

**Engr: Dr. Khan Muhammad Qureshi S/O Shah Muhammad Qureshi.
PhD. Chem (Malaysia) M.Eng. Chem (Pak), B.Eng. Chem (Pak), B.Sc. Industrial
Technology (Pak), D.A.E Mechanical Technology (Pak).**

✉ Near Rahmaniya Urdu Primary School, Hardas Pura, Shahdadpur, District Sanghar (68030), Sindh, Pakistan.

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Personal Statement

I understand the crucial importance of education when I was in high school. As a student of engineering University, I'll do my best to earn a degree with honors and to contribute to the university. Practicing in the research labs and developing new research and teaching environment is the dream to work for a any institution where the career translates into continual opportunities to expand the knowledge on what can be achieved by perseverance and carrying it out with derived knowledge from it for research and development.

Mehran University of engineering and Technology

Pakistan 2003 to date

Assistant Professor

1. Conducting undergraduate and Post graduate lectures.
2. Conducting research projects on undergraduate and Post graduate level.

Experience:

1. Two year teaching experience in (GHCT) Nawabshah from (1990 to 1992).
2. X- POFs officer from (1994 to 1997).
3. Three month experience as Pile load testing engineer at LBOD project in Sanghar.
4. Part Time Instructor at GMI Tando Adam since 13-12-2000 to 13-07-2003.
5. Working as part time instructor at GPI Sanghar since 18-12-2002 to 13-07-2003.
6. Presently working as Assistant Professor since 2003 till today in department of Chemical Engineering Mehran University of engineering and Technology Sindh Pakistan.

Education:

University Malaya, Kuala Lumpur Malaysia

2015-2021

Ph.D. Chemical Engineering (Pyrolysis Reactor Design)

Research Methodology, Bhasha Malayo.

Mehran University of engineering and Technology Jamshoro Sindh Pakistan

2008-2010

ME Chemical Engineering (First Class) CGPA-3.07

Processes Dynamics and control, Chemical Reactor Design, Combustion Technology, Transport Phenomena, Numerical Analysis, Separation Process, Particle Dynamics, Bio-technology, Statical Methods and Mathematics.

Mehran University of engineering and Technology Jamshoro Sindh Pakistan

1997-2002

BE Chemical Engineering (First Class) CGPA-3.06

Chemical Process Industries-I, Basic Chemical Engineering, Chemical Process Technology, Fluid & Particle Mechanics, Heat and mass transfer, Chemical Engineering Thermodynamics, Unit Processes, Chemical Engineering kinetics, Process Instrumentation and Control, Fuel & Combustion, Environmental Engineering, Nuclear Engineering, Chemical Plant Design, Instrumentation and Control Petroleum, Petroleum Refinery Engineering, Industrial Management & Process Economics, Transport Phenomena, Environmental Engineering and Management, Numerical Analysis with Computer Application, Design Project.

Mehran University of engineering and Technology Jamshoro Sindh Pakistan

1995-1997

B.Sc. Industrial Technology (First Class 2nd Position) CGPA-3.00

Math's, Applied Physics, Applied Chemistry, English, Electrical Technology, Basic Electronics, Industrial Management, Chemical Process Technology, Surveying and leveling, Mechanical Engineering, Engineering Mechanics, Unit Operations, Industrial Chemistry.

Sindh Board of Technical Education Karachi, Pakistan

1987-1990

Diploma of Associate Engineering in Mechanical Technology (First Class 1st Position) CGPA-3.20

Applied Math's, Applied Physics, Applied Chemistry, English, Islamyat, Pakistan Study, Metallurgy, Machine Tool Operation, Engineering Drawing, Machine Drawing, Pattern making, Foundry Shop, Mechanical Engineering, Theory of Machines. Applied Thermodynamics. Work Shop Practice.

Government Boys High School Shahdadpur Sindh, Pakistan

1979-1984

Matriculation (SSC) (B-Grade) 63 %

Mathematics, Physics, Chemistry, Biology, English, Islamyat, Pakistan Study.

