

# DR. SHEZA AYAZ KHILJI

## Assistant Professor

Department of Botany,  
Division of Science and Technology,  
University of Education, Township,  
Lahore, Pakistan.

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## EDUCATION

Year	Division / Grade / CGPA	Degree
2008- 2014		Ph.D. Specialization in Environmental Biotechnology, Department of Botany, University of the Punjab Lahore, Pakistan.
2006- 2008	1 <sup>st</sup> / A /(3.68/4)	MS Botany, Department of Botany, University of the Punjab Lahore, Pakistan.
2002- 2006	1 <sup>st</sup> / B /(3.71/4)	B.Sc. (Hons) Botany, Department of Botany, University of the Punjab Lahore, Pakistan.
2000- 2001	1 <sup>st</sup> / A	HSSC / F.Sc. (Pre-Medical), Govt. College for Women, Samanabad, Lahore, Pakistan.
1996- 1998	1 <sup>st</sup> / A	SSC / Matric (Science), Govt. Girls Higher Secondary School, Samanabad, Lahore, Pakistan.

## RESEARCH INTERESTS

- Phytoremediation
- Environmental Biotechnology
- Ecology
- Environmental Engineering

## PROFESSIONAL EXPERIENCE

**Assistant Professor (TTS)** at Department of Botany, Division of Science and Technology, University of Education, Township, Lahore, Pakistan.

**(October 2018 to date)**

**Assistant Professor** at Department of Botany, University of the Punjab Lahore, Pakistan. **(October 2014 to 2018)**

**Teaching Assistant** at College of Earth and Environmental Sciences (CEES), University of the Punjab, Lahore, Pakistan. **(Sep. 2013 to Sep. 2014)**

### **Courses taught to BS classes**

- Water Pollution, its Management and Control
- Phycology and Bryology
- Plant Anatomy
- Plant Diversity
- Plant Ecology
- Systematics and Biodiversity
- Ecosystem

### **Courses taught to M.Sc classes**

- Anatomy of Vascular Plants
- Plant Taxonomy
- Cell and Molecular Biology
- Environmental Biology
- Synecology
- Autecology

### **VISITING RESEARCH SCHOLAR UNDER (IRSIP)**

- Worked as a visiting research scholar (Jun 02, 2012- Nov 22, 2012) at Department of Environmental Science and Policy, **University of California, Davis, USA.**

### **COURSES ATTENDED IN UNIVERSITY OF CALIFORNIA DAVIS, USA**

Fall Quarter, 2012

- Environmental Toxicology of Air Pollutants
- Wetland Ecology (ESP 155, 155L)

### **RESEARCH**

#### **Ph.D. Research Thesis**

- “Role of Aquatic Plants and Indigenous Microbes in Improving Phytoremediation Efficiency of Industrial Sludge”.

## MS Research Thesis

- “Role of Some Selected Hydrophytes in Rhizofiltration of Tannery Sludge Containing Toxic Metals” and obtained prolific results published in the Journals of International repute.

## Research student Supervised

### (Thesis completed as a First Supervisor)

1. **Shah Din, 2022:** Biomass and carbon sequestration potential of Java Plum (*Syzygium cumini* L.) in urban and rural areas of Lahore Division, Punjab, Pakistan.
2. **Sajid Hussain 2022:** Impact of smog on morphoanatomical, physiological and biochemical characters of sunflower (*Helianthus annus* L.) (MS Thesis).
3. **Aqsa Rafique 2022:** Effect of salicylic acid on morphoanatomical features of potato tubers (*Solanum tuberosum* L.) (MS Thesis).
4. **Qurat-ul-Aien, 2021:** Evaluation of phytoremediation potential of Pensey (*Viola tricolor* L.) using EDTA in paper waste (MS Thesis).
5. **Faiza Ashraf, 2021:** Effect of biochar amendment on morphological and yield traits of Wheat (*Triticum aestivum* L.) under lead toxicity (MS Thesis).
6. **Sidra Fayyaz, 2020:** Exogenous application of fulvic acid in the enhancement of metal uptake in canola (*Brassica napus* L.) by growing on paper sludge (MS Thesis).
7. **Barerra Anwar, 2020:** Bioremediation potential of ZnO nanoparticles synthesized from *Oedogonium* for the treatment of wastewater (MS Thesis).
8. **Sonia Ghulam Bari, 2019:** Changes in chlorophyll, protein and heavy metals content in aquatic herb water hyacinth (*Eichhornia crassipes* L.) by growing in industrial effluent (BS Thesis).
9. **Jharna, 2019:** Effect of lead on antioxidant enzyme activities in Kaner (*Nerium indicum* L.) by growing in roadside soils (BS Thesis).
10. **Habiba Anwar, 2019:** Phytoaccumulation of metals by aquatic macrophyte; *Pistia stratiotes* L. (Water lettuce) (BS Thesis).
11. **Ifra Ishrat, 2019:** Hyperaccumulation of heavy metals in the herbaceous flora grown in the vicinity of leather industry, Kasur (BS Thesis).
12. **Fakhira Mushtaq, 2018:** Role of antioxidant enzymes in detoxification of metals in leather tannery wastewater by using macrophytes (water lettuce, water hyacinth) and algae (M.Sc Thesis, PU)

