بسم الله الرحمن الرحيم

Humhama, Srinagar, India 190021 | +91-7889374003 | muftiminaam.mmh@gmail.com

MINAAM MEHMOOD HUSSAINI MUFTI

PROFESSIONAL SUMMARY

Ph.D. in Civil Engineering with strong expertise in water treatment, adsorption, photocatalysis, and machine learning applications.
Professional academic researcher with proven track record in conducting and supporting high-level research initiatives. Skilled in data analysis, literature review, and academic writing, contributing to significant advancements in various research projects.
Reliable team collaborator with focus on achieving impactful results and adapting to changing academic demands. Thriving for the betterment of the environment and the community.

PUBLICATIONS

- Hussaini, M., Vohra, M. S., & Onaizi, S. A. (2026). High-Capacity Removal of Crystal Violet using ZIF-8/Graphene Quantum Dot Composite with RSM Optimization with Explainable Machine Learning, Sci Rep (2026). https://doi.org/10.1038/s41598-026-39933-2, IF=3.9,Q1
- Hussaini, M., Vohra, M. S., & Onaizi, S. A. (2025). Investigating the removal of Congo red dye using ZIF-8 and GQD composite: Characterization, kinetics, isotherm, thermodynamics, optimization, and machine learning studies. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 726, 137915. https://doi.org/10.1016/j.colsurfa.2025.137915, IF=5.4,Q1
- Faruque, M. O., Hussaini, M., Hossain, M. M., Nzila, A., & Razzak, S. A. (2025). Biosorption of Cd(II) from Aqueous Solutions Using Microalgae Chlorella sorokiniana Dry Biomass: A Sustainable Approach for Water Remediation. Journal of Environmental Chemical Engineering, 118129. https://doi.org/10.1016/j.jece.2025.118129, IF=7.4,Q1
- Sabbagh, M., Hussaini, M., Ismail, U., Ahmed, H. R., Al-Suwaiyan, M., & Vohra, M. (2024). Novel nafion-palygorskite composite for Pb/Lead treatment. International Journal of Environmental Science and Technology. https://doi.org/10.1007/s13762-024-05661-1, IF=3.4,Q1
- Ismail, U. M., Hussaini, M., & Vohra, M. S. (2024). H2S and SO2 toxic gases removal using date palm-tree branches based activated carbon: experimental findings and machine learning (ML) modeling. Environment, Development and Sustainability. https://doi.org/10.1007/s10668-024-05847-0, IF=4.2, Q1
- Vohra, M., Hussaini, M., & Mohammad, T. (2023). Olive branches activated carbon: synthesis, phenol adsorption and modeling. Chemical Papers, 77(1), 485–498. https://doi.org/10.1007/s11696-022-02457-w, IF=2.1, Q2
- Hussaini, M., & Vohra, M. (2022). LDH-TiO2 Composite for Selenocyanate (SeCN−) Photocatalytic Degradation: Characterization, Treatment Efficiency, Reaction Intermediates and Modeling. Nanomaterials, 12(12), 2035. https://doi.org/10.3390/nano12122035, IF=5.076, Q1
- Vohra, M., Al-Suwaiyan, M., & Hussaini, M. (2020). Gas Phase Toluene Adsorption Using Date Palm-Tree Branches Based Activated Carbon. International Journal of Environmental Research and Public Health, 17(24), 9287. https://doi.org/10.3390/ijerph17249287, IF=2.849, Q2

PROJECTS

- Removal of toxic gaseous pollutants using activated carbon from date-palm agricultural waste, SP161012 (FT161012), Research Team Member, 2020, PI = Dr. M.S. Vohra, KFUPM.
- Production of activated carbon from olive tree branches and its application for adsorption-based water treatment, SB191028, Research Team Member, 2021, PI = Dr. M.S. Vohra, KFUPM

WORK HISTORY (During MS and PhD)

MATERIAL CHARACTERIZATION LABORATORY ASSISTANT 01/2020 TO 05/2021
Center of Excellence in Nanotechnology (CENT), KFUPM, Dhahran

- Operated advanced characterization equipment like FESEM, XRD, and TGA.
- Maintained accurate records of samples analyzed and results.
- Analyzed surface morphology, crystal structure and thermal behavior of various materials using FESEM, XRD, and TGA including cross-section measurements, back scatter analysis, and EDS analysis.

LABORATORY ASSISTANT 01/2022 to 05/2022
King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia

- CE335- Engineering Hydrology- Civil and Environmental Engineering Department, KFUPM, Fall 2022

TEACHING ASSISTANT 01/2022 to 12/2024
King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia

- CE201- Statics- Civil and Environmental Engineering Department, KFUPM, Summer 2024
- CE202- Statics and Strength of Materials- Civil and Environmental Engineering Department, KFUPM, Summer 2023 and Summer 2024
- CE230- Engineering Fluid Mechanics- Civil and Environmental Engineering Department, KFUPM, Fall 2022
- CE421- Construction Methods and Management - Civil and Environmental Engineering Department, KFUPM, Spring 2022
- CE473- Design and Operation of Water and Wastewater Treatment Plants- Civil and Environmental Engineering Department, KFUPM, Fall 2023, Spring 2024, and Fall 2024
- CE476- Industrial Hazardous Waste Management & Treatment- Civil and Environmental Engineering Department, KFUPM, Fall 2023 and Fall 2024

EDUCATION

KFUPM, Dhahran, KSA
Ph.D., Civil Engineering, Dec 2025
GPA: 3.89/4

KFUPM, Dhahran, KSA
M.S., Civil Engineering, Apr 2020
GPA: 3.75/4

NIT Srinagar, Srinagar
B.Tech., Civil Engineering, Aug 2015
GPA: 8.163/10 (GATE Qualified 2017))

Delhi Public School, Srinagar
Class 12, CBSE, 2011
GPA: 81.67%

Delhi Public School, Srinagar
Class 10, CBSE, 2010
GPA: 94.8%

LANGUAGES

English
Urdu
Hindi
Kashmiri
Arabic

SKILLS

- Python
- Origin
- Minitab
- Design Expert
- AutoCAD
- Primavera
- STAAD.PRO V8i
- Accelerated Surface Area Analyzer
- FESEM
- ICP-OES
- Mercury Analyzer
- AAS
- Ion Chromatograph
- XRD (Miniflex-II)

AREAS OF INTEREST

- Adsorptive wastewater treatment
- Advanced materials (e.g., MOFs, ZIFs, GQDs)
- AI/ML/SHAP modeling
- Emerging Contaminants
- Low-Cost Adsorbents
- Photocatalysis

REFERENCES

- Dr. Muhammad S. Vohra, MS and PhD Advisor, Professor, Department of Civil & Environmental Engineering, King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia, vohra@kfupm.edu.sa
- Dr. Muhammad Riaz, PhD Committee Member, Professor, Department of Mathematics, King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia, riazm@kfupm.edu.sa
- Dr. Sagheer A. Onaizi, PhD Co-Advisor, Professor, Department of Chemical Engineering, King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia, onaizi@kfupm.edu.sa
- Dr. Abbas Saeed Hakeem, Associate Professor/Research Scientist I, Interdisciplinary Research Center for Hydrogen Technologies and Carbon Management, King Fahd University of Petroleum & Minerals, Dhahran, Saudi Arabia, ashakeem@kfupm.edu.sa