

CURRICULUM VITAE

1. PERSONAL

Name : Dr. Maria Mussarat
Father's Name : Ali Akbar Zulfiqar
Date of Birth : January, 28 1975
Place of Birth : Peshawar, (NWFP)
Marital Status : Married
Nationality : Pakistani by Birth
Religion : Islam
N.I.C Number : 17301-1431462-0

Permanent Address : House No. 50 Nishterabad

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2. WORK EXPERIENCE

Employer	Designation	B.S.	Duration
Khyber Medical University, Peshawar	Assistant Director Academics/Research	17 (Regular Basis)	31-7- 2008 to 18-3-2012
The University of Agriculture, AMK Campus, Mardan	Assistant Professor	19 (Contract basis)	18-3-2012to 22-10-2017
The Univ. of Agric. Peshawar,	Assistant Professor	TTS	23-10-2017 to date

3. COMPUTER SKILLS

- Got training on Arc-GIS 8.0 from ICIMOD Nepal
- Capable of working in mapping programmes like Arc-View, Surfer 8i, ILWIS 3.2, Map point
- Successfully completed Post graduate Diploma (I.T) from Allama Iqbal Open University Islamabad
- Completely capable of working in MS-office (98-XP and Vista)
- Successfully 6 months course in hardware engineering From Intel Land computer academy

4. TRAINING COURSES/CONFERENCES ATTENDED/PARTICIPATED:

<u>Name of Training/Conferences</u>	<u>Location</u>	<u>Sponsor/Organizer</u>	<u>Period/Duration</u>
1. Internship on Activities of Soil and Water Conservation in Hazara Division	Abbottabad	----	1997
2. Training Course On Arc-GIS with ICIMOD Nepal organized by	Swat, Pakistan	NCE Geology University of Peshawar	11-16 eptember 2004
3. *8 th Congress of Soil Science	NARC Islamabad	Soil Sci. Soc. Pakistan*	March, 2000
4. **10 th Congress of Soil Science	Sindh Agricultural University Tandojam	Soil Sci. Soc. Pakistan**	16-19 March, 2004
5. One day workshop on GIS application to automated Hydraulic Modeling	NWFP University of Engineering and Technology Peshawar	Department of Civil Engineering, NWFP University of Engineering and technology	8 May, 2004
6. One day workshop on “Consolidation of organic pollutants interventorization process”	Green hotel Peshawar	Environmental Protection Agency NWFP Peshawar	15 December, 2004
7. **11 th Congress of Soil Science	NARC Islamabad	Soil Sci. Soc. Pakistan**	26-31 March, 2006
8. 1 st International work shop on “ web- based tools on plant science Research”	Department of Agronomy, NWFP Agricultural University Peshawar	Higher Education Joint Linkage Programme (British Council, University of Glassglow, HEC, NWFP Agricultural University Peshawar)	16-19 th April, 2007
9. *12 th Congress of Soil Science	NWFP Agric. University, Pesh:	Soil Sci.Soc. Pak*	March, 2007
10. 13 th Congress of Soil Science	Serena Hotel, Faisalabad.	Soil Sci.Soc. Pak	March, 2010
11. 17 th Congress of Soil *,**	Serena Hotel, Faisalabad	Soil Sci. Soc. Paki.	March, 2018
12. IC ³ AF (Ist intl. conference on climate change Impacts on Agric.	Swabi University, KP	Swabi University, KP	April, 2018

13. National Symposium, Soil Plant water Interaction for Orchards Management	University of Haripur, KP	Oral	May, 2018
17 th Congress of Soil Sciences	Serena Hotel, Faisalabad	Oral and Poster	March, 2018
14. IC ³ AF (I st intl. conference on climate change Impacts on Agric	Swabi University, KP	Oral	April, 2018
15. Strategies For Ensuring Food Security In The Changing Climate'	Uni of Agric. Peshawar	participatedl	Oct, 2019
16.			