## Thesis completed as a Co-Supervisor

1. **Hafsa Saleem, 2021:** Morphological and physiological changes of *Calendula officinalis* L. (pot marigold) irrigated with sewage wastewater (MS Thesis).

2. **Ayesha Maham, 2021:** Effect of wastewater irrigation on morphological and physiological features of (*Dahlia pinnata* Cav.) (MS Thesis).
3. **Hannan Amir, 2019:** Role of H<sub>2</sub>S to alleviate salt stress in Pea culture (*Allium Sativum* L.) (MS Thesis).

### **MS Thesis Under Process**

1. **Ahmad Farid, 2021:** Impact of smog on morpho-anatomical, physiological and biochemical characters of Corn (*Zea mays* L.).

### **PUBLICATIONS**

1. **Khilji SA**, Sajid ZA, Fayyaz S, Shah AA, Shah AN, Rauf M, Arif M, Yang SH and Fiaz S. 2022. Fulvic acid alleviates paper sludge toxicity in canola (*Brassica napus* L.) by reducing Cr, Cd, and Pb uptake. *Frontier in Plant Sciences*. 13:874723. doi: 10.3389/fpls.2022.874723. IF. 6.627
2. Rauf M, Khan Z, Gul H, Hamayun M, Arif M, Rehman A, Tabassum A, Parveen Z, Ud-Din A, Sajid Z.A, **Khilji S.A**, Lee In-J. 2022. Sargassum weightii aqueous extract improved salt stress tolerance in *Abelmoschus esculentus* by mediating metabolic and ionic rebalance, *Frontiers in Marine Science*. 853272. 10.3389/fmars.2022.853272. IF. 5.247
3. Raid, A., Rauf M, Gul H, Hamayun M, Arif M, Husna, Sajid Z.A, **Khilji S.A**, Lee In-J. 2022. Growth-Promoting Endophytic Fungus (*Stemphylium lycopersici*) Ameliorates Salt Stress Tolerance in Maize by Balancing Ionic and Metabolic Status, *Frontier in Plant Sciences*. 890565 doi: 10.3389/fpls.2022. 890565 IF. 6.627
4. Zakir Ullah, Safeerul Islam Hashmi, Mohammad Eshaq Faiq, Muhammad Khan, Nauman Ali Shah, Shehryar Khan, **Sheza Ayaz Khilji**, Sajid Ullah, Zakerullah. Treatment of Sewage Wastewater through Phytoremediation of Sheikh Maltoon Town: A Case Study of District Mardan, Khyber Pakhtunkhwa Pakistan. *International Journal of Biosciences* 20(2), 47-58, February 2022.
5. Rehman, Z., Hussain, A., Saleem, S., **Khilji, S.A.** and Sajid, Z.A. 2021. Exogenous application of salicylic acid enhances salt stress tolerance in lemongrass (*Cymbopogon flexuosus* steud. Wats). *Pakistan Journal of Botany*. 54(2): DOI: [http://dx.doi.org/10.30848/PJB2022-2\(13\)](http://dx.doi.org/10.30848/PJB2022-2(13)). ISSN 1589-1623. pISSN 0556-3321, IF 1.10 IF 0.9
6. **Khilji, S.A.**, Aqeel, M., Maqsood, M.F., Khalid, N., Tufail, A., Sajid, Z.A., Al-Surhane, A.A., Hashem, M., Alamri, S., Al-Mutairi, Ali, N. 2021. *Hemarthria compressa*—*Aspergillus niger*—*Trichoderma pseudokoningii* Mediated trilateral perspective for bioremediation and detoxification of

