

VITA

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EDUCATION

Degree	Division/CGPA	% Marks	Institution
Ph.D. in Soil Science	3.41	72	PMAS, Arid Agriculture University Rawalpindi
M.Sc (Hons.) in Soil Sciences	3.74	79.4	PMAS, Arid Agriculture University Rawalpindi
B.Sc (Hons.) in Agriculture Major: Soil Science	3.63	77.2	PMAS, Arid Agriculture University Rawalpindi
Intermediate (HSSC)	1 st	62	Board of Intermediate & Secondary Education Rawalpindi
Matriculation (SSC)	1 st	66	Federal Board, Islamabad

RESEARCH AND EXPERIENCE PROFILE

22 April 2019 to Current: Assistant Professor, National Center of Excellence in Geology, University of Peshawar

02 April 2018 – 01 April 2019: Assistant Professor, Department of Soil and Environmental Sciences, MNS-University of Agriculture Multan.

October 2015 to March 2016: Visiting Research Scholar, Soil Physics Lab and Lab for Environmental Analysis (Six months), University of Georgia, USA.

March 2009 to June 2009: Worked as an internee in National Agriculture Research Centre, Islamabad doing an internship on “Sorptions parameters of Zinc & Lead on Nabipur Soil”

HONORS AND AWARDS

Awarded IRSIP program from HEC as visiting research scholar in University of Georgia, USA

Awarded HEC indigenous scholarship for Ph.D. program

Vice-chancellor talent scholarship during M.Sc (Hons.)

THESIS AUTHORED

Arsenate and arsenite leaching through field column from soils differing in structure. Ph.D. thesis. Department of Soil Science & SWC, PMAS-Arid Agriculture University, Rawalpindi. Pakistan. August 2017.

Arsenic speciation in compost leachate by Hydride-Generation atomic absorption spectroscopy. MSc. (Hons.) thesis Department of Soil Science & SWC, PMAS-Arid Agriculture University, Rawalpindi. Pakistan. December 2011.

THESIS SUPERVISED

	Student Name	Institute	Research Title - Status
1	Hafza Ruqia Maqsood	Department of Soil & Environmental Sciences, MNS-University of Agriculture Multan	Evaluation of laterite as adsorption media for arsenic removal from drinking water (Supervisor)
2	Mahak Bakhtawar	Department of Soil & Environmental Sciences, MNS-University of Agriculture Multan	Arsenic toxicity and tolerance in wheat and its amelioration through mineral nutrition (Member Supervisory Committee)

RESEARCH PUBLICATIONS (Total IF 24.182)

1. Imran, M., M.S. Akhtar, A. Mehmood, **S. Rukh**, A. Khan, C. Zhikun, G. Mujtaba. 2020. Soil selenium transformation across different parent materials in Pothwar uplands of Pakistan. Arab. J. Geosci. <https://doi.org/10.1007/s12517-020-06111-1>. (IF 1.327)
2. Maqsood H. R., **S. Rukh***, M. Imran, A. Mehmood, W. Ahmad, A. Matloob, H. S. Ahmad, A. Khan, S. A. Butt. 2020. Evaluation of laterite as filter media to remove arsenic from groundwater. J. Serb. Chem. Soc. <https://doi.org/10.2298/JSC200310057M>. (IF 1.097).
3. Ahmed, W., M. Imran, M.Yaseen, Tu. Haq, M.U. Jamshaid, **S. Rukh**, R.M. Ikram, M. Ali, A. Ali, M. Maqbool, M. Arif, M.A. Khan, 2020. Role of salicylic acid in regulating ethylene and physiological characteristics for alleviating salinity stress on germination, growth and yield of sweet pepper. PeerJ 8:e8475 <https://doi.org/10.7717/peerj.8475>. (IF 2.118)
4. Azam, A., M.S. Akhtar, **S. Rukh**, A. Mehmood, M. Imran, A. Khan, A. Qayyum, W. Ahmad, A.R.Gurmani. 2020. Changes in soil carbon fractions across loess toposequence. J. Soil Sci. Plant Nutr. 20: 1193–1202. (IF 2.057).
5. Khan, A., G. Jilani, D. Zhang, S. Akbar, K. M. Malik, **S. Rukh**, G. Mujtaba. 2020. Acidithiobacillus thiooxidans IW16 and sulfur synergistically with struvite aggrandize