* Orally presented paper

**Presented research papers as poster presentations. In 17th congress my student poster got 3rd prize all over Pakistan

5. ACHEVEMENTS/AWARDS

- The First female Ph.D produced by KPK Agricultural University, Peshawar.
- Got second position in B.Sc (Hons) among all students of Department of Soil and Environmental sciences NWFP Agricultural University Peshawar.
- Aailed Indigenous Merit scholarship of HEC during Ph.D studies and submitted project on “Spatial Variability and Mapping of Heavy Metals in Soil and Plants Growing in Vicinity of Peshawar City”.

2. Research M.Sc (Hons)

a. M.Sc Hons Students

S. No.	Scholar Name	Research Title	Degree awarded/research in progress
Dec, 2017			
1.	Mr. Waqar Ahmad Jamal	Waste water irrigation induced reduction in NPK requirements for wheat crop production and associated risk assessment of heavy metals uptake by crop	Degree awarded
Nov, 2018			

2.	Mr. Masood Shah	Role of FYM in P adsorption, availability and uptake by maize (<i>Zea mays L.</i>) in artificially spiked lime soil	Degree Awarded
Feb, 2020			
3.	Mr. Muhammad Shair	Assessment of soil and plant nitrogen to phosphorus ratio on the growth and yield of wheat	Degree awarded
Feb, 2020			
4.	Mr. Inam Ullah	Soil Fertility Assessment and Mapping of Spatially Correlated Properties Through GIS In Kurram Agency.	Degree awarded
Oct 2020			
5.	Mr. Hazart Ali	Effect of Various Sources of P Fertilizers on Growth and Yield of Maize	Degree Awarded
For upcoming Board of Studies			
6.	Mr. Uzair Gul	Effect of biodegradable hydrogel on nutrient availability, moisture retention and growth of lettuce under restricted moisture conditions	Seminar Done thesis will be submitted in upcoming Board studies.
7.	Mr. Muhammad Daud	Envisaging Spatial And Temporal Changes In Soil Physic-Chemical Properties of Research Farm of The University of Agriculture, Peshawar	Seminar Done thesis will be submitted in upcoming Board studies.
Research			
8.	Mr. Adil Shehzad	Impact of brick kiln emissions on the heavy metal concentrations in agricultural soils of Jalala, Mardan	Research in Progress
9.	Mr. Mueen ud Din	Estimation of Soil Fertility Status of Palato Research Farm, Mardan Using GIS	Research in Progress
10.	Mr. Muhammad Omair	Effect of Phosphorus and Zinc on nutrient uptake and yield of spinach	Research in Progress
11.	Mr. Anfal Khan	Bio management of <i>parthenium hysterophorus</i> through composting and pyrolysis and their consequent	Research in Progress

		effect on soil and growth of spinach	
12.	Mr. Iftikhar Ali	Effect of biozote applied with farmyard manure on nutrients use efficiency and yield of wheat	Research in Progress
13.	Mr. Zohaib Ikram	In situ stabilization of Heavy metals and yield of Spinach through various organic amendments irrigated with waste water	Research in Progress
14.	Ms. Sobia	Effect of Humic Acid applied with farm yard manure in efficiency and yield of wheat	Research in Progress

b. B. Sc (Hons) Students

1	Mr. Anfal	Degree awarded
2	Mr. Muhammad Umair	Degree awarded
3	Mr. Abid Ijaz	Degree awarded
4	Mr. Iftikhar Ali	Degree awarded
5	Mr. Zohaib	Degree awarded
6	Mr. M. Shahid	Degree Awarded
7	Mr. Ikram Ullah	Degree Awarded
8	Mr. Hassam ul Haq	Degree Awarded
9	Mr. Muhammad Ali	Degree Awarded
10	Ms. Mahnoor Mustafeez	Degree Awarded

M.Sc (Hons) as Member Supervisory Committee from SES department

1. Helped **Mr. Waqar Ahmad as a Major member** in his research titled “Assessment of Heavy Metals Accumulation by Aquatic Macrophytes in Natural Habitat and Artificially Spiked Hoagland Solution”.
2. Helped **Ms. Fatima Gulzar as a Major Member** in her research titled “wheat productivity Phosphorus uptake as effected by different sources of Phosphopatic Fertilizer in Alkaline Soil”. (Degree awarded).
3. Helped **Mr. Muhammad Ibrar as a Major Member** in his research titled “Effect of different nitrogen levels on soil and plant N content and Its correlation with yielding potential of different wheat varieties” (Degree awarded).

