

## Curriculum Vitae

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| <b>Name:</b>                | <b>Dr. Gul Zareen Ghafoor</b>   |  |   |               |
| <b>Personal:</b>            | Contact #: +92-343-4624022<br>Email: <a href="mailto:zareen.sdsc@gcu.edu.pk">zareen.sdsc@gcu.edu.pk</a><br>Sustainable Development Study Center, Government College University Lahore, Pakistan   |  |   |               |
| <b>Experience</b>           | <ul style="list-style-type: none"> <li>Assistant Professor (Environmental Science) 18<sup>th</sup> Feb 2022-to-date (Sustainable Development Study Center, Government College University, Lahore, Pakistan)</li> <li>Lecturer (Environmental Science) 26<sup>th</sup> May, 2016-to-17<sup>th</sup> Feb 2022 (Sustainable Development Study Center, Government College University, Lahore, Pakistan)</li> <li>College Teaching Intern under Punjab Higher Education Department (Sep. 2012 - Jan 2016)</li> </ul> |  |   |               |
| <b>Education</b>            | <ul style="list-style-type: none"> <li>PhD Environmental Science - Jan 2022<br/>Sustainable Development Study Centre, GC University Lahore</li> </ul>   |  |   |               |
| <b>Research Area</b>        | <ul style="list-style-type: none"> <li>Climate Change</li> <li>Forest Ecology</li> <li>Public Health &amp; Environment</li> </ul>   |  |   |               |
| <b>Academic Assignments</b> | <ul style="list-style-type: none"> <li>BS Program Coordinator (BS Environmental Science and BS Gender and Climate Change)</li> <li>Focal Person Turnitin</li> <li>Co-Advisor Environment Protection Society</li> <li>Coordinator SDSC Sports</li> <li>Member GCU Medical Committee</li> <li>Invited member Curriculum Review Committee, Superior University Lahore</li> </ul>   |  |   |               |
| <b>Research Assignments</b> | <ul style="list-style-type: none"> <li>Topic Editor in Frontiers in Environmental Economics (Topic: Water Economics: The Economic Aspects of Water Resource Management, Allocation and Use) – Year 2025-2026</li> </ul>   |  |   |               |
| <b>Research supervised</b>  | <b>Candidate</b>  | <b>Degree</b>  | <b>Thesis Title</b>   | <b>Status</b> |
|                             | <b>Ph.D</b>   |  |   |               |
|                             | Ifrah Ali   | Ph.D Environmental Science   | Environmental and health impact analysis of surface mining in Mianwali District   | In progress   |
|                             | Shazana Khan  | Ph.D Environmental Science   | Socio-Ecological Vulnerability Assessment and Adaptive Responses to Glacier Lake Outburst Floods (GLOFs) in Chitral, Pakistan | In progress   |
|                             | <b>M.Phil.</b>  |  |   |               |
| Alina Zahid                 | MPhil Environmental Science 2024-2026   | Health Risk assessment from microbiological contamination in cosmetic products | In Progress   |               |

