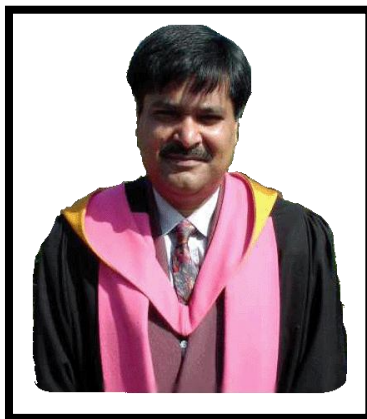


CURRICULUM VITAE



Dr. Altaf Ali Siyal
Post Doc. (USA and AUSTRALIA),
Ph.D. (UK),
M.E. (SAU),
B.E. (SAU)

Department of Land and Water Management
Faculty of Agricultural Engineering
Sindh Agriculture University Tandojam

CURRICULUM VITAE

November, 2011

1. PERSONAL

Name: Dr. Altaf Ali Siyal

Fathers' Name: Muhammad Ramzan Siyal

Designation: Professor

Year of birth: 1967

Nationality: Pakistani

Mailing Address:

i. Office: Department of Land and Water Management, Faculty of Agricultural Engineering, Sindh Agriculture, University, Tandojam, Sindh, Pakistan

ii. Home: House No. B-27, Abdullah Homes, Behind T & T Exchange, Qasimabad, Hyderabad. Sindh, Pakistan

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Countries Visited: USA, UK, Australia, Turkey, Iran, Bangladesh, Oman, Singapore, Thailand



2. EXPERIENCE

i. Administrative

2011-to date 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

Twenty one years' experience of Teaching and Research in the field of Irrigation, Drainage, Land & Water Management and Land Reclamation.

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

2006- 2010 Associate Professor, Department of Land and Water Management, Sindh Agriculture University, Tandojam, Pakistan.

2001-2006 Assistant Professor, Department of Land and Water Management, Sindh Agriculture University, Tandojam, Pakistan.

1997-2001 Assistant Professor in Agricultural Engineering, Z. A Bhutto Agricultural College, Larkana. Pakistan.

1990-1997 Lecturer in Irrigation and Drainage at Sindh Agriculture University, Tandojam, Pakistan.

3. ACADEMIC QUALIFICATION

- Post-Doc**
- i. CSIRO**, Land and Water, Australian Tropical Science and Innovation Precinct (ATSIP), James Cook University, Townsville, QLD, Australia. Research on “*Minimization of nitrate leaching from furrow irrigation system through HYDRUS-2D simulations*”, 2011.
 - ii. USDA-ARS**, US Salinity Laboratory and University of California Riverside, CA 92507, United States of America. Research on “*Simulation of Water and Solute transport under Subsurface Irrigation System*”, 2007-2008.
- Ph. D. (Soil & Water)** Institute of Water and Environment, Cranfield University at Silsoe, United Kingdom. Thesis on “improving the leaching efficiency for reclamation of saline clay aggregated soils”, 2001.
- M. E.** Department of Irrigation and Drainage, Sindh Agricultural University, Tandojam, Pakistan. Thesis on “Determination of hydraulic properties of soil as porous medium”, 1998.
- B. E.** Sindh Agricultural University, Tandojam, Pakistan. Dissertation on “Analysis and assessment of Drainage Projects in Sindh”, 1990.

4. ACHIEVEMENTS/AWARDS

- Endeavour Fellowship Award** For Post-Doc Research from CSIRO, Townsville, QLD, Australia, 2011.
- Fulbright Scholar Award** For Post-Doc Research from USDA-ARS, U.S. Salinity Laboratory and University of California Riverside, United States of America, 2007-08.
- Quaid-e-Azam Merit Scholarship** For completing M. E. (Agri.) from Sindh Agriculture University, Tandojam and Ph.D. from Institute of Water & Environment, Cranfield University, United Kingdom, 1996-2001
- Chancellor’s Medal** Silver Medal on First class Second Position (87% Marks) in B.E. (Agri.) 1990.