- industrial paper sludge. *Sustainability*, 13, 12266. <https://doi.org/10.3390/su132112266>. IF. 3.251
7. Munir, N., **Khilji, S.A.**, Saeed, I., Hasnain, M., Sajid, Z.A., Arif, M., Din, A. and Rauf, M. 2021. Phytochemical analysis, Antibacterial and Antitumor potential of *Hibiscus Rosa Sinensis*. *Natural Volatiles and Essential Oils*. 8(4) 3417-3437. <https://nveo.org/index.php/journal/article/view/735>. IF. 0.65
  8. Munir, N., **Khilji, S.A.**, Sabar, M and Sajid, Z.A. 2021. Exogenous application of ascorbic acid enhances the antimicrobial and antioxidant potential of *Ocimum sanctum* L. grown under salt stress. *Journal of Food Quality*. 4977410. <https://doi.org/10.1155/2021/4977410> IF. 2.450
  9. **Khilji, S.A.** and Sajid, Z.A. 2020. Phytoremediation potential of lemongrass (*Cymbopogon flexuosus* stapf.) Grown on tannery sludge contaminated soil. *Applied Ecology and Environmental Research*. 18(6): 7703-7715. ISSN: 1589-1623; DOI: [http://dx.doi.org/10.15666/aeer/1806\\_77037715](http://dx.doi.org/10.15666/aeer/1806_77037715). IF. 0.712,
  10. Aasma T., Aqeel, M., Khalid, N., Ahsan, M., **Khilji, S. A.**, Ahmad, F., Hameed, M., Noman, A., Alamri, S. and Hashem, M. 2020. Salt toxicity in a natural habitat induces structural and functional modifications and modulate metabolism in Bermuda grass (*Cynodon dactylon* [L.] pers.) ecotypes. *Applied Ecology and Environmental Research*, 18(5): 7703-7715. IF. 0.712, ISSN: 1589-1623; DOI: [http://dx.doi.org/10.15666/aeer/1806\\_77037715](http://dx.doi.org/10.15666/aeer/1806_77037715)
  11. **Khilji, S.A.**, Sajid, Z.A and Bari, S.G. 2020. Appraisal of the effect of industrial effluents on the chlorophyll, protein and heavy metals contents in water hyacinth (*Eichhornia crassipes* L.) *Biologia* (Pakistan). 66(II): 133-145. ISSN: 2313-206X, <https://biolspk.com/current-issue-66th-ii-2/>
  12. **Khilji, S.A.** and Sajid, Z.A 2020. Evaluation of salt stress tolerance on some growth and biochemical attributes in *Suaeda fruticosa* L. (Forssk) *Biologia*, 66(II): 163-170. ISSN: 2313-206X, <https://biolspk.com/current-issue-66th-ii-2/>
  13. Mehmood, A., Sajid, Z.A. and **Khilji, S.A.** 2019. Influence of Salicylic Acid on salinity stress tolerance by seed priming and foliar application on Maize (*Zea Mays*), *Biologia*, 64 (II), 303-312. ISSN: 2313-206X <https://biolspk.com/current-issue-64-ii-2/>
  14. **Khilji, S.A.**, Bareen, F., Nasrullah M and Ali, S. 2016. Multivariate analysis of heavy metal contamination in vegetables and fruits in the vicinity of some industrial areas of the Punjab, *Acta Horticulturae*, 1145: 159-178. ISSN: 0567-7572 URL: <https://www.actahort.org/books/1145/index.htm>
  15. Sajid, Z. A, Safdar, M and **Khilji, S.A.** 2016. Amelioration of Salinity Stress Tolerance in Pea (*Pisum sativum* L.) by Exogenous Application of Salicylic Acid. *Biologia*, 62 (1), 69-78. ISSN: 2313-206X <https://biolspk.com/biologia-2016-1/>

