

Dr. Zulfiqar Ali Bhatti

Associate Professor, Chemical Engineering Department, Mehran University of Engineering and Technology, Jamshoro, Sindh, Pakistan.

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HEC approved PhD Supervisor for three years from 07-09-2021.

Education and Qualifications

19-10-2018 **Mehran University of Engineering and Technology, Jamshoro, Pakistan**

- **PhD (Chemical Engineering)**

PhD Thesis Title: Removal of arsenic from drinking water using indigenous iron ores and modified polyacrylonitrile as low-cost reactive adsorbent media.

19-09-2007 to 26-11-2008 **School of Process, Environment and Materials Engineering, University of Leeds, United Kingdom**

- **Master of Science (Energy & Environment)**

- Thesis project on “Thermodynamic considerations of steam reforming of glycerol for hydrogen production using adsorbent circulation”

02-01-2004 to 25-01-2007 **Mehran University of Engineering and Technology, Jamshoro, Pakistan**

- **Master of Engineering (Chemical)**

- Thesis project on “Analytical study of molasses used in various Distilleries of Sindh”

26-01-1997 to 23-01-2002 **Mehran University of Engineering and Technology, Jamshoro, Pakistan**

- **Bachelor of Engineering (Chemical)**

- Thesis Project on “Application of Effective Micro-Organisms Technology in Cement”

Work Experience

Associate Professor Chemical Engineering Department, Mehran University of Engineering & Technology, Jamshoro, Pakistan

17 Dec 2021 to

date

- Teaching chemical engineering subjects
- Engaged in research activities by supervising undergraduate and postgraduate students thesis projects
- Industrial liaison and internship co-ordinator of department
- Demonstrating practicals in laboratories
- Organizing industrial visits and Supervising students during industrial visits
- Class advisor of 23 batch chemical
- Member of four departmental committees i.e., Board of studies, Departmental Management Review Committee, Industrial Advisory Board and Departmental Curriculum Review Committee.

Assistant Professor Chemical Engineering Department, Mehran University of Engineering & Technology, Jamshoro, Pakistan

25 May 2011 to 16

Dec 2021

- Teaching chemical engineering subjects
- Demonstrating practicals in laboratories
- Performing academic and departmental activities
- Engaged in research activities

Project Manager Research & Development Foundation, Hyderabad Jan 2011 to May 2011

- Solar Desalination Project, Thatta
- Surveyed needy areas for installation of solar desalination plants to make desaline (distill) drinking water from saline ground water.
- Installed 12 solar plants in village Soomar Khan and Darya Khan Bhand, Jungshahi, Thatta.

Senior Shift Engineer Distillery Plant Al-Abbas Sugar Mills Ltd, Sindh. July 2006 to Jan 2007

- Responsible for plant process, operations, maintenance, raw material supply, chemicals, health & safety, water treatment, industrial alcohol export, staff supervision, plant start-up, shut down and trouble shootings.
- Learned excellent administration, office skills, record keeping and data input on computer, dealing with international customers, planning and human resources duties.

Shift Engineer Distillery Plant Al-Abbas Sugar Mills Ltd, Sindh. May 2002 to Jun 2006

- Responsibilities included controlling the process, operation of the Industrial Alcohol (96.6%) manufacturing plant (capacity 170,000 Liters per day) through DCS (Distributive Control System). Supervising and managing the shift staff up to 50, performing the maintenance checks, preparation of daily plant reports on computer and log books.
- Working experience of fermentation, distillation process and heat exchangers.
- Supervised the ISO certified Quality control laboratory including Microscope and analytical testing equipment.
- Have experience of trouble shootings at Distillery plant as starting up and shutting down the plant and solved a lot of problems during these as well as while running the plant. Supervised all kinds of process and operation trouble shootings.

Trainee Engineer Distillery Plant Al-Abbas Sugar Mills Ltd, Sindh. Feb 2002 to May 2002

Gained training about manufacturing process (fermentation), operation (distillation), Distributive control system, process flow pipelines line tracing, cooling towers, storage tanks, laboratory and maintenance work.