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|--|----------------------|---------------------------------------|--|-------------|
|  | Hira Shafiq          | MPhil Environmental Science 2024-2026 | Sptio-temporal analysis of landuse landcover change and its impact on land surface temperature of Faisalabad city  | In Progress |
|  | Fatima Mohi Uddin    | MPhil Environmental Science 2024-2026 | Assessment of occupational health, safety and environmental hazards of a textile labelling unit in Faisalabad  | In Progress |
|  | Anam Rafique         | MPhil Environmental Science 2023-2025 | Assessing the organizational resilience to tackle the climate induced waterborne diseases in Lahore: A spatio-temporal analysis                          | Completed   |
|  | Syed Zain ul Abideen | MPhil Environmental Science 2022-2024 | Assessing the carbon footprint of wheat-rice cropping system in Jandiala Bhagwala village Gujranwala city  | Left        |
|  | Nimra Khalid         | MPhil Environmental Science 2023-2025 | Assessing the impact of climatic warming on seedling growth ( <i>Prosopis juliflora</i> ) and leaf litter decomposition in Hiran Minar Forest Sheikhpura | Completed   |
|  | Memuna Tahir         | MPhil Environmental Science 2023-2025 | Biodiversity of pollinator insects in urban green spaces of Lahore city  | Left        |
|  | Rohama Nasir         | MPhil Environmental Science 2022-2023 | Mapping and valuation of Ecosystem services provided by Hiran Miran, District Sheikhpura   | Completed   |
|  | Mehvish Shabbir      | MPhil Environmental Science 2022-2023 | Spatio-temporal analysis of land cover changes and its impact of Land surface temperature in Vehari district   | Completed   |
|  | Rida Batool          | MPhil Environmental Science 2021-2022 | Mapping and valuation of Regulatory Ecosystem services of Machhu Forest, District Layyah   | Completed   |
|  | Kainat Javed         | MPhil Environmental Science 2020-2021 | Spatio-temporal analysis of land use land cover change and its impact on local temperature of Sialkot city.  | Completed   |
|  | Amina Shabbir        | MPhil Environmental Science 2020-2021 | Health risk assessment and spatial distribution of heavy metals contamination in dust and surface soil of parks in Lahore                                | Completed   |

|                 |                             |  |  |           |
|-----------------|-----------------------------|--|--|-----------|
|                 | Mehwish Rubab               | MPhil Environmental Science 2019-2020  | Evaluation of population status and economic valuation of ethnomedicinal flora of District Okara, Punjab Pakistan  | Completed |
|                 | Khadija Tirmizi             | MPhil Environmental Science 2017-18    | Mapping and valuation of cultural ecosystem services provided by Hayat-ul-Mir forest Soan valley, Pakistan         | Completed |
| <b>BS level</b> |                             |  |  |           |
|                 | Hiba & Hayat Malik          | BS Environmental Science 2022-2026     | Carbon stock assessment at Hiran Minar Archaeological site   | Completed |
|                 | Eman Sarfraz                | BS Environmental Science 2022-2026     | Spatiotemporal analysis of urban sprawl on green spaces in district Sheikhpura                                     | Completed |
|                 | Aneesa Shoukat              | BS Environmental Science 2022-2026     | Diversity analysis of natural regeneration of thorn forest species at Hiran Minar, Sheikhpura                      | Completed |
|                 | Noor Malik & Zunaira Batool | BS Environmental Science 2022-2026     | Occupational health risks associated with gaseous emissions in Daharki Oil Fields                                  | Completed |
|                 | Laiba Bhatti                | BS Environmental Science 2022-2026     | Exploring the drivers of digital environmentalism among university students  | Completed |
|                 | Noor ul Ain Batool          | BS Gender and Climate Change 2022-2026 | Evaluation of Ecosystem Services provided by Rakh Dhandla, District Bhakkar  | Completed |
|                 | Hasba Zia                   | BS Gender and Climate Change 2022-2026 | Impact of extreme weather events on the Health and Wellbeing of Agricultural Communities in Kasur                  | Completed |
|                 | Zuha Noshad & Abeera Awan   | BS Environmental Science 2022-2026     | Assessing the bioremediation potential of heavy metals tolerant fungi isolated from refuse dumpsite in Lahore.     | Completed |
|                 | Muhammad Ahmer Tariq Niazi  | BS Environmental Science 2022-2026     | Spatio-temporal analysis of Land use Land cover changes in District Mianwali, Punjab Pakistan                      | Completed |
|                 | Zainab Amer & Bisma Saleem  | BS Environmental Science 2022-2026     | Spatio-temporal mapping of air quality and assessment of community resilience to associated health risks in Lahore | Completed |

