

## **AMNA SHOAIB (PH.D.)**

(Professor)



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### **ACADEMIC QUALIFICATIONS**

- **Ph.D. (2002-2008)** in Mycology and Plant Pathology, University of the Punjab, Lahore. Pakistan.
- **M.Sc. (1999-2001)** in Botany, University of the Punjab, Lahore. Pakistan.
- **B.Sc. (1997-1999)** in Botany, Zoology, and Chemistry, University of the Punjab, Lahore. Pakistan

### **PROFESSIONAL EXPERIENCE**

- **Professor**, Faculty of Agricultural Sciences, University of the Punjab from 19-05-2022 to date.
- **Associate Professor**, Faculty of Agricultural Sciences, University of the Punjab from 04-11-2019 to 18-05-2022.
- **Assistant Professor**, Faculty of Agricultural Sciences, University of the Punjab from 14-05-2010 to 03-11-19.
- **Lecturer**, Institute of Mycology and Plant Pathology, University of the Punjab, from 15-08-08 to 15.04.2010.
- **Research Scholar**, First Fungal Culture Bank of Pakistan (FCBP), Institute of Mycology and Plant Pathology, University of the Punjab from 05.04.2004 to 01.04.2008.

### **DUTIES ASSIGNED BY THE INSTITUTE**

- **Member Doctoral Programme Coordination Committee**, DPP, FAS
- **Member Board of Studies**, DPP, FAS.
- **Managing Editor** of Mycopath, an official Journal of Myco-Phytopathological Society of Pakistan since 2010.
- **Editorial board** member of Myconews (2004-2006), quarterly published official newsletter of First Fungal Culture Bank of Pakistan, FAS.
- **Member** of the Research Committee, DPP, FAS.

### **RESEARCH INTERESTS**

#### **PLANT PATHOLOGY**

- Biotic and abiotic stress/s management of crops by integrated use of essential metals, fertilizers, and beneficial microorganisms
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## SCIENTIFIC RESEARCH SUMMARY

- Published and accepted Research papers: **162**; Impact factor: **115**; Total Citations: **1715**
  - ✓ Research Papers in Impact factor Journals: **81**; HEC-Recognized Journals: **46**; Non-HEC Recognized Journals: **35**
  - ✓ Monographs/Books: **5**; Book chapters : **3**
- Completed Research Projects: **11**
- Research student supervision: **Ph.D.: 8 (Completed), 1 (Thesis submitted) & 2 (ongoing); M.Sc. (Hons.): 31 (completed) & 3 (ongoing); B.Sc. (Hons.): 25 (completed).**
- Contribution to First Fungal Culture Bank of Pakistan: **Isolated, identified, and deposited 500 fungal cultures**
- **HEC Approved Ph.D Supervisor since December 2011.**

## ACADEMIC HONORS/AWARDS

- **INCENTIVE AWARD/HONORARIUM ON PUBLICATIONS** for the years **2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020 and 2021** by University of the Punjab, Lahore, Pakistan
- **RESEARCH GRANT, 2013-2014 of 10,0000/Rs. by Punjab University for strengthening of Environmental Plant Pathology Lab.** in the Faculty of Agricultural Sciences, University of the Punjab.
- **RESEARCH PRODUCTIVITY AWARD 2012 and 2013** (Category G) by Pakistan Council of Science and Technology.
- **FIRST PRIZE in POSTER COMPETITION** entitled *Influence of Cu(II) on southern blight of pea* in International Conference on Agriculture and Food Security issues in Global Environment Prospective to be held on 11-13<sup>th</sup> July, **2012**. Faculty of Agriculture, University of Poonch, Rawlakot. Azad-Jammu and Kahmir. PAKISTAN.
- **SECOND PRIZE in POSTER COMPETITION** entitled *Cu(II) uptake potential of micro and phyto adsorbents* in 8<sup>th</sup> National Phytopathological Conference to be held on 28-29<sup>th</sup> November, **2011**. Department of Plant Pathology, University of Agriculture, Faisalabad. PAKISTAN.
- **PRIZE for BEST Presentation** entitled “*Screening of mungbean genotypes under rice allelopathic stress for best agronomic and symbiotic traits*” in TWAS Regional Young Scientists Conference to be held on 2<sup>nd</sup>-5<sup>th</sup> November, **2009**, Armada Hotel, Petaling Jaya, Selangor, MALAYSIA.
- **TWAS/BIO VISION** grant to attend an international conference entitled Biovision to be held on 10-16 April **2008**, Bibliotheca Alexandrina, Alexandria, Egypt.
- **THIRD PRIZE in POSTER COMPETITION** entitled “*Biosorption potential of Schizophyllum commune for removal of heavy metal ions from aqueous solution*” in 3<sup>rd</sup> International Phytopathological Conference to be held on November 19-21<sup>th</sup>, **2007**. Department of Mycology and Plant Pathology University of the Punjab, Quaid-e-Azam Campus. Lahore. PAKISTAN.

## RESEARCH PUBLICATIONS (2002-2022)

### Publications in Journals having Impact Factor

1. **A. Shoaib**, Khurshid S. and Javaid A. (2022). Cloncurry buffel grass mitigated Cr(III) and Cr(VI) toxicity in tomato plant. *Scientific Reports*, 12: Article number: 20952 (IF: 4.996)
2. **A. Shoaib**, Abbas S., Nisar Z., Javaid A. and Javed S. (2022). Zinc highly potentiates the plant defense responses against *Macrophomina phaseolina* in mungbean. *Acta Physiologiae Plantarum*, 44(22). <https://doi.org/10.1007/s11738-022-03358-x>. (IF: 2.736)
3. **A. Shoaib**, Khan KA., Awan ZA., Jan BL. and Kaushik P. (2022). Integrated management of charcoal rot disease in susceptible genotypes of mungbean with soil application of micronutrient zinc and green manure (Prickly Sesban). *Frontiers in Microbiology*, <https://doi.org/10.3389/fmicb.2022.899224> (IF: 6.064)
4. ZA. Awan, **Shoaib A.**, Iftikhar MS., Jan BL. and Ahmad P. (2022). Combining biocontrol agents with plant nutrients for integrated control of tomato early blight through modulation of physico-chemical attributes and key oxidants. *Frontiers in Microbiology*, <https://doi.org/10.3389/fmicb.2022.807699> (IF: 6.064)
5. S. Ahmad, Sarwar A., **Shoaib A.**, Javaid A., Hanif MS. and Ali Q. (2022). Sustainable management of guava fruit fly *bactrocera zonata* (Tephritidae diptera) by entomopathogenic fungi. *Fresenius Environmental Bulletin*, 31: 5522-5527 (IF: 0.50)
6. S. Maqsood, Ali M., **Shoaib A.**, Ahmad S. and Noor-ul-Ain. (2022). Mass rearing of *Spodoptera litura* using a semi-synthetic diet based on wheat germ and tomato paste. *Pakistan Journal of Zoology*, DOI: <https://dx.doi.org/10.17582/journal.pjz/20220118030158> (IF: 0.687)
7. MFH. Ferdosi, **Shoaib A.**, Habib S. and Khan KA. (2021). Modulation of salt-induced stress impact in *Gladiolus grandiflorus* L. by exogenous application of salicylic acid. *Scientific Reports*, **11**, 15597. (IF: 4.996)
8. A. Javaid, Jabeen N., Khan IH. and **Shoaib A.** (2021). Effect of *Datura metel* on crop growth and physiology of bell pepper. *The Journal of Animal and Plant Science*, 31(6): 1862-1866. (IF: 0.570)
9. A. Javaid, Ali A., **Shoaib A.** and Khan IH. (2021). Alleviating stress of *Sclerotium rolfsii* on growth of chickpea var. Bhakkar-2011 by *Trichoderma harzianum* and *T. viride*. *Journal of Animal and Plant Sciences*, 31(6): 1755-1761. (IF: 0.570)
10. **A. Shoaib**, Akhtar M., Javaid A., Haider A., Nisar Z and Javed S. (2021). Antifungal potential of zinc against leaf spot disease in chili pepper caused by *Alternaria alternata*. *Physiology and Molecular Biology of Plant*, 27: 1361-1376. (IF: 3.023)
11. N. Jabeen, Javaid A., **Shoaib A.** and Khan IH. (2021). Management of southern blight of bell pepper by soil amendment with dry biomass of *Datura metel*. *Journal of Plant Pathology*, 103(3): 901-913.(IF: 2.643)
12. S. Javed, Mahmood Z., Khan KM., Sarker SD., Javaid A, Khan IH. and **Shoaib A.** (2021). Lupeol acetate as a potent antifungal compound against opportunistic human and phytopathogenic mold *Macrophomina phaseolina*. *Scientific Reports*, 11, Article number: 8417 (IF: 4.996)
13. **A. Shoaib**, Ferdosi MFH., Saleem A. and Javed S. (2021). Morphological and biochemical variations induced by synergy of salicylic acid and zinc in cockscomb. *Folia Horticulturae*, 33(1): 1-11. (IF: 1.934)
14. **A. Shoaib** and Awan ZA. (2021). Mineral fertilizers improve defense related responses and reduce early blight disease in tomato (*Solanum lycopersicum* L.). *Journal of Plant Pathology*, 103: 217-229. (IF: 2.643)