Journal Publications

1. Arshad Iqbal Jarwar, Khadija Qureshi, Imran Nazir Unar & **Zulfiqar Ali Bhatti**, “Green and Efficient Removal of Toxic Lead and Chromium from Synthetic Leather Tannery Wastewater using Electrocoagulation”, *Journal Kejuruteraan* 36(1) 2024: 249-257, [https://doi.org/10.17576/jkukm-2024-36\(1\)-23](https://doi.org/10.17576/jkukm-2024-36(1)-23).
2. Muhammad Safar Korai, Munawar Ali Pinjaro, **Zulfiqar Ali Bhatti**, Eva Hertnacaahyani Herraprastanti, Miandad Jatoi, Muhammad Ali Shar, Abdulaziz Alhazaa, “Co-Digestion of Petroleum Sludge and Buffalo Dung by Batch Anaerobic Digestion System”, *Journal of Ecological Engineering* 2024, 25(6), 120–127, <https://doi.org/10.12911/22998993/186898>, ISSN 2299–8993.
3. Amiera Husna Abdul Halim, Mahanum Mohd Zamberi, Mohd Haizal Mohd Husin, Nor Faizah Haminudin, Ahmad Fuad Abdul Rasid, Norfadhilah Hamzah, **Zulfiqar Ali Bhatti**, Syed Muhammad Farhan Syed Mohamad, “Catalytic Potential of Singgora Roof Tiles in Transesterification for Sustainable Biodiesel”, *Journal of Advanced Research in Micro and Nano Engineering*, Vol. 22, Issue 1 (2024) 85-93, ISSN: 2756-8210, DOI: <https://doi.org/10.37934/armne.22.1.8593>.
4. Arshad Iqbal, Khadija Qureshi, Imran Nazir Unar, **Zulfiqar Ali Bhatti**, “Enhancement in removal of chromium and lead from tanning process effluent by novel rotating disk mesh electrode as anode for electrocoagulation: isotherm and kinetic studies”, *Journal of Engineering Science and Technology* Vol. 19, No. 2 (2024) 405 – 423, ISSN: 1823-4690, (Scopus, Web of Science, HEC “X” category).
5. Amiera Husna Abdul Halim, Mahanum Mohd Zamberi, Mohd Haizal Mohd Husin, Nor Faizah Haminudin, Ahmad Fuad Abdul Rasid, Norfadhilah Hamzah, **Zulfiqar Ali Bhatti**, Syed Muhammad Farhan Syed Mohamad, “Zno Loaded Singgora Roof Tiles as Heterogeneous Catalyst for Waste Cooking Oil Biodiesel”, *Journal of Advanced Research in Fluid Mechanics and Thermal Sciences* 114, Issue 1 (2024) 93-102, <https://doi.org/10.37934/arfmts.114.1.93102>, ISSN: 2289-7879, (Scopus, HEC “Y” category).
6. Arshad Iqbal, Khadija Qureshi, Imran Nazir Unar and **Zulfiqar Ali Bhatti**, “Efficient Removal of Chromium and Lead from Tanneries Effluent of Korangi Industrial Area Karachi Using Rotating Disk Mesh as Anode Electrode Electrocoagulation”, *Pak. J. Anal. Environ. Chem.* Vol. 24, No. 2 (2023) 231 – 239, <http://doi.org/10.21743/pjaec/2023.12.11>, (Scopus, web of science, HEC “Y” category, Impact factor 0.6).
7. Arshad Iqbal, Khadija Qureshi, Imran N. Unar and **Zulfiqar Ali Bhatti**, “Recent Trends and Advancement in the Removal of Persistent Organic Pollutants from Wastewater by Hybrid Electrocoagulation Chemical Degradation Processes”, *Portugaliae Electrochimica Acta* 42 (2024) 395-418, <https://doi.org/10.4152/pea.2024420602>, (Scopus, web of science, HEC “Y” category)

8. Muhammad Safar Korai, Altaf Alam Noonari, Munawar Ali , Nida Rabab, Rizwan Rasheed, Zulfiqar Ali Solangi and **Zulfiqar Ali Bhatti**, “Anaerobic Biodegradability and Biomethanation Potential of Fruit-Vegetable Wastes at Sindh, Pakistan”, Pak. J. Anal. Environ. Chem. Vol. 24, No. 2 (2023) 145 – 154, <http://doi.org/10.21743/pjaec/2023.12.03>, (Scopus, web of science, HEC “Y” category, Impact factor 0.6).

