

Dr. SUMREEN ANJUM**CURRENT POSITION****Assistant Professor (TTS)**

Institute of Botany,
University of the Punjab,
Quaid-i- Azam Campus, Lahore, Pakistan

PERSONAL STATEMENT

I am committed to advancing research through interdisciplinary collaboration, innovation, and developing sustainable, plant based solutions to complex environmental challenge

BASIC INFORMATION

Female | Muslim | Pakistani

Institute of Botany,
University of the Punjab,
Quaid-i- Azam Campus, Lahore,
Pakistan

+92-343-4863993

sumreen38@gmail.com
sumreen.botany@pu.edu.pk

RESEARCH INTERESTS

- Plant Stress Physiology
- Environmental pollution
- Phytoremediation
- Plant Ecology

LANGUAGES

English

Urdu

Punjabi

**FORMAL EDUCATION**

- | | |
|------|--|
| 2020 | Ph.D. (Botany)
University of Agriculture, Faisalabad, Pakistan |
| 2013 | M. Phil. (Botany)
University of Agriculture, Faisalabad, Pakistan |
| 2010 | B.S. (Hons) Botany
University of Education, Okara Campus, Pakistan |
| 2006 | F. Sc. (Pre-Medical)
B.I.S.E. Lahore, Pakistan |
| 2004 | S.S.C. Science Group
B.I.S.E. Lahore, Pakistan |

**RESEARCH THESIS**

- | | |
|-------------|--|
| Ph.D. | Phytomonitoring of heavy metal pollution along two roads (Faisalabad to Okara and Okara to Lahore). |
| M.Phil. | Amelioration of metal (Cd) toxicity in mungbean [<i>Vigna radiate</i> (L.) Wilczek] using a growth tonic (Khazana). |
| B.S. (Hons) | Screening of Basmati germplasm for the detection of bacterial leaf blight resistant genes in rice. |

**WORKING EXPERIENCE**

- Assistant professor at Institute of Botany, University of the Punjab, Lahore (June, 2023- continued)
- Assistant professor (IPFP Fellow) at Institute of Botany, University of the Punjab, Lahore (Mar, 2022- Mar, 2023)
- 6 months Research Training at Soil and Water Sciences Department, University of Florida, Gainesville, Florida
- 4 Months teaching experience as teacher assistant at Department of Botany, University of Agriculture, Faisalabad, Punjab, Pakistan.

**RESEARCH PROJECT COMPLETED**

Enhancing sustainability by improving plant salt tolerance through different biostimulants in Pea (*Psium sativum* L.). 2024-2025: by University of the Punjab, Lahore.

**COUNTRIES VISITED**

USA: Florida (2017)

PUBLICATIONS

- **Anjum, S.**, Sarwar, M., Mukhtar, A. *et al.* Impact of rhizobacterial inoculation in plant growth medium to mitigate lead stress in Tomato (*Solanum lycopersicum* L.). *Scientific Report*, **15**, 707 (2025).
- **Anjum, S.**, Ain, Qu., Sarwar, M. *et al.* Chitosan Induced Modification in Morpho-Physiological, Biochemical and Yield Attributes of Pea (*Pisum Sativum* L.) Under Salt Stress. *J Soil Sci Plant Nutr* **25**, 1311–1321 (2025).
- Ali A, Ferdosi FH, Sarwar M, **Anjum S**, Mushtaq Z, Liaquat M, Abbas MT, Anees M, Tariq MR, Ashraf MI, Alasmari A, Mondol MSA and Abdi G (2025) Inducing salt stress tolerance in bitter gourd (*Momordica charantia*) through seed treatment with chitosan. *Front. Plant Sci.* **15**:1525561.
- M. Hafeez ul Haq, A. Akhter, W. Anwar, S. Javed, **S. Anjum**, M. A. B. Siddique, N. Ali, M. T. Abbas, & M. S. Haider, Trans.. (2025). Green and Wood Waste Biochar Based Soil Amendment to Mitigate Early Blight Stress in Tomato. *Journal of Agriculture and Biology*, **3**(1), 512-519.
- M. . Abro, A. . Wahocho, M. A. . Wagan, T. . Abbas, W. . Ahmad, **S. Anjum**, H. Ali, A. R. . Abro, S. A. . Wahocho, & N. . Abro, Trans. (2025). Integrated Use of Fertilizers and Bio-Stimulant Affect the Growth and Seedling Development of Chili . *Journal of Agriculture and Biology*, **3**(1), 299-309.
- S. Khan, A. A. Khan, Q. U. Khan, A. R. Siddiqui, A. Shahid, **S. Anjum**, S. Nazeer, Z. Mustaq, S. . A. . Javed, M. . A. Piracha, F. . Bashir, & M. Batool, Trans.. (2025). Spatial Soil Salinity Assessment by Using Principle Component Analysis and Geospatial Techniques in Central Punjab, Pakistan *Journal of Agriculture and Biology*, **3**(1), 1-11.
- Abbasi, S., Memon, N- un-N., Abbas, T., Ahmad, W., **Anjum, S.**, Abro, M., Talpur, A., Akash, Z., & Jamali, M. F. (2024). Quantifying the influence of seed priming on germination and growth traits of Bitter gourd (*Momordica charantia* L.) varieties. *Journal of Agriculture and Biology*, **2**(2), 191-198.
- Abbas, T., Altaf, K., Tasadaq, M., Hussain, S., **Anjum, S.**, Ahmad, W., Khan, A. A., & Younas, H. S. (2024). Nutrient Biofortification of microgreens (spinach) to combat hidden hunger. *Journal of Agriculture and Biology*, **2**(2), 182-190
- Yaqoob, A., Ahmad, S., Ashfaq, M., Chattha, M. B., **Anjum, S.**, Javaid, A., & Iqbal, M. (2024). Evaluation of entomopathogenic fungi for biological control of wheat aphid (*Sitobion avenae*) under laboratory conditions *Journal of Agriculture and Biology*, **2**(2), 175-181. _
- Ayub, A., Anees, M., **Anjum, S.**, Maqsood, S., Abbas, T., Safdar, H., Ashraf, M.I., Sarwar, M., Ahmad, W. (2024). Post-harvest effects of various edible coatings on shelf life and quality of bitter gourd. *Biol. Clin. Sci. Res. J.*, 2024: 1410.
- **Anjum, S.**, Naveed, Z., Anees, M., Sarwar, M., Mustaq, Z., Tariq, M. R., Ashraf, M. I., & Gulraiz, C. Z. (2024). Evaluation of different plant extracts as a postharvest management strategy for enhancement of shelf life in Tomato fruit. *Journal of Agriculture and Biology*, **2**(2), 25-31.

