



Abdul Rehman Memon, *PhD*

CURRENT POSITION: Professor

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EDUCATIONAL

Ph.D. (Environmental Engg) from The University of Nottingham, United Kingdom, 2011

M.E. (Env. Engg) Mehran University of Engg and Technology, Jamshoro Pakistan, 2004

B.E. (Chemical Engg) Mehran University of Engg. & Technol. Jamshoro Pakistan, 1991

PROFESSIONAL EXPERIENCE (over 25 years)

- ✓ **Professor**, Department of Chemical Engineering Mehran University of Engg. & Technology Jamshoro Sindh Pakistan, October 27, 2016 to present.
- **Associate Professor**, Department of Chemical Engineering Mehran University of Engg. & Tech. Jamshoro Sindh Pakistan, April 15, 2013 to October 26, 2016.
- **Assistant Professor**, Department of Chemical Engineering Mehran University of Engg. & Technology Jamshoro Sindh Pakistan, October 2011- April 14, 2013.
- **Lecturer**, Department of Chemical Engineering Mehran University of Engineering & Technology Jamshoro Sindh Pakistan, Feb 2001 to Oct 2011.
- **Demonstrator**, Institute of Environmental Engineering & Management Mehran University of Engineering & Technology Jamshoro Sindh Pakistan, January 09, 1993-February 2001.
- **Research Assistant**, National Scientific Research and Development Board Islamabad project entitled “Environmental problems due to sugar mills of Sindh and its solution”, October 1991-December 1992.

RESEARCH AREAS OF INTEREST

Algal biofuels; Wastewater bioremediation; Bioenergy engineering; Pollution control engineering, Chemical Reaction Engineering

RESEARCH PROJECTS

Completed:

- National Scientific Research and Development Board Islamabad project entitled “Environmental problems due to sugar mills of Sindh and its solution”, October 1991-December 1992.
- Effective utilization and upgradation of Nagarparker Kaolin – A natural resource mineral for economic development of Thar desert (Jan 2015 – Dec 2017)
A Knowledge Economy Partnership: HEC, Pakistan & The British Council, UK.

MEMBERSHIPS

- ❖ Pakistan Engineering Congress (CHEM-2289)

PROFESSIONAL ACTIVITIES

- **As REVIEWER of Impact Factor Research Journals**



Publons reviewer profile link:

https://publons.com/author/1350517/abdul-rehman-memon?utm_campaign=reviewer_auto_claim_review&utm_source=publons&utm_medium=email#profile

Sr. No.	Journal Name (Impact Factor)	Article Title	Review date
1	Algal Research, Elsevier (3.994)	A preliminary implementation of metabolic-based pH control to reduce CO ₂ usage in outdoor flat-panel photobioreactor cultivation of <i>Nannochloropsis oceanica</i> microalgae	15.4.16
2	Algal Research, Elsevier (3.994)	Process Evaluation of Energy Requirements for Feed Production Using Dairy Wastewater for Algal Cultivation: Theoretical Approach	11.6.16
3	Algal Research, Elsevier (4.694)	Comprehensive computational model for combining fluid hydrodynamics, light transport and biomass growth in a Taylor vortex algal photobioreactor: Eulerian approach	02.11.16
4	Journal of Analytical and Applied Pyrolysis Elsevier (3.471)	Sulphated Zirconia Catalyzed Conversion of High density Polyethylene (HDPE) to value-added products using a Fixed-Bed Reactor	01.01.17
5	Environmental Progress and Sustainable energy AICHE (1.672)	Antibacterial activity of mesoporous magnesium oxide nano-hexagonal sheets for wastewater remediation	18.12.17
6	Environmental Technology Taylor & Francis (1.751)	Recycling of sugar industry wastewater to produce single cell protein with supplemented carotenoids	25.02.18
7	Environmental Progress and Sustainable energy AICHE (1.672)	Biological anti-cyanobacterial process of <i>Microcystis aeruginosa</i> by <i>Streptomyces</i> sp. HJC-D1 isolated from an eutrophic pond	13.9.18
8	Algal Research, Elsevier (3.745)	Assessment of a photobioreactor-coupled modified Robbins device to compare the adhesion of <i>Nannochloropsis gaditana</i> on different materials	16.9.18
9			
10			