9. Arshad Iqbal Jarwar, Shaheen Aziz, Muhammad Azam Usto, Rasool Bux Mahar, Khadija Qureshi, Imran Nazir Unar, Rizwan Khan, Abdul Sattar Jatoi, Shaukat Mazari , Abdul Karim Shah, Rashid Abro, Zubair, Hashmi, Atta Muhammad , Abdul Qadeer Laghari, **Zulfiqar Ali Bhatti** & Zulfiqar Solangi, “Biochemical Treatment of Poultry Manure and Buffalo Dung to Enhance Methane Generation Using Lab-Scale An-Aerobic Digester: Effect of Mesophilic Condition on Methane Generation”, Jurnal Kejuruteraan (Journal of Engineering , Malaysia) 35(2) 2023: 391-398, [https://doi.org/10.17576/jkukm-2023-35\(2\)-10](https://doi.org/10.17576/jkukm-2023-35(2)-10), (JIF: 0.6, Web of Science, JCR 2022), (HJRS “Y” category).

10. Muhammad Owais Raza, **Zulfiqar Ali Bhatti**, Mohsin Memon, Sania Bhatti, Nazia Pathan, “ Drought Stage Prediction from Remote Sensing Based Vegetation And Water Indexes Using Machine Learning”, Journal of Xi'an Shiyou University, Natural Sciences Edition, Volume 66, No. 3, March 2023, pp 81-99, DOI 10.17605/OSF.IO/GBD2H, ISSN:1673-064X, (HJRS HEC “X” category, Scopus)

11. Miandad Jatoi, Muhammad Safar Korai, **Zulfiqar Ali Bhatti** and Prem Salhani, “Biochemical methane Potential Of Petroleum Sludge and Buffalo Dung at Different Blending Ratios”, World Journal OF Engineering Research and Technology (wjert), 01-11-2021, Vol. 7, Issue 6, 327-337, ISSN 2454-695X.

12. Abdul Sattar Jatoi, Zubair Hashmi, Amna Anjum, **Zulfiqar Ali Bhatti**, Sajid Hussain Siyal, Shaukat Mazari, Faheem Akhter, NM Mubarak, Arshad Iqbal “Overview of bioelectrochemical approaches for sulfur reduction: current and future perspectives”, Biomass Conversion and Biorefinery, <https://doi.org/10.1007/s13399-021-02026-3>, published online 20-10-2021, (**Impact factor 4.98**).

13. Abdul Sattar Jatoi, Sikandar Ali Abbasi, Zubair Hashmi, Abdul Karim Shah, Muhammad Shahb Alam, **Zulfiqar Ali Bhatti**, Ghulamullah Maitlo, Saqib Hussain, Ghulam Abbas Khandro, Muhammad Azam Usto, Arshad Iqbal, “Recent trends and future perspectives of lignocellulose biomass for biofuel production: a comprehensive review”, Biomass Conversion and Biorefinery, <https://doi.org/10.1007/s13399-021-01853-8>, published online 22-08-2021, (**Impact Factor 4.98**).

14. **Zulfiqar Ali Bhatti**, Sania Bhatti, Sikandar Ali Abbasi, Abdul Sattar Jatoi, Abdul Qadeer Laghari, Ghulamullah Maitlo, “Hydrogen production through steam-assisted glycerol reforming via thermodynamic approach”, Biomass Conversion and Biorefinery, <https://doi.org/10.1007/s13399-021-01763-9>, published online 30-07-2021, (**Impact Factor 4.98**).

15. **Zulfiqar Ali Bhatti**, Khadija Qureshi, Ghulamullah Maitlo, Raja Fahad Ashraf Qureshi, Inamullah Bhatti, “Arsenic (III) Removal from Aqueous Water by Indigenous Iron Ore Adsorbent from Balochistan Province of Pakistan”, Mehran University Research Journal