Academic Projects:

Ph. D: Thesis

PYROLYSIS OF PALM OIL SOLID WASTE USING HELICAL SCREW FLUIDIZED BED REACTOR

The Ph.D. work is focused on new designing of pyrolysis reactor in Malaysia. This project work has demonstrated the performance of novel helical screw fluidized bed reactor. Furthermore, this is entirely a different method of biomass fluidization without using any inert gas and particulate separation device for bio-oil production at slow, medium and fast pyrolysis mode.

M.Engg: Thesis

OPTIMIZATION OF ACID CONCENTRATION IN HYDROLYSIS OF CELLULOSIC MATERIAL (BANANA WASTE) FOR THE PRODUCTION OF ETHANOL ON LABORATORY SCALE.

The thesis work is focused on the study of agriculture waste for value added product recovery of ethanol, methods, types, Principle focus of the study to optimize the acid concentration, temperature and particle size used for ethanol production.

B. Engg: Thesis

TO STUDY THE CONTROL PARAMETERS OF UREA IN CO₂ STRIPPING AND GRANULATION PROCESS.

The main focus of thesis is to cover design strategy, Material & Energy balance, Cost estimation, Material Construction, Instrumentation and control and safety procedures.

ISI Publications:

1. Shaheen Aziz, Suhail A. Soomro, A. H. Tunio, Imran Nazir1, **K. M. Qureshi** and Razia Begum, "Environmental & Health Hazards of Fly Ash & Sox from FBC Power Plant at Khanote *Pak. J. Anal. Environ. Chem.*, Vol. 11, No. 2 (2010) 56-62.
2. **Khan Muhammad Qureshi**, Andrew Ng Kay Lup, Saima Khan, Faisal Abnisa, Wan Mohd Ashri Bin Wan Daud "A technical review on semi-continuous and continuous pyrolysis process of biomass to bio-oil", *Journal of Analytical and Applied Pyrolysis* vol. 131, pp. 52-75, 2018, Q1, ISI Journal with impact factor 5.541 (Published in 2018).
3. **Khan Muhammad Qureshi**, Faisal Abnisa, Wan Mohd Ashri Bin Wan Daud " Novel helical screw fluidized bed reactor for bio-oil production using slow pyrolysis mode: a preliminary quantitative study ", *Journal of Analytical and Applied Pyrolysis*, Q1, ISI Journal with impact factor 5.541 (Published in 2019).