16. **Khilji, S.A** and Bareen, F. 2016. Efficiency of duckweed (*Lemna minor* L.) in phytotreatment of tannery sludge. *Biologia*, 62 (1), 45-55. ISSN: 2313-206X <https://biolspk.com/biologia-2016-1/>
17. **Khilji, S.A** and Bareen, F. 2015. Hydrophytes and their Heavy Metal Status in Tannery Effluents and Associated Contaminated Drains, *Journal of Innovative Sciences*, 1(2): 1-11. ISSN: 2412-3486
18. **Khilji, S.A.**, Bareen, F and Sajid, Z.A. 2015. Role of Antioxidants in the Growth and Heavy Metal Uptake from Tannery Sludge in Microbe Assisted Phytoremediation under Field Conditions. *International Journal of Advances in Science and Technology*. Special issue ISSN: 2348-5426. 10-20 pp. <http://www.sciencepublication.org/ijast>
19. Bareen, F and **Khilji, S.A.** 2008. Bioaccumulation of metals from tannery sludge by *Typha angustifolia* L. *African Journal of Biotechnology*, ISSN 1684-5315© 2008 Academic Journals, Vol: 7 (18), pp. 3314–3320.
20. Bareen, F and **Khilji, S.A.** 2008. Rhizofiltration of heavy metals from the tannery sludge by the anchored hydrophyte, *Hydrocotyle umbellata* L. *African Journal of Biotechnology*, ISSN 1684-5315© 2008 Academic Journals. Vol. 7 (20), pp. 2711–3717.
21. **Khilji, S.A.** and Bareen, F. 2008. Bioremediation potential of two hydrophytes for cleaning the toxic tannery sludge. In: *Proceedings of the 1<sup>st</sup> International Conference on Role of Chemistry for Environmental Preservation (RCEP 2008) held on June 14, 2008.* (Hussain, M. ed.) 71-78 pp.

### **Submitted**

Iffat Ashraf, Khalid Farooq Akbar, Bozena Sera, Syeda Khola Tazeen, Mohammad Jamil, **Sheza Ayaz Khilji**. 2021. Assessment of Composting as an Eco-efficient Management Technique for Sustainable Urban Solid Waste Management. *Polish Journal of Environmental Studies* (Accepted).

### **RESEARCH PROJECTS**

1. Principal Investigator of the Project title “Exogenously applied ascorbic acid enhanced the growth and yield of potato irrigated with tannery effluent”, under University of the Punjab, (Grant awarded Rs, 150,000/-) for the fiscal year 2014-2015. (Completed)
2. Principal Investigator of the Project title “Role of antioxidant enzymes in detoxification of metals in leather tannery wastewater by using macrophytes

(water lettuce, water hyacinth) and algae”, under University of the Punjab, (Grant awarded Rs, 150,000/-) for the fiscal year 2017-2018. (Completed)