- **As Supervisor to Postgraduate Research**

No.	Student Name (Research Degree)	Research Topic	Status
1	Rizwan Bhutto M.E(Chemical Engg)	Bioremediation of oil field sludge to remove the aliphatic and aromatic hydrocarbons	Completed March 2014
2	Hidayatullah Mehr M.E(Chemical Engg)	Recovery of remainder starch contents from the clarifier	Completed

		effluent of starch industry	April 2014
3	Muhammad Muneeb M.E(Cheical Engg)	Bottom ash from hospital waste incineration – Energy value, hazard evaluation and characterization	Completed Nov 2014
4	Rashid Ismail M.E(Cheical Engg)	Synthesis and characterization of activated carbon from banana empty fruit bunches	Completed March 2016
5	Mansoor Keerio M.E(Cheical Engg)	Preparation, characterization and efficiency appraisal of activated carbon from Thar coal	Completed January 2018
6	Nabeel Shaikh M.E(Cheical Engg)	Impact of alternate fuel application on the characteristics of clinker from cement production	In Progress
7	Pervez Ali Shah M.E(Cheical Engg)	Efficiency analysis of indigenous bentonite as a potential drilling mud in oil and gas industry	In progress From June 2017
8	Hidayatullah Mehr PhD (Chemical Engg)	Synthesis of Indigenous cost-effective zeolite from Nangar Parkar Kaolin for heavy metal removal from water and wastewater	In progress From 17.9.2015
9	Owais Ahmed M.E(Cheical Engg)	CFD Simulation of Glucose-water vapor condensation in horizontal cylindrical condensers	In progress From August, 18
10	Ikram Zardari M.E(Cheical Engg)	Biodiesel Potential Appraisal of onion skin waste	In progress From August, 18

PUBLICATIONS

Google Scholar Citation profile:

https://scholar.google.com.pk/citations?hl=en&user=Sult_gAAAAJ&imq=Dr.Abdul++Rehman+Memon

a. Research Papers (Total published = 29; T. Citation Score = 47)

• International (5)

- Osama Farid, **Abdul Rehman Memon**, John Robinson and Steve Tarleton (2015) “Investigating the influence of Polydimethylsiloxane (PDMS) crosslinking content on membrane selectivity”, Research paper published in **Yanbu Journal of Engineering and Science**, Vol. 10, April 2015, pp: 30-40.

2. **Abdul Rehman Memon**, John Andresen, Muddasar Habib, Mohammad Jaffar, (2014) “Simulated sugar factory wastewater remediation kinetics using algal-bacterial raceway reactor promoted by Polyacrylate polyalcohol” *Elsevier’s Bioresource Technology* (IF: 5.807/ CITED BY 3), Vol. 157, pp. 37-43.
 3. Abdul Karim Shah, Zeenat M. Ali, **Abdul Rehman Memon**, A. Jabbar Laghari, Moina Akhtar Mughal, Syed Farman Ali Shah and Hussain Saleem (2013) “Exploitation of Low Cost Coal Fly Ash Adsorbent with Coagulants for the Treatment of Industrial Complex Nature Dyes Wastewater”, Research paper published in *Int. J. of Scientific and Engineering Research* (IF: 3.8 / CITED BY 11), Vol. 4, No. 9, pp: 109-119.
 4. M.I. Abro, A. G. Pathan, **Abdul Rehman. Memon**, Sirajuddin, (2013) “Dual Polymer Flocculation Approach to Overcome Activation of Gangue Minerals During Beneficiation of Complex Iron Ore”, Research paper published in *Elsevier J. of Powder Technology* (IF: 3.230 / CITED BY 9) Vol. 245, pp: 281-291.
 5. Muddasar Habib, Unsia Habib, **Abdul Rehman Memon**, Amad Ullah Khan, Usman Amin, Sayed Naveed, Sultan Ali, Zahid Karim, (2013) “Predicting colloidal fouling of tap water by silt density index (SDI): Pore blocking in a membrane process”, Research paper published in *Elsevier Journal of Environmental Chemical Engineering*, (CITED BY 4) Vol. 1, pp: 33-37.
- **National (24)**
 1. **Abdul Rehman Memon**, Kanya Lal Khatri and Wasayo Sanam Sahito (2016) “Simulated sugar factory wastewater lagooning with pseudomonas putida”, Research paper published in *Sindh University Research Journal (Science Series)*, (HEC Category: X), Vol. 48, No. 1, pp: 161-164.
 2. **Abdul Rehman Memon**, Noorullah Soomro and Kanya Lal Khatri (2015) “Growth Kinetics of Algae Cells under Heterotrophic Conditions”, Research paper published in *Sindh University Research Journal (Science Series)*, (HEC Category: X), Vol. 47, No. 4, pp: 769-774.