5. PROFESSIONAL ACTIVITIES

- i.** Member of International Commission on Irrigation and Drainage (ICID) UK. (Membership No. 60037859)
- ii.** Member of Pakistan Engineering Council (PEC). (Registration No. AGRI/1204)
- iii.** Senior Member Asia-Pacific Chemical, Biological & Environmental Engineering Society (APCBEEES)
- iv.** Member Cranfield University Alumni Association, United Kingdom.
- v.** Member Departmental Board of Studies, Department of Land and Water Management. Sindh Agriculture University, Tandojam
- vi.** Member Faculty Board of Studies, Faculty of Agricultural Engineering, Sindh Agriculture University, Tandojam

6. COURSES TAUGHT TO STUDENTS

- i.** Saline, Sodic and Waterlogged Soils
- ii.** Soil Water Plant Relationship
- iii.** Soil Water and Salinity Management
- iv.** Groundwater Physics
- v.** Irrigation Water Management
- v.** Soil Physics

7. FIELD OF INTEREST

Water flow and solute transport in the vadose zone; analytical and numerical methods for simulating water and solute movement in the subsurface; description and measurement of the unsaturated soil hydraulic properties; reclamation of salt-affected soils; preferential flow of water and solutes in structured media; pesticide transport, efficient use of water for irrigation.

8. COMPUTER SKILLS

- i. Good knowledge of use of HYDRUS-2D/3D model for simulations of water, solute, and contaminant transport in the soil.
- ii. Certificate in Web Page Designing (HTML) from City and Guilds, United Kingdom. Excellent computer skills of Office Automation, Networking and use of Internet.
- iii. Certificate in “Information Technology (IT) and Management Information Systems (MIS)” from Iqra University Karachi.
- iv. A good knowledge of office automation graphic packages viz. Paint Shop Pro (PSP) and Adobe Photo Shop; Data base programmes (Access and SQL server) and Mathematical soft-ware (Mathcad).

9. LANGUAGES

1. English

- i. TOEFL (550)
- ii. IELTS (6.5)
- iii. Certificate of participation in Second Teachers Spoken English Course Part I & II organised by English Language Development Centre (ELDC), Sindh Agriculture University, Tandojam.

2. Sindhi, Urdu and Siraiki

Excellent Reading, Speaking and Writing

10. TRAININGS

i. RECEIVED

- 2002** One month training course on “*Information Technology (IT) and Management Information Systems (MIS)*” from Iqra University Karachi sponsored by NDP held from 1st November to 30th November.
- 2007** Certificate of participation in three days training workshop on “*Efficient Irrigation Management Practices*” arranged by Mehran University of Engineering and Technology, Jamshoro under the linkage program with Colorado State University, USA.

ii. RESOURCE PERSON

- 2010** Five days training workshop on “*Modelling Water Flow and Contaminant Transport in Soils and Groundwater*” sponsored by Higher Education Commission, Islamabad for the teaching faculty.
- 2005** Training to Farmers on “*Precision Land Levelling and Efficient Irrigation Methods*” arranged by Sindh Agriculture University, Tandojam, under Project of “Efficient Use of Land & Water Resources for Poverty Alleviation”
- 2005** Training to officers of “*Sindh on Farm Water Management under National Program for improvement of Watercourses (NPIW)*”

iii. FOCAL PERSON

- 2010 Five days training workshop on “*Modelling Water Flow and Contaminant Transport in Soils and Groundwater*” sponsored by Higher Education Commission, Islamabad.

11. CONSULTANCY SERVICES

- 2006 Consultant for the project entitled, “*Pilot Project for Promotion of Water Conservation Technologies through Introduction of High efficiency Irrigation System in Sindh.*” Department of Agriculture Engineering, Ministry of Agriculture. Government of Sindh. Pakistan.