16. Zulfiqar Ali Solangi, **Zulfiqar Ali Bhatti**, Kashif Hussain Mangi, Khadija Qureshi, and Hira Lal Soni, "Characterization & Batch Sorption Study for Chromium (VI) Removal from Aqueous Solutions by Activated Carbon Adsorbent Prepared from Indigenous Sugarcane Bagasse", *Quaid-e-Awam University Research Journal of Engineering, Science & Technology*, Nawabshah, 18(2), 2020, 75-81 (HEC "Y" category).
17. Khadija Qureshi, Kashif Hussain Mangi, Zulfiqar Ali Solangi, **Zulfiqar Ali Bhatti**, Mukhtiar Ali, and Sikandar Almani, "Development of Indigenous Iron-Coated Pottery Granules for Arsenic (V) Removal from Groundwater", *Quaid-e-Awam University Research Journal of Engineering, Science & Technology*, Nawabshah., 18(2), 2020, 127-132 (HEC "Y" category).
18. **Zulfiqar Ali Bhatti**, Ghulamullah Maitlo, Ghulam Abbas Kandhro, Khadija Qureshi, "Removal of Arsenite and Arsenate by Indigenous Iron Ores of Pakistan", *Pak J. Anal. Environ. Chem.* Vol. 21, No.2 (2020) 293-302, DOI: <https://doi.org/10.21743/pjaec/2020.12.31> (Scopus, web of science, HEC "Y" category).
19. Abdul Qayoom Memon, Shoaib Ahmed, **Zulfiqar Ali Bhatti**, Ghulamullah Maitlo, Abdul Karim Shah, Shaukat Ali Mazari, Atta Muhammad, Abdul Sattar Jatoi, Ghulam Abbas Kandhro, "Experimental investigations of arsenic adsorption from contaminated water using chemically activated hematite (Fe₂O₃) iron ore", *Journal of Environmental Science and Pollution Research*, DOI: <https://doi.org/10.1007/s11356-020-11208-x>, published 23-10-2020 (**Impact Factor 4.2**).
20. Sobia Iftikhar, Sania Bhatti, **Zulfiqar Ali Bhatti**, Sanam Narejo, Faisal Memon, Mohsin Memon, "Ground Water Arsenic and Cancer Risk Assessment Prediction Model via Machine Learning: A step towards Modernizing Academic Research", *Sir Syed University Research Journal of Engineering and Technology*, DOI: 10.33317/ssurj.232, pp 20-25, published 18-11-2020 (HEC "Y" category).
21. Nazia Pathan, Mohsin Ali Memon, **Zulfiqar Ali Bhatti**, Sania Bhatti, Muhammad Owais Raza, "Prediction of Arsenic (As) contamination in rice grain produced in Sindh using Machine Learning." *International Journal of Engineering and Science Invention (IJESI)*, Vol. 09(10), 2020, PP 01-08. Journal DOI- 10.35629/6734 (**EBSCO**).
22. Sobia Iftikhar, Sania Bhatti, Mohsin Ali Memon, **Zulfiqar Ali Bhatti**, Groundwater arsenic and health prediction model using machine learning for T. M. Khan, Sindh, Pakistan, *International Journal of Information Technology and Computer Science*, Volume 12, No. 2, April 2020, pp. 24-31, ISSN 2074-9058 (online), DOI: 10.5815/ijitcs.2020.02.03, (**EBSCO, IET Inspec**).
23. **Zulfiqar Ali Bhatti**, Khadija Qureshi, Ghulamullah Maitlo, Shoaib Ahmed Qureshi, "Study of PAN Fiber and Iron ore Adsorbents for Arsenic Removal", *Civil Engineering Journal*, Vol. 6, No. 3, pp 548-562, March 2020, ISSN (online) 2476-3055, <http://dx.doi.org/10.28991/cej-2020-03091491>, (**ISI Indexed, Scopus, ESCI**).
24. Suheb Ali Rajper, Imran Nazir Unar, Azizullah Channa, and **Zulfiqar Ali Bhatti**, "Investigation of Performance for Entrained Flow Gasifier Through Simulations", *Mehran University Research Journal of Engineering & Technology*, Vol. 39, No. 1, 97-110, January 2020, DOI: 10.22581/muet1982.2001.10.