## **CONFERENCES / SYMPOSIUM / WORKSHOPS**

1. Participated in 1<sup>st</sup> International Symposium on Current trends and Future perspectives in Botanical Research, *November 10, 2020*, organized by Department of Botany, University of Okara, Okara.
2. Invited speaker in 3<sup>rd</sup> International Conference on “*New trends in Natural Sciences*”, *21-23, December, 2020*, organized by Department of Biotechnology and Zoology, Lahore College for Women University, Lahore.
3. Participated in 8<sup>th</sup> Invention to Innovation Summit 2019, “*Buy and Sell Technology*”, *April 02-03, 2019*, organized by ORIC, University of the Punjab, Lahore.
4. Participation in the event of “Planting Millions Trees Project”, *September 06, 2019*, organized by the Agri tourism Development Corporation of Pakistan.
5. Participated as an organizing member in the 2<sup>nd</sup> National Symposium on “Botanical Entrepreneurship and Business Development”, *March 25, 2019*, organized by Department of Botany, University of Education, Township, Lahore.
6. Participated as exhibitor in “Business Idea competition in Life Sciences 2019”, *March 11, 2019*, organized by ORIC and Institute of Industrial Biotechnology, Government College University, Lahore.
7. Participated in 2<sup>nd</sup> National Workshop on “*Basic Tools in Bioinformatics: Molecular Modelling*”, *March 07-08, 2019*, organized by Institute of Industrial Biotechnology, Government College University, Lahore.
8. Participated in two-day dialogue on “*Promoting Social Harmony and Critical Consciousness*”, *December 12-13, 2018*, organized by Pak Institute of Peace Studies (PIPS), at Best Western Hotel, Lahore.
9. Participated in 7<sup>th</sup> Invention to Innovation Summit 2018, “*Buy and Sell Technology*”, *March 07-08, 2018*, organized by ORIC, University of the Punjab, Lahore.
10. Participated in the 14<sup>th</sup> International Conference on “*Role of Botanical Garden in Climate Change Adaptation and Mitigation*” *February 21-23, 2018*, organized by Pakistan Botanic Gardens Network Secretariat, Botanic Garden Government College University, Lahore.
11. **Participated and a member of organizing committee 1<sup>st</sup> International Conference on “*Conventional and Modern Approaches in Plant Sciences (CMAPS-2017)*” *November 27-29, 2017*, held in the Department of Botany, University of the Punjab, Lahore.**

12. Participated in the seminar on "*Kitchen Gardening and Seed Distribution*" November 21, 2017, held in Institute of Agricultural Sciences, University of the Punjab, Lahore.
13. Participated in the "*4<sup>th</sup> Faculty Training Program*" November 21-25, 2016, in Department of Microbiology & Molecular Genetics, University of the Punjab, Lahore.
14. Participated in the evaluation committee of 4<sup>th</sup> Invention to Innovation Summit 2015 and performed duty of judge in the exhibition on "*Technologies having Potential for Commercialization*" March 04-05, 2015, at University of the Punjab, Lahore.
15. Participated in the "*Active Citizen Program*" September, 14-18, 2015, organized by British Council and Higher Education Commission of Pakistan, held at the Institute of Social and Cultural studies, University of the Punjab, Lahore.
16. Participated in the "*3<sup>rd</sup> International Conference on Education in Pakistan: Practices & Challenges*", January 06-07, 2014, organized by University of Education, Lahore.
17. Participated in a one-day seminar on "*Soil Health and Reclamation Approaches*" June, 2014, held at College of Earth and Environmental Sciences, University of the Punjab, Lahore.
18. Participated in the "*4<sup>th</sup> Faculty Training Program*" November 21-25, 2016, in Department of Microbiology & Molecular Genetics, University of the Punjab, Lahore.
19. Participated in the "*3<sup>rd</sup> Faculty Training Program*" November 17-21, 2014, in Department of Microbiology & Molecular Genetics, University of the Punjab, Lahore.
20. Participated in the "*3<sup>rd</sup> International Conference on Education in Pakistan: Practices & Challenges*", January 06-07, 2014, organized by University of Education, Lahore.
21. Participated in a one-day International seminar on "*Soil Health and Reclamation Approaches*" June, 2014, held at College of Earth and Environmental Sciences, University of the Punjab, Lahore.
22. Participated in the "*2<sup>nd</sup> International Conference of Plant Scientists by Pakistan Botanical Society* (February 22-24, 2011), held at Department of Botany, Govt. College University, Lahore.
23. Participated in a one-day workshop on "*Florescent Microscopy: Introduction and Applications*", September 24, 2011, organized by Department of Microbiology and Molecular Genetics, University of the Punjab, Lahore.
24. Participated in the "*2<sup>nd</sup> International Conference on Role Of Chemistry for Environmental Preservation (RCEP 2009)*", May 2009. Organized By: The Royal Society of Chemistry UK & THE ENVIRON MONITOR. held at Hotel Ambassador, Lahore.



25. Participated in the National Seminar on *Food safety and security through application of chemistry and chemical technologies*, May 02, 2009, organized By: The Royal Society of Chemistry UK & THE ENVIRON MONITOR. held at Hotel Ambassador, Lahore.
26. Participated in the *International Symposium on Glycoproteins in Health and Diseases*, May 27-29, 2008, held in School of Biological Sciences, Punjab University, Lahore.
27. Participated in the *2<sup>nd</sup> Meeting of Nobel Laureates with Pakistani Students/ Young Scholars in Islamabad / Lahore*, March 27-31, 2007 (Nominated from the Department).

