**Aziza Aftab**

Department of Chemical Engineering Mehran University of Engineering and Technology (MUET) Jamshoro-Pakistan

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**PROFESSIONAL EXPERIENCE**

* **Lecturer, Assistant Professor, Associate Professor 1996 – To date**

Mehran University of Engineering and Technology, Jamshoro.

**Subjects Taught**: Nuclear Engineering, Biochemical Engineering, Material Engineering, Unit Operation, Petroleum Refinery Engineering, Maintenance Engineering, Environmental Engineering, Organic and Inorganic Chemistry, Physical and Analytical Chemistry.

* **Thesis supervised**:
1. Computational Fluid Dynamic (CFD) Simulation for 2-stage Downdraft Entrained Flow Gasifier (**Undergraduate**)
2. Production of Biodiesel from Micro Algae cultivated bank of Indus River (**Undergraduate**)
3. Biodiesel from chicken waste (**Undergraduate**)
4. Lab scale ethanol production from bagasse (**Undergraduate**)
5. Modelling Of Refrigeration Based Hydrocarbon Dew Point Control Plant (**Undergraduate**)
6. Bio Ethanol Production from Potatoes (**Undergraduate**)
7. Cost effective designing and fabrication of Bio sand filters (**Undergraduate**)
8. Biodiesel from chicken waste (fats and skin)and its characterization (**Post graduate**)
* **Application Engineer 1994 – 1995**