25. Imran Nazir Unar, Ghulamullah Maitlo, Suhail Ahmed Soomro, Shaheen Aziz, Syed Abdul Karim Shah, Rasool Bux Mahar, **Zulfiqar Ali Bhatti**, Mohammad Safar Korai, "Impacts of Slurry and Dry Forms of Low-Rank Coal (Lignite) on Quality of Syngas Produced", Journal of Clean Technologies and Environmental Policy, 03-01-2020, DOI: <https://doi.org/10.1007/s10098-019-01804-y>, ISSN. 1618-9558, (**Impact Factor 2.277**).
26. **Zulfiqar Ali Bhatti**, Manzoor-ul-Haq Rajput, Ghulamullah Maitlo, Zulfiqar Ali Solangi, and Ghulam Sarwar Shaikh, "Impact of Storage Time, Rain and Quality of Molasses in the Production of Bioethanol", Mehran University Research Journal of Engineering & Technology, Vol. 38, No. 4, 1021-1032, October 2019, DOI: 10.22581/muet1982.1904.14
27. Ghulamullah Maitlo, Rasool Bux Mahar, **Zulfiqar Ali Bhatti**, Imran Nazir Unar, "A Comprehensive Literature Review of Thermochemical Conversion of Biomass for Syngas Production and Associated Challenges", Mehran University Research Journal of Engineering & Technology, Vol. 38, No. 2, 495-512, April 2019, DOI:10.22581/muet1982.1902.24
28. Imran Nazir Unar, Suhail Ahmed Soomro, Ghulamullah Maitlo, Shaheen Aziz, Rasool Bux Mahar, **Zulfiqar Ali Bhatti**, "Numerical Study of Coal Composition Effects on the Performance of Gasification Through Computational Fluid Dynamic", International Journal of Chemical Reactor Engineering (IJCRE), Published online, 2019-02-26 | DOI: <https://doi.org/10.1515/ijcre-2018-0204>, (**Impact Factor 1.152**).
29. **Zulfiqar Ali Bhatti**, Khadija Qureshi, Muhammad Yar Khuhawar, Abdul Waheed Bhutto, Zulfiqar Ali Solangi, Imran Nazir Unar, " Low Cost Indigenous Technologies For Removal Of Arsenic From Drinking Water: Case Study Of Pakistan", IJRRAS 34 (3), March 2018, pp 66-77, ISSN:2076-734X, www.arpapress.com/Volumes/Vol34Issue3/IJRRAS_34_3_01.pdf, (**EBSCO, IET Inspec**).
30. **Zulfiqar Ali Bhatti**, Khadija Qureshi, Inamullah Bhatti, Imran Nazir Unar, Mohammad Yar Khuhawar, "Determination of Arsenic and Health Risk Assessment in the Ground Water of Sindh, Pakistan", Mehran University Research Journal of Engineering & Technology, Volume 36, No. 4, October, 2017.
31. Zeenat M.Ali, **Zulfiqar Ali Bhatti**, Kishan Chand Mukwana, M.M Tunio, " Ground Water Quality Of Khairpur Mir's Sindh: A Case Study", Quaid-e-Awam University Research Journal Of Engineering, Science & Technology, Volume 14, No.2, July-Dec 2015, pp 69-71 (HEC in "Y" Category, ISSN: 1605-8607)
32. Khadija Qureshi, Sikandar Almani, Zulfiqar Solangi, **Zulfiqar Ali Bhatti**, Inamullah Bhatti, Modified Hematite Iron for Removing Arsenic (V) from Water, Sindh University Research Journal (Science Series), Vol 46, (1) pp-83-86 (2014). (HEC "X" Category, ISSN 1813-1743)