15. M. Rafiq, Javaid A. and **Shoaib A. (2021)**. Antifungal activity of methanolic leaf extract of *Carthamus oxyantha* against *Rhizoctonia solani*. *Pakistan Journal of Botany*, 53(3): 1133-1139. (IF: 1.101)
16. W. Sharf, Javaid A., **Shoaib A.** and Haider I. (2021). Induction of resistance in chili against *Sclerotium rolfsii* by plant growth promoting rhizobacteria and *Anagallis arvensis*. *Egyptian Journal of Biological Pest Control*, 31, Article no 16. (IF: 2.05)
17. S. Siddique, **Shoaib A.**, Khan SN. and Mohy-ud-din A. (2020). Screening and histopathological characterization of sunflower germplasm for resistance to *Macrophomina phaseolina*. *Mycologia*, 113(1): 92-107. (IF: 2.696)
18. S. Akhtar and **Shoaib A. (2020)**. The counter defence system of antioxidants in Coelomycetous emerging human and plant pathogenic fungus *Macrophomina phaseolina* against copper toxicity. *Environmental Science and Pollution Research*, 27: 597-606. (IF: 4.223)
19. Nafisa, **Shoaib A.**, Iqbal J. and Khan KA. (2020). Evaluation of phenotypic, physiological and biochemical attributes connected with resistance in tomato against *Alternaria solani*. *Acta Physiologiae Plantarum*, 42, Article number: 88. <https://link.springer.com/article/10.1007/s11738-020-03076-2>. (IF: 2.35)
20. **A. Shoaib**, Ali H., Javaid A. and Awan ZA. (2020). Contending charcoal rot disease of mungbean by employing biocontrol *Ochrobactrum ciceri* and zinc. *Physiology and Molecular Biology of Plants*, 26(7): 1385–1397. (IF: 2.391)
21. S. Banaras, Javaid A. and **Shoaib A. (2020)**. Non-chemical control of charcoal rot of urdbean by *Sonchus oleraceus* application. *Planta Daninha*, 38: e020216088. (IF: 0.705)
22. A. Ali, Javaid A., **Shoaib A.** and Khan IH. (2020). Effect of soil amendment with *Chenopodium album* dry biomass and two *Trichoderma* species on growth of chickpea var. Noor 2009 in *Sclerotium rolfsii* contaminated soil. *Egyptian Journal of Biological Pest Control*, 30: 102. (IF: 1.995)
23. A. Javaid, Munir R., Khan IH. and **Shoaib A. (2020)**. Control of the chickpea blight, *Ascochyta rabiei* with the weed plant, *Withania somnifera*. *Egyptian Journal of Biological Pest Control*, 30: 114. (IF: 1.995)
24. **A. Shoaib**, Nisar Z., Nafisa, Javaid A., Khurshid S. and Javed S. (2019). Necrotrophic fungus *Macrophomina phaseolina* tolerates chromium stress through regulating antioxidant enzymes and genes expression. *Environmental Science and Pollution Research*, 26(12): 12446-12458. (IF: 3.056)
25. **A. Shoaib**, Awan ZA. and Khan KA. (2019). Intervention of antagonistic bacteria as potential inducer of disease resistance in tomato to mitigate early blight. *Scientia Horticulturae*, 252 (27): 20-28. (IF: 2.769)
26. ZA. Awan, **Shoaib A.** and Khan KA. (2019). Crosstalk of Zn in combination with other fertilizers underpins interactive effects and induces resistance in tomato plant against early blight disease. *Plant Pathology Journal*, 35(4): 330-340. (IF: 1.57)
27. ZA. Awan, **Shoaib A.** and Khan KA. (2018). Variations in total phenolics and antioxidant enzymes cause phenotypic variability and differential resistant response in tomato genotypes against early blight disease. *Scientia Horticulturae*, 239: 216-223. (IF: 1.76)
28. **A. Shoaib**, Meraj S., Nafisa, Khan KA. and Javaid MA. (2018). Influence of salinity and *Fusarium oxysporum* as the stress factors on morpho-physiological and yield attributes in the onion. *Physiology and Molecular Biology of Plants*, 24(6): 1093-1101. (IF: 1.538)

29. S. Khurshid, Javaid A., **Shoaib A.**, Javed S. and Qaiser U. (2018). Antifungal activity and GC-MS analysis of aerial parts of *Cenchrus pennisetiformis* against *Fusarium oxysporum* f. sp. *lycopersici*. *Planta Daninha*, 36: page 1-10, Article No. e017166627, DOI: 10.1590/S0100-83582018360100023. (IF: 0.54)
30. K.A. Khan, **Shoaib A.**, Awan Z.A., Basit A. and Hussain M. (2018). *Macrophomina phaseolina* alters biochemical pathway in *Vigna radiata* that is chastened by Zn and FYM to improve plant growth. *Journal of Plant Interactions*, 13(1): 131-140. (IF: 1.839)
31. **A. Shoaib**, Munir M., Javaid A., Awan Z.A. and Rafiq M. (2018). Anti-mycotic potential of *Trichoderma* spp. and leaf biomass of *Azadirachta indica* against the charcoal rot pathogen, *Macrophomina phaseolina* (Tassi) Goid in cowpea. *Egyptian Journal of Biological Pest Control*, 28: 26. (IF: 0.38)
32. A. Javaid, Khan I.H. and **Shoaib A.** (2018). Management of charcoal rot of mungbean by two *Trichoderma* species and dry biomass of *Coronopus didymus*. *Planta Daninha* 36: e018182795. (IF: 0.544)
33. S. Khurshid, **Shoaib A.**, Javaid A., Akhtar F., Shafiq M. and Qaisar U. (2017). Management of Fusarium wilt of tomato by soil amendment with *Cenchrus pennisetiformis* under chromium stress. *Physiological and Molecular Plant Pathology*, 97: 58-68. (IF: 1.39)
34. S. Rafi, **Shoaib A.**, Awan Z.A., Rizvi N.B., Nafisa and Shafiq M. (2017). Chromium tolerance, oxidative stress response, morphological characteristics and FTIR studies of phytopathogenic fungus *Sclerotium rolfsii*. *Folia Microbiologica*, 62: 207-219. (IF: 1.448)
35. A. Javaid, Qudsia H. and **Shoaib A.** (2017). Bioassays guided fractionation of *Senna occidentalis* for identification of natural antifungal constituents against *Macrophomina phaseolina*. *Planta Daninha*, 35:e01716348318. (IF: 0.461)
36. S. Banaras, Javaid A., **Shoaib A.** and Ahmed E. (2017). Antifungal activity of *Cirsium arvense* extracts against a phytopathogenic fungus *Macrophomina phaseolina*. *Planta Daninha*, 35: e017162738 (IF: 0.461).
37. A. Javaid, Niaz L. and **Shoaib A.** (2017). Effect of incorporation of leaf biomass of *Coronopus didymus* on management of basal rot disease of onion and plant physiology. *International Journal of Agriculture and Biology*, 19(3): 445-452. (IF: 0.746)
38. A. Javaid, Mubeen T., Bashir U. and **Shoaib A.** (2017). Management of parthenium weed by metabolites of *Alternaria japonica*. *Planta Daninha*, 35: e017161195 (IF: 0.461).
39. N. Sana, Javaid A. and **Shoaib A.** (2017). Effect of NPK fertilizers and commercial biofertilizers on southern blight disease and plant growth in chili. *Bangladesh Journal of Botany*, 46: 659-666. (IF: 0.233)
40. A. Ali, Javaid A. and **Shoaib A.** (2017). GC-MS analysis and antifungal activity of methanolic root extract of *Chenopodium album* against *Sclerotium rolfsii*. *Planta Daninha*, 35: e017164713. (IF: 0.461)
41. N. Sana, Bajwa R., Javaid A. and **Shoaib A.** (2017). Effect of biopower application on weeds growth and yield of rice. *Planta Daninha*, 35: e017164872. (IF: 0.461)
42. A. Javaid, Afzal L. and **Shoaib A.** (2017). Antifungal potential of a Brassicaceous weed *Sisymbrium irio* against *Macrophomina phaseolina*. *Planta Daninha*, 35: e017164280. (IF: 0.461)
43. N. Sana, Javaid A. and **Shoaib A.** (2017). Antifungal activity of methanolic leaf extracts of allelopathic trees against *Sclerotium rolfsii*. *Bangladesh Journal of Botany*, 46(3): 987-993. (IF: 0.233)
44. A. Javaid, Afzal L. and **Shoaib A.** (2017). Biological control of charcoal rot of mungbean by *Trichoderma harzianum* and shoot dry biomass of *Sisymbrium irio*. *Planta Daninha*, 35: e017165756. (IF: 0.461)