Orient Water Services Karachi Pakistan

**Responsibilities**: Class advisor of final year students and leading role in co-curricular activities.

**EDUCATION**

* **PhD in Chemical Engineering 2015**

Mehran University of Engineering and Technology Jamshoro

**Thesis Topic**: Bioremediation of crude oil contaminated soil

* **M.E in Environmental Engineering 2001**

NED University of Engineering and Technology Karachi

**Thesis Topic:** RBOD and its Impact on Marine Environment

* **B.E in Chemical Engineering 1993**

Mehran University of Engineering and Technology Jamshoro

**Thesis Topic:** Boiler water treatment

**NATIONAL CONFERENCES/SEMINARS/WORKSHOPS/SYMPOSIA AND COURSES**

|  |  |  |  |  |
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| **S #** | **Topic** | **Venue** | **Name of Sponsor/ Organizer** | **From - To** |
| 1 | **Latest Trends in waste treatment and management in development countries and in Pakistan.** | MUET Jamshoro | Brunel University UK. | 8th Jan, 2008th |
| 2 | **Food Processing** | MUET Jamshoro | HEC | 23-25 April 2007. |
| 3 | **Biological techniques**  | Sindh University, Institute of Biotech. | HEC | 10-14 Dec 2006. |
| 4 | **Industrial Hazards and Safety** | MUET Jamshoro | Chemical Department | 06-Sep-2005 |
| 5 | **Digital Library resources and their effective usage.** | MUET Jamshoro | HEC | 16-18-Oct- 2005 |
| 6 | **Introduction to Gender and Environment** | MUET Jamshoro | Brunel University UK. | 10-15 Nov 2008 |
| 7 | **Gender Mainstreaming environmental decision making and education.** | MUET Jamshoro | Brunel University UK. | 18 Nov , 2008 |
| 8 | **International Symposium on Biotechnology** | Sindh University, Institute of Biotech. | HEC | 4-7 Oct, 2009 |
| 9 | **Sample preparation and Chromatographically Techniques for crude oil analysis** | PCSIR Karachi | PCSIR | 02-16 Jun, 2009 |
| 10 | **Sustainable water management** | Indus Hotel Hyderabad | DelPHE, Exeter University, UK | 15-17 Sep, 2010 |
| 11 | **Arsenic Problems In Sindh And It’s Remediation** | Fataz Hotel Hyderabad | PAK-US SCIENCE AND TECHNOLOGY COOPERATION PROGRAM (2010-2013) | 15-17 Nov, 2011 |
| 12 | **Energy environment and sustainable development** | MUET Jamshoro | HEC | 27-29 Feb, 2012 |
| 13 | **Global International Science and Technology Conference** | Bayview Hotel Singapore | GIST Australia | 03-04 Oct, 2013 |
| 14 | **Workshop on Developing Industry Driven Technologies** | MUET Jamshoro | IRP and PASTIC | 23 Feb, 2015 |
| 15 | **Workshop on Analytical Techniques in Chemical Engineering**  | MUET Jamshoro | Department of Chemical Eng. MUET Jamshoro | 28-31 Oct, 2015 |
| 16 | **Seminar on Mineral Resources Utilization for Sustainable Economic Development** | MUET Jamshoro | MUET and The University of Manchester | 20 Jan, 2016 |
| 17 | **Workshop on Entrepreneurial Development and Industrial Linkage** | MUISTD, MUET Jamshoro | IEEE and IES MUISTD | 26 Jan, 2016 |
| 18 | **International Conference on Chemical Engineering**  | MUET Jamshoro | Department of Chemical Eng. MUET Jamshoro | 24-16 Jan, 2016 |
| 19 | **Outcome based Education** | ORIC MUET Jamshoro | MUET | 05 May, 2016 |
| 20 | **How to transform ideas into available business** | MUET Jamshoro | Centers for advanced studies in Water | 29 Sept, 2016 |
| 21 | **Biomass Energy** | MUET Jamshoro | Coventry University | 04 Nov, 2016 |
| 22 | **Bio and Food processing** | MUET Jamshoro | Centers for advanced studies in Water |  22-24 Sept, 2016 |
| 23 | **Sindh Innovation Summit**  | Karachi University | ORIC | 06-07 Dec, 2016 |
| 24 | **2017 Perth International Conference (One Session Chaired)** | The University of Western Australia | ICSEE 2017 | 12-14 Jun, 2017 |

**AWARDS AND ACHIEVEMENTS**

* Awarded **Gold Medal** on achieving 1st (First) position in B.E Chemical.
* Awarded **Bronze Medal** on contributing a paper title “Energy Conservation in Chemical Industries”.

**MEMBERSHIP AND LEADERSHIP EXPERIENCES**

* **Memberships**
* Pakistan Institute of Chemical Engineers.
* Pakistan Engineering Council.
* Mehran University Chemical Engineers Society
* **Leadership**

**Co-advisor American Institute of Chemical Engineers (A.I.C.h.E)**

Mehran University of Engineering and Technology Jamshoro Student Chapter (International)

**Organized events in Chemical Engineering Department**

* Oral poster Presentation Competition
* Muqabla-e-Husun Naat
* 1st International Conference in Chemical Engineering
* Analytical Techniques in Chemical Engineering
* Bio and Food Processing Workshop
* SOS Village Charity Event