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|--|--------------------------------|------------------------------------|--|-----------|
|  | Bareera Khalid                 | BS Environmental Science 2023-2024 | Determination of heavy metals contamination in sand roasted snacks   | Completed |
|  | Amna Naeem                     | BS Environmental Science 2023-2024 | Public perception about temperature extremes and adaptation measures in Lahore city  | Completed |
|  | Hina Nasir & Fiza Zainab       | BS Environmental Science 2023-2024 | Food safety practices and heavy metal contamination in fried foods in Lahore   | Completed |
|  | Ittiba Fatima & Aimen Shehzadi | BS Environmental Science 2023-2024 | Assessing the impact of Sahiwal coal power emissions on surrounding tree flora   | Completed |
|  | Sadia Tabbasum, Syeda Taqdees  | BS Environmental Science 2022-2023 | Carbon footprint of a poultry farm facility in Punjab  | Completed |
|  | Anam Rafique                   | Environmental Science 2022-2023    | Assessment of occupational health and safety risks of a textile industry in Lahore.  | Completed |
|  | Areej, Rida                    | Environmental Science 2022-2023    | Human health risk assessment from heavy metals contamination in the herbal medicines available in the local market of Lahore, Pakistan | Completed |
|  | Rizwana Akram                  | BS Environmental Science 2021-2022 | Assessing the heavy metals exposure and occupational health and safety of workers at a metallurgical factory in Lahore.                | Completed |
|  | Tayyaba Tanveer                | BS Environmental Science 2021-2022 | Effect of air emissions on vegetation in the vicinity of a Matallurgical factor in Lahore  | Completed |
|  | Ayesha Asghar                  | BS Environmental Science 2021-2022 | Effect of air emissions on public health in the vicinity of a Matallurgical factor in Lahore   | Completed |
|  | Mubeen Shoukat & Nimra Safdar  | BS Environmental Science 2020-2021 | Assessment of tree and soil carbon stock of Jillani Park, Lahore.  | Completed |
|  | Farah Saeed                    | BS Environmental Science 2019-2020 | Assessing response of colleges towards environmental education program sponsorship.  | Completed |
|  | Arshia Ehsan                   | BS Environmental Science           | Assessing response of corporate and social sectors   | Completed |

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|--|----------------------------|------------------------------------|--|-----------|
|  |                            | 2019-2020                          | to environmental education program sponsorship   |           |
|  | Maria, Aqsa jabeen         | BS Environmental Science 2018-19   | Investigating the impacts of open dumping of municipal solid waste on environmental quality and public health in the vicinity of gondalanwala dumping site, gujranwala | Completed |
|  | Laiba Shohail, Rabia Asad  | BS Environmental Science 2017-18   | Assessment of effect of roadside noise on visitor's health and their attitude towards use of urban green spaces in Lahore  | Completed |
|  | Kainat Khan, ZaibNaeem     | BS Environmental Science 2017-18   | Assessment Of Tree Biomass Carbon Stock Of Jallo Forest And Wildlife Park, Lahore  | Completed |
|  | Maria Abbas, Maham Sarfraz | BS Environmental Science 2016-17   | Evaluation Of Heavy Metal Tolerance Potential Of Strains As Bioremediation Tool  | Completed |
|  | Anam Waheed                | BS Environmental Science 2016-17   | Public Health and Environmental Impacts of Lahore Orange Line Metro Train Construction Project   | Completed |
|  | Arooj Qaiser               | BS Environmental Science 2014-2015 | Bioremediation of mercury using filamentous green algae  | Completed |
|  | Ayesha Mughal              | BS Environmental Science 2014-2015 | Assessment of Antibacterial activity of lemon peel ( <i>Citrus limon</i> ) extract   | Completed |
|  | Sana Amjad                 | BS Environmental Science 2013-2014 | Effect of Nala daik effluent on the growth of <i>Triticum aestivum</i>   | Completed |
|  | Samina Nazir               | BS Environmental Science 2013-2014 | Effect of Nala daik effluent on the growth of <i>Solanum melongena</i>   | Completed |
|  | Chanda Tufail              | BS Environmental Science 2013-2014 | Effect of municipal solid waste compost on the growth of <i>Solanum lycopersicum</i> (tomato)"   | Completed |
|  | Iram Aslam                 | BS Environmental Science 2013-2014 | Effect of municipal solid waste compost on the growth of <i>Okra</i> ( <i>Abelmoschus esculentus</i> )   | Completed |