45. N. Sana, **Shoaib A.** and Javaid A. (2017). Management of collar rot disease in chili by farmyard manure and commercial biofertilizers. *Sains Malaysiana*, 46(7): 1693-1700. (IF: 0.47)
46. A. Javaid, Akhtar N., Khan A., **Shoaib A.** and Hafeez R. (2016). New host record of *Alternaria brassicicola* infecting triangle palm (*Dypsis decaryi*) in Pakistan. *Journal of Animal and Plant Sciences*, 26(6): 1894-1898. (IF: 0.38)
47. ZA. Awan, Akhtar N., **Shoaib A.** and Akhtar S. (2016). First report of *Aspergillus minisclerotigenes* as a postharvest pathogen of soybean seeds from Pakistan. *Journal of Plant Pathology*, 98(16): 683. (IF: 1.26)
48. Nafisa, **Shoaib A.**, Shafiq M. and Javaid A. (2016). Effect of *Sclerotium rolfsii* on uptake of heavy metal copper in pea (*Pisum sativum* L.). *International Journal of Agriculture and Biology*, 18(6): 1025-1031. (IF: 0.746)
49. S. Akhtar, **Shoaib A.**, Akhtar N. and Mehmood R. (2016). Separate and combined effects of *Macrophomina phaseolina* and copper on growth, physiology and antioxidative enzymes in *Vigna mungo* L. *Journal of Animal and Plant Sciences*, 26(5): 1339-1345. (IF: 0.38)
50. N. Sana, **Shoaib A.** and Javaid A. (2016). Antifungal potential of leaf extracts of leguminous trees against *Sclerotium rolfsii*. *African Journal of Traditional, Complementary and Alternative Medicines*, 13(5): 15-40. (IF: 0.51)
51. S. Khurshid, **Shoaib A.**, Javaid A. and Abid K. (2016). Bioaccumulation of chromium by *Fusarium oxysporum*. *ScienceAsia*, 42: 92-98. (IF: 0.343)
52. S. Khurshid, **Shoaib A.**, Javaid A. and Qaisar U. (2016). Fungicidal potential of allelopathic weed *Cenchrus pennisetiformis* on growth of *Fusarium oxysporum* f. sp. *lycopersici* under chromium stress. *Planta Daninha*, 34(3): 453-463. (IF: 0.461)
53. S. Khurshid, **Shoaib A.** and Javaid A. (2016). Chromium toxicity to tomato (*Lycopersicum esculentum* Mill.) susceptible to *Fusarium* wilt pathogen. *Current Science*, 110(3): 399-404. (IF: 0.843)
54. N. Akhtar, **Shoaib A.**, Awan ZA. and Amin U. (2015). First Report of *Aspergillus parvisclerotigenus* rot in garlic bulbs from Pakistan. *Plant Disease*, 99(10): 1448. (IF: 3.19)
55. **A. Shoaib**, Akhtar S. and Akhtar N. (2015). Copper tolerance, protein and catalytic activity in phytopathogenic fungus *Alternaria alternata*. *Global Nest Journal*, 17(4): 664-672. (IF: 0.458)
56. A. Javaid, Naqvi AF., **Shoaib A.** and Iqbal S.H. (2015). Management of *Macrophomina phaseolina* by extracts of an allelopathic grass *Imperata cylindrica*. *Pakistan Journal of Agricultural Sciences*, 51(2): 37-41. (IF: 0.597)
57. R. Hafeez, Akhtar N., **Shoaib A.**, Bashir U., Haider MS. and Awan ZA. (2015). First report of *Geotrichum candidum* from Pakistan causing postharvest sour rot in loquat (*Eriobotrya japonica*). *Journal of Animal and Plant Sciences*, 26(5): 1737-1740. (IF: 0.422)
58. N. Sana, Javaid A, **Shoaib A.** and Bajwa R. (2015). Effect of weeds and soil amendments on N, P and K contents of rice. *Pakistan Journal of Botany*, 47(SI): 251-254. (IF: 0.658)
59. **A. Shoaib**, Dliferoze A., Khan A., Khurshid S. and Akhtar S. (2014). Effect of fungicides on morphology, physiology and biochemistry of tomato seedlings infected with *Fusarium oxysporum* f. sp. *lycopersici*. *Philippine Agricultural Scientist*, 97(4): 416-421. (IF: 0.256)
60. **A. Shoaib**, Akhtar N., Akhtar S. and Hafeez R. (2014). First report of *Alternaria longipes* causing leaf spot of potato cultivar Sante in Pakistan. *Plant Disease*, 98(12): 1742. (IF: 2.74)

61. S. Akhtar and **Shoaib A. (2014)**. Toxic effect of arsenate on germination, early growth and bioaccumulation in wheat (*Triticum aestivum* L.). *Pakistan Journal of Agricultural Sciences*, 51(2): 399-404. (IF: 1.054)
62. N. Akhtar, Awan ZA. and **Shoaib A. (2014)**. First report of new post-harvest rot in ginger rhizome by *Aspergillus parvisclerotigenus* in Pakistan. *Plant Disease*, 98(8): 1158. (IF: 2.74)
63. **A. Shoaib**, Aslam A. and Aslam N. (2014). Adsorption of Cr(III) ions through efficient and eco-friendly adsorbents. *Journal of Animal and Plant Sciences*, 24(4): 1224-1229. (IF: 0.549)
64. S. Khurshid, **Shoaib A.** and Javaid A. (2014). *In vitro* toxicity evaluation of culture filtrates of *Fusarium oxysporum* f. sp. *lycopersici* to growth and physiology of tomato under chromium(VI) stress. *Journal of Animal and Plant Sciences*, 24(4): 1241-1245. (IF: 0.549)
65. A. Javaid, Akram W., **Shoaib A.**, Haider MS. and Ahmad A. (2014). ISSR Analysis of Genetic Diversity in *Dalbergia sissoo* in Punjab, Pakistan. *Pakistan Journal of Botany*, 46(5): 1573-1576. (IF: 1.207)
66. N. Akhtar, **Shoaib A.**, Munir S., Ali A. and Khurshid S. (2014). Isolation, identification and enzyme production profile of *A. niger*. *Journal of Animal and Plant Sciences*, 24(5): 1438-1443. (IF: 0.549)
67. Nafisa, **Shoaib A.** and Javaid A. (2013). Growth of *Pisum sativum* under single or combined action of *Sclerotium rolfsii* and copper [Cu(II)]. *International Journal of Agriculture and Biology*, 15: 1363-1366. (IF: 0.90)
68. **A. Shoaib**, Aslam N. and Aslam N. (2013). *Trichoderma harzianum*: Adsorption, desorption, isotherm and FTIR studies. *Journal of Animal and Plant Sciences*, 23(5): 1460-1465. (IF: 0.549)
69. **A. Shoaib**, Aslam N., Akhtar MM., Akhtar S., Nafisa and Khurshid S. (2013). Removal of Cr(III) ions through bread mold fungus. *Polish Journal Environmental Studies*, 22(4): 1171-1176. (IF: 0.60)
70. A. Javaid, Shafique G, Ali S. and **Shoaib A. (2013)**. Effect of culture medium on herbicidal potential of metabolites of *Trichoderma* species against *Parthenium hysterophorus*. *International Journal of Agriculture and Biology*, 15: 119-124. (IF: 0.90)
71. U. Shafique, Ijaz A., Salman M, Waheed Uz Zaman, Jamil N., Rehman R. and **Javaid A. (2012)**. Removal of arsenic from water using Pine leaves. *Journal of the Taiwan Institute of Chemical Engineers*, 43: 256-263. (IF: 2.08)
72. S. Javed, **Shoaib A.**, Mahmood Z., Mushtaq S. and Iftikhtar S. (2012). Analysis of phytochemical constituents of *Eucalyptus citriodora* L. responsible for antifungal activity against post-harvest diseases. *Natural Product Research*, 26(18): 1732-1736 (IF: 1.031).
73. **A. Shoaib**, Naureen A., Tanveer F. and Aslam N. (2012). Removal of Ni(II) ions from substrate through filamentous fungi. *International Journal of Agriculture and Biology*, 14: 831-834 (IF: 0.808).
74. S. Akhtar and **Shoaib A. (2012)**. Biosorption, Solution to Arsenic Pollution. *Journal of Animal and Plant Sciences*, 22(3): 659-664 (IF: 0.638).
75. **A. Javaid**, Bajwa R., Shafique U. and Anwar J. (2011). Removal of heavy metals by adsorption on *Pleurotus ostreatus*. *Biomass and Bioenergy*, 35(5): 1675-1682 (IF: 3.646).
76. **A. Javaid**, Bajwa R. and Manzoor T. (2011). Biosorption of heavy metals by pretreated biomass of *Aspergillus niger*. *Pakistan Journal of Botany*, 43(1): 419-425 (IF: 0.836).
77. A. Javaid, **Javaid A.** and Akbar M. (2011). Herbicidal potential of culture filtrates of *Drechslera* spp. against *Parthenium hysterophorus*. *Chilean Journal of Agricultural Research*, 71(4): 634-637 (IF: 0.447)