4. Saima Khan, Andrew Ng Kay Lup, **Khan Muhammad Qureshi**, Faisal Abnisad, Wan Mohd Ashri Wan Daud, Muhamad Fazly Abdul Patah, "A review on deoxygenation of triglycerides for jet fuel range hydrocarbons", *Journal of Analytical and Applied Pyrolysis* 140 (2019) 1–24. *Journal of Analytical and Applied Pyrolysis*, Q1, ISI Journal with impact factor 5.541 (Published in 2019).
5. **Khan Muhammad Qureshi**, Andrew Ng Kay Lup, Saima Khan, Faisal Abnisa, Wan Mohd Ashri Bin Wan Daud "Optimization of palm shell pyrolysis parameters in helical screw fluidized bed reactor: Effect of particle size, pyrolysis time and vapor residence time", *Cleaner Engineering and Technology*, Q1, ISI Journal with impact factor 2.8 (Published in 2021).
6. **Khan Muhammad Qureshi**, Andrew Ng Kay Lup, Saima Khan, Faisal Abnisa, Wan Mohd Ashri Bin Wan Daud" Pyrolysis of Palm Shell using Helical Screw-Fluidized Bed Reactor: Effect of Heating Rate", *Brazilian Journal of Chemical & Engineering*" Q1, ISI Journal with impact factor 2.37 (Published in 2021).
7. **Khan Muhammad Qureshi**, Andrew Ng Kay Lup, Saima Khan, Faisal Abnisa, Wan Mohd Ashri Bin Wan Daud " Effect of temperature and feed rate on pyrolysis oil produced via helical screw fluidized bed reactor", *Korean Journal of Chemical Engineering*. Q1, ISI Journal with impact factor 2.9 (Published in 2021).
8. Mariam Mir Memon*, Muhammad Idress Memon, Hafeez-ur-Rehman, Muhammad Suleman Memon, **Khan Muhammad Qureshi**, Khadija Qureshi, Imran Nazir Unar "Synthesis of Bio-Adsorbent for Removal of Fluoride from Groundwater – A Column Study", *QUEST RESEARCH JOURNAL*, Vol. 19, NO. 2, PP. 91–97, JUL-DEC, **2021**. (HEC Approved Journal).
9. Saima Khan, **Khan Muhammad Qureshi**, Zeng Luyao, Andrew Ng Kay Lup, Muhamad Fazly Abdul Patah, Wan Mohd Ashri Wan Daud, Role of Ni–Fe/ZSM-5/SAPO-11 bifunctional catalyst on hydrodeoxygenation of palm oil and triolein for alternative jet fuel production, *Biomass and Bioenergy*. Q1, ISI Journal with impact factor 5.061 (Published in **2022**).
10. Anand Parkash, Mazharul Islam, **Khan Muhammad Qureshi**, and Adeel Mukhtar Arain," MOF-74 Derived Carbon-Stabilized Pt/Cu-PC-900 Nanoparticles: Ultra-low Pt Content and Improved Electrocatalytic Activity", *ECS Journal of Solid-State Science and Technology*, Vol. 11, PP. 091015, **(Published in 2022)**.
11. Anand Parkash, Mazharul Islam, Abdul Majeed Pirzada, and Khan **Muhammad Qureshi**, "Bimetallic Gold-Palladium Nanoparticles: Applications in Methanol and Ethanol Oxidation Reactions", *ECS Journal of Solid-State Science and Technology*, Vol. 11, PP. 101005, **(Published in 2022)**.
12. Jaffar Hussain, Zeenat M. Ali, **Khan Muhammad Qureshi**, Naila Khawaja, Syed Farman Ali Shah," Production of Biodiesel from *Jatropha Curcas* by using Heterogenous Dopped Zinc Oxide", *Journal of Nanoscope*, Vol. 03, PP.155-164 **(Published in 2022)**.
13. Samreen Taj Mastoi, Abdul Sami Channa, **Khan Muhammad Qureshi**, Waheed Ali Khokhar," Assessment of water quality and quantity of surface and subsurface drainage system in the command area of Bareji Distributary Mirpurkhas Sindh, Pakistan", *Journal of Engineering Science & Technology,QUEST*, Vol. 20, PP.127-137, **(Published in 2022)**.

14. Saima Khan, **Khan Muhammad Qureshi**, Zeng Luyao, Andrew Ng Kay Lup, Muhamad Fazly Abdul Patah, Chong Yang Chuah, Wan Mohd Ashri Wan Daud., "Jet fuel production via palm oil hydrodeoxygenation over bifunctional zeolite mixture supported Ni catalyst: Effect of Si/Al ratio," *Biomass and Bioenergy*, Vol. 185, PP. 107237, **(Published in 2024)**.

Conference Papers:

1. Oral Presentation delivered at Mehran University of engineering & Technology "Latest Trends in Waste Treatment & Management in Developed Countries and Pakistan". (January 8, 2008) In collaboration with Brunel University West London.UK. at **Pakistan**.
2. Oral Presentation delivered in 1st International Chemical Engineering Conference (**ICEEC-2010**) on 26-28 Nov 2010 Under "World Academy of research and publication" at **Kuala Lumpur Malaysia**.
3. Oral Presentation in International Conference on Process Engineering and Advanced Material (**ICPEAM**) on 12-14 June 2012 at Kuala Lumpur Convention Centre, **Kuala Lumpur, Malaysia**.
4. Oral Presentation delivered in 6th International Chemical Engineering Conference (**ICEEC-2010**) on 27-29 Dec 2015 Under "World Academy of research and publication" at **Kuala Lumpur Malaysia**.
5. 6th International Chemical and Environmental Engineering Conference (**ICEEC-2015**) 27-29 December 2015, Hotel Royal, Jalan Walter Grenier, 55100, **Kuala Lumpur, Malaysia**.

Workshops/Seminar Attended:

1. Industrial Hazards and Safety (6th September 2005) at MUET.
2. Food Processing, Challenges and Opportunities in Pakistan. (April 23-25, 2007) In collaboration with HEC & Science Foundation.
3. Latest Trends in Waste Treatment & Management in Developed Countries & Pakistan. (January 8, 2008) in collaboration with Brunel University West London.UK.
4. Introduction to Gender and Environment. (10-15 November 2008) In collaboration with Brunel University West London UK "Under Waste Management Program" HEC, British Council.
5. Work Shop on "Gender Mainstreaming Environmental Decision Making & Education". (November 18, 2008) In Collaboration with Brunel University West London.UK "Under Waste Management Programme, British Council.

