

Dr. Yousuf Jamal

Associate Professor

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EDUCATION

PhD - Environmental Engineering, TEXAS A&M UNIVERSITY	12
MS - Environmental Engineering, TEXAS A&M UNIVERSITY	09
Masters of Electronic Business, HAMDARD UNIVERSITY	01
Bachelor of Chemical Engineering, UNIVERSITY OF THE PUNJAB	98

PROFESSIONAL APPOINTMENTS

Associate Professor	UNIVERSITY OF THE PUNJAB, Chemical Engineering	20 -
Assistant Professor	NATIONAL UNIV OF SCIENCE AND TECHNOLOGY, Env Engineering	13-20
Senior Researcher	INSTITUTE FOR ADVANCED ENGINEERING	15-16
Researcher	UNIVERSITY OF ULSAN, Civil and Env Engineering	14-15
Engineer	SIECON ENGINEERING	00-07
Engineer	DAWOOD HERCULES CHEMICALS LTD	98-99

CURRENT RESEARCH FOCUS

- Industrial Cleaner Production Techniques
- Resource Recovery, Recycling, and Reuse of Waste Materials
- Catalyst Development and Nano Catalysis
- Separation Technologies for CO₂ Capture, Utilization, and Storage.

JOURNAL PUBLICATIONS (full list available upon request)

1. K. Manzoor, S.J. Khan, M. Yasmeen, **Y. Jamal**, M. Arshad, 2022 Assessment of Anerobic membrane distillation bioreactor hybrid system at mesophilic and thermophilic temperatures treating textile wastewater. Journal of Water Process Engineering 46, 102603 (I.F. 5.485)
2. **Y. Jamal**, I.H. Shah, H.S. Park, 2022 Mono-alkyl esters (Biodiesel) production from wastewater sludge by esterification. Biofuels 13, 381-387. (I.F. 2.956)
3. N. Haleem, A. Khattak, **Y. Jamal***, M. Sajid, Z. Shahzad, H. Raza, 2021 Development of poly vinyl alcohol (PVA) based biochar nanofibers for carbon dioxide (CO₂) adsorption. Renewable and Sustainable Energy Reviews. Doi:10.1016/j.rser.2021.112019 (I.F 14.982)
4. N. Haleem, **Y. Jamal**, S.N. Khan, M. A Baig, M. Wahab, X. Yang, 2021 Synthesis of Carbon Nanotubes (CNTs) from Poultry Litter for Removal of Chromium Cr (VI) from Wastewater. Materials. doi:10.3390/ma14185195 (I.F 3.623)
5. J. Ahmed, **Y. Jamal***, 2021 A pilot application of recycled discarded RO membranes for low strength grey water reclamation. Environmental Science and Pollution Research. 28, 34042-34050 doi: 10.1007/s11356-020-11117-z (I.F 4.223)
6. W.A. Khoso, N. Haleem, M. A. Baig, **Y. Jamal**, 2021 Synthesis, Characterization and Heavy Metal Removal Efficiency of Nickel Ferrite Nanoparticles (NFN's). Scientific Reports. Doi.org/10.1038/s41598-021-83363-1 (I.F 4.739)
7. H.M.A. Shahzad, S. J.Khan *, Zeshan , **Y. Jamal**, Z. Habib, 2021 Evaluating the performance of anaerobic moving bed bioreactor and upflow anaerobic hybrid reactor for treating textile desizing wastewater. Biochemical Engineering Journal.174,108123. Doi:/10.1016/j.bej.2021.108123 (. (I.F. 3.978)
8. M.H Masood, N. Haleem, I.Shakeel, **Y. Jamal***, 2020 Carbon dioxide conversion into the reaction intermediate sodium formate for the synthesis of formic acid. Research on Chemical Intermediates. Doi: 10.1007/s11164-020-04255-z (I.F 2.914)
9. Z. Habib, C-G Lee, Q Li, S.J. Khan, N. M. Ahmad, **Y. Jamal**, X. Huang, H. Javed, 2020 Bi-polymer Electrospun Nanofibers Embedding Ag₃PO₄/P25 Composite for Efficient Photocatalytic Degradation and Anti-microbial Activity. Catalysts. Doi: 10.3390/catal10070784 (I.F 3.520)
10. M. H. Malik, N. Haleem, M. A. Baig, **Y. Jamal**, 2020 Phytoaccumulation of Heavy Metals from Municipal Solid Waste Leachate using Different Grasses under Hydroponic Condition. Scientific Reports. Doi.org/10.1038/s41598-020-72800-2 (I.F 4.739)