- Ahmad, W., Raza, M.H., Azeem, A., Abbas, T., **Anjum, S.**, Wahocho, N.A., Jamali, M.F., Sultan, S.M. (2024). Assessment of diversity among Okra (*Abelmoschus esculentus*) genotypes under Salt stress. *Biol. Clin. Sci. Res. J.*, 2024: 1387.
- Abbas, T., Altaf, K., Tasadaq, M., **Anjum, S.**, Hussain, S., Ahmad, W., Khan, A.A., Younas, H.S. (2024). Iodine and Selenium Biofortification of Microgreens (spinach) to Alleviate Mineral Nutrient Deficiency. *Biol. Clin. Sci. Res. J.*, 2024: 1386.
- Aslam, I., Anees, M., **Anjum, S.**, Abbas, G., Maqsood, S., Talha, M., Gulraiz, C.Z., Ashraf, M.I., Uzair, M. (2024). Enhancing shelf life of bell peppers through different plant extracts. *Biol. Clin. Sci. Res. J.*, 2024: 1385.
- Sharif, U., Qayyum, M.A., Hameed, A., **Anjum, S.**, Naeem-Ullah, U., Ishtiaq, M., Taha, H. (2024). Entomopathogenic fungi a need of hour in management of *Bactrocera zonata*; Challenges and opportunities. *Biol. Clin. Sci. Res. J.*, 2024: 1050.
- **Anjum, S.**, Mustaq, Z., Sarwar, M., Anees, M., AbbasT., Maqsood, S., Ashraf, M. I., Abbas, M. T. & Talha, M. (2024). Climate change and its Impact on Agriculture. *Journal of Agriculture and Biology*, 2(2), 199-218.
- **Anjum, S.**, Sarwar, M., Ali, Q., Alam, M. W., Manzoor, M. T., & Mukhtar, A. (2024). Assessment of bioremediation potential of *Calotropis procera* and *Nerium oleander* for sustainable management of vehicular released metals in roadside soils. *Scientific Reports*, 14(1), 8920. 3736.
- Ghaffar, R., Shaheen, M., Hussain, R., **Anjum, S.**, Rashid, S., Saeed, M., Shabbir, A., & Amjad, M. (2023). Estimating the photosystem's efficiency, antioxidants activity and plant water relations of tomato under water deficit conditions. *Biological and Clinical Sciences Research Journal*, 2023(1), 636.
- Saeed, M., Shaheen, M., Hussain, R., **Anjum, S.**, Sarwar, M., Shabbir, A., & Tariq, M. (2023). Amelioration of cadmium stress on tomato (*Lycopersicon esculentum*) by triacontanol application. *Biological and Clinical Sciences Research Journal*, 2023(1), 634.
- Rasheed, R., Mehmood, M., Hameed, A., **Anjum, S.**, Sher, M., Ahmad, S., Farooq, M., Alam, M., Binyamin, R., & Ali, S. (2023). Morphological characterization of root inhabiting endophytic bacteria. *Biological and Clinical Sciences Research Journal*, 2023(1), 631.
- Rizvi, S., Naseem, W., Muhammad, G., **Anjum, S.**, Hussain, T., Rafique, R., Latief, N., & Umair, A. (2023). Tillage practices affect the water conservation benefits of rainwater harvesting in semi-arid conditions. *Biological and Clinical Sciences Research Journal*, 2023(1). <https://doi.org/10.54112/bcsrj.v2023i1.633>
- Ahmad, I., Hussain, T., Liaquat, M., **Anjum, S.**, Sarwar, M., Ahmad, S., Ali, Q., Naseem, W., & Rizvi, S. (2023). Effect Of automobile related lead pollution on spatio-temporal distribution of biochemical attributes along roadside vegetation. *Biological And Clinical Sciences Research Journal*, 2023(1), 632.