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|---------------------|--|---|--|-----------|
|                     | Iqra Azeem   | BS<br>Environmental<br>Science<br>2013-2014 | Determination of fecal<br>coliform bacteria in<br>drinking water of<br>recreational parks of<br>Lahore, Pakistan | Completed |
| <b>Publications</b> | <p><b>Research Articles</b></p> <ol style="list-style-type: none"> <li>1. <b>Ghafoor, G. Z.</b>, Qureshi, E. M. A., Ghafoor, N. &amp; Shehzad, L. (2014). Health Status and Hygiene Practices In Slums: A Case Study Of Lahore, Pakistan. <i>Biologia (Pakistan)</i>, 60(2), 273-278.</li> <li>2. Qureshi, E. M. A., Vehra, S., <b>Ghafoor, G. Z.</b>, Ali, A. S., &amp; Ahmad, F. (2014). Community perception regarding dengue epidemic in Lahore, Pakistan. <i>Pakistan Journal of Science</i>, 66(1), 7.</li> <li>3. Shahid, M. G., Nadeem, M., Baig, S., Cheema, T. A., Atta, S., &amp; <b>Ghafoor, G. Z.</b> (2016). Screening and optimization of some inorganic salts for the production of ergot alkaloids from <i>Penicillium</i> species using surface culture fermentation process. <i>Pakistan journal of pharmaceutical sciences</i>, 29(2).</li> <li>4. Shahid, M. G., Baig, S., Saleem, M., Arif, R., <b>Ghafoor, G. Z.</b>, &amp; Liaquat, A. (2018). Qualitative and quantitative analysis of ergot alkaloids produced by <i>Aspergillus niger</i> through surface culture fermentation process. <i>Pak. J. Bot</i>, 50(6), 2423-2428.</li> <li>5. <b>Ghafoor, G. Z.</b>, Sarfraz, M., Abbas, M. &amp; Shahid, M. G. (2019). Evaluation of tolerance potential of <i>Aspergillus niger</i> and <i>Trichoderma viridae</i> against hexavalent chromium. <i>International Journal of Biosciences</i>. 14(4), 35-44</li> <li>6. Hayyat, M. U., Munir, A., Shahzad, L., Farhan, M., &amp; <b>Ghafoor, G. Z.</b> (2019). Assessing the nexus of fast food consumption and childhood obesity in Lahore Metropolitan City of Pakistan. <i>International Journal of Biosciences</i>. 14(4), 95-102</li> <li>7. <b>Ghafoor, G. Z.</b>, Sharif, F., Khan, A. U., Hayyat, M. U., Farhan, M. &amp; Shahzad, L. (2019). Energy consumption and carbon dioxide emissions of residential buildings of Lahore city, Pakistan. <i>Polish Journal of Environmental Studies</i>. 29(2), 1-11</li> <li>8. <b>Ghafoor, G. Z.</b>, Sharif, F., Khan, A. U., Shahzad, L., &amp; Hayyat, M. U. (2019). Assessment Of Tree Biomass Carbon Stock Of Subtropical Scrub Forest, Soan Valley Pakistan. <i>Applied Ecology and Environmental Research</i>. 18(2): 2231-2245.</li> <li>9. Munir, A., Hayyat, M. U., Shahzad, L., Sharif, F., Farhan, M., &amp; <b>Ghafoor, G. Z.</b> (2020). Assessment of heavy metals concentrations in commercially available lipsticks in Pakistan. <i>Environmental Forensics</i>, 1-8.</li> <li>10. Shahid, M. G., Nadeem, M., Gulzar, A., Saleem, M., <b>Ghafoor, G. Z.</b>, Hayyat, M. U., &amp; Nelofer, R. (2020). Novel Ergot Alkaloids Production from <i>Penicillium citrinum</i> Employing Response Surface Methodology Technique. <i>Toxins</i>, 12(7), 427.</li> <li>11. Kanwal, A., Farhan, M., Sharif, F., Hayyat, M. U., Shahzad, L., <b>Ghafoor, G.Z.</b> (2020). Effect of industrial wastewater on wheat germination, growth, yield, nutrients and bioaccumulation of lead. <i>Scientific reports</i>.</li> </ol> |   |  |           |

