic sheet on water saving and yield under furrow irrigation method in a semi-arid region. International Journal of Agricultural and Biological Engineering, 11(1), 172-177. **[Impact factor = 1.349]**
16. Wajid, I.; Mahar, R. B.; **Siyal, A. A.**; Anjum, M. N. 2018. Geospatial analysis of creeks evolution in the Indus Delta, Pakistan using multi-sensor satellite data. Estuarine, Coastal, and Shelf Science. 200: 324-334. https://doi.org/10.1016/j.ecss.2017.11.025. **[Impact factor = 2.611]**
17. Wajid, I.; **Siyal, A. A.**; Mahar, R. B.; Waqas A. and Anjum, M.A. 2017. Detection of hydromorphologic characteristics of Indus River Estuary, Pakistan using Satellite and field data. Arabian Journal for Science and Engineering. 42(6): 2539-2558. DOI 10.1007/s13369-017-2528-9. **(Impact factor = 1.092)**
18. **Siyal, A. A**.; Siyal, A. G. and Mahar, R. B. 2017. Spatial and temporal vegetation dynamics of Pai forest, Sindh, Pakistan using Remote Sensing and GIS. Journal of Forestry Research. 28(3): 593-603. DOI:10.1007/s11676-016-0327-x. **[Impact factor = 0.748]**
19. **Siyal, A. A**., Mashori, A. S., Bristow, K. L. and van Genuchten M. Th. 2016. Alternate furrow irrigation can radically improve the water productivity of Okra. Agricultural Water Management, 173: 55-60 **[Impact factor = 2.848]**
20. Šimůnek, J., Bristow, K.L., Halalia, S.A., and **Siyal, A.A**. 2016. The effect of different fertigation strategies and furrow surface treatments on plant water and nitrogen use. Irrigation Science. 34(1): 53-69 **[Impact factor = 1.822]**
21. **Siyal, A. A**.; Dempewolf, J. and Becker-Reshef, I. 2015. Rice yield estimation using Landsat ETM+ Data. Journal of Applied Remote Sensing. 9(1): 095986. DOI: 10.1117/1.JRS.9.095986 **[Impact factor = 0.937]**
22. **Siyal, A. A.**; van Genuchten, M. Th, and Skaggs, T. H. 2013. Solute transport in a loamy soil under subsurface porous clay pipe irrigation. Agricultural Water Management. 121: 73-80 **[Impact factor = 2.333]**
23. **Siyal, A. A**. Bristow, K. L., and Šimůnek, J. 2012. Minimizing nitrogen leaching from furrow irrigation through novel fertilizer placement and soil management strategies. Agricultural Water Management. 115: 242-251. **[Impact factor = 2.203]**
24. **Siyal, A. A.**, van Genuchten, M. Th, and Skaggs, T. H. 2010. Reclamation of Saline Soils by Partial Ponding: Simulations for Different Soils. Vadose Zone Journal. 9(2): 486–495 **[Impact factor = 2.133]**
25. **Siyal, A. A**., van Genuchten, M. Th, and Skaggs, T. H. 2009. Performance of pitcher irrigation systems. Soil Science. 174(6): 312-320 **[Impact factor = 0.974]**
26. **Siyal, A. A**., and Skaggs, T. H. 2009. Measured and simulated wetting patterns under porous clay pipe subsurface irrigation. Agricultural Water Management. 96(6):893-904. **[Impact factor = 2.016]**

PROJECTS

2021-22 One-year project on "*Establishment of GIS and Remote Sensing Center for Monitoring of Natural Resources*" of Rs. 11.545 funded by Government of Sindh (GoS) through ADP2022

2021 One-year project on "*Assessment of Time series Agricultural Drought in rainfed- areas of Sindh Province through application of indices and mapping using Google Earth Engine cloud Platform*" of Rs. 0.5 million funded by SAU Tandojam under Small Grant Research Projects (SGRP)

2019-20 Nine-month study on **"***Calibration of Gauges and Development of rating curves of 115 distributaries/minors of Nara Canal AWB for flow measurement*" of Rs. 8.3 million funded by the Water Sector Improvement Project (WSIP), Government of Sindh

20019 Six months study on **"**Impact of climate Change on Wetlands of Sindh" of Rs. 1.2 million, funded by Government of Sindh Pakistan

2018 Six months study on "*Impact of Climate Change in the Indus River Delta and Coastal Region of Pakistan*" of Rs. 1.2 million funded by Global Change Impact Studies Centre (GCISC), Islamabad

2017-18 Eighteen months research project, entitled "*Use of Multi-Level Remote Sensing to Evaluate Salinity on Irrigated Lands*" of Rs. 3.0 million funded by USAID through USPCASW, Mehran University of Engineering & Technology, Jamshoro

2016-17 Completed a 1.5-year research project, entitled "*Climate Change: Assessing the impact of seawater intrusion on Soil, Water and Environment on Indus delta using GIS & Remote Sensing tools*" of Rs. 2.46

million funded by USAID through USPCASW, Mehran University of Engineering & Technology, Jamshoro

2006-09 Completed a 3-year research project entitled "*Use of Subsurface Irrigation System to meet the water crises in the country*" of Rs. 1.058 million funded by Higher Education Commission (HEC) under NRPU.

SUPERVISOR POSTGRADUATE THESES

S#	Degree Program	Number of Students
1	Ph.D.	05
2	M.E./MS	32

REFERENCES

Dr. Sajjad (University of Las Vegas, USA)
Dr. Keith Bristow (CSIRO, Australia)
Dr. Todd Skaggs (US Salinity Lab, USA)
Dr. Jirka Simunek (Uni. Of California, USA)