- Muhammad Atif, Ahmad F, Manzoor MT, Gilani K, Ali Q, Sarwar M, **Anjum S**, Alam MW, Hussain A, Rafaqat N (2022). Diversity, mutation and phylogenetic analysis of pepper leaf curl lahore virus and pepper leaf curl bangladesh virus infecting chilli crop. *Biol. Clin. Sci. Res. J* 2022: 112.
- Muhammad Atif, Ahmad F, Manzoor MT, Gilani K, Ali Q, Sarwar M, **Anjum S**, Alam MW, Hussain A, Haider MS (2022). Comparative evolutionary and recombination analysis of chickpea chlorotic dwarf virus (CPCDV) infecting malvaceous and fabaceous plants. *Biol. Clin. Sci. Res. J* 2022: 117.
- Muhammad Atif, Ahmad F, Manzoor MT, Gilani K, Ali Q, Sarwar M, **Anjum S**, Alam MW, Hussain A (2022). Application of bioinformatics tools to check mutation and evolution potential of chickpea chlorotic dwarf virus (CpCDV) infecting cotton and host plants. *Biol. Clin. Sci. Res. J* 2022: 116.
- Atif M, Ahmad F, Manzoor MT, Gilani K, Ali Q, Sarwar M, **Anjum S**, Alam MW, Hussain A (2022). Comparative genomic, missing and evolutionary analysis of chickpea chlorotic dwarf virus (CPCDV) infecting food crops and wild host plants. *Biol. Clin. Sci. Res. J* 2022: 115.
- Muhammad Atif, Ahmad F, Manzoor MT, Gilani K, Ali Q, Sarwar M, **Anjum S**, Alam MW, Hussain A, Rafaqat N (2022). Comparative evolutionary study of chickpea chlorotic dwarf virus (CPCDV) infecting cotton and chickpea. *Biol. Clin. Sci. Res. J* 2022: 113.
- Atif M, Ahmad F, Manzoor MT, Gilani K, Ali Q, Sarwar M, **Anjum S**, Alam MW, Hussain A, Rafaqat N (2022). Diversity, mutation and recombination analysis of chilli infecting potyviruses from Southeast Asia and China. *Biol. Clin. Sci. Res. J* 2022: 111.
- Muhammad Atif, U Bashir, MT Manzoor, N Rafaqat, MW Alam, M Sarwar, **S Anjum**, TA Chohan, A Hasnain (2022). Diversity, mutation and recombination analysis of chilli infecting geminiviruses from the Indian Subcontinent. *Intl J Biosciences* 20(5): 23-36.
- Muhammad Waqar Alam, Abdul Rehman, Akhtar Hameed, Mubeen Sarwar, **Sumreen Anjum**, Muhammad Irfan Ashraf, Zahid Mumtaz, Salah Ud Din, Talha Ali Chohan, Ammarah Hasnain, and Tahir Shafeeq. 2022. First Report of Fruit Rot Caused by *Diaporthe amygdali* on Papaya in Punjab, Pakistan. *Plant Disease*.
- Mubeen Sarwar, **Sumreen Anjum**, Muhammad Waqar Alam, Qurban Ali, C. M Ayyub, Muhammad Saleem Haider, Irfan Ashraf, Wajid Mahboob. 2022. Triacantanol regulates morphological traits and enzymatic activities of salinity affected hot pepper plants. *Scientific Reports*. 2022: 12, 3736.
- Mubeen Sarwar, **Sumreen Anjum**, Qurban Ali, Muhammad Waqar Alam and Wajid Mehboob. 2021. Triacantanol modulates salt stress tolerance in Cucumber by altering physiological and biochemical status of plant cell. *Scientific Reports*. 2021:11, 24504
- **Sumreen Anjum**, Mumtaz Hussain, Mansoor Hameed, Rashid Ahmad. 2021. Physiological, biochemical and defense system responses of roadside vegetation to auto-exhaust pollution. *Bulletin of Environmental Contamination and Toxicology*. 2021:107, 946-954.