12. Shahzad, L., Shah, M., Saleem, M., Mansoor, A., Sharif, F., Tahir, A., Hayyat, U., Farhan, M. & **Ghafoor, G.** (2021). Livelihood vulnerability index: a pragmatic assessment of climatic changes in flood affected community of Jhok Reserve Forest, Punjab, Pakistan. *Environmental Earth Sciences*, 80(7), 1-16.
13. **Ghafoor, G. Z.**, Sharif, F., Khan, A. U. H., Shahid, M. G., Siddiq, Z., & Shahzad, L. (2021). Effect of climate warming on seedling growth and biomass accumulation of *Acacia modesta* and *Olea ferruginea* in a subtropical scrub forest of Pakistan. *Écoscience*, 1-14.
14. **Ghafoor, G. Z.**, Sharif, F., Shahid, M. G., Shahzad, L., Rasheed, R., & Khan, A. U. H. (2022). Assessing the impact of land use land cover change on regulatory ecosystem services of subtropical scrub forest, Soan Valley Pakistan. *Scientific Reports*, 12(1), 1-12.
15. Shahzad, L., Ali, M., Zubair, H., Sharif, F., Hayyat, M. U., **Ghafoor, G. Z.** (2022). Detection of heavy metals in children playing products and its associated health risk assessment in Lahore, Pakistan. *International Journal of Environmental and Analytical Chemistry*. <http://doi.org/10.1080/03067319.2022.21>
16. **Ghafoor, G. Z.**, Sharif, F., Hayyat, M. U., Shahid, M. G., & Shahzad, L. (2022). Effect of climatic factors on leaf litter decomposition dynamics of a subtropical scrub forest under field and microcosm conditions. *All Life*, 15(1), 1175-1187.
17. Ali, M., Shahzad, L., Hayyat, M. U., Sharif, F., **Ghafoor, G. Z.**, & Nasir, R. (2023). Determination of heavy metals and their associated health risk assessment in the commonly available sunblocks. *International Journal of Environmental Analytical Chemistry*, 1-18.
18. Shahzad, L., Yousaf, S., Riaz, N., Hayyat, M. U., & **Ghafoor, G.** (2023). Effects of the Covid-19 Pandemic on Primary Education System of Lahore, Pakistan. *Pakistan Journal of Medical & Health Sciences*, 17(03), 71-71.
19. Yasin, A., Shahzad, L., Hayyat, M. U., **Ghafoor, G. Z.**, Saeed, S., Sharif, F., Riaz, U. & Saleem, M. B. (2023). Assessing and Mapping the Impact of Tourism and Changing Climatic Conditions in Himalayan Region of Pakistan. *Journal of Environmental Management and Tourism*, 14(3), 605-622.
20. Zahra, K., Farhan, M., Kanwal, A., Sharif, F., Hayyat, M. U., Shahzad, L., & **Ghafoor, G. Z.** (2023). Investigating the role of bulking agents in compost maturity. *Scientific Reports*, 13(1), 16003.
21. Tahir, Z., Hayyat, M. U., Khan, Q. F., Sharif, F., Farhan, M., Shahzad, L., & **Ghafoor, G. Z.** (2023). Phyto-and bio-management of metal (loid)-contaminated soil by inoculating resistant bacteria: evaluating tolerance of treated rice plant and soil with its efficiency. *Environmental Science and Pollution Research*, 1-13.
22. Javaid, K., **Ghafoor, G. Z.** Sharif, F., Shahid, M. G., Shahzad, L., Ghafoor, N., Hayyat, M. U., Farhan, M. (2023). Spatio-temporal analysis of land use land cover change and its impact on land surface temperature