4. Helped **Mr. Jawad ul Haq as a Major Member** in his research titled “Effect of mycorrhiza inoculation with different phosphorus levels on wheat productivity and root infection intensity (Degree awarded).
5. Helped **Mr. Muhammad Ilyas as major member** in his research titled “Biofortification of iron in wheat Varieties using Different Methods of Application” (Degree awarded)..

3. Conferences Attended/Participated

S.NO	Title	Venue	Presentation	Oral
➤	17 th Congress of Soil Science	Serena Hotel, Faisalabad. Soil Sci. Pak	Oral and Poster*	March, 2018
➤	IC ³ AF (Ist intl. conference on climate change Impacts on Agric.	Swabi University, KP	Oral	April, 2018
➤	National Symposium, Soil Plant water Interaction for Orchards Management	University of Haripur, KP	Oral	May, 2018
➤	17 th Congress of Soil Sciences	Serena Hotel, Faisalabad	Oral and Poster	March, 2018
➤	IC ³ AF (I st intl. conference on Climate change Impacts on Agric	Swabi University, KP	Oral	April, 2018
➤	Two days National conference on Climate smart agriculture and crop modeling	University of Agriculture, Peshawar	Participated	April, 2018
➤	Strategies For Ensuring Food Security In The Changing Climate’	University of Agric. Peshawar	Participated	Oct, 2019
➤	National Seminar on Mountainous Agriculture and soil health	Soil Science Society of Pakistan & Institute of Education, Chella Campus, Uni of AJ & K Muzaffarabd	Participated	Sep 2019

➤	National Seminar soil Mangement under Chnaging climate	Soil science society, Pakistan. The University of Agriculture, Peshawar.	Organized and participated	Dec, 2019
	18 th Congress of Soil Science	Uni of Agric. Tandojam	Oral	Feb 2020
➤	16 th international weed science congress.at UAP	UAP	Oral	2021
➤	Two days Conference Sustainable farming Through Intervention of Agricultural Mechanization and Renewable Energy Resources	UAP	Oral	2021

Extras duties

- Deputy Female Staff proctor from 23 November 2017 till to date.
- Received the certificate of appreciation from the Vice Chancellor, The University of Agriculture, Peshawar for organizing workshop under supervision of addl. Chief Proctor UAP for women on “ Research Methodologies and Scientific Writings” sponsored by US Embassy, Pakistan held on 7th February, 2018.
- Received the certificate of appreciation and shield for organizing the four days conference on “Agriculture Problems and Food Security in the Changing Climate” under supervision of chief organizer Prof. Dr. Zahir Shah Dean Faculty of Crop Production Sciences UAP held on 14-17 November, 2018.
- Organized World Soil Day 2019 and onward at the department of soil and environmental Sciences UAP.
- Organized An Workshop on “ Hands On Training On End Note Software for the Research students of Department of soil and Environmental sciences”