- **Sumreen Anjum**, Mumtaz Hussain, Mansoor Hameed, Rashid Ahmad. 2020. Phyto-monitoring of spatio-temporal variations in traffic related metal pollution using native species. International Journal of Agriculture and Biology. 24: 4, 953-960.
- Hina Batool, **Sumreen Anjum** and Iqra Aziz. 2020. A novel coronavirus (COVID-19) pathogen is global challenge for public health. Open Journal of Public Health. 2:1, 1008.
- Sarwar, M., Ahmad, S., Chattha, M.B., Chattha, M.U., Alam, M.W., **Anjum, S.**, Shafeeq, T., Naseem, M. K., Mannan, A. 2019. Assessment of growth and productivity of cucumber (*cucumis sativus* L.) genotypes under salt stress regime. Applied Ecology and Environmental Research.17(5): 10793-10806.
- Mubeen Sarwar, Muhammad Amjad, **Sumreen Anjum**, Muhammad Waqar Alam, Shahbaz Ahmad, Chaudhary Muhammad Ayyub, Arfan Ashraf, Rashid Hussain, Abdul Mannan, Ahmad Ali, Adeel Shahid and Tanveer Hussain. 2019. Improving salt stress tolerance in cucumber (*Cucumis sativus* L.) by using triacontanol. Journal of Horticultural Science and Technology, 2:1, 20-26.
- Mubeen Sarwar, **Sumreen Anjum**, Muhammad Arslan Khan, M. Saleem Haider, Sajid Ali & M. Kaleem Naseem. 2018. Assessment of sustainable and biodegradable agricultural substrates for eminence production of cucumber for kitchen gardening. International Journal of Recycling of Organic Waste in Agriculture, 7:4, 365-374
- Noreen Khalid, Ali Noman, Muhammad Aqeel, Naila Hadayat & **Sumreen Anjum**. 2018. NPK could alleviate the adverse effects of simulated acid rain in sunflower (*Helianthus annuus* L.), Journal of Plant Nutrition, 41:5, 584-595

ABTRACTS PRESENTED IN CONFERENCES

- **Sumreen Anjum**, M. Sarwar, N. Hadayat, N. Khalid. 2023. Role of salicylic acid and 24-Epibrassinolide in modulation morpho-physiological, biochemical and yield attributes of Tomato (*Lycopersicon esculentum*) under salt stresss. 5th International Conference on emerging trends in bioinformatics & Biosciences, Hazara University, Masherah, KPK. ICETBB-2023. PG.120
- **Sumreen Anjum**, M. Sarwar, M.W. Alam, A. Mukhtar, N. Hadayat. 2024. See-weed driven biostimulant induces salt tolerance in Pea (*Pisum sativum*) under salt conditions. Two-day International Symposium on Medicinal Plants and Natural Products. University of Agriculture, Faisalabad.2024-99.
- **Sumreen Anjum**, Mubeen Sarwar, Noreen Khalid and Naila Hadayat. 2023. Evaluation of Phytoremediation potential of four wetland plant species for the removal of heavy metals from Textile mill effluents (TME). 8th International and 17th National Conference on ‘Advances in Plant Sciencesin the era of climate change, APSECC-2022.
- **Sumreen Anjum**, Mubeen Sarwar, Mumtaz Hussain, Hina Batool. 2020. Study of the responses of roadside vegetation to vehicular exhaust pollution- A physiochemical appraisal. International Horticulture conference, IHC2020.