of Sialkot City, Pakistan. *Scientific Reports*. 13,22166. <https://doi.org/10.1038/s41598-023-49608-x>.

23. Shahzad, L., Waheed, A., Sharif, F., **Ghafoor, G. Z.**, & Rafique, A. (2024). Understanding role of climatic parameters and adaptation strategies in agriculture productivity of South Asian countries. *Sustainable Environment*, 10(1), 2345453.
24. Farhan, M., Awan, N., Kanwal, A., Sharif, F., Hayyat, M. U., Shahzad, L., & **Ghafoor, G. Z.** (2024). Dairy farmers' levels of awareness of antibiotic use in livestock farming in Pakistan. *Humanities and Social Sciences Communications*, 11(1), 1-12.
25. Ghafoor, N., **Ghafoor, G. Z.**, & Sharif, F. (2025). An empirical investigation of environmental impacts of agglomeration economies in major cities of Pakistan. *Scientific Reports*, 15(1), 1-10.
26. Aamir, U., Sharif, F., Waheed, S., Aslam, R., Shahzad, M., Shahzad, L., Rasheed, R., **Ghafoor, G.Z.**, Hayyat, M. U., & Naqvi, F. (2025). Profile distribution and ecological risk assessment of organochlorine pesticides (OCPs) in environmental matrices of Uchalli and Khabeki Lakes. *Scientific Reports*, 15(1), 1-20.
27. Ali, N. M., Jatoi, G. H., Chaudhry, M., Zahid, S., Hanif, U., Shahid, M. G., **Ghafoor, G. Z.** et al. (2026). Screening and molecular characterization of post-craniotomy associated beta-hemolytic pathogenic bacteria and modulation of bactericidal potency of different antibacterial agents against these isolates. *Veredas do Direito*, 23, e235207-e235207.

#### **Conference paper publication**

28. Ghafoor, G. Z., Yousaf, W., Alam, T., Zafar, S., & Alam, Z. (2012). Conceptual zoning scheme and overall land use plan for the threatened thorn forest plant community at Harappa Mounds. *Proceeding of Role of Botanic Gardens in Conserving Natural Vegetation*. Government College University Lahore. ISBN: 978-969-9071-06-5

#### **Book Chapter**

29. **Ghafoor, G. Z.**, Shahid, M. G., Ali, M., Ghafoor, N. (2023). Ecosystem services in the changing climate: Calling attention for the conservation of tropical and subtropical forests. In *Tropical Forests – Ecology, Diversity and Conservation Status*. Eds. Carmona, E. C., Musarella, C. M., Ortiz, A. C. IntechOpen.
30. Tahir, Z., Khan, Q. F., Hayyat, U., Sharif, F., Farhan, M., Rasheed, R., **Ghafoor, G.Z.**, Afzaal, M., Azhar, N., Nisa, Z. U., Majeed, H., & Sakandar, H. A. (2024). Isotopic Tools for Tracing Water Pollutants. In *Contaminated Land and Water: Remediation and Management* (pp. 69-89). Cham: Springer International Publishing.
31. Afzaal, M., Idrees, E., Farooq, M., Abbasi, N. A., Manan, H. A., Farooq, A., Mehboob, H. M., **Ghafoor, G. Z.**, Hayat, M. U., Mazhar, I., Bashir, N., Iqbal, S. S., Abbasi, N.A. Mannan, H.A., Ali, S., Begum, F., & Hashmi, Z. (2024). Contaminated Land/Water Microbial Diversity and Enzymatic Activity in Relation to Pollution. In *Contaminated Land and Water:*