Conference Papers

1. Javed Ahmed, Khadija Qureshi, **Zulfiqar Ali Bhatti** and Abdul Qadeer Laghari, "Synthesis of geopolymer using fly ash and kaolin to remove copper from synthetic water", 1st International Conference on Women Development in Engineering, Science & Technology (WD-EST'23) 03-05 October 2023.
2. Arsalan Aziz Jokhio, Khadija Qureshi, **Zulfiqar Ali Bhatti**, "Combination of Bio Adsorbent for enhanced removal of lead from aqueous solution" 3rd international conference on chemical engineering, ICCE 2021, MUET Jamshoro, 22-23 Sep 2021.
3. Raza Saeed, Khadija Qureshi, Muhammad Shuaib Shaikh, **Zulfiqar Ali Bhatti**, "Removal of Arsenic from synthetic-water using Iron Coated Sand Adsorbent and Modified Ceramic Clay House Hold Pitcher", DOI:10.1109/ICECE51984.2021.9406284, 4th International Conference on Energy Conservation and Efficiency (ICECE), 2021, Publisher IEEE.
4. Rao Ahsan Atta, Imran Nazir Unar, Khadija Qureshi, Zulfiqar Ali Solangi, **Zulfiqar Ali Bhatti**, "Modelling and simulation of fixed bed column for adsorbing arsenic from groundwater", in proceedings of 5th international conference of EESD held at MUET, Jamshoro in 2018.
5. **Zulfiqar Ali Bhatti**, Khadija Qureshi, Farman Ali Shah, "Physico-chemical properties of molasses- an indigenous feedstock used for the production of fuel alcohol in Pakistan", 2nd International Conference Energy and environment for sustainable development (EESD 2012), Mehran University of Engineering & Technology, Jamshoro, Sindh, Pakistan, February 27-29, 2012
6. Unar I. N., Soomro S. A., Aziz S., Abro M. and **Bhatti Z. A.** (2012) "Study the effects of slurry v/s dry form of coal on the overall performance of coal gasification through numerical simulation", 2nd International Conference on Energy, Environment and Sustainable Development at MUET Jamshoro, Pakistan, from 27-29 Feb, 2012.

Research Projects

1. Co-Principal Investigator, May 2019, "Predictive analytics using artificial intelligence for the arsenic levels in the water, their exposure to foodstuff and health risk appraisal for Pakistan" funded by AI for Earth Microsoft Azure Grant, \$5,000.
2. Co-Principal Investigator, Aug 2018, "Evolvement of groundwater arsenic and health risk assessment prediction model via machine learning in Sindh, Pakistan" funded by AI for Earth Microsoft Azure Grant, \$5,000.

Research Supervision

Supervised following M.E in Chemical Engineering projects at MUET.

1. Synthesis and characterization of iron-coted pottery granules for arsenic removal from drinking water, M.E(CH), MUET.
2. Synthesis and Characterization of (Fe₂O₃) coated sand for the adsorption of Arsenic (V), M.E(CH), MUET.
3. Adsorption of arsenite from aqueous solution using Graphene oxide/ Fe₂O₃ coated Indus Sand, M.E(CH), MUET.
4. Simulation and Modelling of LPG recovery from Natural gas, M.E(CH), MUET, M.E(CH), MUET.
5. Modified Polyacrylonitrile (PAN) Fiber For The Removal Of Copper From Wastewater, M.E(CH), MUET.
6. CFD Modeling of Air Flotation Syrup Clarifier in Sugar Industry, M.E(CH), MUET.
7. Biogas Production from Co- digestion of Petroleum Sludge and Animal Dung, M.E(CH), MUET.

8. Functionalization of Bio Adsorbent and its impact on Lead Sorption from water, M.E(CH), MUET.
9. Synthesis of geopolymer using fly ash and kaoline to remove copper from synthetic water.

Students Currently under Supervision

1. Co-Supervisor of a PhD student Engr. Arshad Iqbal Jarwar (18S-PhD-CH-03) in Chemical Engineering Department, MUET.

Conferences

- Presented paper "Arsenic Removal from water in Asia: A review" in 1st International Conference and exhibition on Chemical Engineering , MUET, Jamshoro, 14-16 January 2016.
- Presented paper " A fundamental study on the arsenic revelation in the groundwater of Sindh, Pakistan" Zulfiqar Ali Bhatti, Khadija Qureshi, Zulfiqar Ali Solangi, Imran Nazir Unar, Muhammad Yar Khuhawar, in 2nd international conference on chemical engineering, 22-23 January 2018, at Movenpick hotel Karachi.
- Presented paper in International conference on green and sustainable chemical sciences, 3-4 March, 2018, Dawood University.
- Presentation on "Arsenic in Sindh & Health Risk Assessment", Khadija Qureshi and Zulfiqar Ali Bhatti, in 4th conference on sustainability in process industry (SPI 2018) 24-25th Oct 2018, UET Peshawar.