- Mubeen Sarwar, **Sumreen Anjum**, Muhammad Saleem Haider, Shahbaz Ahmad, M. Kaleem Naseem, M. Bilal Chattah, M. Nasir Subhani, Abdul Manan. Inoculation of rhizobacteria in plant growth medium to induce lead stress tolerance in tomato (*Solanum lycopersicum* L.). International Horticulture conference, IHC2018.
- Muhammd Bilal Chattah, Mubeen Srwar, **Sumreen Anjum**, Shahbaz Ahmad, Muhammad Kaleem Naseem and Abdul Manan. Triacantanol improves the salinity tolerance in hot paper (*Capsicum annum* L.) by amplifying phenotypic traits and alleviate the salinity induced oxidative damages. International Horticulture conference, IHC2018.
- **Sumreen Anjum**, Mubeen Sarwar, Naila Hadayat, Mumtaz Hussain, Mansoor Hameed. Effect of Traffic Pollution on Biochemical and Physiological Attributes of Roadside Plants. Conventional and Modern Approaches in Plants Sciences. (CMAPS17).
- **Sumreen Anjum**, Mumtaz Hussain, Mansoor Hameed, Rashid Ahmad. Spatio-temporal variations in vehicular released zinc (Zn) pollution and its phytomonitoring along two roads in the Punjab, Pakistan. 6th International and 15th National Conference on 'Dynamic Trends in Plant Sciences: Fostering Environment & Food Security -2017.
- **Sumreen Anjum***, Mumtaz Hussain, Mansoor Hameed, Rashid Ahmad. 2016. Phytomonitoring of vehicular related cadmium pollution along two roads (Faisalabad to Okara and Okara to Lahore) in the Punjab, Pakistan. International Conference on Forestry and Environment: Challenges and prospects. E38-P529. pp.120.
- Noreen Khalid*, Mumtaz Hussain, Hillary S. Young, **Sumreen Anjum**, Naila Hadayat. 2016. Nitrogen and Carbon pollution from vehicular emissions: measurements along a major highway in Punjab, Pakistan. International Conference on Forestry and Environment: Challenges and prospects. E18-O616. pp.100.
- **Sumreen Anjum***, Mumtaz Hussain, Naila Hadayat and Noreen Khalid. 2016. Combined effect of micronutrients and cadmium on chlorophyll and nutrient contents of mungbean [*Vigna radiata* (L.) Wilczek]. International conference on Major Environmental Constraints to Plants: Reclamation & Assessment, MECP-2016. MECP-256. pp.81.
- Naila Hadayat*, Mumtaz Hussain, **Sumreen Anjum** and Noreen Khalid. 2016. Simulated acid rain: its effect on growth and yield of sunflower (*Helianthus annuus* L.). International conference on Major Environmental Constraints to Plants: Reclamation & Assessment. MECP-257. pp.82.
- Noreen Khalid*, Mumtaz Hussain, Naila Hadayat and **Sumreen Anjum**. 2016. Effect of simulated acid rain (SAR) and growth promoters on physiological and biochemical attributes of Sunflower (*Helianthus annuus* L.). International conference on Major Environmental Constraints to Plants: Reclamation & Assessment. MECP-258. pp.82.
- **Sumreen Anjum***, Mumtaz Hussain, M. Aqeel, N. Hadayat and S. R. Rasool. 2014. Biochar Mitigating the soil attributes: Advancing toward a better plant yield. Biochar for Climate-Friendly Agriculture Shifting Paradigms towards Higher-Precision and Efficiencies. pp: 23.

PROFESSIONAL SHORT COURSES

- | | | |
|---|---------------------------|--|
| • English speaking Course | January 3- March 14, 2017 | English Corner, University of Florida, Gainesville, Florida, USA. |
| • Chem. Hygiene Plan: PIs | January 5- March 9, 2017 | Environment Health and Safety, University of Florida, Gainesville, Florida, USA |
| • Hazardous Waste Management I | January 23, 2017 | Environment Health and Safety, University of Florida, Gainesville, Florida, USA. |
| • Hazardous Waste Management II | January 2, 2017 | Environment Health and Safety, University of Florida, Gainesville, Florida, USA. |
| • Lab Safety Action and Reactions | December 30, 2016 | Environment Health and Safety, University of Florida, Gainesville, Florida, USA. |
| • Heat Stress Training | December 26, 2016 | Environment Health and Safety, University of Florida, Gainesville, Florida, USA. |
| • Chemical Hygiene Plan: Lab Staff | December 18, 2016 | Environment Health and Safety, University of Florida, Gainesville, Florida, USA. |
| • Speaking Course in English | Fall semester 2016 | Department of Linguistics, University of Florida, Gainesville, Florida, USA. |
| • Modern Techniques in Research on Abiotic Stress Tolerance in Plants | March 14- 18, 2016 | Nuclear Institute for Agriculture and Biology, Faisalabad, Pakistan |

WORKSHOPS / TRAININGS

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|---|--------------|--------------------|---|
| • Hands on training on Patent Claims Drafting | Participated | December 18, 2024 | Office of the Research Innovation and Commercialization (ORIC), University of the Punjab, Lahore. |
| • Hands on workshop on Patent writing/drafting and submission | Participated | December 6-7, 2024 | Punjab Higher Education Commission, Lahore |

Curriculum Vitae

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|---|--------------|-------------------------|---|
| • International Workshop
“Mastering the art of
plant multiplication:
Propagation made easy” | Participated | March 1, 2024 | Superior University,
Lahore, Pakistan |
| • Workshop on Smart
Agriculture
Transformations | Participated | November 2, 2023 | Department of Plant
Pathology, Faculty of
Agricultural Science,
University of the Punjab,
Lahore |
| • Advancing Teaching
Excellence, Strategies For
Effective Higher
Education Instruction And
Professional Development | Participated | October 24-26, 2023 | Punjab Higher Education
Commission, Lahore |
| • Workshop on Winter
Vegetables | Participated | October 6, 2023. | Department of
Horticulture PMAS-
University of Arid
Agriculture, Rawalpindi |
| • International Workshop
on Phytotechnologies for
Environmental Cleanup | Participated | May 8-9, 2018 | Institute of Environmental
Sciences and Engineering,
SCEE, National
University of Sciences
and Technology,
Department of Agronomy,
University of Agriculture,
Faisalabad, Pakistan |
| • Prospects of New Crops in
Pakistan | Participated | April 9, 2016 | |
| • International
Workshop: Climate
Change Resilient
Production | Participated | Nov. 30-Dec. 4,
2015 | University of Agriculture,
Faisalabad, Pakistan |
| • Workshop: Scientific
Writing and Plagiarism | Participated | May 5, 2014 | Office of The Senior
Tutor & Society of Young
agronomists (SOYA),
University of Agriculture,
Faisalabad, Pakistan |
| • Workshop: Molecular
Techniques for
Breeding Horticultural
and Agronomic Crops | Participated | Sep. 30-Oct. 2,
2013 | Institute of Horticulture
Sciences, University of
Agriculture, Faisalabad,
Pakistan |