### **ORAL PRESENTATION**

1. Effect of heavy metals on antioxidant activities on the growth and yield of potato irrigated with tannery effluent.  
**Presented In:** *International Horticulture e conference held online in February 22-23, 2021*, organized by Pakistan Society for Horticultural Sciences, Institute of Horticultural Sciences, University of Agriculture, Faisalabad.
2. Enhancement of metal uptake from paper sludge concentrations by *Hemarthria compressa* L. using fungal treatments.  
**Presented In:** *7th International Horticulture Research Conference held online in July 1st -30th, 2020*, Beijing, China.
3. Phytoremediation potential of lemongrass (*Cymbopogon flexuosus* stapf.) grown in tannery sludge contaminated soil.  
**Presented In:** *1<sup>st</sup> International Conference of Smart Plantation, an ultimate solution to climate change, ICSP2020 (2-4 March, 2020)*, Department of Botany, Lahore College for Women University, Lahore.
4. Morphological and biochemical effects of Selenium (Se) on corn under drought stress.  
**Presented In:** *International Conference Horticulture Sciences IHC2020 (26-28 March, 2020)*, IAGS, University of the Punjab.
5. Exogenously applied ascorbic acid enhanced the growth and yield of potato irrigated with tannery effluent.  
**Presented In:** *1<sup>st</sup> National Conference on Multidisciplinary Research (NCMR), March 27 - 28, 2019*, organized by ORIC, held in the University of Okara.
6. Atomic absorption spectrophotometry and heavy metal analysis.  
**Presented In:** *1<sup>st</sup> International Conference on "Conventional and Modern Approached in Plant Sciences (CMAPS-2017)" November 27-29, 2017*, held in the Department of Botany, University of the Punjab, Lahore.
7. Role of antioxidants and heavy metal uptake from tannery sludge in microbe assisted phytoremediation under field condition.  
**Presented In:** *2<sup>nd</sup> International conference on Agriculture, Biological and Environmental Sciences (ICABES) March 28-29, 2015*, held at Pattaya, Thailand.

8. Multivariate analysis of heavy metal contamination in vegetables and fruits in the vicinity of some industrial areas of the Punjab.

**Presented In:** *International Symposium on Biotechnology and Other Omics in Vegetable Science* (29 April-02 May 2012), held in Antalya-Turkey.

9. Hydrophytes and their heavy metal status in tannery effluents and associated contaminated drains.

**Presented In:** *2<sup>nd</sup> International Seminar on Medicinal Plants: Isolation and Applications. (ISMP-2010) (Jan 14-16, 2010)*, held at Lahore College for Women University, Lahore.

10. Bioremediation potential of two hydrophytes for cleaning the toxic tannery sludge.

**Presented In:** *1<sup>st</sup> International Conference on Role Of Chemistry for Environmental Preservation (RCEP 2008) June 2008*. Organized By: The Royal Society of Chemistry UK & THE ENVIRON MONITOR. To be held at Hotel Ambassador, Lahore.

11. Bioaccumulation of metals from tannery sludge by *Typha angustifolia* L.

**Presented In:** *1<sup>st</sup> International Seminar on Medicinal Plants: Isolation and Applications, (ISMP-2008) (May 20-23, 2008)*, held at Lahore College for Women University, Lahore.

### **POSTER PRESENTATIONS**

1. Rhizofiltration of heavy metals from the tannery sludge by the anchored hydrophyte, *Hydrocotyle umbellata* L.

**Presented in:** *International Conference of Plant Scientists. (10<sup>th</sup> National Meeting of Plant Scientists,)* (21-24 April, 2008), held at Department of Botany, Agriculture University, Faisalabad.

2. Efficiency of duckweed (*Lemna minor* L.) in phytotreatment of tannery sludge

**Presented in:** *1<sup>st</sup> International Seminar on soil health and reclamation approaches (June, 2014)*, held at College of earth and Environmental Sciences, University of the Punjab, Lahore.