12. SCIENTIFIC PAPERS/PUBLICATIONS

Total Impact Factor: 5.123

1. Tagar, A. A., **Siyal, A. A.**; Brohi, A. D. and Mehmood, F. 2010. Comparison of Continuous and Intermittent leaching methods for reclamation of saline soils . *Pakistan Journal of Agriculture, Agricultural Engineering and Veterinary Sciences*. 26(2):36-47.
2. **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**)
3. **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**)
4. **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**)
5. Tagar, A. A., **Siyal, A. A.**; Siyal, A. G. and Memon, S. 2007. Effect of water quality and methods of water application on the leaching efficiency of a saline soil. *Pakistan Journal of Agriculture, Agricultural Engineering and Veterinary Sciences*. 23(1):47-52
6. **Siyal, A. A.**, Abro, Z. A and Siyal A. G. 2007. Use of pitcher irrigation for sustainable crop production in water scarce areas. International Conference on Water & Flood Management (ICWFM), Dhaka, Bangladesh. pp 313-318
7. Chandio, A.S.; Mirjat, M.S. and **Siyal A. A.** 2006. Management of Saline Water Up-coning into Overlying Shallow Fresh Ground Water Aquifers Using a Three Dimensional Finite Element Model. 14th International Soil Conservation Organization Conference. Water Management and Soil Conservation in Semi-Arid Environments. Marrakech, Morocco. pp 1-6
8. **Siyal, A. A.**, Abro, Z. A and Siyal A. G. 2005. Cropping and Tillage Techniques for Increasing the Leaching Efficiency of a Saline Clay Soil. Proceedings of International Conference Human Impacts on Soil Quality Attributes in Arid and Semiarid Regions. Isfahan, Iran.
9. **Siyal, A. A.**; Siyal, A. G.; Abro, Z. A. and Abro, A. H. 2005. Effect of aggregate density on the solute effective diffusion coefficient. *Pakistan Journal of Agriculture, Agricultural Engineering and Veterinary Sciences*. 21 (2): 37-43
10. **Siyal A. A.**; Siyal, A. G and Abro, Z. A. 2005. Effect of dry bulk density on the sorptivity of the soil aggregates. *Pakistan Journal of Agriculture, Agricultural Engineering and Veterinary Sciences*. 21 (1): 45-48

11. **Siyal, A. A.;** Siyal, A. G.; Siyal, A.W. and Memon R. 2003. A solute transport study for salt diffusion in non-spherical (irregular) aggregates. *Pakistan Journal of Agriculture, Agricultural Engineering and Veterinary Sciences*. 19(2): 44-47.
12. **Siyal, A. A.;** Siyal, A. G.; Siyal, A.W. and Memon R. 2003. Solute displacement in a clay soil under two modes of water application at different evaporation rates. *Pakistan Journal of Agriculture, Agricultural Engineering and Veterinary Sciences*. 19(1): 39-41.
13. **Siyal, A. A.;** Siyal, A. G.; Siyal, A.W. and Memon R. 2003. Reclamation of saline clay soil with different leaching methods. *Journal of Engineering and Applied Sciences* (ISSN 1023-862). 22(1): 108-110
14. **Siyal, A. A.;** Siyal A. G. and Abro, Z. A. 2002. Micropore solute transport: Study of diffusion and mass transfer models. *Pakistan Journal of Agriculture, Agricultural Engineering, and Veterinary Sciences* (ISSN 1015-3055). 18(1-2): 47-52.
15. **Siyal, A. A.,** Siyal, A. G. and Abro, Z. A. 2002. Salt affected soils their identification and reclamation. *Journal of Applied Sciences*. 2(5): 537-540.
16. **Siyal, A. A.,** Siyal, A. G.; Abro, Z. A.; Siyal, A. W. Memon, R. and Oad, F. C. 2002. Desalinisation of aggregated saline soil: Experiments on columns of spherical aggregates. *Journal of Applied Sciences*. 2(4): 444 - 447.
17. **Siyal, A. A.,** Siyal, A. G. and Abro, Z. A. 2002. Modelling of solute transport from single soil aggregate. *Journal of Applied Sciences*. 2(4): 470 - 473.
18. **Siyal, A. A.;** Leeds-Harrison, P. B.; Youngs, E. G.; Oad, F. C and Abro, Z. A. 2002. Numerical solution of the diffusion equation for non-stirred bathing solutions. *Journal of Applied Sciences*. 2(3): 277-280.
19. Oad, F. C.; Abro, Z. A.; Siyal, A.G.; Oad N. L. and **Siyal, A. A.** 2002. Water depletion effects on water infiltration rate, salt behaviour, and leaching requirements in saline soil. *Journal of Applied Sciences*. 2(3): 351-354.
20. Abro, Z. A.; Oad, F.C.; Siyal, A.G.; Oad N. L. and **Siyal, A. A.** 2002. Water depletion effects on the behaviour of salts in saline soils. *Journal of Applied Sciences*. 2(2): 186-19.
21. **Siyal, A. A.,** Siyal A. G., Abro, Z. A., and Oad, F. C. 2002. Determination of hydraulic properties of soil as porous medium. *Journal of Applied Sciences*. 2(1): 120-124.