- Workshop: Tunnel farming Participated March 19-24, 2012 Pakistan Society of Horticulture Sciences, University of Agriculture, Faisalabad, Pakistan

SEMINARS & CONFERENCES ATTENDED/PARTICIPATED

- Presented 1st International conference on applied science and technology International October 24-25, 2024 Baba Guru Nanak University, Nankana Sahib
- Participated World food Day National October 16, 2024 Department of Food Sciences, University of the Punjab, Lahore
- Participated International seminar “Urban horticulture for sustainable future” International October 10, 2024 Department of Horticulture, Faculty of Agricultural Science, University of the Punjab, Lahore
- Participated 6th international conference on emerging trends in bioinformatics and biosciences International September 12-14, 2024 Department of Bioinformatics, Hazara University, Mansehra, Pakistan.
- Participated 2nd NSPP public policy conference on food security National August 19-20, 2024 National School of Public Policy, Pakistan
- Participated Seminar “Global career development aspect for food science professionals” National April 25, 2024 Department of Food Sciences, University of the Punjab, Lahore
- Participated Seminar “ Water for peace: World Water Day 2024” National March 22, 2024 Department of Food Sciences, University of the Punjab, Lahore
- Participated Seminar “ Why children are suffering from malnutrition in Pakistan” National March 20, 2024 Department of Food Sciences, University of the Punjab, Lahore
- Participated Two day international symposium “Medicinal plants and Natural products” International March 7-8, 2024 University of Agriculture, Faisalabad, Pakistan
- Organized/ Participated 9th Invention to Innovation summit 2024, University of the Punjab National February 27-28, 2024 University of the Punjab, Lahore
- Participated National Webinar on the Enhancement in White onion through GAP and its Nutritional Benefits National December 28, 2023. Pakistan Horticulture Development and Export Company.

Curriculum Vitae

- Participated 8th International conference on Sustainable Agriculture & Food Security International November 26-28, 2023 Department of Plant Pathology, Faculty of Agriculturr and Environment, The Islamia University of Bahawalpur.
- Participated Empowering Agri-Graduates through Agri-Tech National October 31, 2023 Faculty of Agricultural Sciences, University of the Punjab, Lahore
- Participated National Seminar with respect to World Food Day; Impact of Climate Change on Food Security National October 16, 2023 Department of Food Sciences, Faculty of Agricultural Sciences, University of the Punjab, Lahore
- Presented Fifth International Conference on Emerging Trends in Bioinformatics and Biosciences International September 14-16, 2013 Department of Bioinformatics, Hazara University, Mansehra, Pakistan.
- Participated Intellectual Property & Patents Essentials: Basics and Legal Aspects National August 28, 2023 Office of the Research Innovation and Commercialization (ORIC), University of the Punjab, Lahore.
- Participated Super Foods: The Food and Medicine of Future National June 14, 2023 Faculty of Agricultural Sciences, University of the Punjab, Lahore.
- 7th International Horticulture Conference International February 23-25 2023 Department of Horticulture, MNS-University of Agriculture, Multan.
- Participated Seminar: Resource Conservation for Sustainable Agriculture and Food Security National April 19, 2018 Faculty of Agricultural Sciences, University of the Punjab, Lahore.
- Participated Seminar: Sustainable Crop Production for Food Security Under Climate Change National April 18, 2017 By Institute of Agricultural Sciences, University of the Punjab, Lahore
- Participated Seminar: Nitrogen Export in Watersheds: Exploring NO⁻³ Attenuation in Sandy Soil from a Humid Subtropical Climate International March 13, 2017 Soil and Water Sciences Department, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, Florida
- Participated Seminar: Fate and Transport of Nitrogen Forms, Phosphorus and Pesticides in Soil from International February 27, 2017 Soil and Water Sciences Department, Institute of Food and Agricultural