Workshops/ Trainings

- "Applications of Chromatographic techniques in Residue analysis", Feb 18-20, 2013, National centre of excellence , University of Sindh, Jamshoro
- Three Days Workshop on “Applications of Atomic & Molecular Spectrophotometric Techniques in Trace Element Analysis”, 24-26 September, 2013, National centre of excellence , University of Sindh, Jamshoro
- "Detection of Arsenic in Sindh", Dissemination workshop of Arsenic project held at ORIC, MUET, Jamshoro, Jan 2015
- Training workshop on " High performance Liquid Chromatography", 13-15 October 2016 at Chemical Engineering Department, MUET, Jamshoro.
- Attended 1 hour training session on ASTM COMPASS Database held online on 25-10-2022, organised by HEC and A&J Def Tek Consultants. (ASTM221025230)
- Attended 1 hour training session on ASTM COMPASS Database held online on 08-11-2022, organised by HEC and A&J Def Tek Consultants. (ASTM221108342)
 - Attended training session on “ conduct of internal quality audit (ISO 9001-2015)” on 28-08-2024, at Haji Mehmood senate hall of the administration building, MUET, Jamshoro.

Participation

- Worked in Transport Committee of EESD 2012 conference held at MUET, Jamshoro by the notification of Vice Chancellor.
- Worked as an organizer in " Welcoming Jamshoro Education City Chapter" gathering of British Alumni Association of Pakistan, 10th Dec 2011
- Worked in Boarding & lodging, Food & Entertainment Committees of (ICC 2013) conference held at MUET, Jamshoro by the notification of Vice Chancellor.
- Worked as Organizer for Coal exhibition during (ICC 2013) conference held at MUET, Jamshoro.
- Supervised three Model projects of students in the coal exhibition (ICC 2013), from which one group achieved 2nd position and other group got 10th position.
- Worked as Convener (Transport, boarding and lodging committee) during 1st International Conference and exhibition on Chemical Engineering , MUET, Jamshoro, 14-16 January 2016
- Worked as an Organizer in workshop for " women on Leadership and Management in Higher Education 13 February - 16 February 2017" at ORIC and organized by Chemical Engineering Department, MUET Jamshoro. Received shield of appreciation to work as an organizer for transport, food, accomodation and security of participants from the UK and Pakistan.
- Worked as organizer and attended "Mineral resources utilization for sustainable environment & economic development", 17th october 2018, held at PCSIR, Karachi with the collaboration of HEC and British Council Pakistan.
- Worked as Focal person of Technical sessions in 5th international conference on energy, environment and sustainable development, EESD 14-16 Nov 2018 at USPCAS-W, MUET, Jamshoro.
- Convener of Boarding, lodging and transport committee in 1st international conference on sustainable mineral resources development & utilization (SMRDU-2019) from 12-13 Feb 2019 held at KLC PCSIR, Karachi.
- Participated as a member of Registration Committee and as Session Secretary during 3rd International Conference on Chemical Engineering, 22-23 September 2021 held at MUET, Jamshoro.
- Attended one day seminar on health awareness (achieving sustainable development goals SDG-3) on 02-11-2021, organized by Directorate of Sports, MUET, Jamshoro.
- Attended two days Training workshop on Bio and Food Processing and worked as organizer on 23-24 November 2021 held at MUET. Supervised Industrial visit of Chemical Department students of Rafhan Maize Process Plant at Kotri.
- Participated as a member of Conference Hall Committee and as a Session Secretary during 6th International Conference on Energy, Environment and Sustainable Development (EESD 2022), 17-19 January 2022 held at USPCAS-W, MUET, Jamshoro.
- Worked as a session secretary during the technical session and as a organiser during 1st International conference on women development in Engineering Science and Technology (03-05 october 2023) held at USPCAS-W center MUET, Jamshoro.
- Convener of registration committee in 1st international conference on integrating clean safe water and well-being through sustainable initiatives (ICSWW) 9-11 october 2024 held at US-water center, MUET, Jamshoro.

Resource Person

- Worked as Resource Person to deliver lecture/presentation and laboratory demonstration on Atomic absorption spectrometer during four days workshop " Analytical techniques in chemical engineering" held from 28-31 October, 2015 at Chemical Engineering Department, MUET, Jamshoro.