78. **A. Javaid**, Badar T. and Aslam N. (2011). Removal of Pb(II), Cu(II) & Cd(II) from aqueous solution by some fungi and natural adsorbents in single- & multiple metal systems. *Pakistan Journal of Botany*, 43(6): 2997-3000 (IF: 0.836).
79. **A. Javaid**, Bajwa R. and Javaid A. (2010). Biosorption of heavy metals using a dead macro fungus: evaluation of equilibrium and kinetic models. *Pakistan Journal of Botany*, 42(3): 2105-2118 (IF: 0.947).
80. A. Javaid, Ahmad S., **Javaid A.**, Shad N. and Jabeen K. (2009). Screening of mungbean genotypes under rice allelopathic stress for best agronomic and symbiotic traits. *Allelopathy Journal*, 24(2): 331-339 (IF: 0.793).
81. R. Bajwa, Javaid A., Shafique S., **Javaid A.**, Shafique S. and Jabeen K. (2008). Fungistatic activity of aqueous and organic solvent extracts of three rice varieties against phytopathogenic fungi. *Allelopathy Journal*, 22(2): 363-370 (IF: 0.525).

### **Publications in Journals having zero impact Factor**

82. S. Javed, **Shoaib A.**, Malik A., Ijaz B. and Perveen S. (2023). Rose and eucalyptus essential oil as potent anti-liver cancer agents. *Asian Journal of Agriculture and Biology*, DOI: 10.35495/ajab.2022.14 (National, HEC-recognized, Y category)
83. S. Javed, Javaid I., **Shoaib A.** and Perveen S. (2022). Oleanolic acid (pentacyclic triterpenes) as a potential candidate for  $\alpha$ -glycosidase inhibition activity. *Advancements in Life Sciences*, 2 (9): 219-223. (National, HEC-recognized, X category).
84. N. Akhtar, **Shoaib A.** and Ashraf S. (2022). Antifungal and antioxidant properties of chloroform soluble compounds of fennel seeds. *World Journal of Biology and Biotechnology*, 7(2): 31-35. (Local, HEC-recognized, Y category).
85. G. Riaz, **Shoaib A.**, Perveen, S. and Roqayya G. (2022). Screening and antifungal potential of *Ochrobactrum ciceri* against *Sclerotium rolfsii*. *Journal Plantarum*, 4(2): 100-108 (National, HEC-recognized, Y category)
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- 134.** SF. Naqvi, Javaid A. and **Shoaib A.** (2012). Evaluation of antifungal activity of methanolic extracts of *Dicanthium annulatum* for the management of *Macrophomina phaseolina*. *African Journal of Microbiology Research*, 6(29): 5882-5886. (International)

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157. Nafisa, **Shoaib A.** and Akhtar S. (2012). *Molecular, morphological alternations in Psium sativum grown under metal contaminated water*. In: Proceeding of International Conference on Water, Energy, Environment and Food Nexus: Solution and Adaptation under Challenging Environment. April 4-5, 2012. Centre of Excellence in Water Resources Engineering. University of Engineering and Technology. Lahore. PAKISTAN. Pp. 192-194.
158. S. Akhtar and **Shoaib A. (2012)**. *Growing threat of Sinkhea on major cereal crops of Pakistan*. In: Proceeding of International Conference on Water, Energy, Environment and Food Nexus: Solution and Adaptation under Challenging Environment. April 4-5, 2012. Centre of Excellence in Water Resources Engineering. University of Engineering and Technology. Lahore. PAKISTAN. Pp. 195-196.
159. **A. Shoaib**, Javaid A. and Akbar M. (2011). *Parthenium management by culture filtrates of Drechslera species*. In: Bohren, C.; Bertossa, M.; Schönenberger, N.; Rossinelli, M.; Conedera, M. (ed) 3<sup>rd</sup> International Symposium of Environmental Weeds and Invasive Plants. October 2 to 7, 2011. Monte Verità, Ascona, **SWITZERLAND**. Available from Internet <http://www.wsl.ch/epub/ewrs>.
160. A. Javaid, Shaffique G., Ali S. and **Shoaib A. (2011)**. *Evaluation of herbicidal activity of metabolites of Trichoderma spp. for the management of Parthenium weed*. In: Bohren, C.; Bertossa, M.; Schönenberger, N.; Rossinelli, M.; Conedera, M. (ed) 3<sup>rd</sup> International Symposium of Environmental Weeds and Invasive Plants. October 2 to 7, 2011. Monte Verità, Ascona, **SWITZERLAND**. Available from Internet <http://www.wsl.ch/epub/ewrs>.
161. **A. Shoaib (2011)**. *Removal of Cr(III) from tannery wastewater through fungi*. In: Proceeding of International Science and Technology Conference. December 6-8, 2011. Istanbul, **TURKEY**. ISSN: 2146-7382.
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## **BOOKS/MONOGRAPHS**

1. N. Aslam, **Shoaib A.** and Akhtar S. (2012). Solution to Cr(III & VI) pollution: Adsorption of Cr through environment friendly biosorbents. VDM, Verlag, Dr MÜller and the German National Library and Online at [www.amazon.com](http://www.amazon.com). ISBN-10: 3848492733
2. L. Afzal, Javaid A. and **Shoaib A.** (2012). Management of Macrophomina root rot of mungbean. LAMBERT Academic Publishers, Germany. ISBN: 978-3659241932.
3. **A. Javaid** (2011). Bioremediation of Industrial heavy metals. VDM, Verlag, Dr MÜller and the German National Library and Online at [www.amazon.com](http://www.amazon.com). ISBN:13-978-3639331349
4. **A. Javaid** and Badar T. (2011). Biosorption in Single and Multi-metal systems. VDM, Verlag, Dr MÜller and the German National Library and Online at [www.amazon.com](http://www.amazon.com). ISBN: 13-978-3639338355
5. T. Manzoor, **Javaid A.** and Bajwa R. (2011). Biosorption of Electroplating Heavy Metals by Fungi. VDM, Verlag, Dr MÜller and the German National Library and Online at [www.amazon.com](http://www.amazon.com). ISBN-10: 363935883
6. S. Akhtar and **Shoaib A.** (2010). Risk assessment of arsenate on *Triticum aestivum* L. and its management. VDM, Verlag, Dr MÜller and the German National Library and Online at [www.amazon.com](http://www.amazon.com). ISBN-10: 3639379705

## **Book chapters**

1. **Shoaib A.**, Javaid A. (2021). Chapter 7. Oxidative stress in plants exposed to heavy metal. In: Organic solutes, oxidative stress and antioxidant enzymes under abiotic stressors, Latef AAHA (Ed.). CRC Press, Taylor & Francis Group. pp. 133-152. ISBN: 978-0-367-90140-0
2. A. Javaid, **Shoaib A.** and Khan SN. (2012). Chapter 25. Mango Cultivation in Pakistan. In: *Mango Vol. 2: Cultivation in Different Countries*. Valavi SG, Mohan R, Govil JN, Peter KV, Thottappilly G (Eds.). Studium Press LLC, USA. ISBN 1-933699-72-8. pp. 385-394.
3. Javaid A. and **Shoaib A.** (2012). Chapter 12. Allelopathy for the Management of Phytopathogens. In: *Allelopathy: Current Trends and Future Applications*. Cheema ZA, Farooq M, Wahid A (Eds.). Springer Publishers. ISBN 978-3-642-30594-8.