13. PAPER PRESENTATIONS IN INTERNATIONAL CONFERENCES

- 2011 Paper presentation in International Conference on “Agricultural Engineering” organized by Department of Agricultural Engineering, Faculty of Engineering of King Mongkut's Institute of Technology Ladkrabang, Bangkok, Thailand in collaboration with Thai Society of Agricultural Engineering (TSAE) held at Pattaya, **Thailand** from March 31st to April 01, 2011
- 2011 Paper presentation in International Conference on “International Perspective on Water Resources and the Environment (IPWE-2011)” at National University of Singapore, **Singapore** from January 4-6.
- 2010 Paper presentation in International Conference on “Management of Soil and Groundwater Salinization in Arid Regions” held at Sultan Qaboos University, Muscat, **Oman** from January 11-14.
- 2007 Paper presentation in International Conference on “Water and Flood Management (ICWFM)” held at Bangladesh University of Engineering and Technology, Dhaka, **Bangladesh** from March 12-14.
- 2005 Paper presentation in International Conference on “Human Impacts on soil quality attributes in arid and semiarid regions” at Isfahan University of Technology, Isfahan, **Iran** from September 12-16.

- 2004 Paper presentation in 10th Congress of Soil Science Society of Pakistan on “Management of Natural Resources for Food Security” held at Sindh Agriculture University, Tandojam, **Pakistan** from March 16-19.
- 2001 Poster presentation at "British National Committee of Irrigation and Drainage Research Meeting" held at HR Wallingford, **United Kingdom**.
- 2000 Paper presentation in "International Conference on the Future of the Mediterranean Rural Environment: Prospectus for Sustainable Land use and Management" held at GDRS Meneman, Izmir, **Turkey**.
- 2000 Paper presentation in "First Postgraduate Research Conference" held at Cranfield University at Silsoe, **United Kingdom**.

14. PAPER PRESENTATIONS IN NATIONAL CONFERENCES

- 2010 International Conference on “Sustainable Water Management” organized by Mehran University of Engineering and Technology Jamshoro, Pakistan from September 15 to 17.
- 2009 Second Regional Workshop on “Sustainable Water Management” organized by Sindh Agriculture University, Tandojam under DelPHE project sponsored by British Council at Indus Hotel Hyderabad on 4th and 5th August.
- 2005 Paper presentation in “2nd National Conference on Agricultural and Animal Sciences” at Sindh Agriculture University, Tandojam, Sindh, Pakistan.
- 2004 Paper presentation in “1st National Conference on Agricultural and Animal Sciences” at Sindh Agriculture University, Tandojam, Sindh, Pakistan.