3. Q. Sohaib, N. Soomro, M. Habib, **Abdul Rehman Memon** and U. Tariq (2015) “Comparative analysis of recycled PVC composites reinforced with nonmetals of printed circuit boards”, Research paper published in *Sindh University Research Journal (Science Series)*, (HEC Category: X), Vol. 47, No. 3, pp: 431-436.
4. **Abdul Rehman Memon**, O. Farid, N. Soomro and M. Jaffar (2015) “Copolymer Polyacrylate Polyalcohol – Hydrolytic characterization and influence on process variables as an immobilization agent”, Research paper published in *Sindh University Research Journal (Science Series)*, (HEC Category: X), Vol. 47, No. 2, pp: 341-346.
5. Rizwan Ahmed Bhutto, **Abdul Rehman Memon** and Aziza Aftab (2015) “Recovery of Aliphatic Hydrocarbons from oil field sludge using Bacillus sp.”, Research paper published in *Mehran University Research Journal of Engg. & Tech.*, (HEC Category: X), Vol. 34, No. 2, April 2015, pp: 134-140.
6. **Abdul Rehman Memon**, Aziza Aftab and Ghulam Yaseen Shaikh (2015) “Parametric Effect during power generation from sewage sludge using prototype MFC”, Research paper published in *Mehran University Research Journal of Engg. & Tech.*, (HEC Category: X), Vol. 34, No. 2, April 2015, pp: 116-120.
7. A. U. Khan, **Abdul Rehman Memon**, M. Habib, S. S. Khan and U. Habib (2014) “Characterization of indigenously developed KPK coal briquettes”, Research paper published in *Sindh University Research Journal (Science Series)*, (HEC Category: X), Vol. 46, No. 4, pp: 515-520.
8. N. Soomro, **Abdul Rehman Memon** and S. Aslam (2014) “Remedial measures of health and safety in ginning industry of Pakistan”, Research paper published in *Sindh University Research Journal (Science Series)* (HEC Category: X), Vol. 46, No. 2, pp: 185-188.
9. Muddasar Habib, Jamil Ahmed, Mohammad Jaffar, Unsia Habib, **Abdul Rehman Memon**, Nusurth Begum Mohabuth, Taimur Ahmad Kaka Khel, Farooq Khan Khalil, Faisal Abbasi and Mohammad Haris Nisar, (2014) “Power draw, solid suspension and liquid mixing in a non-standard stirred tank reactor fitted with a retreat curve impeller”, Research paper published in *Proceedings of Pakistan Academy of Sciences (HEC Category: X)*, Vol. 51, No. 1, pp. 31–42.