**Published Short Articles in Myconews** (Quarterly newsletter published from Institute of Agricultural Sciences, Punjab University)

1. **Amna Javaid**, 2005. Agenda for Survival. *Myconews*, 3(2).
2. **Amna Javaid**, 2005. Biotechnology- For Solution of Water Pollution. *Myconews*, 3(1).

## **RESEARCH PROJECTS**

- 2022-2023: Worked as Principal investigator in the project entitled **Effect of chitosan-coupled copper nanohybrid against charcoal rot disease in mungbean**. Support of Academic Research, Punjab University, Pakistan. Grant = 3,00,000/Rs
- 2021-2022: Worked as Principal investigator in the project entitled **Antifungal action of white vitriol against charcoal rot fungus**. Support of Academic Research, Punjab University, Pakistan. Grant = 2,50,000/Rs

- 2019-2020: Worked as Principal investigator in the project entitled **Molecular studies based on full genome sequence of pepper infecting Pakistani chilli veinal mottle virus isolates**. Support of Academic Research, Punjab University, Pakistan. Grant = 1,50,000/Rs
- 2017-2018: Worked as Principal investigator in the project entitled **Antioxidant enzymes changes in onion due to effect of basal rots disease under salt stress**. Support of Academic Research, Punjab University, Pakistan. Grant = 1,50,000/Rs
- 2016-2017: Worked as Principal investigator in the project entitled **Induction of resistance and management of cowpea Charcoal rot disease by biocontrol agents**. Support of Academic Research, Punjab University, Pakistan. Grant = 1,50,000/Rs
- 2015-2016: **Significance of antioxidant potential of plants and its relevance to plants diseases** in the Institute of Agricultural Sciences, University of the Punjab. Grant = 10,00,000
- 2015-2016: Worked as Principal investigator in the project entitled **Biological control efficiency of *Trichoderma* spp. against *Sclerotium rolfsii***. Support of Academic Research, Punjab University, Pakistan. Grant = 1,50,000/Rs
- 2013-2014: Worked as Principal investigator in the project entitled **Effect of chromium on growth and physiology of *Lycopersicum esculentum* Fusarium Wilt**. Support of Academic Research, Punjab University, Pakistan. Grant = 1,50,000/Rs
- **Strengthening of Fungal Plant Pathology and Physiology Lab.** in the Institute of Agricultural Sciences, University of the Punjab. (2013-2014). Grant = 10,00,000.
- 2012-2013: Worked as Principal investigator in the project entitled **Impact of heavy metal on severity of charcoal rot of mash bean**. Support of Academic Research, Punjab University, Pakistan. Grant = 1,50,000/Rs
- 2011-2012: Worked as Principal investigator in the project entitled **Characterization of metallothioneine (MTA) gene expression in *Pisum sativum* L simultaneously growing under wilt and Cu-stressed condition**. Support of Academic Research, Punjab University, Pakistan. Grant = 1,50,000/Rs
- 2010-2011: Worked as Principal investigator in the project entitled **Influence of arsenic on wheat growth and its bioremediation through agricultural waste**. Support of Academic Research, Punjab University, Pakistan. Grant = 1,50,000/Rs
- 2009-2011: Worked as Research Associate in the project entitled **Fungi, Ultimate solution to industrial heavy metal pollution** in coordination with Environmental Protection Agency, Lahore, Pakistan.

## **THESIS SUPERVISION**

### **Ph.D. Thesis Supervision**

1. **Nighat Sana:** Management of collar rot of chilies by biofertilizers and soil amendments under abiotic stress of chromium (2009-2015, Completed).
2. **Saba Khurshid:** Exploiting natural compounds of *Cenchrus pennisetiformis* against Fusarium wilt of tomato under chromium stress (2010-2015, Completed).
3. **Sundus Akhtar:** Impact of charcoal rot on growth, physiology and gene expression of *Vigna mungo* grown under copper stress (2011-2016, Completed).

4. **Kashif Ali Khan:** Role of zinc in improving plant resistance against charcoal rot of *Vigna radiata* L. (2011-2016, Completed).
5. **Nafisa:** Phenotypic and molecular marker assisted screening of R gene analogues against *Alternaria solani* for early blight disease in tomato (2012-2017, Completed).
6. **Muhammad Rafiq:** Management of black scurf of potato by commercial biofertilizers and asteraceous weeds (2014-2020, Completed).
7. **Zoia Arshad Awan:** Antifungal potential of bacterial bioactive compounds and plant nutrients to manage early blight disease of tomato (2015-2021, Completed).
8. **Sana Siddique:** Exploiting the role of zinc, boron and biofertilizer in managing charcoal rot disease of sunflower (*Helianthus annuus* L.) (2015-2023, Completed).
9. **Shagufta Perveen:** Morphological, biochemical and genetic variation in phytopathogenic species of Genus *Alternaria* (Thesis submitted).
10. **Muhammad Jarrar:** Evaluation of the potential impact of chitosan and zinc as integrated approach to manage Sclerotium stem rot in *Solanum lycopersicum* L. (ongoing).
11. **Ghulam Roquyya:** Antifungal potential of chitosan-Zn complex against *Alternaria* leaf spot disease in *Capsicum annuum* L. (ongoing).

#### M.Sc.(Hons) Thesis Supervision

1. **Ghanwa Riaz,** 2020-2022. Disentangling the role of *Ochrobactrum ciceri* and chitosan in suppression of soil-borne pathogenic fungus *Sclerotium rolfsii*.
2. **Hafiza Sibgha Yaqoob,** 2020-2022. Effect of seed biopriming with soil beneficial bacteria for controlling Fusarium stalk rot disease in *Zea mays* (L.).
3. **Muhammad Sohail,** 2020-2022. Evaluation of potential biocontrol rhizobacteria against *Alternaria* leaf spot in chili.
4. **Umme moniba,** 2020-2022. Green synthesis of nanoparticles using leaf extract of *Sonchus oleraceus* L. to control charcoal rot of black gram.
5. **Sofia Shafi,** 2020-2022. Green synthesis of nanoparticles using leaf extract of *Agratum conyzoides* for the management of Fusarium wilt of tomato.
6. **Almas Qmar,** 2018-2020. Synergistic effect of *Lantana camara* and *Trichoderma* spp. application on control of southern blight disease of tomato.
7. **Sana Abbas,** 2018-2020. Effect of zinc on morpho-physiological characteristics in mungbean infected with charcoal rot pathogen.
8. **Mishaal Akhtar,** 2018-2020. Encountering leaf spot disease caused by *Alternaria alternata* in chili by employing zinc.
9. **Awais Saleem,** 2017-2019. Effect of zinc and salicylic acid on growth and physiology of *Celosia argentea* var. *cristata*.
10. **Warda Latif,** 2017-2019. Biological control of southern blight of chili by PGPR and *Anagallis Arvenis*.
11. **Annees Ahmed,** 2017-2019. Molecular studies based on full genome sequence of Pakistani Chilli vein mottle virus isolates.
12. **Haider Ali,** 2016-2018. Disease management potential of *Ochrobactrum ciceri* and zinc against charcoal rot of mung bean.
13. **Mujahid Hussain,** 2016-2018. Rboh mediated immunity in *Coriandrum sativum* L. under stress of *Erwinia carotovora*.
14. **Zahra Nisar,** 2016-2018. Chromium tolerance and oxidative stress response in fungus *Macrophomina phaseolina*.