**PUBLICATIONS**

**Research Journals:**

1. Imran Nazir Unar, **Aziza Aftab** and Masroor Abro.; (2015) “ESTIMATION OF POWER PRODUCTION POTENTIAL FROM NATURAL GAS PRESSURE REDUCTION STATIONS IN PAKISTAN USING HYSYS” *Mehran University Research Journal of Engineering & Technology* Vol 34, No. 3 (2015) pp 301-308.
2. Syed Farman Ali Shah, **Aziza Aftab**, Noorullah Soomro, Mir Shah Nawaz, Kambiz Vafai.;(2015), "WASTE WATER TREATMENT-BED OF COAL FLY ASH FOR DYES AND PIGMENTS INDUSTRY" *Pakistan Journal of Analytical and Environmental Chemistry*, Vol 16, No. 2 (2015) pp 48-56.
3. Abdul Rehman Memon, **Aziza Bano**, and Ghulam Yasin Shaikh.; (2015), “Parametric Effect during Power Generation from Sewage Sludge Using Prototype Microbial Fuel Cell” *Mehran University Research Journal of Engineering & Technology* Vol 34, No. 2 (2015) pp 116-120*.*
4. Rizwan Ahmed Bhutto, Abdul Rehman Memon, and **Aziza Aftab**.; (2015), “Recovery of Aliphatic Hydrocarbons from Oil Field Sludge using Bacillus sp” *Mehran University Research Journal of Engineering & Technology* Vol. 34, No. 2 (2015) pp 134-140*.*
5. **Aziza Aftab Memon**, A.R. Memon, Syed Farman Ali Shah, Hafeez Ur Rehman Memon, Muhammad Umer Dahot, ”Determination of Hydrocarbons and Isolation of Inherent Bacteria from Crude Oil-Contaminated Soil for Ex-Situ Bioremediation” *Sindh Univ. Res. Jour. (Sci. Ser.) Vol.45 (2), (2013).*
6. Suhail A. Soomro, Ashfaque H. Pirzada, **Aziza Aftab Memon**, “Quantitative Analysis of Cotton Seed oil cake for the determination of Proteins as a value Added Product” *Journal of Engineering and Applied Sciences,* Vol 26, pp 57-61, 2007.
7. Syed Farman Ali Shah, Abdul Karim Shah, Ahmad Mehdi, **Aziza Aftab Memon**, Khanji Harijan,” Analysis and treatment of industrial wastewater through chemical coagulation-adsorption process-A case study of Clariant Pakistan limited” , *American Institute of Physics*, 353 (2012) http://dx.doi.org/10.1063/1.4711199.
8. Noorullah Soomro, **Aziza Aftab**, M. A Alotalbi; “Dimension of yarn twist, An Innovative Techniques” *Sindh Univ. Res. Jour. (Sci. Ser.)* Vol. 47 (3) 415-418 (2015).
9. **Aziza Aftab** , Imran Nazir Unar , Hidayatullah Mahar, Sikander M. Almani, Sadiq Hussain and Muhammad Siddique; “MODELING OF REFRIGERATION BASED HYDROCARBON DEW POINT CONTROL PLANT” *Sci.Int.(Lahore*),28(4),3603-3608, 2016 ISSN 1013-5316;CODEN: SINTE 8 3603 July-August.
10. **Aziza Aftab**, Noorullah Soomro; “Eco-Friendly Ginning Technology for the Processing of Seed Cotton” *Sindh Univ. Res. Jour. (Sci. Ser.)* Vol.47 (2):265-266 (2015).
11. **A. Aftab**, S. F. A. SHAH, S. AZIZ, H.U.R. MEMON, M. U. DAHOT; “Bioaugmentation of Hydrocarbons using Bacterial species extracted from oil contaminated site” *Sindh Univ. Res. Jour. (Sci. Ser.)* Vol. 48 (2) (2016).
12. Mujeeb-ur-Rehman Soomro, Ghulam Hussain Jatoi, **Aziza Aftab Memon**, Shah Faisal Baloch1, Majida Parveen Soomro, Shahida Parveen Soomro, Shabana Memon, Tariq Ali Baloch, Sadam Hussain Jatoi1, “EFFECT OF ZINC APPLICATION ON CHLOROPHYLL CONTENT IN DIFFERENT RICE GENOTYPES UNDER SODICITY STRESS CONDITIONS” *Pak. J. Biotechnol.* Vol. 13 (2) 141 -146 (2016) ISSN Print: 1812 -1837.