PUBLICATIONS

1. **Maria Mussarat**, Muhammad Shair, Dost Muhammad, Ishaq Ahmad Mian, Shadman Khan, Muhammad Adnan, Shah Fahad, Eldessoky S. Dessoky, Ayman EL Sabagh, Afia Zia, Bushra Khan, Haroon Shahzad, Shazma Anwar, Haroon Ilahi, Manzoor Ahmad, Hamida Bibi, Muhammad Adnan and Farmanullah Khan. 2021. Accentuating the Role of Nitrogen to Phosphorus Ratio on the Growth and Yield of Wheat Crop Sustainability. 13, 2253. <https://doi.org/10.3390/su13042253>
2. **Maria Mussarat**, Hazrat Ali, Dost Muhammad, Ishaq Ahmad Mian, Shadman Khan, Muhammad Adnan, Shah Fahad, Fazli Wahid, Khadim Dawar, Shamsheer Ali, Afia Zia, Manzoor Ahmad, Sowm Khan, Wajid Ali Shah, Muhammad Romman, Rainaz Parvez, Manzer H.Siddiqui, Abid Khan, Depeng Wang, Xue Jiang. Comparing the phosphorus use efficiency of pre-treated (organically) rock phosphate with soluble P fertilizers in maize under calcareous soils. Peer J. **DOI:** <http://10.7717/peerj.11452>.
3. Ishaq Ahmad Mian, Bilal Ahmad, Shadman Khan, Bushra Khan, Khadim Dawar, Muhammad Tariq, **Maria Mussarat**, Mamoona Wali Muhammad, Shamsheer Ali, Hamida Bibi, Farmanullah Muhammad, Khair Khan. 2021. Improving wheat productivity and soil quality through integrated phosphorous management with residual effect of biochar. Saudi Journal of Chemical Society. 2021. Volume 25, Issue 1, January, 101175. <https://doi.org/10.1016/j.jscs.2020.11.008>
4. Shadman Khan, Zahir Shah, Ishaq Ahmad Mian, Khadim Dawar, Muhammad Tariq, Bushra Khan, **Maria Mussarat**, Hazrat Amin, Muhammad Ismail, Shamsheer Ali, Tasneem Shah, Saud Alamri, Manzer H. Siddiqui, Muhammad Adnan, Muhammad Romman, Shah Fahad, Aqib Nouman and Abid Kamal. 2020. Soil Fertility, N₂ Fixation and Yield of Chickpea as Influenced by Long-Term Biochar Application under Mung–Chickpea Cropping System. Sustainability. <https://doi:10.3390/su12219008> 12, 9008.
5. Hamida Bibi, Suleman Hameed, Mudassar Iqbal, Amal AlBarty, Hadeer Darwish, Amanullah Khan, Shazma Anwar, Ishaq Ahmad Mian, Murad Ali, Afia Zia, Muhammad Irfan, **Maria Mussarat**. 2021. Evaluation of exotic oat (*Avena sativa L.*) varieties for forage and grain yield in response to different levels of nitrogen and phosphorous. DOI: 10.7717/peerj.12112.