15. **Salma Habib**, 2016-2018. Up-regulation of antioxidant defense mechanism in *Gladiolus grandiflorus* L. against salt-induced oxidative stress by exogenous application of salicylic acid.
16. **Shahid Rafi**, 2014-2016. Chromium tolerance, oxidative stress response, enzymatic characteristic and FTIR studies of phytopathogenic fungus *Sclerotium rolfsii*.
17. **Muhammad Jarrar Ahmed**, 2014-2016. Role of *Pseudomonas syringae* in suppression of charcoal rot disease caused by *Macrophomina phaseolina* in *Zea mays* L.
18. **Tehmina Tufail**, 2013-2015. Induction of resistance against collar rot disease of chilli by farm yard manure under chromium stress.
19. **Arooj Shahzad**, 2013-2015. Management of *Sclerotium rolfsii* through soil amendment with leaves of *Raphanus sativus* L. and *Trichoderma* spp.
20. **Sidrah Meraj**, 2013-2015. Effect of *Fusarium oxysporum* f. sp. *cepa* on growth, physiology and biochemistry of *Allium cepa* L. under salinity stress.
21. **Madiha Muneer**, 2013-2015. Improvement of resistance in cow pea against charcoal rot disease by leaves of *Azadirachta indica* and *Trichoderma* spp.
22. **Halima Qudsia**, 2013-2015. Bioassays guided fractionation of *Senna occidentalis* for identification of antifungal constituent against *Macrophomina phaseolina*.
23. **Rabia Afzal**, 2013-2015. Biological control of Sclerotium wilt of chilies by *Trichoderma harzianum* and leaves of *Eucalyptus citriodora*.
24. **Tehmina Hanif**, 2012-2014. Effect of pesticide on growth and physiology of *Aspergillus*.
25. **Zoia Arshad Awan**, 2012-2014. A polyphasic approach to the identification of *Aspergillus* section *Flavi*: A nasty post-harvest pathogen.
26. **Lubna Niaz**, 2011-2013. Effect of *Kochia Indica* on development of basal rot disease of onion.
27. **Laiba Afzal**, 2011-2013. Biological control of charcoal rot of *Vigna radiata* by *Trichoderma* spp. and *Sisymbrium*.
28. **Sidra Shah**, 2011-2013. Effect of farm yard manure on copper portioning in soil and Fusarium wilt of tomato.
29. **Nafisa Farooq**, 2010-2012. Morphological, molecular and FTIR characterization of *Psium sativum* under Sclerotium wilt and copper.
30. **Sundus Akhtar**, 2009-2011. Effect of arsenic(III) on germination and growth of *Triticum aestivum*.
31. **Nida Aslam**, 2008-2010. Characterization of various Binding sites in myco- and phyto-adsorbents responsible for binding of Cr(III & VI) through Fourier Transform Infrared (FTIR) Spectroscopy.

### **B.Sc. (Hons) Thesis Supervised**

1. **Muhammad Yousaf** (BS BSAGS22F18) (2018-2022). In vitro bioassays to assess antifungal potential of vanillic acid against *Sclerotium rolfsii*. Department of Plant Pathology, Faculty of Agricultural Sciences, University of the Punjab.
2. **Nimra Iqbal** (BS-AGS167F18) (2018-2022). Effect of chitosan nanoparticles against phytopathogenic fungus-*Macrophomina phaseolina*. Department of Plant Pathology, Faculty of Agricultural Sciences, University of the Punjab
3. **Qudsia Fatima** (BS-AGS155F18) (2018-2022). Chitosan-mediated copper nanohybrid attenuates the virulence of *Macrophomina phaseolina*. Department of Plant Pathology, Faculty of Agricultural Sciences, University of the Punjab.
4. **Uswa Fatima** (BS-AGS117F18) (2018-2022). Zinc-chitosan nanocomposites act as potential antifungal weapons against *Macrophomina phaseolina*. Department of Plant Pathology, Faculty of Agricultural Sciences, University of the Punjab.

5. **Muhammad Zohaib**, (2017-2021). Physicochemical analysis of food sample, Department of Plant Pathology, Faculty of Agricultural Sciences, University of the Punjab.
6. **Tehseen Fatima**, (2017-2021). Early Blight of tomato and its management through Resistant Gene, Department of Plant Pathology, Faculty of Agricultural Sciences, University of the Punjab.
7. **Umme Moniba**, (2016-2019). Molecular techniques to improve fiber contents in transgenic cotton (*Gossypium hirsutum* L.), Institute of Agricultural Sciences, University of the Punjab.
8. **Aimal Waheeh**, (2016-2019). Characterization of fiber contents in transgenic Cotton (*Gossypium hirsutum* L.), Institute of Agricultural Sciences, University of the Punjab.
9. **Mujahid Hussain**, (2014-2016). Determination of aflatoxin from different food commodities. Institute of Agricultural Sciences, University of the Punjab.
10. **Ansa Delferooz**, (2009-2013). Biochemical defense responses in tomato against Fusarium wilt through fungicides application. Institute of Agricultural Sciences, University of the Punjab
11. **Samia Munir**, (2009-2013). Polyphasic taxonomic differentiation of various isolates of *Aspergillus niger*, a nasty post-harvest pathogen. Institute of Agricultural Sciences, University of the Punjab.
12. **Hafiza Aqsa Aftab**, (2009-2013). Alternaria disease of canola: stress physiology and disease management. Institute of Agricultural Sciences, University of the Punjab.
13. **Aroosa Khan**, (2009-2013). Tomato-Fusarium wilt: study of host-pathogen- fungicides interaction and effect on host biochemical balance. Institute of Agricultural Sciences, University of the Punjab.
14. **Taskeen Badar**, (2006-2010). Biosorption of heavy metals (Pb, Cu & Cd) from aqueous solution by fungi and multiple metal systems. Institute of Agricultural Sciences, University of the Punjab.
15. **Ayesha Qamar**, (2006-2010). Influence of chromium and mercury on germination and growth of *Vigna radiata*, *Vigna mungo* & *Vigna unguiculata*. Institute of Agricultural Sciences, University of the Punjab.
16. **Ayesha Naureen**, (2005-2009). Equilibrium studies on Ni(II) ions removal by eco-friendly adsorbents. Institute of Agricultural Sciences, University of the Punjab.

#### **B.Sc. (Hons) Thesis Co-Supervised**

17. **Muhammad Yousaf** (BS BSAGS22F18) (2018-2022). In vitro bioassays to assess antifungal potential of vanillic acid against *Sclerotium rolfsii*. Department of Plant Pathology, Faculty of Agricultural Sciences, University of the Punjab.
18. **Nimra Iqbal** (BS-AGS167F18) (2018-2022). Effect of chitosan nanoparticles against phytopathogenic fungus-*Macrophomina phaseolina*. Department of Plant Pathology, Faculty of Agricultural Sciences, University of the Punjab
19. **Qudsia Fatima** (BS-AGS155F18) (2018-2022). Chitosan-mediated copper nanohybrid attenuates the virulence of *Macrophomina phaseolina*. Department of Plant Pathology, Faculty of Agricultural Sciences, University of the Punjab.
20. **Uswa Fatima** (BS-AGS117F18) (2018-2022). Zinc-chitosan nanocomposites act as potential antifungal weapons against *Macrophomina phaseolina*. Department of Plant Pathology, Faculty of Agricultural Sciences, University of the Punjab.
21. **Hina Sarwar**, (2014-2017). Effect of zinc application on growth, physiology and antioxidant enzymes of *Gladiolus* in saline condition. Institute of Agricultural Sciences, University of the Punjab.

- 22. Namra Shahid**, (2014-2017). Effect of zinc fertigation and foliar spray of micronutrients on growth, physiology and antioxidant enzymes activities of *Gladiolus* plant under saline condition. Institute of Agricultural Sciences, University of the Punjab.
- 23. Tayyaba Imtiaz** (2010-2014). Assessment of Cr toxicity on *Sclerotium rolfsii*, pathogen of collar rot. Govt. Postgraduate College for Women Samnabad, Lahore.
- 24. Zunaira Iqbal** (2010-2014). Seed and seedling growth responses of chilli under Cr(III) stress. Postgraduate College for Women Samnabad, Lahore.
- 25. Naila Tehreem** (2010-2014). Chemical management of *Fusarium oxysporum* pisi. Postgraduate College for Women Samnabad, Lahore.
- 26. Mehwish Tanveer** (2010-2014). Impact of different fungicides on the pathogen of *Pisum sativum*. Postgraduate College for Women Samnabad, Lahore.
- 27. Zainab Khan** (2010-2014). Chemical management of charcoal rot of *Cicer arietinum* L. Postgraduate College for Women Samnabad, Lahore.
- 28. Saadia Saeed** (2010-2014). Isolation and identification of mycoflora from irrigation water. Postgraduate College for Women Samnabad, Lahore.
- 29. Nazish Noor** (2010-2014). Isolation and identification of soil mycoflora from *Brassica campestris* L. field. Postgraduate College for Women Samnabad, Lahore.

## **TRAININGS**

- 1.** Training Seminar on “How to Improve/Implement Hec-Qaa Parameters for QEC Focal Person, 3<sup>rd</sup> March, 2022, by Quality Enhancement Cell (QEC), University Of The Punjab, Lahore
- 2.** One-day Training Workshop on Western Blotting, 5<sup>th</sup> May, **2015**. Department of Microbiology and Molecular Genetics, University of the Punjab Lahore, PAKISTAN.
- 3.** Training Workshop on Polymerase Chain Reaction (PCR) Technology, 2<sup>nd</sup> February, **2013**, Undergraduate Block, University of the Punjab, Lahore, PAKISTAN.
- 4.** Workshop on Gender mainstreaming, 7<sup>th</sup>-9<sup>th</sup> December, **2010**. Institute of Administrative Science, University of the Punjab, Lahore, PAKISTAN.