13. Tajnees Pirzada1, Mir Munsif Ali Talpur, **Aziza Aftab**, Maria Kaleem, Bushra Shahab; “Hydrochemical analysis and evaluation of groundwater quality and agriculture soil of Khairpur Taluka, Sindh, Pakistan” *Pakistan Journal of Analytical and Environmental Chemistry*, Vol 17, No. 1 (2016) pp 23-32.
14. **Aziza Aftab Memon**, Shaheen Aziz Shaikh, Hidayatullah Mahar, Marui Uqaili, Sadiq Hussain, Ahmad Palari, Talal Ashraf; “UNDERGROUD COAL GASIFICATION AND UTILIZATION OF SYNGAS IN VARIOUS FIELDS” *JOURNAL OF FACULTY OF ENGINEERING & TECHNOLOGY”,*Vol 23, No 1 (2016).
15. Mohammad Siddique ,Suhail Ahmed Soomro, **Aziza Aftab**, Zahid Naeem Qaisrani,Abdul SattarJatoi, Asadullah,Ghulamullah khan,Ehsanullah Kakar; “COMPARATIVE STUDY OF COAL AND BIOMASS CO-COMBUSTION WITH COAL BURNING SEPARATELY THROUGH EMISSIONS ANALYSIS” *Pakistan Journal of Analytical and Environmental Chemistry*, Vol 17, No. 1 (2016) pp 18-22.
16. **A. Aziza**, A. Shaheen, F. A. Shah, A. Nawaz and A. Talal; “PRODUCTION OF SYNTHETIC (SYN) GAS FROM AGRICULTURAL WASTE USING FIXED BED GASIFIER” . *Pakistan Journal of Agriculture, Agricultural Engineering and Veterinary Sciences,* Vol *3*2 (2), (2016):229-236.
17. M.R. Naich, M. Hassan1, **A.A. Memon**, I.N. Unar, H. Mahar, S.Hussain3, K.S. Akhtar; **“**ADSORPTION OF TRANSITION-METAL ATOMS ON TWO-DIMENSIONAL HEXAGONAL BORON NITRIDE MONOLAYER” *Journal of Pakistan Institude of Chemical Engineers* ,Volume 37.
18. Hafiz Anees Rehman, Syed Farman Ali Shah, **Aziza Aftab** and Zeenat M. Ali; “Trans-Esterification of Poultry Skin Fat to Produce Biodiesel*”* *Pak. J. Anal. Environ. Chem*. Vol. 17, No. 2 (2016) 143 – 147.
19. **A A Memon**, F A Shah and N Kumar; “Bioethanol production from waste potatoes as a sustainable waste-to-energy resource via enzymatic hydrolysis” Earth and Environmental Science (EES) (ISSN: 1755-1315)” (12-14 June, 2017).
20. Shagufta Ishteyaque1 , Shahina Naz, **Aziza Aftab2** , Arshad Faruqui3 and Asia NeelamJCBPS; “Analysis of Barrier Properties of Low Density Polyethylene films (LDPE) after addition of natural Polyphenolic extract” Journal of Chemical, Biological and Physical Sciences February 2018 – April - 2018, Vol. 8, No. 2; 210-219. E- ISSN: 2249 –1929 [DOI: 10.24214/jcbps.A.8.2.21019.]
21. **Aziza Aftab Memon1** , Shaheen Sheikh1 , Mohammad Siddique2 , Shagufta Ishtiyaque3 , Abdul Sattar Jatoi Di-Methyl Ether (DME) Prospective in Terms of Conventional Fuels in Pakistan from Gasification of Aboriginal Coal J. Appl. Emerg. Sci., 2017, 7(2),pp156-165
22. Zulfiqar Ali Effend, Aisha Kousar**, Aziza Aftab Memon** “A Decision Support Technique to Design Solar Power System for Sindh Agriculture University Tandojam*“ IOSR Journal of Environmental Science, Toxicology and Food Technology (IOSR-JESTFT) e-ISSN: 2319-2402,p- ISSN: 2319-2399.Volume 8, Issue 7 Ver. I (July. 2014), PP 25-36* [*www.iosrjournals.org*](http://www.iosrjournals.org)

1. *.* Shaheen Aziz, Farman Ali Shah, Hafeez Ur Rehman, Suhail Soomro, **Aziza Aftab Memon**, Rajoka “Hyper Production of Ethanol from Cane Molasses at Optimized Agitational Intensity Using Indigenous Thermotolerant Kluyveromyces Marxianus” *Australian journal of basic and applied sciences, V-5, Issue 3, 750-754., 2012*.