6. Muhammad Irfan, Farooq Ishaq, Dost Muhammad, Muhammad Jamal Khan, Ishaq Ahmad Mian, Khadim Muhammad Dawar, Asim Muhammad, Manzoor Ahmad, Shazma Anwar, Shamsheer Ali, Fahim Ullah Khan, Bushra Khan, Hamida Bibi, Abid Kamal, **Maria Musarat**, Waheed Ullah, Muhammad Saeed. 2021. Effect of wheat straw derived biochar on the bioavailability of Pb, Cd and Cr using maize as test crop. Saudi Journal of Chemical Society. <https://doi.org/10.1016/j.jscs.2021.101232>
7. Rafiullah, Muhammad Jamal Khan, Dost Muhammad, Shah Fahad, Muhammad Adnan, Fazli Wahid, Saud Alamri, Farmanullah Khan, Khadim Muhammad Dawar, Inam Irshad, Subhan Danish, Muhammad Arif, Amanullah, Shah Saud, Bushra Khan, Ishaq Ahmad Mian, Rahul Datta, Tayebah Zarei, Anis Ali Shah, Musarrat Ramzan, Muhammad Zafar-ul-Hye, **Maria Mussarat** and Manzer H. Siddiqui. 2020. Phosphorus Nutrient Management through Synchronization of Application Methods and Rates in Wheat and Maize Crops. Plants 2020, 9, 1389. <http://10.3390/plants 9101389>
8. Ishaq Mian, Yasir Anwar, Shadman Khan, Maimoona Wali Muhammad, **Maria Mussarat**, Muhammad Tariq, Aiman Usman, Bushra Khan, Muhamad Adnan, Khadim Dawar, Khair Ullah and Jawad Ali. 2021. Integrated Influence of Zinc and Maize Along With Farm Yard Manure on the Yield and Nutrients Uptake in Spring Maize. Egyptian journal of soil science. DOI: <http://10.21608/EJSS.2021.78515.1450>
9. Munir Ahmad, Dost Muhammad, **Maria Mussarat**, Muhammad Naseer, Muhammad A. Khan, Abid A. Khan, Muhammad IzharShafi. 2018. Spatial variability pattern and mapping of selected soil properties in hilly areas of Hindukush range northern Pakistan. Eurasian J Soil Sci. 7(4): 355-364
10. Jamil Ahmad, Dost Muhammad, MujiburRahman and **Maria Mussarat**. 2018. Fortification of locally developed single super phosphate with zinc sulphate for enhanced zinc nutrition to maize crop under calcareous soil conditions. Current Agriculture Research Journal. 6(1): 30-36.
11. Mujib urRahman, Dost Muhammad, **Maria Mussarat**, Muhammad Sharif, Muhammad Irfan, Rafiullah, Jamil Ahmad and FarooqIshaq. 2018. Effect of acidulated levels and application techniques of rock phosphate on phosphorous use efficiency and yield of wheat in calcareous soil of Peshawar-Pakistan. . Pure and Applied Biol. 7(3): 1094-1103.
12. Rafiq Ahmad, Dost Muhammad, **Maria Mussarat**, Shah Fahad, ShahidUllah, Taimur Ahmad, and Sara Wahab. 2018. Effect of different levels of nitrogen on yield of Colocasia

(Colocasisesculenta) at district Malakand Dargai. Open journal of Soil Science. 87-98 (**Global impact factor is 1.36 but is not in Thomson Reuter list, Non-HEC**)

13. Abida Saleem, Sajida Perveen, Dost Muhammad, Muhammad Jamal Khan, **Maria Mussarat**, Nasrullah Muhammad, Ihtesham Kaleem, and Abdul Wahid. 2017. Integrating Effects of Applied Zn with Organic Amendments for Enhanced Maize and Wheat Yields at Two Diverse Calcareous Soils. Turkish journal of Agricultural and Natural Sciences. 4(2): 179–188 (**International Journal Impact factor is 2.6250 but not in Thomson Reuter list, Non-HEC**)
14. Munir Ahmad, Dost Muhammad, **Maria Mussarat**, Abid Ali Khan, Shah Faisal Khan and Muhammad WaqasJaved. 2016. Appraisal for site specific plant nutrient management through spatial variability and mapping in hilly areas of northern Pakistan. J Soils Sediments. DOI 10.1007/s11368-016-1606-z (**Thomson Reuter IF is 2.206 HEC recognized**)
15. Irshad Ali, Dost Muhammad, Fayaz Ali, Zia Ullah, Muhammad Amin, Muhammad Arshad, Fida Muhammad, **Maria Musrrat** and Muhsan Ali Kalhoro. 2015. Land evaluation of Umerzai area, District Charsadda for Cropping. Lasbela, U. J. Sci. Techl., 4: 168-171. (Nil)
16. Waheed, M., M.A. Khan, T. Naseem, D. Muhammad, and **M. Musarat**. 2015. Improving effectiveness of rock phosphate through mixing with farmyard manure, humic acid and effective microbes to enhance wheat and phosphorus uptake by wheat. Pure and applied biology. 4(4): 480-490(**HEC recognized category Y**)
17. Naseem, T., **M. Mussarat**, M. A. Khan, M. Waheed, T. Kamal, M. Adil and S. Nawab. 2015. Effect of city waste compost applied alone and in combination with chemical fertilizers on the yield and nutrient uptake of wheat and subsequent maize crop. Pure and applied biology. 4(4): 471-479. (**HEC recognized category Y**)
18. Samad, A., D. Muhammad, **M. Mussarat** and W. Ullah. 2014. Enhancing wheat yield and phosphorus use efficiency through foliar application in calcareous soil. J. Natural Science Research. 4(7): 70-74.
19. Bibi, Z, N. Khan, **M. Mussarat**, M.J. Khan, R. Ahmad, I.U. Khan and S. Shaheen. 2011. Response of GossypiumHirsutum genotypes to various nitrogen levels. Pak. J. Bot. 43(5): 2403-2411 (**Thomson Reuter IF. 0.69 HEC category W**)