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|---|--|
|   | <p><i>Remediation and Management</i> (pp. 45-57). Cham: Springer International Publishing.</p> <p>32. Khan, Q. F., Shabir, M., <b>Ghafoor, G. Z.</b>, Sharif, F., Khurshid, M., Rasheed, R., Hayat, M., Afzaal, M., Khurshid, M., Sakandar, A. H., Azhar, N., Akhtar, M. T. &amp; Barq, M. G. (2024). Biodegradation of POPs in Contaminated Land/Water. In <i>Contaminated Land and Water: Remediation and Management</i> (pp. 101-118). Cham: Springer International Publishing.</p> <p>33. <b>Ghafoor, G. Z.</b>, Rafique, A., Maher, U., Tahir, M., Shahid, M. G., Sharif, F., Ghafoor, N., Shahzad, L., Hayyat, M. U. &amp; Afzaal, M. (2025). Microalgae as health and disease prevention agents. In <i>Algae Biotechnology for Biomedical and Nutritional Applications</i> (pp. 69-87). Academic Press.</p> <p>34. <b>Ghafoor, G. Z.</b>, Ghafoor, N., Shahid, M. G., Qazi, A., Ikram, K. (2026). The Economic Side of Issue: Water, Energy, and Food: Case Studies from Developed and Developing Countries. In <i>Water Governance Nurturing Resilience for Sustainable Development</i>. Publisher: Apple Academic Press. <a href="https://doi.org/10.1201/9781998511631-11">10.1201/9781998511631-11</a></p>  |
| <p><b>Selected Professional Presentations</b></p> | <p><b><u>Participation in conferences</u></b></p> <ul style="list-style-type: none"> <li>• <b>Ghafoor, G. Z.</b>, Yousaf, W., Alam, T., Zafar, S., &amp; Alam, Z. (2012). Conceptual zoning scheme and overall land use plan for the threatened thorn forest plant community at Harappa Mounds. <i>3<sup>rd</sup> Botanic Gardens conference on “Role of Botanic Gardens in Conserving Natural Vegetation.”</i> In Feb. 2012 at Government College University Lahore.</li> <li>• <b>Ghafoor, G. Z.</b>, Khan, A. U. Estimation of carbon footprint from electricity and natural gas consumption in the residential buildings of Lahore. <i>Second International Conference on Global Environmental Changes</i>. Government College University Faisalabad (25-26<sup>th</sup> February, 2014).</li> <li>• <b>Ghafoor, G. Z.</b>, Sharif, F. Assessment of biomass carbon stock of Hayat-ul-Mir forest, Soan Valley Pakistan. 4<sup>th</sup> international conference on “Role of botanic gardens in climate change adaptation and mitigation” organized by GCU Botanic garden on 21-23 Feb. 2018</li> <li>• <b>Ghafoor, G. Z.</b>, Amjad, S., Nazir, S., Saeed, F. Monitoring of plant growth parameters of <i>Triticum aestivum</i> and <i>Solanum melongena</i> irrigated with wastewater. 1st International Conference on Science, Technology and innovation” 2nd-4th April 2019 at Kinnaird College for Women, Lahore</li> <li>• <b>Ghafoor, G.Z.</b>, Safdar, N., Shoukat, M. Assessment of tree and soil carbon stock of Jillani Park Lahore. <i>3<sup>rd</sup> International Conference on Environment and Development</i>. Sustainable Development Study Center, Government College University Lahore (13-15<sup>th</sup> September, 2021).</li> <li>• <b>Ghafoor, G.Z.</b>, Jabeen, A., Maria, Shoukat, M., Safdar, N. Investigating The Impacts Of Open Dumping Of Municipal Solid Waste On Environmental Quality And Public Health In The Vicinity Of Gondalanwala Dumping Site, Gujranwala. <i>3<sup>rd</sup> International Conference</i></li> </ul> |

