

## Dr. Mehwish Taneez

### Assistant Professor of Environmental Science

*Centre for Interdisciplinary Research in Basic Sciences (CIRBS),  
International Islamic University, Islamabad.*

**Specialization:** Environmental Chemistry and Remediation

### Education:

**M. Sc in Environmental Sciences** (2007), Fatima Jinnah Women University, Pakistan.

**M. Phil in Environmental Science**, (2012), Fatima Jinnah Women University, Pakistan.

**PhD in Environmental Science**, (2016), Université Côte d'Azur, France.

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### Background or Introduction:

Dr. Mehwish Taneez joined Centre for Interdisciplinary Research in Basic Sciences (CIRBS), International Islamic University, Islamabad in September, 2017. After getting M.Phil degree in Environmental Science from Fatima Jinnah Women University, Rawalpindi, Pakistan, Dr. Taneez won prestigious European Commission Erasmus Mundus scholarship- EMMA for her PhD studies at Université Côte d'Azur, France. She worked in Ecology and Conservation Science for Sustainable Seas (ECOSEAS), UMR 7035, CNRS, Nice, Chemistry Research Institute of Paris (IRCP), and Laboratory of Environment, Nice, France in collaboration with INERIS (Aix en Provence) and ALTEO, France. Soon after her PhD, She also worked as researcher officer in ECOSEAS laboratory, Université Côte d'Azur, France on research project by funded by Agency of Marine Protected Areas (AAMP) and European Union to evaluate the current environmental state of Golfe Juan Bay (Alpes-Maritimes, France) where artificial reefs with tyres were constructed in 1980s to restore fish habitats in collaboration with ALTEO, France and Phoenix Services, Inc, USA. Recently, she worked at University of York, UK on microplastic interaction with soil invertebrate under Charles Wallace visiting Fellowship.

During her PhD she used solidification/stabilization technique for the treatment multi-polluted marine dredged sediment from French Navy port "Toulon" in collaboration with an industrial partner ALTEO, France. Her research has contributed to the use of industrial by-product as capping agents for the treatment of polluted sediments in landfill storage context. She also evaluated toxicity of sediment using different toxicity essay. The project received funds from EMMA and ALTEO.

### Research Interests and Focus:

Dr. Taneez has strong ambition to protect the environment and deliver a change to improve, help and support community and people around the globe. She was involved in multidisciplinary research in order to gain variety of research skills and prefer to work in challenging environment. Her current research focuses on the monitoring and treatment of contaminated sites (water, soil and sediment), monitoring of emerging pollutants in the environment, valorization of industrial waste, plastic pollution, microplastic interactions with soil invertebrates, adsorption and eco-toxicological studies.

### Research Grants/Awards/Honors:

- SRGP research grant (Rs. 0.5 million) from Higher Education Commission (2018) *Plastic pollution in freshwater systems: an emerging pollutant of concern*. (PI: Dr. Mehwish Taneez)

- Kurita Water and Environment Foundation (KWEF), Japan (2018-2019) *Water quality assessment and identification of pollution risk in Saiful Muluk lake, North East, Pakistan* (300,000 Yen). (PI: Dr. Mehwish Taneez).
- SRGP research grant (Rs. 0.5 million) from Higher Education Commission (2019-2020), *Association between Bcl-2 gene polymorphism in frequently diagnosed cancer types and anticancer drug response in Pakistani population*. (PI: Dr.Mehwish Taneez)
- Awarded *Charles Wallace Visiting Fellowship at University of York, UK* (2019).
- Won *Islamic Development Bank (IsDB) Transformer Roadshow competition* for innovative ideas to solve SDGs, IsDB/COMSTECH, Islamabad, Pakistan (2019) and received 3000 UDS for her project.

#### **Current Research Students (2020-2021):**

##### **MS Research Student**

##### **Student name**

Rehana

ShumailaHisam

##### **Status**

Sample collection and processing

Literature review

#### **Research Publications (2018-2020):**

- Capping of marine sediments with valuable industrial by-products: evaluation of inorganic pollutants immobilization. *Environmental Pollution*. 239, **2018**, 714-721. (IF=6.729)
- A review on the potential uses of red mud as amendment for pollution control in environmental media. *Environmental Science and Pollution Research*. 26(22), **2019**, 22106–22125. (IF=3.056)
- Effect of physicochemical properties of ammonium-based ionic liquids on CO<sub>2</sub> capturing: An insight into structure-activity relationship. *Journal of Fluid Phase Equilibria*. 510, **2020**, (IF=2.838).
- Plastic driven pollution in Pakistan: the first evidence of environmental exposure to microplastic in sediments and water of Rawal lake. *Environmental Science and Pollution Research*. 27(13), **2020**. 15083–15092. (IF=3.056).
- Efficient CO<sub>2</sub> sorption in phosphonium-based organic salts. *Journal of Molecular Liquids*. 318, 2020. 114044. (IF=5.065).

#### **Conferences and Workshops:**

- Goldschmidt 2014 (International Geo-Chemistry Conference) 8-13 June, 2014 Sacramento, USA.
- 4th International Symposium on Sediment Management (I2SM), 17-19 Sep, 2014, Ferrara, Italy.
- 3rd International Symposium on Bioremediation and Sustainable Environmental Technologies, 18-21 May, 2015, Miami, USA.
- International Conference Contaminated Sites, 27-29 May, 2015, Bratislava, Slovakia.
- International Science-Policy Conference on Climate Change, Organized by Global change impact studies centre in collaboration with University of Utah, USA, HEC and USPCAS-W, MUET, Jamshoro, 18-20 December, 2017, Islamabad, Pakistan
- 4th International Chemistry Conference on Recent Trends in Chemistry. 7-8 Nov, 2018, Islamabad, Pakistan.
- Hands on Training on Analytical Techniques, Pakistan Institute of Nuclear Science and Technology (PINSTECH), Nilore, 23-25 April, 2019, Islamabad, Pakistan.
- Islamic Development Bank (IsDB) Transformer Roadshow competition in association with COMSTECH, 4th May, 2019, Islamabad, Pakistan.
- The Transformer Summit, Islamic Development Bank (IsDB) and Government of Senegal, 9-10 December, 2019, Dakar, Senegal.