Florida and Nigeria

Sciences, University of Florida, Gainesville, Florida

- Participated Seminar: Microbe Mediate International February
Ecological Process in Natural 20, 2017
and Engineered System Soil and Water Sciences
Department, Institute of
Food and Agricultural
Sciences, University of
Florida, Gainesville, Florida
- Participated Seminar: The Ecology of International February
Salmonella Proliferation in 13, 2017
Tomatoes Soil and Water Sciences
Department, Institute of
Food and Agricultural
Sciences, University of
Florida, Gainesville, Florida
- Participated Seminar: Plant- Growth International February
Promoting Bacteria from 6, 2017
Chilean Extreme Environments Soil and Water Sciences
Department, Institute of
Food and Agricultural
Sciences, University of
Florida, Gainesville, Florida
- Participated Seminar: Human Impacts on International January
the Terrestrial Freshwater 30, 2017
System Soil and Water Sciences
Department, Institute of
Food and Agricultural
Sciences, University of
Florida, Gainesville, Florida
- Participated Seminar: Drainage Basins as International December
Biogeochemical Reactors 8, 2016
Soil and Water Sciences
Department, Institute of
Food and Agricultural
Sciences, University of
Florida, Gainesville, Florida
- Participated Seminar: The Impact of Global International December
Climate Changes on Carbon 5, 2016
Storage in the Salt-Marsh-
Mangrove Ecotone in Florida Soil and Water Sciences
Department, Institute of
Food and Agricultural
Sciences, University of
Florida, Gainesville, Florida
- Participated Seminar: Functional and International November
Comparative Genomic 28, 2016
Analysis of *Salmonella*
enterica in Tomatoes Soil and Water Sciences
Department, Institute of
Food and Agricultural
Sciences, University of
Florida, Gainesville, Florida
- Participated Seminar: Characterization of International November
Interactions of Pathogens with 14, 2016
Non-Canonical Hosts and their
Virulence Factors Soil and Water Sciences
Department, Institute of
Food and Agricultural
Sciences, University of
Florida, Gainesville, Florida
- Participated Seminar: Temporal and Spatial International October
variability of Irrigation water 31, 2016
Salinity and Effects of Soil and Water Sciences
Department, Institute of
Food and Agricultural

	Irrigation Practices on Soil Salinity in the Tri-County Agricultural Area, Northeast Florida				Sciences, University of Florida, Gainesville, Florida
○ Participated	Seminar: Soil Organic Carbon as Affected by Reforestation in Brazil: 20 Years of Research	International	October 26, 2016	Soil and Water Sciences Department, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, Florida	
○ Participated	Collaboration with strangers on publishing	International	Oct. 20, 2016	Smathers Library, University of Florida, Gainesville, Florida USA.	
○ Participated	Seminar: Mitigating Environmental Risks of Wastewater Reuse for Agriculture	International	September 26, 2016	Soil and Water Sciences Department, Institute of Food and Agricultural Sciences, University of Florida, Gainesville, Florida	
○ Participated	Poster Exhibition: 14 th Annual Southeastern Regional Society Of Environmental Toxicology And Chemistry Meeting	International	September 22-24, 2016	Centre for Environmental and Human Toxicology, University of Florida, Gainesville, Florida, USA.	
○ Participated	International Conference: Major Environmental Constraints to Plants: Assessment And Reclamation	International	March 28-30, 2016	Department of Botany, Government College University, Faisalabad, Pakistan	
○ Participated	Seminar: Allelopathy Research in Pakistan: Experiences and Opportunities	National	December 12, 2013	Department of Botany, Crop physiology and Agronomy, University of Agriculture, Faisalabad, Pakistan	
○ Participated	Seminar: New Horizons and Recent Advances in Chemical and Biological Sciences	International	February 14, 2013	Government College University, Faisalabad, Pakistan	
○ Participated	International symposium: Strategies for Conservation of Endangered Ecosystem	International	April 16-18, 2012	University of Agriculture, Faisalabad, Pakistan	
○ Participated	Seminar: Controlled and Modified Atmosphere Storage Technology of Fruits and Vegetables	National	February 19, 2011	Institute of Horticulture Sciences, University of Agriculture, Faisalabad, Pakistan	

RESEARCH STUDENTS SUPERVOISED

- Ms. Mahak Afzal: Green Synthesized Nano-Chitosan and Organic Compost enlivened Productivity and Antioxidant Defense System of Spinach under Pb and Cd stress. 2025.

- Ms. Huma Dil: Alleviation of salinity stress by exogenous application of moringa leaf extract and Triacantanol in Pea (*Pisum sativum* L.) 2025.
- Ms. Ayesha Fatima: Enhancing Arsenic tolerance in Okra (*Abelmoschus esculentus* L.) through Proline and Moringa Leaf Extract. 2025.
- Ms. Mariam Imran Chitosan-mediated mitigation of lead toxicity in Okra (*Abelmoschus esculentus* L.) 2025.
- Ms. Sarwat Imam: Salicylic acid seed priming improves morpho-physiological, biochemical and yield attributes of Okra (*Abelmoschus esculentus* L.) under Cadmium stress. 2024.
- Ms. Iqra Tabassam: Alleviation of salinity stress by exogenous application of moringa leaf extract and salicylic acid in Fenugreek (*Trigonella foenum-graecum* L.). 2024.
- Ms. Muneeza Amin: Chitosan and PGPR-mediated salt tolerance in Turnip (*Brassica rapa* L.) by modulation of physiological and biochemical responses. 2024.
- Ms. Qurat-ul-Ain: Chitosan induced modification in Morpho-physiological, biochemical and yield attributes of pea (*Pisum sativum* L.) under salt stress. 2023.