11. M. Arshad, A. Neelam, N. Haleem, **Y. Jamal**, K. Hina, M. Bilal, S. H. Shah, I. Hussain, Y. Zhang, 2020 Synthesis and characterization of CMC/PVA/PVP composite microfiltration membrane. *Desalination and Water Treatment*. Doi: 10.5004/dwt.2020.26227 (I.F. 1.254)
12. U. Qureshi, B. Imtiaz, **Y. Jamal***, 2020 Synthesizing PET and food waste into refuse plastic fuel (RPF): Optimization and kinetic modeling. *Journal of Thermal Analysis and Calorimetry* 140, 145-158. Doi: 10.1007/s10973-019-08934-x. (I.F. 4.626)
13. J. Ahmed, **Y. Jamal***, M. Shujaatullah, 2020 Recovery of Cooling Tower Blowdown water through Reverse Osmosis (RO): Review of water parameters affecting membrane fouling and pretreatment schemes. *Desalination and Water Treatment* 189, 9-17. (I.F. 1.254)
14. Z. Habib, S.J. Khan, N.H. Ahmed, H.M.A. Shahzad, **Y. Jamal**, I. Hashmi 2019 Anti-bacterial Behavior of Surface Modified Composite Polyamide Nanofiltration (NF) Membrane by Immobilizing Ag doped TiO₂ Nanoparticles. *Environmental Technology*. Doi: 10.1080/09593330.2019.1617355. (I.F. 3.247)
15. R. Shaukat, S.J. Khan, **Y. Jamal**, 2019 Hybrid Anaerobic-Aerobic Biological Treatment for Real Textile Wastewater. *Journal of Water Process Engineering*. Doi: 10.1016/j.jwpe.2019.100804 (I.F. 5.485)
16. N. Maqbool, Z. Saleem **Y. Jamal**, 2019 A Short Review on Reverse Osmosis Membranes: Fouling and Control. *Open Access Journal of Waste Management & Xenobiotic*. Doi: 10.23880/oajwx-16000122.
17. J.W. Lee, S.J. Lee, **Y. Jamal**, Y. Yun, 2018 Partial slagging coal gasifier operational performance and product characteristics for energy sustainability in an integrated gasification combined cycle system. *Journal of the Energy Institute* 91, 769-778. (I.F. 6.186)
18. A. Shahid, **Y. Jamal***, S.J. Khan, J.A. Khan, B. Boulanger, 2018 Esterification Reaction Kinetics of Acetic and Oleic Acids with Ethanol in the Presence of Amberlyst 15, *Arabian Journal for Science and Engineering* 43,5701-5709. (I.F. 2.334)
19. K. Manzoor, S.J. Khan, **Y. Jamal**, A. Shahzad, 2017 Heat Extraction and Brine Management from Salinity Gradient Solar Pond and Membrane Distillation. *Chemical Engineering Research and Design* 118, 226-237. (I.F. 3.739)
20. **Y. Jamal**, M. Park, H.S. Park, 2016 Isothermal combustion kinetics of synthetic Refuse Plastic Fuel (RPF) blends by thermogravimetric analysis. *Applied Thermal Engineering* 104, 16-23. (I.F. 5.295)

21. S.H. Cha, J.H. Son, **Y. Jamal**, M. Zafar, H.S. Park, 2016 Characterization of polyhydroxyalkanoates extracted from wastewater sludge under different environmental conditions. *Biochemical Engineering Journal* 112, 1-12. doi: 10.1016/j.bej.2015.12.021. (I.F. 3.978)
22. J.A. Khan, **Y. Jamal***, A. Shahid, B. Boulanger, 2016 Esterification of acetic and oleic acids within an Amberlyst 15 packed catalytic column. *Korean Journal of Chemical Engineering* 33(2), 582-586. (I.F. 3.309)
23. S.W. Kim, S.K. Behera, **Y. Jamal**, H.S. Park, 2015 Optimization of sodium hydrosulfide synthesis for metal recovery from wastewater using flue gas containing H₂S. *Journal of Environmental Engineering* 142(9) doi: 10.1061 / (ASCE) EE.1943-7870.0000984. (I.F. 1.860)
24. F. Ahmad, S.J. Khan, **Y. Jamal**, H. Kamran, A. Ahsan, M. Ahmad, A. Khan, 2015 Desalination of brackish water using capacitive deionization (CDI) technology. *Desalination and Water Treatment* 57(17) 7659-7666. Doi: 10.1080/19443994.2015.1037357. (I.F. 1.254)
25. **Y. Jamal***, A. Rabie, B. Boulanger, 2015 Determination of methanolysis rate constants for low and high fatty acid oils using heterogeneous surface reaction kinetic models. *Reaction Kinetics, Mechanisms and Catalysis* 114, 63-74. (I.F. 2.081)
26. R.Z. Rizvi, **Y. Jamal**, M.B. Ghauri, R. Salman, Imran Khan, 2015 Solar Pond Technology for Brine Management and Heat Extraction: A Critical Review. *Journal of Faculty of Engineering & Technology* 22 (2), 69-79.
27. **Y. Jamal***, G. Luo, B. Boulanger, 2014 In-situ processing of *Nannochloropsis oculata* algal biomass using a mixed-bed ion-exchange resin as a heterogeneous catalyst. *Asia Pacific Journal of Chemical Engineering* 9,818-825. (I.F. 1.447)
28. **Y. Jamal***, G. Luo, C.H. Kuo, A. Rabie, B. Boulanger, 2013 Sorption Kinetics, Thermodynamics, and Regeneration for Lipid Feedstock Deacidification Using a Mixed Bed Ion Exchange Resin. *Journal of Food Process Engineering* 37, 27-32. (I.F. 2.356)
29. **Y. Jamal**, B. Boulanger, 2010 Separation of oleic acid from soybean oil using mixed-bed resins. *Journal of Chemical and Engineering Data* 55, 2405-2409. (I.F. 2.694)

SELECT HONORS, AWARDS, and CERTIFICATIONS

- Judge Pakistan Research National Idea Bank
- NUST Fulbright Champion
- PhD Fulbright Graduate Scholarship, Texas-USA
- OSHA Hazwoper 40-hour Training Certification
- Registered Professional Engineer with Pakistan Engineering Council

- Editorial Team, Energy and Environment Research, Canadian Center of Science and Education
- Member Technical Committee, Frontiers of Energy and Environment Engineering

COURSES TAUGHT

Undergraduate

- Industrial Energy Systems
- Renewable Energy Engineering
- Cleaner Production Techniques
- Thermodynamics in Engineering
- Energy Resources Management
- Industrial Waste Management

Graduate

- Research Techniques and Skills
- Health and Safety Engineering
- Analytical Techniques for Engineering Students
- Physio-Chemical Processes for Engineering Students