### **DEPARTMENTAL SERVICE**

Assigned various Departmental duties like

- Herbarium committee
- Seminar Organizing Committee
- Sports Organizing Committee
- Event Organizing Committee
- store stock taking
- Cleanliness Committee

- Equivalence Committee
- Departmental Development Committee
- Admission committee for MS/Mphil/PhD
- Tea Club committee in the Faculty Lounge

The duties assigned to me in the Botanical Garden are,

- Development of Cactus Garden
- Development of Topiary Section
- Beautification of Gates with landscaping
- Establishment of Hydrophytes cells and lake.

## **ORGANIZED CONFERENCE, WORKSHOPS AND SEMINAR IN THE DEPARTMENT OF BOTANY**

1. Member of organizing committee in a Pre-Conference workshop on “*Atomic Absorption Spectrophotometry and Heavy Metal Analysis*” on November 27, 2017, in the 1<sup>st</sup> International Conference on Conventional And Modern Approaches in Plant Sciences (CMAPS-2017), held in the Department of Botany, University of the Punjab, Lahore.
2. **Organized a workshop on “*Innovative Ideas in Kitchen Gardening and Mushroom Cultivation*” on October 04, 2017, as a Focal Person.**
3. Member of organizing committee in the 1<sup>st</sup> International Conference on Conventional And Modern Approaches in Plant Sciences (CMAPS-2017) November 27-29, 2017, held in the Department of Botany, University of the Punjab, Lahore.
4. Organized monthly seminar on “*Department of Botany, University of the Punjab: A Historical Perspective*”, October 25, 2017, by Prof. Dr. Khalid Hamid Sheikh, in Al-Razi Hall, Centre for Undergraduate Studies, University of the Punjab, Lahore.
5. Organized monthly seminar on “Smog: Nature, Origin and Impact”, January 26, 2018, by Emeritus Prof. Dr. Syed Razi Abbas Shamsi, in Al-Razi Hall, Centre for Undergraduate Studies, University of the Punjab, Lahore.
6. Organized monthly seminar on “Toward two decades (1995-2015) of Biotechnology: Successes, Failures and Prospects”, February 14, 2018, by Emeritus Prof. Dr. Javed Iqbal, in Al-Razi Hall, Centre for Undergraduate Studies, University of the Punjab, Lahore.
7. Monthly seminar on “Traffic Awareness” by Punjab Traffic Police, April 05, 2018, will be held in Al-Razi Hall, Centre for Undergraduate Studies, University of the Punjab, Lahore.

8. Organized seminar on “*Climate Change, Urban Resilience and Green Infrastructure*”, November 27, 2018, by Prof. Dr. Khalid Farooq Akbar, in Department of Botany, University of Education, Township, Lahore.
9. Organized seminar on “*Role of Forests in Biodiversity followed by Tree Plantation Campaign*”, April 05, 2019, by Chief conservator Forest Department, Mr. Ajmal Rahim, at University of Education, Township, Lahore.
10. Organized the “*Green and Clean Campaign*” by Tree Plantation April 05, 2019, in collaboration with Forestry Department, University of Education, Township, Lahore.
11. Organizing members of one day “Aqua Idea Workshop” on the segments of genetics / Biotechnology, Feed and Feeding, Aqua Management, processing and HR, February 29, 2020, University of Education, Township, Lahore.
12. Organized one day national seminar on “Smog and Importance of *Forests*”, March 11, 2020, by Chief conservator Forest Department, Mr. Ajmal Rahim, University of Education, Township, Lahore.
13. Organized the “*Green and Clean Campaign*” by Tree Plantation, March 11, 2020 in collaboration with Forestry Department, University of Education, Township, Lahore.
14. Organized one-day international seminar on “Environmentally Smart Nitrogen (ESN) – Potential for Improving Modern Crop Production and N-Use Efficiency”, March 02, 2020, by Dr. Tarlok Singh Sahota, Department of Botany, in University of Education, Township, Lahore.
15. Organized a webinar on “Eco Tourism and Role of Forest”, September 14, 2021, by Chief conservator Forest Department, Mr. Ajmal Rahim, Forest Department, Department of Botany, in University of Education, Township, Lahore.
16. Organized a webinar on “Integrated Waste Biorefineries as Power Plants of the Future” on September 24, 2021, by Dr. Abdul-Sattar Nizami, Sustainable Development Study Centre (SDSC), Government College University, in Department of Botany, in University of Education, Township, Lahore.
17. **Organized “1<sup>st</sup> international Conference on Recent Approaches in Plant Science” RAPS-2022, March 30-31, 2022**, in Department of Botany, **Division of Science and Technology**, University of Education, Township, Lahore.