RESEARCH STUDENTS CO-SUPERVOISED

- Ms. Aqsa Khalid Kamboh: Comparative study of paper mill effluent and synthetic fertilizer on the growth and yield of Pea (*Pisum sativum* L.).2024.
- Ms. Iqra Aslam: Application of different natural extract coating as post-harvest treatment for the improvement of shelf life and quality of bell pepper vegetable. 2024.
- Ms. Ayesha Ayub: Post harvest effect of various edible products on shelf life and quality of bitter gourd. 2024.
- Ms. Zoya Naveed: Response of different natural extract on postharvest management strategy for shelf life and enhancement in tomato. 2024.

RESEARCH THESIS EVALUATION AS EXTERNAL EXAMINER

- | | | |
|---|-------------------|-----------------|
| ○ Effect of variation in transplanting dates on the growth and yield attributes of selected varieties of Basmati rice (<i>Oryza Sativa</i> L.). | MS Thesis | July 24, 2024 |
| ○ Evaluation of Radish leaf based SiO ₂ nanoparticles for the management of <i>Fusarium</i> wilt in tomato. | MSC (Hons) Thesis | August 12, 2024 |
| ○ Induce arsenic stress tolerance in Okra (<i>Abelmoschus esculentum</i>) through seed treatment with moringa leaf extract and salicylic acid | MS Thesis | October 7, 2024 |
| ○ Evaluation of chitosan and garlic extract as seed treatment in improving the germination and growth of Tinda gourd (<i>Praecitrullus fistulosus</i>). | MS Thesis | October 7, 2024 |

REVIEWER OF SCIENTIFIC JOURNALS

- Scientific Reports

- BMC Plant Biology
- Journal of Advances in Biology & Biotechnology
- Asian Journal of Food Research and Nutrition
- Microbiology Research Journal International

SUBJECTS TEACHING

- Plant Diversity
- Plant Taxonomy Anatomy and Development
- Plant Systematics
- Biodiversity and Conservation
- Environmental Biology
- Advances in Plant Physiology
- Bacteriology and Virology

CURRICULUM DEVELOPMENT

- **MS/M.Phil.**
 - Advance analytical tools
 - Plant mineral nutrition
 - Plant stress physiology
- **BS**
 - Diversity of Plants
 - Systematics of Angiosperm
 - Fundamentals of Plant taxonomy
 - Economic and Industrial Botany
 - Advance plant physiology
 - Principles of plant physiology

DEPARTMENTAL RESPONSIBILITIES

- Working as Member of
 - QEC Committee
 - Department Library Committee
 - Vegetable research farm committee
 - Class Room committee
 - Supports committee of institute of Botany 2024
 - Stock checking for institutional store for the year 2023-2024

HONORS AND AWARDS

- Awarded with Scholarship under International Research Support Initiative Program by Higher Education Commission of Pakistan. (September 2016 - March 2017)
- Received laptop scholarship by Higher Education Commission, Pakistan (2015).
- Indigenous Scholarship PhD Fellowship Program (Phase-II) by Higher Education Commission, Pakistan for 4 years (2013-2017).
- Received merit based laptop scholarship by Shahbaz Sharif (C.M. of Punjab, Pakistan) Youth Initiative Program (2012).
- Received merit based scholarship by University of Education Okara Campus. (2007-2010).
- Received merit based scholarship by Fauji Foundation, Pakistan. (2002-2006).

MEMBERSHIP



Worldwide fund for Nature- Pakistan since 11-03-2015.



Amnesty International since 10-05-2019.

TECHNICAL SKILLS:

- Inductively coupled plasma mass spectrometry (ICP-MS)
- Atomic Absorption Spectrophotometer
- Spectrophotometer
- Flame photometer
- Infra-Red Gas Analyzer (IRGA)
- PCR Thermo cyclers
- Agarose gel electrophoresis
- Polyacrylamide gel electrophoresis

PERSONAL SKILLS AND COMPETENCIES:

- Proficient with
 - Microsoft Office
 - Microsoft Windows (XP, Windows 7, 8 & 10)
 - Statistical Analysis (CoStats, SPSS, Multivariate analysis, Arc GIS)

REFERENCES:

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University of Agriculture, Faisalabad.
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Mob # 092-301-6002377

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Chairman, Department of Botany,
University of Agriculture, Faisalabad.
Email ID: hameedmansoor@yahoo.com
Mob # 092-321-6645726