20. **Mussarat, M**, A. U. Bhatti and F. U. Khan.2007.Heavy metals in sewage and canal water used for irrigation in the vicinity of Peshawar city. *Sarhad J. Agri.* 23(2):335-338(**HEC recognized category X**)
21. Bhatti, A.U., and **M. Mussarat**.2006. Heavy metal hazards in water, soils and plants in the vicinity of Peshawar city: Effect of city and Industrial effluents. *Proc. Natl. Sem. Soil Care for Sustainable Environment UAF (Proceedings)*
22. **Mussarat, M**, A.U. Bhatti. 2005. Heavy metal contents in fodder crops growing in vicinity of Peshawar city. *Soil and Environ.* 24(1):58-62 (**HEC recognized category Y**)
23. **Mussarat, M**. A. U. Bhatti, and M. Elahi. 1999. Soil Erosion assessment survey of Sumandar Kata catchment and adjoining area of Harro River in Abbottabad District. *Pak. J. Forestry.* 49(1-4):101-113. (NON HEC)

PAPERS PRESENTED IN CONFERENCES/ABSTRACTS PUBLISHED

- WaseemHaider*, Maria Mussarat, Dost Muhammad, and Rafiq Ahmad. 2014. Ahmad Evaluating the Role of Humic Acid, FYM and Poultry Manure on yield of Colocasia for Organic Farming in Malakand Agency. Submitted to 15th International Congress of Soil Science on “Soil Management in Changing Climate” March 18-20, 2014, Islamabad, Pakistan.
- Rafiq Ahmad*, Dost Muhammad, Maria Mussarat, and Waseem Haider. 2014. Effect of Nitrogen levels on Yield of Colocasia (*Colocasia esculenta*) at Farmer’s Field in District Malakand. Submitted to 15th International Congress of Soil Science on “Soil Management in Changing Climate” March 18-20, 2014, Islamabad, Pakistan.
- Dost Muhammad*, Abdul Samad, Maria Mussarat, Muzamil Shah, and Muhammad Arif. 2014. Enhancing Wheat Yield and Phosphorous Use Efficiency through Foliar Application in Calcareous Soil. Submitted to 15th International Congress of Soil Science on “Soil Management in Changing Climate” March 18-20, 2014, Islamabad, Pakistan.
- Dost Muhammad*, Maria Mussrat, Muhammad Numan, and Abid Ali Khan. 2014. Influence of humic acid on phosphorus sorption in alkaline calcareous soil. Submitted to

15th International Congress of Soil Science on “Soil Management in Changing Climate”
March 18-20, 2014, Islamabad, Pakistan.

- Waqar Ahmad and **Maria Mussarat**. July 2021. Presented paper on” Assessment Of Heavy Metals Accumulation By Aquatic Macrophytes In Natural Habitat And Artificially Spiked Hoagland Solution” in 16th international weed science congress.at UAP.
- **Maria Mussarat** and Hazart Ali. June2021. Presented paper on “Effect of Pretreated Sources of Phosphatic Fertilizers on Yield and Phosphorus Uptake of Maize” in the conference on sustainable farming through intervention of agricultural mechanization and renewable energy resources at UAP.