15. PARTICIPATION IN SCIENTIFIC CONFERENCES/MEETINGS

- 2008 Technical Committee Annual Meeting of W1188 Soil Physics Multi-State Research Group at Las Vegas, USA on 2nd, 3rd and 4th January.
- 2001 Annual Gerald Lacey Memorial Lecture on “The World Water Forum and its Implications for ICID”, London on 16th May.
- 2001 British National Committee of Irrigation and Drainage Research Meeting at HR Wallingford, UK on 21st March.
- 2000 British National Committee of Irrigation and Drainage Research Meeting at HR Wallingford, UK on 20th March.
- 1999 British National Committee of Irrigation and Drainage Research Meeting at HR Wallingford, on 17th March.
- 1999 Annual Conference, Luncheon and Awards Ceremony, at Royal Agricultural College, Cirencester, UK on 11th May.
- 1999 Annual Gerald Lacey Memorial Lecture on “Is there still role of soil physics?” London on 19th May.
- 1999 Conference on Management of Saline Soils, arranged by British Soil Water Group at University of Newcastle Upon Tyne, UK on 2nd June.

16. RESEARCH/THESIS/PROJECTS/REFEREEING

Recognised by **Higher Education Commission (HEC)** for supervising Ph. D. Students in the field of Water Resources Management.

i. Personal

2001- “Improving the leaching efficiency for reclamation of saline clay aggregated soils”. Thesis submitted to Cranfield University, United Kingdom for fulfilment of the requirement for the degree of Doctor of Philosophy (Ph.D.)

1998-“Determination of hydraulic properties of soil as a porous medium”. Thesis submitted for the partial fulfilment of the requirement for the degree of M. E. (Agri.) in Irrigation and Drainage.

1990-“Assessment and Analysis of Drainage Projects of Sindh”. Project report submitted for the partial fulfilment of the requirement for the degree of B. E. (Agri.).

ii. Supervisor/Co-supervisor in Graduate and Postgraduate Research

(a) Completed

2007- Supervisor of Mr. Wali Muhammad Daudpoto, completed M. E. thesis on “*Evaluation of groundwater quality in district Tando Muhammad Khan.*”

2007-Supervisor of Ms. Kiran Zaheer, completed M. E. thesis on “*Determination of effect of hydraulic conductivity and size of pitcher on the radius of soil wetting zone.*”

2006- Supervisor of Mr. Ahmed Ali Tagar, completed M. E. thesis on “*Effect of water quality and methods of water application on the leaching efficiency of a saline soil.*”

2006- Supervisor of Mr. Muhammad Yakoob Hasini, completed M. E. thesis on “*Runoff water harvesting technology for domestic and livestock use in Barkhan district of Balochistan.*”

2004- Supervisor for B. E. Project Report entitled “*Use of wastewater in agriculture in the pre-urban areas of Hyderabad city.*”

2003- Supervisor for B. E. Project Report entitled “*Effect of soil aggregate density on the solute effective diffusion coefficient.*”

1991- Co-supervisor for B. E. Project Report entitled “*Study of free hydraulic jump in a rectangular horizontal channel*”.

(b) Under process

Supervisor of Ms. Ashifa Soomro, **Ph.D.** student, working on “*Impact of use of polluted water of Phuleli Canal on soil properties, groundwater quality and human health*”.

iii. Research Projects (Completed)

2006-2009 Successfully 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 approved by Higher Education Commission (HEC) under NRPU.

iv. Refereeing:

- i. Agricultural Water Management
- ii. Journal of Agricultural Science and Technology, Iran
- iii. Journal of Hydrologic Engineering
- iv. Mehran University Research Journal of Engineering & Technology (ISSN 0254-7821).

v. Pakistan Journal of Agriculture, Agriculture Engineering and Veterinary Sciences (ISSN 1015-3055).