- Worked as Resource Person to deliver lecture/presentation and laboratory demonstration on Atomic absorption spectrometer during one day training of " 2nd Hands on Training on Atomic absorption spectrometer " held on 02-12-2019, at Chemical Engineering Department, MUET, Jamshoro.
- Worked as Resource Person, delivered lecture/presentation and laboratory demonstration on Atomic absorption spectrometer during one day training of " 3rd Hands on Training on Atomic absorption spectrometer " held on 17-11-2021, at Chemical Engineering Department, MUET, Jamshoro.
- Worked as a Focal person to deliver lecture and lab demonstration on Atomic absorption spectrometer during one day hands-on training workshop on “ water quality testing and demonstration of atomic absorption spectroscopy”. American chemical society (ACS) chemical department, MUET organised this workshop on 28-10-2024.

Departmental work

- Working as an internal expert for the Industrial Advisory Board (IAB) of the chemical department from 12-08-2024.
- Working as Industrial liaison and internship coordinator of the chemical Engineering department since 15-01-2024
- Worked as department co-ordinator of scholarships with (SFAO) since Spring session 2019 to 15 Jan 2024 in the Chemical Engineering Department, MUET, Jamshoro.
- Class advisor of F-16 batch Chemical Engineering Department, Spring session 2019
- Class advisor of 18 batch Sec-II, Fall session 2020.
- Class advisor of 19 batch, session 2022
- Supervised students of 20 batch chemical during industrial visit of Matairi Distillery Plant, Matairi Sugar Mills ltd on 22-02-2022
- Supervised 18 batch students (final year) during the industrial visit of Power Cement factory, Nooriabad Industrial area, Distt Jamshoro on 28-09-2022.
- Working as Secretary of Departmental Curriculum Review Committee (DCRC) since November 2022.
- Member of Board of Studies (BoS) of Chemical Department for undergraduate and post graduate programmes by the order of Vice Chancellor since 04-11-2022.
- Special invitee in Departmental Management Review Committee (DMRC) meetings since Aug 2022.
- Organised and supervised one day Industrial Visit of 19 batch students of Chemical Department for Kunar LPG Plant (OGDCL) Tando Adam on 15-10-2022
- Working as a Departmental focal person for Prime Minister’s Laptop Scheme started in March 2023 to provide laptops to students enrolled in (B.E, M.E and PhD) programmes of Chemical Engineering.
- Supervised students of 21 batch chemical department during industrial visit of Sindh Engro Thar coal mines and power plant near Islam kot, Thar on 06-10-2023.
- Class advisor of 23 batch during spring session 2024.
- Class advisor of 22 batch (5th semester) in fall 2024 session.

University Assignments

- Member of Mehran University PhD program Review committee constituted by Vice Chancellor since 08-04-2024 to review PhD programs of various faculties of the university as per HEC guidelines.
- Worked as Internal Quality Auditor to conduct 38th INTERNAL QUALITY AUDIT (IQA) in post graduate section, MUET.

Computer skills

- ADMS software used in Atmospheric Process module during MSc Energy and Environment.
- Fully proficient with Microsoft Office, internet and email.
- Origin Pro, End Note, Minitab, Win Lab 32 (Atomic Absorption Spectrometer machine software), Operating Systems - Windows.

Professional activities

- Associate member of Institute of Chemical Engineers (IChemE), UK
- Former member of Energy Society (SPEME) University of Leeds, UK
- Remained active member of Society of Petroleum Engineers international (SPE).
- Awarded certificate on successful completion of First Aid at Work training course, UK
- Successfully completed Health & Safety in the Workplace course by Chartered Institute of Environmental Health, UK
- Lifetime member of Pakistan Engineering Council (PEC), Registration No. CHEM/ 4455

Internships

- Textile Dyes Sector, Clariant Pakistan Ltd, Jamshoro, Sep 2001 to Oct 2001
- Oil and Gas Sector, Kunar LPG and Condensate Plant (OGDCL) Tando Jam, July 01 to Aug 01
- Cement Sector, Thatta Cement Company Ltd. Pakistan 19 July 2000 to 04 Aug 2000
- Soap and Glycerine Sector, Zulfiqar Industries (pvt) Ltd. Hyderabad, 01 July 2000 to 15 July 2000

Additional Information

- Excellent command of writing, spoken English; Diploma in English Language from Pakistan American Cultural Centre.