Dr. Uzma Imran

Assistant Professor, USPCASW, MUET

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Education and Research Interests

Dr. Uzma Imran is working as Assistant Professor in USPCASW, MUET, since 2015. She has done Ph.D. in Environmental Engineering, Master's in Environmental Engineering and Management, and Bachelor's in Civil Engineering with more than 21 years of professional experience in the field of Environmental Engineering, Civil Engineering, and Management. Her research interests include water treatment using nature-based adsorbents, human health risk assessment from exposure to contaminated water and fish, lakes and rivers water quality assessment with a special focus on trace elements, Persistent Organic Pollutants (POPs), and Polycyclic Aromatic Hydrocarbons (PAH's), ecological health assessment and management, climate projection models downscaling to find variability in inland water bodies quality and quantity, pilot-scale studies on removal of POPS and trace elements using aquatic plants, source and receptor-based air quality dispersion modeling, etc. She has good research experience with more than ten scientific publications in reputable journals.

Research Supervision

- Currently supervising 5 MS students
- No. of MS students graduated: 18

Research Projects

- PI in USAID's Funded Project "Keenjhar Lake water quality assessment and valuing ecosystems services (KL-WAVES) (Completed) in 2017-19
- Co-PI in USAID's Funded Project 'Assessment of Environmental Degradation of **Manchar Lake**' in collaboration with PCRWR (Completed) in 2016-17
- Worked in Govt. of Sindh's Funded Project 'MUET Clean Water Project' in collaboration with Utah University in 2015-16
- Identifying the likely impacts of coal combustion residues from Thar coal-fired power plant on the Region's ecosystem (Completed) in 2017
- USAID's Funded Project "Eco-Innovation in Textile Processing Industry of KITE for Sustainable Product Processing" (Completed) in 2018-19

Journal Publications

Imran, U., Khan, M., Jamal, R., Sahulka, S.Q., Goel, R., Mahar, R. and Weidhaas, J., 2020. Probabilistic risk assessment of water distribution system in Hyderabad, Pakistan reveals unacceptable health hazards and areas for rehabilitation. *Ecotoxicology and environmental safety*, *191*, p.110233.

Imran, U., Weidhaas, J., Ullah, A. and Shaikh, K., 2021. Risk associated with spatio-temporal variations in trace metals and a metalloid in a major freshwater reservoir of Pakistan. *Human and Ecological Risk Assessment: An International Journal*, *27*(2), pp.431-450.

Mehmood, R., Imran, U., Ullah, A., Ullman, J.L. and Weidhaas, J., 2020. Health risks associated with accumulation of heavy metals in fish of Keenjhar Lake, Pakistan. *Environmental Science and Pollution Research*, *27*(19), pp.24162-24172.

Imran, U., Mahar, R.B., Ullah, A. and Shaikh, K., 2021. Seasonal variability of heavy metals in Manchar lake of arid southern Pakistan and its consequential human health risk. *Polish Journal of Environmental Studies*, *30*(1), p.163.

Imran, U., Ullah, A. and Shaikh, K., 2020. Pollution loads and ecological risk assessment of metals and a metalloid in the surface sediment of Keenjhar lake, Pakistan. *Polish Journal of Environmental Studies*, *29*(5), pp.3629-3641.

Shaikh, S., Imran, U. and Soomro, Z.A., 2021. Exploring potable groundwater sources surrounding Manchar lake. *Mehran University Research Journal of Engineering & Technology*, *40*(4), pp.824-834.

Shaikh, K., Imran, U., Khan, A., Khokhar, W.A. and Bakhsh, H., 2020. Health risk assessment of emissions from brick kilns in Tando Hyder, Sindh, Pakistan using the AERMOD dispersion model. *SN Applied Sciences*, *2*(7), pp.1-11.

Imran, U., Ullah, A., Shaikh, K., Mehmood, R. and Saeed, M., 2019. Health risk assessment of the exposure of heavy metal contamination in surface water of lower Sindh, Pakistan. *SN Applied Sciences*, *1*(6), pp.1-10.

Shaikh, K.A.L.E.E.M.U.L.L.A.H., Imran, U.Z.M.A. and Shaikh, S.U.L.T.A.N., 2018. Health risk assessment for emissions from Jamshoro thermal power station using AERMOD dispersion model. *J Ind Pollut Control*, *34*(2), pp.2142-2151.

Imran, U., Chandio, A., Soomro, J. and Kumar, H., 2017. Assessment of Homemade Liquor" Tharra" Quality by GC-FID and its Potential Impacts on Human Health. *Mehran University Research Journal of Engineering and Technology*, *36*(4), pp.1025-1036.

Uzma, I. and Chandio, T.A., 2017. Analysis of drinking water quality for presence of heavy metals and its impacts on health of local population in Sibi district. *European Journal of Sustainable Development*, *6*(4), pp.32-32.

Other Services

- Focal Person Gender Equity Committee, USPCAS-W (2015-todate)

- Secretory Anti-Harassment Complaint Cell, MUET (2018-todate)
- Organizing Secretory International Conference on Environmental Sustainability 2022
- Warden Women hostel, USPCASW, MUET (2016-2020)
- Women Resource Center (2018-todate)