- the phosphorus bioavailability to wheat in alkaline soil. *J. Soil Sci. Plant Nutr.* 20: 95-104. (IF 2.057)
6. Bashir, S., M. Rehman, M. Yousaf, A. Salam, A. B. Gulshan, J. Iqbal, I. Aziz, M. Azeem, **S. Rukh**, and R.M.A. Asghar. 2019. Comparative efficiency of wheat straw and sugarcane bagasse biochar reduces the cadmium bioavailability to spinach and enhances the microbial activity in contaminated soil. *Int. J. Phytoremediation* 21: 1098-1103. (IF 2.23)
 7. **Rukh, S.**, M.S. Akhtar, A. Mehmmod, N. Hoghooghi, and D.E. Radcliffe. 2018. Evaluating non-equilibrium solute transport through four soils of Pakistan using a HYDRUS model and non-parametric indices. *Soil Sci. Soc. Am. J.* 82: 1071-1084. (IF 1.92)
 8. Mehmood, A., M.S. Akhtar, M. Imran, and **S. Rukh**. 2018. Soil apatite loss rate across different parent materials. *Geoderma* 310: 218-229. (IF 4.036)
 9. Mehmood, A., M.S. Akhtar, **S. Rukh**, M. Imran, A. Hassan, K.S. Abbasi, A. Qayyum, T. Mahmood, W. Ahmed, K. Shahzad, A. Khan, and Z. Ahmed. 2018. Soil organic carbon stock variation with climate and land use in shale derived soils. *J. Serb. Chem. Soc.* 83: 785-793. (IF 0.82)
 10. **Rukh, S.**, M.S. Akhtar, A. Mehmood, S. Hassan, K.S. Khan, S.M.S. Naqvi, and M. Imran. 2017. Arsenate and arsenite adsorption in relation with chemical properties of alluvial and loess soils. *J. Serb. Chem. Soc.* 82: 943-954. (IF 0.97)
 11. Butt, R.M., M.S. Akhtar, A. Mehmood, M. Imran, **S. Rukh**, G.S. Kayani, M.T. Siddique, K.S. Abbasi, A. Qayyum, and Z. Ahmad. 2017. Relationship of soil potassium forms with maize potassium contents in soils derived from different parent materials. *Ital. J. Agron.* 12: 102-109. (IF 0.96)
 12. Jamil, S., A. Mehmood, M.S. Akhtar, M. Memon, M. Imran, **S. Rukh**, A. Qayyum, and M.A. Jenks. 2016. Changes in soil phosphorus fractions across a toposequence in the estuary plains of Pakistan. *Arch. Agron. Soil Sci.* 62: 1567-1577. (IF 2.14)
 13. Imran, M., M.S. Akhtar, K.S. Khan, A. Khalid, A. Mehmood, **S. Rukh**, G. Nazeer, and R. Manzoor. 2016. Total and extractable soil selenium contents variation within and across the parent materials. *J. Bio. Environ. Sci.* 9: 175-186.
 14. Imran, M., M.S. Akhtar, S. Hassan, A. Mehmood, **S. Rukh**, and K.S. Khan. 2015. Distribution of selenite and selenate with weathering in various soil parent materials. *Asian J. Chem.* 27: 4417-4424.
 15. Mehmood, A., M.S. Akhtar, M. Imran, and **S. Rukh**. 2015. Iron oxides forms quantification in relation with soil genesis in soil parent materials. *J. Bio. Environ. Sci.* 6: 2220-6663.
 16. **Rukh, S.**, M.S. Akhtar, M. Memon, A. Mehmood, and M. Imran. 2015. An overview of arsenic extraction and speciation techniques in soil and water. *Am. Chem. Sci. J.* 6:1-15.
 17. Mehmood, A., M.S. Akhtar, Y. Deng, J.B. Dixon, M. Imran, and **S. Rukh**. 2014. Iron oxides minerals in soils derived from different parent materials. *Int. J. Plant Soil Sci.* 6:110-116.
 18. **Rukh, S.**, M.S. Akhtar, M. Memon, A. Mehmood, and M. Imran. 2014. Distribution of arsenic forms in decomposed solidwaste. *Asian J. Chem.* 26: 6761-6768. (IF 0.22)
 19. Mehmood, A., M.S. Akhtar, K.S. Khan, A. Khalid, M. Imran, and **S. Rukh**. 2014. Relationship of phosphorus uptake with its fractions in different soil parent materials. *Int. J. Plant Soil Sci.* 4:45-53.
 20. Akhtar, M.S., M. Imran, A. Mehmood, M. Memon, **S. Rukh**, and G.S. Kiani, 2014. Apatite loss in Pothwar loess plain (Pakistan) fits a simple linear reservoir model. *Pedosphere* 24: 763-775. (IF 2.23)