## **COMMUNITY SERVICE**

- QEC Coordinator, Division of Science and Technology, University of Education, Township, Lahore.
- External examiner for Viva voce examination of BS and MS research students of Lahore College for Women University and Queen Mary College for Women, Lahore, Pakistan.

- Reviewer of various national and International Journals.

## **AWARDS / FELLOWSHIPS**

1. Received RSC indigenous Technology award of cash prize of Rs. 20,000/- for displaying Innovative Technology “Constructed Wetland Technology” in 8<sup>th</sup> Invention to Innovation Summit 2019, April 02-03, 2019, organized by ORIC, University of the Punjab, Lahore.
2. Awarded *BEST PAPER AWARD* in oral presentation of research paper titled, “Role of antioxidants and heavy metal uptake from tannery sludge in microbe assisted phytoremediation under field condition” in 2<sup>nd</sup> International conference on Agriculture, Biological and Environmental Sciences (ICABES), March 28-29, 2015, held at Pattaya, Thailand.
3. Awarded travel grant by University of the Punjab (Overseas Scholarship Committee) for oral presentation to attend 2<sup>nd</sup> International conference on Agriculture, Biological and Environmental Sciences (ICABES) March 28-29, 2015, held at Pattaya, Thailand.
4. Awarded second position in poster competition in the 1<sup>st</sup> International Seminar on soil health and reclamation approaches (June, 2014), held at College of Earth and Environmental Sciences, University of the Punjab, Lahore.
5. Awarded PSF Travel Grant to attend “International Symposium on Biotechnology & other Omics in Vegetable Science” from April 29- May 2, 2012 to be held at Antalya, Turkey.
6. Fellowship awarded by Higher Education Commission of Pakistan under International Research Support Initiative Program (IRSIP) (PIN ID: *IRSIP 20 Agri 17*) for 6 months as a visiting research scholar (Jun 02, 2012- Nov 22, 2012) at Department of Environmental Science and Policy, University of California, Davis, USA.
7. Awarded “Indigenous 5000 PhD Fellowship program Batch VII” PIN ID: *117-3229-BM7-076 (50018125)* by Higher Education Commission (HEC) in December 21, 2011.
8. Award of Subsistence Allowance to Un-Employed 1<sup>st</sup> class Graduates under the Project “Support to Scientific Talent” in May 23, 2008.
9. Awarded PSF fellowship for PhD studies (one year)
10. Merit Scholarship for Ph.D. awarded by Doctoral Program Co-ordination Committee (DPCC), Punjab University, Lahore.
11. Annual Merit Scholarship from the Department of Botany, Punjab University, Lahore.
12. Certificate on account of securing first position in 200m Race in girl’s team in the Department of Botany, Punjab University, Lahore.

13. Certificate of Participation in Cricket and Badminton Tournament in the Department of Botany, Punjab University, Lahore.

## **PERSONAL DETAILS**

***Date of Birth:*** 22-12-1983  
***NIC No.*** 35202-7399593-6  
***Nationality:*** Pakistani

## **SKILLS**

- Interpersonal and Communications
- Can effectively use Windows, MS Office & do research oriented Internet surfing
- Equally proficient in English, Urdu and Punjabi
- Scientific equipment handling.

## **EXTRA & Co - CURRICULAR ACTIVITIES**

- Secured 64/100 marks (Percentile 73.17%) in Graduate Assessment Test (GAT)- Subject in 2011.
- Reading and Collecting Research Articles, Current affairs, news etc

## **INTERPERSONAL SKILLS**

- Excellent Presentation Skills
- Adopts to new concepts easily
- Energetic and having potential to handle multiple responsibilities

## **REFERENCES**

- Will be furnished upon request.