## **SEMINARS/WORKSHOPS/CONFERENCES**

### **Organized**

- 1** International Horticulture Conference, 26-28, February 2020. Institute of Agricultural Sciences, University of the Punjab, Lahore. **PAKISTAN**.
- 2** 5<sup>th</sup> International/10<sup>th</sup> International conference of Pakistan Phytopathological Society, November 23<sup>rd</sup>-25<sup>th</sup>, **2015**. Institute of Agricultural Sciences, University of the Punjab, Lahore, PAKISTAN.

- 3 3<sup>rd</sup> International Conference on “Plant Pathology”, 19-21 November, **2007**, Department of Mycology and Plant Pathology, University of the Punjab, Lahore, PAKISTAN.
- 4 HEC Workshop on Identification and Conservation of Micromycetes, 20<sup>th</sup>-25<sup>th</sup> August, **2007**. Department of Mycology and Plant Pathology, University of the Punjab Lahore, PAKISTAN.
- 5 HEC Workshop on Identification and Conservation of Micromycetes, 23<sup>rd</sup>-28<sup>th</sup> August, **2004**. Department of Mycology and Plant Pathology, University of the Punjab Lahore, PAKISTAN.

#### **Attended**

1. Participated and chair session in 8<sup>th</sup> International and 17<sup>th</sup> National Conference on “Advances in Plant Science in the Era of Climate Change” from October 26-28, **2022** at the University of the Punjab and GC University Lahore, Pakistan.
2. Participated as Judge at 8<sup>th</sup> Invention to Innovation Summit (Buy and Sell) held on 2-3 April, **2019**, University of the Punjab, Lahore, Pakistan.
3. International Seminar on Resource Conservation for Sustainable Agriculture and Food Security. 19<sup>th</sup> April, **2018**. Institute of Agricultural Sciences, University of the Punjab, Lahore, PAKISTAN.
4. National Workshop on Air pollution & Smog: From Science to Solution, 8<sup>th</sup> November, **2017**. Department of Environmental Science, University of Veterinary and Animal Sciences. PAKISTAN.
5. One day Seminar on Sustainable Crop Production for Food Security under Changing Climate, April 18<sup>th</sup>, **2017**. Institute of Agricultural Sciences, University of the Punjab, Lahore. PAKISTAN.
6. 5<sup>th</sup> Symposium on Engineering Sciences, 2<sup>nd</sup> April, **2014**. Institute of Chemical Engineering & Technology, University of the Punjab, Quaid-i-Azam Campus, Lahore. PAKISTAN.
7. Seminar on Developing Local Food Additives/Preservatives, 22<sup>th</sup> November, **2012** at Institute of Agricultural Sciences, University of the Punjab, Lahore. PAKISTAN
8. International Conference on Prospects and Challenges to Sustainable Agriculture. 14<sup>th</sup>-16<sup>th</sup> July, **2011**. Faculty of Agriculture, Rawalakot University of Azad Jammu & Kashmir. PAKISTAN.

#### **Presented papers**

- 1 Crosstalk of *Bacillus subtilis* in combination with Zn underpins interactive effects and induces resistance in tomato plant against early blight disease. International Conference on Smart Plantation “An Ultimate Solution to Climate Change” (ICSP 2020). 2-4 March, 2020. Lahore College for Women University, Lahore. **PAKISTAN**.
- 2 Biocontrol efficacy of *Bacillus subtilis* in bilateral combination with plant nutrients against tomato early blight disease. International Horticulture Conference, 26-28, February 2020. Institute of Agricultural Sciences, University of the Punjab, Lahore. **PAKISTAN**.
- 3 Combating early blight infection by employing *Bacillus subtilis* in combination with plant fertilizers. 1<sup>st</sup> International and 3<sup>rd</sup> National Conference on the Biodiversity of Phytochemicals: Using Plants to Improve Life, 26-27<sup>th</sup> November, 2019. Institute of Molecular Biology and Biotechnology, University of Lahore, Off Raiwind Road Campus, **PAKISTAN**.

- 4 *Ochrobactrum ciceri* as a Biocontrol agent of Charcoal Rot Pathogen. International Conference on Recent Innovations in Molecular Sciences” 06-08, November, 2019, at the University of the Punjab (Quaid-e-Azam Campus), Lahore. University of the Punjab. **PAKISTAN**
- 5 Growth, physiological and antioxidative Responses of tomato to early blight pathogen. A conference on Microbiology & Molecular Genetics, 7-9<sup>th</sup> February, 2018, organized by Department of Microbiology & Molecular Genetics, University of the Punjab. **PAKISTAN**.
- 6 Response of *Macrophomina phaseolina* to Cr(VI) toxicity. 3<sup>rd</sup> International Conference on Biosciences. 9<sup>th</sup> to 11<sup>th</sup> May, 2018 Organized by GC University Lahore, **PAKISTAN**.
- 7 Chromium tolerance and oxidative stress response in phytopathogenic charcoal rot fungus. New Trends in Natural Sciences II: Public Health, Food Nutrition & Safety. 24<sup>th</sup>-26<sup>th</sup> October, 2018. Department of Biotechnology & Zoology, Lahore College for Women University. **PAKISTAN**.
- 8 Effect of *Macrophomina phaseolina* on growth, physiology and antioxidant enzymes in *Glycine max* L. Merrill genotypes. 1<sup>st</sup> International Conference on “Plants: Their Chemical and Biological Applications for Today and Tomorrow. 12-14<sup>th</sup> April, 2017. Department of Botany University of Gujrat, **PAKISTAN**.
- 9 *Induction of resistance against collar rot disease of chili by farm yard manure under chromium stress*. 5<sup>th</sup> International/10<sup>th</sup> International of Pakistan Phytopathological Society, November 23<sup>rd</sup>-25<sup>th</sup>, **2015**. Institute of Agricultural Sciences, University of the Punjab Lahore. **PAKISTAN**.
- 10 *Identification and characterization of aflatoxigenic and non-aflatoxigenic strains of Aspergillus section flavi: A nasty pathogen*. **2014** the 3<sup>rd</sup> Asia-Pacific International Congress on Engineering & Natural Sciences, Hotel Fort Canning Singapore. 15-18 August, **2014**. **SINGAPORE**.
- 11 *Effect of copper on Fusarium wilt of tomato and biological disease management*. International Conference on Stress Biology and Biotechnology Challenges & Management. 21-23 May, **2014** at the Institute of Agricultural Sciences, University of the Punjab. Lahore. **PAKISTAN**.
- 12 *Effect of farm yard manure on copper uptake in tomato*. First International Conference on Applied, Chemical, Biological and Aquatic Sciences (ICACBAS 2014). 18-20 February, **2014** in GC University, Faisalabad, **PAKISTAN**.
- 13 *Simultaneous effect of charcoal rots pathogen and copper on seed and seedling growth of mash bean*. DAAD-HEC International Summer School “Food Security in Times of Climate Change”, 2-5 November, **2013** hosted by the Department of Biosciences COMSAT, Institute of Information Technology. Islamabad. **PAKISTAN**.
- 14 *Cr(III) adsorption potential of fungi*. Sustainable Development Conference on Green technology, Renewable energy and Environmental protection, 21-23 June **2013** organized by Tomorrow People Organization at Royal Benja hotel, Bangkok. **THAILAND**.
- 15 *Growth of Fusarium oxysporum f. sp. lycopersci* under abiotic stress of Cr(VI). International Conference on Biotechnology: Prospects & Challenges in Agriculture, Industry, Health & Environment. 22-26 April, **2013** at National Institute for Biotechnology and Genetic Engineering (NIBGE). Faisalabad. **PAKISTAN**.
- 16 Growth of soil borne fungi under toxic heavy metals. International Conference on Crop management in Changing Climate. 11-13 February, **2013** at Department of Agronomy, University of Agriculture, **PAKISTAN**.
- 17 *The forensic analysis of Pisum sativum by FTIR in response to southern blight disease and copper*. International Conference: Sustainable Crop Productivity: Threats and Options. 11<sup>th</sup>-12<sup>th</sup> April, **2013** at Ayub Agricultural Research Institute, Faisalabad. **PAKISTAN**.