*on Environment and Development. Sustainable Development Study Center, Government College University Lahore (13-15<sup>th</sup> September, 2021).*

| Trainings attended | Sr. No | Workshops/Trainings   | Dates                           |                                 | Name of Organizing institution  |
|--------------------|--------|---|---------------------------------|---------------------------------|---|
|                    |        |   | From                            | To                              |   |
|                    | 1.     | One-day training session titled “R Software for Statistical Analysis”   | 27 <sup>th</sup> January, 2026  |                                 | ORIC GCUL   |
|                    | 2.     | Training on Research Grant Proposal Writing especially focused on HEC Call for NRPU Projects  | 15 <sup>th</sup> Oct. 2025      |                                 | ORIC GCUL   |
|                    | 3.     | Training on intellectual property rights focused on patent writing/drafting and submission  | 9 <sup>th</sup> Oct. 2024       |                                 | ORIC GCUL   |
|                    | 4.     | Citation and literature management using EndNote Software   | 23 <sup>rd</sup> May 2024       |                                 | ORIC GCUL   |
|                    | 5.     | Three days Faculty Development Program (FDP) for Batch 3 “Advanced teaching excellence : Strategies for effective higher education instruction and professional development | 19 <sup>th</sup> September 2023 | 21 <sup>st</sup> September 2023 | Punjab Higher Education Commission (PHEC)                                   |
|                    | 6.     | Training on ‘Advanced teaching and learning Programme 2023’   | July 2023                       | August 2023                     | Directorate of Academics, GCUL  |
|                    | 7.     | One day seminar on intellectual property rights (IPRs).   | 22 September 2022               |                                 | Pakistan Scientific & Technological Information Centre and ORIC GCU Lahore. |
|                    | 8.     | Teacher’s training on inclusive education & implementation of the HEC policy for students with disabilities   | 17 <sup>th</sup> August 2022    | 18 <sup>th</sup> August 2022    | Center for Special Students, GCU Lahore                                     |

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|  | 9.  | Quality assurance in higher education institutions  | 2 <sup>nd</sup> June 2022  |                           | GCU Lahore                                     |
|  | 10. | One day Training workshop on Turnitin   | 25 <sup>th</sup> Jan 2022  |                           | GC University Lahore                           |
|  | 11. | Two days workshop on ‘Promoting Research Excellence in Academics across Pakistan’             | 1 <sup>st</sup> Feb 2022   | 2 <sup>nd</sup> Feb 2022  | HEC Pakistan & Elsevier                        |
|  | 12. | One day workshop on “A successful Journey from Research to Publication”                       | 17 <sup>th</sup> Feb 2022  |                           | ORIC GC University Lahore                      |
|  | 13. | Two days workshop on Assessment in E-Learning and Quality Assurance Challenges                | 5 <sup>th</sup> July 2021  | 6 <sup>th</sup> July 2021 | Virtual University, Lahore                     |
|  | 14. | Seminar on Funding opportunities for scientists under Pakistan Science Foundation             | 12 <sup>th</sup> Nov, 2021 |                           | ORIC GCUL                                      |
|  | 15. | Three days Training workshop on “Outcome based education in higher education institutions”    | 20 <sup>th</sup> Nov 2017  | 22 <sup>nd</sup> Nov 2017 | QEC, GCU Lahore                                |
|  | 16. | Workshop on Social Entrepreneurship   | 7 <sup>th</sup> Mar 2017   | 9 <sup>th</sup> Mar 2017  | British Council, YES Network & GCU Lahore      |
|  | 17. | Five days training workshop on “In-Service Short Term Training of University Faculty Members” | 23 <sup>rd</sup> May 2016  | 27 <sup>th</sup> May 2016 | QEC, GCUL & Punjab Higher Education Department |