vi. Soil and Environment, Faisalabad

17. ARTICLES PUBLISHED IN NEWSPAPERS/MAGAZINES

S. No.	Name of Newspaper/magazine	Language	Date of publication	Title
1	DAWN	ENGLISH	21 st Feb., 2011	Irrigation mode for better mango fruits
2	DAWN	ENGLISH	21 st Sept., 2009	Low-cost irrigation for arid regions
3	DAWN	ENGLISH	29 th Dec, 2008	RBOD: Fears and Expectations
4	DAWN	ENGLISH	22 nd Dec, 2008	Water-saving clay pipe irrigation system
5	KHABROON & KOSHISH	SINDHI	14/15 Oct. 2005	Science behind the earthquakes
6	KOSHISH	SINDHI	12 th Aug., 2005	Will SIDA bring revolution in Irrigation System?
7	KOSHISH	SINDHI	27 th July, 2005	National Program for Improvement of Watercourses
8	DAWN/SCI-TECH WORLD	ENGLISH	9 th July 2005	Science behind the calamity
9	KHABROON	SINDHI	22 nd May, 2005	Why Sindh lags behind in the race of agricultural progress?
10	DAWN/SCI-TECH WORLD	ENGLISH	8 th January 2005	Intruding ever-so silently
11	KHABROON	SINDHI	9 th Dec. 2004	Indus delta: Vanishing mangroves
12	DAWN/SCI-TECH WORLD	ENGLISH	13 th Nov. 2004	Wastewater for Agriculture: Health risks (Cover Story)
13	KHABROON	SINDHI	3 rd August 2004	Effects of contaminants in water on human health (Cover Story)
14	KHABROON	SINDHI	15 th June 2004	Suggestions for betterment of Education System
15	KHABROON	SINDHI	5 th June 2004	Use of wastewater for Irrigation
16	KHABROON	SINDHI	26 th March 2004	Will SIDA bring reforms in irrigation system of Sindh?
17	KHABROON	SINDHI	19 th March 2004	Image of Prosperous Sindh and Different Views
18	DAWN	ENGLISH	15 th March 2004	Risks in SIDA Reforms
19	KOSHISH	SINDHI	26 th Feb. 2004	Search of lost river
20	DAWN	ENGLISH	23 rd Feb. 2004	Pitcher irrigation: a water saving technique
21	KOSHISH	SINDHI	31 st Jan. 2004	Knowledge of terms used in water measurement
22	KAWISH	SINDHI	31 st Dec. 2003	How to find solution of River conflicts
23	IBRAT	SINDHI	23 rd Oct. 2003	Where the life flourishes?
24	IBRAT	SINDHI	27 th May 2003	Soil Science
25	IBRAT	SINDHI	07 th May 2003	Why is Sindh poor?: Few Reasons
26	SCIENCE	SINDHI	Jan. 1994	Sprinkler Irrigation

18. OTHER SCIENTIFIC AND TECHNICAL RESPONSIBILITIES

- 2011** Member admission committee for graduate program of Sindh Agriculture University, Tandojam
- 2009-10** Member Higher Education Commission (HEC) syllabus revision committee for the discipline "Water Management" offered at graduate and postgraduate level
- 2002 to date** Member, Faculty Board of Studies, Faculty of Agricultural Engineering, Sindh Agriculture University Tandojam.
- 2002 to date** Member, Departmental Board of Studies, Department of Land and Water Management, Faculty of Agricultural Engineering, Sindh Agriculture University, Tandojam
- 2002 to 2007** Member, Departmental Board of Studies, Department of Irrigation and Drainage, Faculty of Agricultural Engineering, Sindh Agriculture University, Tandojam
- 2003 to 2004** Coordinator, Faculty of Agricultural Engineering, Sindh Agriculture University, Tandojam
- 2004 & 2005** Member organizing committee for organizing "1st & 2nd National Conferences on Agricultural and Animal Sciences" held at Sindh Agriculture University, Tandojam, Sindh, Pakistan.
- 2000** Member organizing committee for organizing "First Postgraduate Research Conference" held at Cranfield University at Silsoe, United Kingdom

19. REFERENCES

Prof. Dr. Rien van Genuchten

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COPPE/LTTC, Federal University of Rio de Janeiro, UFRJ
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Dr. Keith Bristow

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Email: Todd.Skaggs@ars.usda.gov