- 18 *Comparative Assessment of heavy metal biosorption by wood rotting fungi*. A conference on Bio physico-chemical basis Technopreneurship. 2-3 April, **2013** organized by Department of Microbiology & Molecular Genetics at Undergraduate Block University of the Punjab. Lahore. **PAKISTAN**.
- 19 *In vitro response of green peas to white mold under abiotic stress of metal*. International Conference on Crop Management in Changing Climate. 11-13 February, **2013** at University of Agriculture, Faisalabad. **PAKISTAN**.
- 20 *Removal of Cr(VI) from aqueous solution by Trichoderma harzianum*. 1<sup>st</sup> Conference on Global Environmental Change. 15<sup>th</sup>-16<sup>th</sup> January, **2013** at Govt College University. Faisalabad. **PAKISTAN**.
- 21 *Response of Pisum sativum L. to southern blight disease under abiotic stress of copper*. The 10<sup>th</sup> Conference of European Foundation for Plant Pathology (EFPP). 1<sup>st</sup>-5<sup>th</sup> October, **2012**. Organized by the Royal Netherlands Society for Plant Pathology (KNPV), hosted by Wageningen University and Research Centre, Wageningen. **THE NETHERLANDS**.
- 22 *Green Mould as potential scavenger of Cr(VI)*. 12<sup>th</sup> National and 3<sup>rd</sup> International Conference of Botany. 1-3<sup>rd</sup> September, **2012** at Quaid e Azam University, Islamabad. **PAKISTAN**.
- 23 *Expression of defensin like gene in Pisum sativum*. 12<sup>th</sup> National and 3<sup>rd</sup> International Conference of Botany. 1-3<sup>rd</sup> September, **2012** at Quaid e Azam University, Islamabad. **PAKISTAN**.
- 24 *Influence of Cu(II) on southern blight of pea*. International Science Conference on Agriculture and Food Security issues in Global Environment Prospective. 11<sup>th</sup>-13<sup>th</sup> July, **2012** at Faculty of Agriculture, University of Poonch, Rawlakot. Azad-Jammu and Kahmir. **PAKISTAN**.
- 25 *Expression of metal tolerant gene in Psium sativum*. SAARC Regional Conference on New Frontiers in Agricultural Genomics and Biotechnology. 5<sup>th</sup>-7<sup>th</sup> June, **2012** hosted by NIBGE at Marriott Hotel Islamabad. **PAKISTAN**.
- 26 *Mycofriendly technology for treatment tannery wastewater*. International Conference on Climate Change: Opportunities and Challenges. 9<sup>th</sup>-11<sup>th</sup> May, **2012** at National University of Sciences and Technology (NUST), Sector H-12 Islamabad. **PAKISTAN**.
- 27 *Influence of Arsentae on the Sclerotium rolfsii: Pathogen of southern blight of Triticum aestivum*. International Conference on Climate Change: A Challenge for Agriculturists, 28<sup>th</sup>-30<sup>th</sup> May, **2012** at Khyber Pakhtunkhwa Agricultural University, Peshawar. **PAKISTAN**.
- 28 *Influence of heavy metals on growth of soil borne fungi*. International Conference on Climate Change: A Challenge for Agriculturists, 28<sup>th</sup>-30<sup>th</sup>, May, **2012**. Khyber Pakhtunkhwa Agricultural University, Peshawar. **PAKISTAN**.
- 29 *A low cost technology for metal bearing effluent*. International Conference on Engineering Sciences. 28<sup>th</sup>-29<sup>th</sup> February, **2012** at Institute of Chemical Engineering, University of the Punjab, Lahore. **PAKISTAN**.
- 30 *Risk assessment of Arsenate As(V) on wheat and its mitigation through biosorption*. International Conference on Engineering Sciences. 28<sup>th</sup>-29<sup>th</sup> February, **2012** at Institute of Chemical Engineering, University of the Punjab, Lahore. **PAKISTAN**.
- 31 *Removal of Cr(III) ions from tannery wastewater through fungi*. International Science and Technology Conference. 7<sup>th</sup>-9<sup>th</sup> December, **2011**. Istanbul University. Istanbul. **TURKEY**.
- 32 *Myco and phytoremediation of heavy metal from aqueous solution*. International Science and Technology Conference. 7<sup>th</sup>-9<sup>th</sup> December, **2011** at Istanbul University. Istanbul. **TURKEY**.

- 33 *Risk assessment of arsenate on seed and seedling growth of wheat.* 8<sup>th</sup> National Phytopathological Conference. 28<sup>th</sup>-29<sup>th</sup> November, **2011** at Department of Plant Pathology, University of Agriculture, Faisalabad. **PAKISTAN.**
- 34 *Cu(II) uptake potential of micro and phyto adsorbents.* 8<sup>th</sup> National Phytopathological Conference 28<sup>th</sup>-29<sup>th</sup> November, **2011** at Department of Plant Pathology, University of Agriculture, Faisalabad. **PAKISTAN.**
- 35 *Influence of arsenate on Sclerotium rolfsii, pathogen of southern blight of Triticum aestivum.* 8<sup>th</sup> National Phytopathological Conference, 28<sup>th</sup>-29<sup>th</sup> November, **2011** at Department of Plant Pathology, University of Agriculture, Faisalabad. **PAKISTAN.**
- 36 *Parthenium management by culture filtrates of Drechslera spp.* 3<sup>rd</sup> International Symposium on Environmental Weeds and Invasive Plants. October 2<sup>nd</sup>-7<sup>th</sup>, **2011**. Monte Verita, Ascona, **SWITZERLAND.**
- 37 *Antifungal Potential of Metabolites of Trichoderma species against seed-borne mycoflora of wheat.* TWAS Regional Young Scientists Conference. 2<sup>nd</sup>-5<sup>th</sup> November **2009** at Armada Hotel, Petaling Jaya, Selangor, **MALAYSIA.**
- 38 *Screening of mungbean genotypes under rice allelopathic stress for best agronomic and symbiotic traits.* TWAS Regional Young Scientists Conference. 2<sup>nd</sup>-5<sup>th</sup> November **2009** at Armada Hotel, Petaling Jaya, Selangor, **MALAYSIA.**
- 39 *Influence of NPK fertilizers and two types of green manures on growth and mycorrhizal colonization of wheat.* TWAS Regional Young Scientists Conference. 2<sup>nd</sup>-5<sup>th</sup> November **2009**, Armada Hotel, Petaling Jaya, Selangor, **MALAYSIA.**
- 40 *A new approach of exploiting lignocellulosic material colonized by fungal mycelia for removal of Cr(III) ions from tannery wastewater.* TWAS Regional Young Scientists Conference. 2<sup>nd</sup>-5<sup>th</sup> November **2009**, Armada Hotel, Petaling Jaya, Selangor, **MALAYSIA.**
- 41 *Wheat Allelopathy for Management of Parthenium Weed.* 9<sup>th</sup> National Weed Science Conference. 28<sup>th</sup>-30<sup>th</sup> June, **2009** at Agriculture University Peshawar. **PAKISTAN.**
- 42 *Biosorption of industrial heavy metals by some macromycetes.* International Conference BioVision Alexandria. 11-16, April **2008** at the Bibliotheca Alexandrina. **EGYPT.**
- 43 *Evaluation of biosorption potential of Aspergillus niger and Rhizopus arrhizus for heavy metals removal from Industrial effluents.* 3<sup>rd</sup> International Phytopathological Conference 19-21, November **2007** at Department of Mycology and Plant Pathology University of the Punjab, Quaid-e-Azam Campus. Lahore, **PAKISTAN.**
- 44 *Biosorption potential of Schizophyllum commune for removal of heavy metal Ions from aqueous solution.* 3<sup>rd</sup> International Phytopathological Conference. 19-21, November **2007** at Department of Mycology and Plant Pathology University of the Punjab, Quaid-e-Azam Campus. Lahore, **PAKISTAN.**
- 45 *Isolation and Identification of Aspergilli from seed.* 3<sup>rd</sup> International Phytopathological Conference 19-21, November **2007** at Department of Mycology and Plant Pathology University of the Punjab, Quaid-e-Azam Campus. Lahore, **PAKISTAN.**

## **COURSE TAUGHT IN THE FACULTY OF AGRICULTURAL SCIENCES**

- Molecular Host-Pathogen Interaction
- Plant Disease Epidemiology
- Introduction to Plant Pathology

- Lower Fungi
- Plant Disease Diagnosis
- Soil Field Crop Production
- Fungal Systemic
- Introduction to Soil Borne Pathogens and their Management

### **PROFESSIONAL MEMBERSHIP**

- Phytopathological Society
- Myco-Phytopathological Society of Pakistan
- Pakistan Journal of Weed Science Research

### **COMPUTER SKILLS**

- MS office, Power point, MS Excel (calculations, graphs, biplots, PCA etc.) Publisher, SPSS (Tukeys's test, LSD, Correlation, regression etc.), Internet browsing and overall comprehensive in general applications