10. Shaheen Aziz, **Abdul Rehman Memon**, Syed Feroz Shah, Suhail Ahmed Soomro, Annand Parkash and Abdul Sattar Jatui, (2013), “Electricity generation from sewage sludge using environmental friendly double chambered microbial fuel cell”, Research paper published in *Science International Journal (HEC Category: Y/ CITED BY 2)*, Vol. 25, No. 1, pp: 57-61.
11. Shaheen Aziz, **Abdul Rehman Memon**, Syed Feroz Shah, Suhail Ahmed Soomro, and Annand Parkash, (2013), “Prototype designing and operational aspects of microbial fuel cell – Review paper”, Research paper published in *Science International Journal (HEC Category: Y)*, Vol. 25, No. 1, pp: 49-56.
12. Muddasar Habib, Unsia Habib, **Abdul Rehman Memon**, Amad Ullah Khan, Zia ur rehman, Anwar Zeb, Abdul Moeed and Mustafa Kamal Pasha, (2013) “Bio-chemicals derived from waste: Building on the concept of a bio-refinery”, Research paper published in *Pakistan Journal of Analytical and Environmental Chemistry (HEC Category: Y)*, Vol. 14, No. 2, pp. 01–07.
13. K. Shah, **Abdul Rehman Memon**, G. Metlo, S. F. A. Shah and A. H. Peerzada (2013) “Simultaneous coagulation-adsorption process optimization for the treatment of real wastewater of complex dyes manufacturing plant”, Research paper published in *Sindh University Research Journal (Science Series) (HEC Category: X/ CITED BY 2)*, Vol. 45, No. 3, pp: 509-516.
14. A. Aftab, **Abdul Rehman Memon**, S. F. A. Shah H. R. Memon and M. U. Dahot (2013) “Determination of hydrocarbons and isolation of inherent bacteria from crude oil-contaminated soil for ex-situ bioremediation”, Research paper published in *Sindh University Research Journal (Science Series), (HEC Category: X)*, Vol. 45, No. 3, pp: 477-482.
15. M. Habib, **Abdul Rehman Memon**, U. Habib, M. U. Amin, Naseemullah, A. Khan, S. Naveed, M. Khuram and S. Ali (2013) “Mixing characteristics in a conical-based pharmaceutical reactor fitted with a retreat curve impeller”, Research paper published in *Sindh University Research Journal (Sci Series), (HEC Category: X)*, Vol. 45, No. 2, pp: 365-372.
16. Tanweer Hussain, **Abdul Rehman Memon** and Javed Larik (2013) “Analysis of Thermal Desorption System for the Chemical Treatment of Old Storages of Oil

- Based Mud”, Research paper published in *Mehran University Research Journal of Engg. & Tech.*, (HEC Category: X), Vol. 32, No. 2, April 2013, pp: 245-252.
17. Muddasar Habib, Amad Ullah Khan, **Abdul Rehman Memon** and Unsia Habib, (2013) “Production of Indigenous and Enriched Khyber Pakhtunkhwa Coal Briquettes: Combustion and Disintegration Strength Analysis”, Research paper published in *Pakistan Journal of Analytical and Environmental Chemistry*, (HEC Category: Y/CITED BY 1), Vol. 14, No. 1, pp: 68-74.
18. **Abdul Rehman Memon**, Niaz Ahmed Memon, Muddasar Habib (2012) “End-of-pipe Wastewater Disposal and Quality Comparison of Old and New Sugar Mills in Sindh”, Research paper published in *Quaid-e-Awam University Research Journal of Engineering, Science and Technology*, Vol. 11, No. 2, pp: 30-36.
19. Abdul Karim Shah, Feroz Shah Syed, **Abul Rehman Memon**, Farman Ali Shah, Khanji Harijan (2012) “Efficient Coupling Optimization of Coagulants with the Adsorbent for Depollution of Dyes Manufacturing Effluent”, Research paper published in *Sindh University Research Journal (Science Series)* (HEC Category: X/CITED BY 1), Vol. 44, No. 4, pp: 605-608.
20. Muddasar Habib, **Abdul Rehman Memon**, Unsia Habib, Amadullah Khan, Usman Amin, Syed Naveed and Sultan Ali (2012) “Energy-Efficient and Environmentally Sound Technique of Emulsification and Phase Inversion for Producing Stable Droplets – Applications of Membrane Emulsification to Polymerization: A Review”, Research Review paper published in *Pakistan Journal of Analytical and Environmental Chemistry (HEC Category: Y)*, Vol. 13, No. 2, pp: 1-16.
21. Abdul Karim Shah, **Abdul Rehman Memon** and Syed Farman Ali Shah (2012) “Assessment of Coagulant Synergy for the Depollution of Binder Emulsion Plant Effluent”, Research paper published in *Pakistan Journal of Analytical and Environmental Chemistry (HEC Category: Y)*, Vol. 13, No. 2, pp: 83-90.
22. Inamullah Bhatti, Khadija Qureshi, and **Abdul Rehman Memon**, (2009) “Thermal Properties of Insulating Material Prepared from Coal Fly Ash and Asphalt”, Research paper published in *Mehran University Research Journal of Engg. & Tech. (HEC Category: X)*, Vol. 28, No. 3, July 2009, pp: 343-348.