M.Sc (Hons) STUDENTS SUPERVISED AT Amir Muhammad Khan Campus

- Masood Shah. 2018. Role of FYM in P adsorption, availability and uptake by maize (*Zea mays L.*) in artificially spike lime soil. Department of Soil and Environmental Sciences, Amir Muhammad Khan Campus, The University of Agric. Peshawar
- Waqar Ahmad Jamal. 2017. Waste water irrigation induced reduction in NPK requirements for wheat crop production and associated risk assessment of heavy metals uptake by crop. Department of Soil and Environmental Sciences, Amir Muhammad Khan Campus, The University of Agric. Peshawar

M.Sc (Hons) as Co-supervisor @ AMKC,Mardan

- **Waqas Khan**. 2015.
- **NaziaTahir**. 2014. Mapping of fertility status of Platoon Agricultural Research Farm. M.Sc thesis submitted to Department of Soil and Environmental Science, The University of Agriculture, Peshawar.

B.Sc (Hons) as Major Supervisor @ AMKC,Mardan

- **WaseemHaider**. 2014.Evaluating the Role of Humic Acid, FYM and Poultry Manure on yield of Colocasia for Organic Farming in Malakand Agency. Internship Report Submitted to Department of Soil and Environmental Sciences, The University of Agriculture, Peshawar, AMK Campus, Mardan

- **Muhammad Ismail.2014.** Evaluation of soil pH, EC and other salinity parameters of Platoo Agricultural Research Farm. Internship Report Submitted to Department of Soil and Environmental Sciences, The University of Agriculture, Peshawar, AMK Campus, Mardan
- **Sardar Ali.** 2015. Effect of split application of various doses of solo potash as foliar spray on the yield and quality of FCV Tobacco. Internship Report Submitted to Department of Soil and Environmental Sciences, The University of Agriculture, Peshawar, AMK Campus, Mardan
- **Amjad Qayyum.** 2015. Application of automated weather stations in different fields of agriculture. Internship Report Submitted to Department of Soil and Environmental Sciences, The University of Agriculture, Peshawar, AMK Campus, Mardan
- **WaqarAhamad Jamal.** 2015. Comparative effect of phosphorus sources on the yield and quality of tobacco under calcareous conditions. Internship Report Submitted to Department of Soil and Environmental Sciences, The University of Agriculture, Peshawar, AMK Campus, Mardan
- **Shakeel Akbar.** 2015. Effect of different levels of potassium with basal dose of nitrogen and phosphorus on the yield and quality of tobacco. Internship Report Submitted to Department of Soil and Environmental Sciences, The University of Agriculture, Peshawar, AMK Campus, Mardan

Along with them 10 students including IjazulHaq, Ihsanullah Khan, Naveed Ahmad, AmjadQayyum, Aasim Khan in 2016 and Above all Maqsoodjan, Qasim Zia, MuhamamdAwais, Basit Ali, MajidMehmood in 2017 completed internship reports under my supervision.

PROFESSIONAL EXPERIENCE AT KMU

a. Teaching Experience:

- Teaching as Assistant Professor in Department of Soil and Environmental Sciences, Amir Muhammad Khan Campus on contract basis since March, 18, 2012.
- I taught Biochemistry and Biostatistics as visiting faculty at Rs. 1000/h for two semesters at graduate levels at Post graduate college of Nursing, KMU, Peshawar.
- While working in Khyber Medical University as Assistant Director Research as additional duty from 01 July, 2009 to 31 December, 2009, assisted and coordinated following workshops with Director Research & Development, Khyber Medical University:

1. Two days works shop on Clinical Research Methods organized separately at LRH, HMC, KMC and KMU constituents institutes
2. One day workshop on Medical Writings organized separately at LRH, HMC, KMC and KMU constituents institutes.
3. Three days workshop on Biostatistics & SPSS Hands on Training organized separately at LRH, HMC, KMC and KMU constituents institutes
4. Two days workshop on Bio-Ethics organized at LRH for the whole medical colleges of the KPK.
5. Two days workshop on Problem Based learning: Curriculum development at College Physician & Surgeon Pakistan Regional Center, Peshawar for the whole medical colleges of the KPK.
6. Two days workshop on Problem Based learning: Curriculum development at Higher Education Commission, Islamabad for the whole medical colleges of the KPK.
7. One day workshop on integration of MBBS Curriculum at KMU Institute of Physical Medicine & Rehabilitation, Hayatabad, Peshawar.
8. One day workshop on semesterization of MBBS Curriculum at KMU Institute of Physical Medicine & Rehabilitation, Hayatabad, Peshawar.

b. Administrative Experience as Assistant Director Academics, Admission and Deputy Registrar at KMU

- Served in Khyber Medical University as Assistant Director Admissions & Academics on 31 July, 2008 till 01 September 2009 and then from 02 September 09 serving as Assistant Director Academics till to date.
- Assisted Director Academics, Admission and Quality Assurance in his official work.
- Shared duties with Deputy Registrar Establishment as Deputy Registrar Academics in Khyber Medical University for period of six months. In which performed inspections of following medical institutes/ medical colleges:
 - i- Hafeez Institute of Medical Sciences, Peshawar
 - ii- Abbottabad International Medical College, Abbottabad
 - iii- Pak International Medical College, Peshawar
 - iv- Razi Institute of Medical Sciences, Peshawar
- Cooperated in organizing and recorded minutes of 1st, 2nd, 3rd, 4th academic council Meetings held under supervision of Registrar, KMU and Director AA&QA, KMU.

c. Research Experiences

- i. Received three months internship at Soil and Conservation Department, Abbottabad, during which I got practical training on soil and water conservation and participated in their field activities. Compiled a report on “Activities of Soil and water conservation in Hazara Division”.
- ii. Conducted first Semi-detailed Survey on Soil Erosion Assessment of Sumandarkathacatchment and adjoining areas of Harro river in Abbottabad District. It was first of its kind in Pakistan and the survey consisted of 8000 ha land which was covered on foot. During this training and survey I got practical training on aerial photographs studies and topographic sheets at PFI, Peshawar.
- iii. Ph.D research was conducted on Spatial variability and mapping of heavy metals in soils and plants growing in vicinity of Peshawar city. It has a practical application in the field in assessment of pollution, problems and management of natural resources. During my research and after going through various trainings during the study, I enabled to use various mapping techniques including ARC-GIS 8, Surfer, Geo-statistics, VarioWin and other statistical programs. Thousands of soil, water and plants samples were analyzed for various physico-chemical characteristics, nutrient and heavy metal concentrations that enabled me to use various diagnostic equipments, computation of machine results and interpretation of data.
- iv. While taking training on ARC GIS at National Centre of excellence Geology University of Peshawar, organized by ICIMOD, Nepal a report was written on comparison of DEM (delineated drainage Pattern) with existing river network of Dara Adam Khel for the partial fulfillment of the training.

6. PROFESSIONAL MEMBERSHIP

- Life member of Soil Science Society of Pakistan
- Member of International Union of Soil Scientists
- Member of “Readers Club” National book Foundation of Pakistan
- Coordinator staff Pakistan International Human Rights organization at Amir Muhammad Khan campus Mardan

REFERENCES:

1. Prof. Dr. Muhammad Jamal Khan, Chairman Department of Soil and Environmental

Sciences, KPK Agricultural University, Peshawar

Phone: 0092-91-9216548, Cell No. 03005941417 E-mail: jamal@aup.edu.pk

2. Prof. Dr. Shad Muhammad, Director Academics, Admission & Quality Assurance, Khyber Medical University, Peshawar Phone # 9217696 ext:111 Email: drshad47@hotmail.com
3. Dr. AmanUllah Bhatti Ex- professor Department of Soil & Environmental Sciences Agricultural University Peshawar. Phone # 033392409410 Email: drbhattises@yahoo.com