

# Dr. Muhammad Muqeet

Assistant professor (Department of Chemical and Energy Engineering)

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## Education

- PhD (2019): Environmental Engineering, US-Pakistan Center for Advanced Studies in Water, Mehran University of Engineering and Technology, Jamshoro. Thesis title: Development of functionalized cellulose nanofiber membranes for water desalination.
- MEM (Master of Engineering Management) in Environmental Engineering (2015), NED University of Engineering and Technology, Karachi
- BE in Chemical Engineering (2010), Dawood University of Engineering and Technology, Karachi

## Professional Experience

### 1: Teaching Experience:

- Assistant professor in the Department of Chemical and Energy Engineering, PAF-IAST (Jan 2020 to date).

### 2: Industrial Experience:

- Shift Engineer at Rafhan Maize Products Co. Ltd., Mehran Plant Kotri, (April 2012 – Sept. 2015)
- Chemical Engineer at Pak-Oasis Industries Pvt. Ltd., Karachi (Jan 2011 - April 2012)

## Projects

Project No. CoE-37 entitled “Conserving Indus River water quality through pollution source tracking, economical treatment systems, and water circular economy”, awarded by the World Bank through the Higher Education Commission of Pakistan. (Project worth Rs. 3.5 million) (2022)

## Research Publications

1. **Muqeet, M.**, Malik, H., Panhwar, S., Khan, I. U., Hussain, F., Asghar, Z., ... & Mahar, R. B. Enhanced cellulose nanofiber mechanical stability through ionic crosslinking and interpretation of adsorption data using machine learning. *International Journal of Biological Macromolecules*, 124180. (2023) (IF: 8.025)
2. Panhwar, S., Ilhan, H., Aftab, A. **Muqeet M.**, Keerio H. A., Solangi G. S., Suludere Z. & Tamer U., HighPerformance E. coli Antibody-Conjugated Gold Nanorods for the Selective Electrochemical Detection of Pathogens in Drinking Water. *J. Electron. Mater.* 50, 7119–7125 (2021), (IF: 2.047)
3. Bilal M., Ali Z., Soomro U., **Muqeet M.**, Ahmed Z., Adsorption of Indigo Carmine dye onto the surfacemodified adsorbent prepared from municipal waste and simulation using deep neural network, *Journal of Hazardous Materials*, (2020), (IF: 14.224)
4. **Muqeet M.**, Halima N.B., Mahar R. B., Gadhi, T. A., Insight into cellulose-based-nanomaterials: A pursuit of environmental remedies, *International Journal of Biological Macromolecules*, (2020) (IF: 8.025)
5. **Muqeet, M.**, Qureshi, U. A., Mahar R. B., Khatri Z. Ahmed F. Kim I. S., Ionic cross-linking of cellulose nanofibers: an approach to enhance mechanical stability for dynamic adsorption." *Environmental Science and Pollution Research* 26.28 (2019): 28842-28851. (IF: 5.190)
6. **Muqeet, M.**, Khalique A., Qureshi, U. A., Mahar R. B., Khatri Z. Ahmed F., Brohi K M., Aqueous hardness removal by anionic functionalized electrospun cellulose nanofibers. *Cellulose* (2018). 25(10), pp 5985-5997. (IF: 6.123)
7. **Muqeet M.**, Malik H., Mahar R. B., Khatri Z., Ahmed F., Carlson K., Cationization of cellulose nanofibers for the removal of sulfate ions from aqueous solutions, *Industrial and Engineering Chemistry Research* (2017), 56 (47), pp 14078– 14088. (IF: 4.326)
8. Malik, H., Qureshi, U. A., **Muqeet, M.**, Mahar R. B., Khatri Z. Ahmed F., Removal of lead from aqueous solution using polyacrylonitrile/magnetite nanofibers. *Environmental Science and Pollution Research*, (2017), pp 1-8. (IF: 5.190)