23. **Abdul Rehman Memon**, Suhail Ahmed Soomro and Abdul Khaliq Ansari, (2006), “Sugar industry effluent – characteristics and chemical analysis”, Research paper published in **Journal of Applied and Emerging Sciences (HEC Category: Z/ CITED BY 14)**, Vol. 1, No. 2, April 2006, pp: 152-157.
24. **Abdul Rehman Memon** and Abdul Khaliq Ansari, (2001) “Impacts of Sugar Industry Fly Ash Emissions on Environment”, Research paper published in **Mehran University Research Journal of Engg. & Tech. (HEC Category: X)**, Vol. 20, No. 4, October 2001, pp: 217-224.

b. Book Chapters

1. As author of three chapters in the following book:
Uqaili, M. A., Harijan, K., “**Energy, Environment and Sustainable Development**”, Springer Wien New York, 2012. **(CITED BY 6)**

Details of three chapters authored in the above book:

i. As First Author of Chapter on:

Environmental Impact of Untreated Effluents from Sugar Industry – A case study, pp. 199-206.

ii. As One of the Authors in Mutli-authored Chapters on:

- A promising Technology of Pressure into Power: A case study of pressure into power approach in Gas transmission lines, pp. 99-110.
- Hospital waste generation and management: A case study of hospitals in Karachi, Pakistan, pp. 253-264.

c. Newspapers

1. “Reducing Plagiarism” published in daily Dawn on 15.12.2011
<https://www.dawn.com/news/680557>
2. “Exam factories” published in The News on 11.4.2018
<https://www.thenews.com.pk/print/302787-exam-factories;>
<http://e.thenews.com.pk/4-11-2018/page7.asp>

CONFERENCES, SYMPOSIA and WORKSHOPS

1. Abdul Rehman Memon, Adnan Ali, Maria Shabeer and Rahat Hayat (2018), “Baseline study on biodiesel potential of onion skin waste”, *presented in the 2nd*

- International Conference on Chemical Engineering* held in Karachi on January 22-23, 2018 by the Department of Chemical Engineering, Mehran University of Engineering and Technology, Jamshoro.
2. Invited talk on “**Downstream pH control and process-efficient kinetics during copolymer-induced pelagic cultivation of benthal *Chlorella vulgaris***” held on *20th October 2016 at Chemical Engineering department University of Engineering and Technology Peshawar, Pakistan.*
 3. Invited talk on “Food Health and safety – via DIY and one health approach” held on *24th September 2016 at M.D. Seminar Hall Mehran University of Engineering and Technology Jamshoro Sindh Pakistan.*
 4. Abdul Rehman Memon and John Andresen (2015), “Photoheterotrophic cultivation of benthic and immobilized chlorella vulgaris: Process chemistry and kinetics”, *paper presented in “1st Chemistry in Energy Conference” held in Heriot Watt University, Edinburgh, UK, from July 20-22, 2015.*
 5. Suhail A Soomro, Abdul Rehman Memon, Shaheen Aziz (2014), “Processing of natural fiber reinforced composite polymers and study of mechanical and corrosive properties”, *Paper presented in the Conference on “10th European Conference on Coal Research and its Applications”* held in University of Hull, Kingston-upon-Hull, United Kingdom from September 15-17, 2014.
 6. Suhail A Soomro, Saqib Nawaz Talpur, Abdul Rehman Memon and Shaheen Aziz (2013), “Processing of natural fiber reinforced composite polymers and study of mechanical and corrosive properties”, *Paper presented in the Conference on “Emerging Materials and Processes”* held in the School of Chemical and Materials Engineering, NUST, Islamabad, August 22-24, 2013.

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