CONFERENCE PRESENTATIONS, ABSTRACTS, AND PROCEEDINGS

1. Yasin, M. Vishendas, M. Mahmood ul Hassan, A. Riaz, **S. Rukh**, and K. Majeed. Sorption characteristics of cadmium, lead, and copper in calcareous soils. In Abstract, 13th Congress of Soil Science, Faisalabad-Pakistan held on 24th-27th March, 2010. pp, 247.
2. **Rukh, S***, M.S. Akhtar, D.E. Radcliffe, N. Hoghooghi, and A. Mehmood. Evaluating non-equilibrium solute transport through four Soils of Pakistan Using a HYDRUS Model. In Abstract, 17th International Congress of Soil Science, Faisalabad-Pakistan held on the 13th-15th March, 2018. pp, 164.
3. Mehmood, A*, A. Azam, M.S. Akhtar, **S. Rukh**, M. Imran, M. Muzzamil, and A. Qayyum. Variation in soil organic carbon fractions across a loess toposequence. In Abstract, 17th International Congress of Soil Science, Faisalabad-Pakistan held on the 13th-15th March, 2018. pp, 168.
4. Imran, M*, M.S. Akhtar, A. Mehmood, and **S. Rukh**. Selenium transformation and distribution in soils derived from various parent materials. In Abstract, 17th International Congress of Soil Science, Faisalabad-Pakistan held on the 13th-15th March, 2018. pp, 172.
5. Bakhtawar, M*, T. Haq, **S. Rukh**, M. Ali and B. Sattar. Arsenic toxicity and tolerance in wheat and its amelioration through mineral nutrition. In Abstract, 1st International conference on sustainable agriculture: Food security under changing climate scenarios, D. G. Khan-Pakistan held on the 3rd-5th April, 2019. pp, 235.
6. Maqsood, H.R., **S. Rukh***, W. Ahmad, A. Matloob, M. Imran, H.S. Ahmad, Z. Manzoor. Evaluation of laterite as adsorption media to remove arsenic from drinking water. In Abstract, 18th International Congress of Soil Science, Tandojam-Pakistan held on the 11th-13th February, 2020. pp, 574.
7. Mehmood, A*, J. Ahmad, **S. Rukh**, M. Imran, A. Qayyum, W. Ahmad, Z. Ahmad, A.R. Gurmani. Effect of foliar application of micronutrients on growth and quality attributes of sunflower (*Helianthus annuus L*) hybrids. In Abstract, 18th International Congress of Soil Science, Tandojam-Pakistan held on the 11th-13th February, 2020. pp, 108.
8. Ahmad, S., M. Imran*, S. Bashir, M. Ibrahim, A. Mehmood, **S. Rukh**. Arsenic uptake by maize in soils of different piedmont plains. In Abstract, 18th International Congress of Soil Science, Tandojam-Pakistan held on the 11th-13th February, 2020. pp, 321.
9. **Rukh S***, M.S. Akhtar, A. Khan, A. Mehmood, M. Imran, S.A. Butt. Characterization of laterite as potential arsenic adsorbent. In Abstract, International Conference on Climate-Resilient Smart Soil Management, Haripur, Pakistan held on the 5th – 7th March, 2020. pp, 21.