Book Chapters:

1. Value-Added Product Recovery from Banana Plant Waste: A sustainable Way for Development. (DOI 10.1007/978-3-7091-0109-4_33, @ Springer-Verlag/Win 2012).
2. A Promising Technology of Pressure into Power: A Case Study of Pressure into Power Approach in Gas Transmission Lines in Pakistan. (DOI 10.1007/978-3-7091-0109-4_11 © Springer-Verlag/Win 2012).

Awards /Certificates:

1. Certificate of "ACADEMIC EXCELLENCE" obtaining (1st Class 2nd B.Sc. Industrial Technology).
2. Certificate in Cricket as Best Player of the Tournament in (1988).
3. Certificate of Appreciation for Chemical Engineering Design Project Presentation Day on (29 May 2019).

Courses Completed:

1. **(TXGZ 6102)** Bahasa Malaysia Thirty hours Course from 17th Nov- 3 Dec: 2015 at Institute of Postgraduate Studies (IPS) University of Malaya, Kuala Lumpur Malaysia.
2. **(KXGX 6101)** Research Methodology six month course from Session 2015-2016, Semester 1. University of Malaya, Kuala Lumpur Malaysia.

Computer Skills:

1. Programming in (BASIC/FORTRAN and MATLAB)
2. Aspen HYSIS, Aspen Fluent, HYSIS.
3. STATGRAPHICS Centurion XV. Version 15.2.11
4. Solid Works.
5. M.S. Office.

Training Received:

1. Six weeks Intern Ship training in Fertilizer Technology at FJFC/FFBL Bin Qasim Karachi.
2. Six-month training course in (machine shop) from Sindh small industries Nawabshah.
3. Six-month module-1 (computer sciences) from SBTE Karachi.
4. Two months Training in Popular Juice factory Tando Adam.
5. EndNote and Turnitin one day training on 9th Jan 2016 at University of Malaya, Kuala Lumpur Malaysia.
6. Three months Experience Certificate from RSL on "Pile Load Testing" LBOD Project,
7. Two Years Teaching Experience as "Junior Instructor" at Habib College of Technology Nawabshah.
8. Two Years Teaching Experience" at Government Polytechnic Institute Sanghar.

Undergraduate Thesis Supervised:

1. Optimization of acid concentration (hydrolysis) in production of ethanol from rice husk on Laboratory scale.
2. Design & Fabrication of "Solar Distillation Unit" on laboratory scale.
3. Desalination of Brackish water by solar energy.
4. Design and Fabrication of Batch Gasifier.
5. Energy Optimization of Distillery Process at Sugar Industry through Simulations.
6. Recovery of Energy from Bio-oil Aqueous Phase Using Biochar Catalyst.
7. The Potential use of banana Solid Waste for The Production of alternative Fuel by Pyrolysis.
8. Application of Bio-Char for Bio-Oil Upgradation.
9. Low-cost Transesterification of waste engine oil using marble dust as nano catalyst.
10. Conversion of waste Plastic bottles and egg shells into Synthetic Paper.
11. One Step Co-Pyrolysis of biomass for liquid fuel production.
12. Modelling of Hydrate Dissociation Temperature in Pure Methane, Ethane, Propane and mixed Clathrate Hydrate system.
15. Optimization of Operating Parameters in Pyrolysis Process: A Simulation Study using Response Surface Methodology.
16. Construction of Photo Catalytic fuel Cell for hydrogen Production from water.
17. Process design & Optimization of Urea Granulation Process.

Post graduate Thesis Projects:

1. Development of Process Strategy of Microbial Cell for the Treatment of Saline Water. (PhD.) Student
2. One-Step Catalytic Pyrolysis of Municipal Solid Waste for upgraded biofuel production. (M.E) Student
3. Computational Fluid Dynamics Modelling of solar water desalination unit. (M.E) Student.

Extra-Curricular Activities:

1. X-Vice Captain of Cricket Team at GBHSS (1983).
2. Playing Cricket, Fishing, Journey and Book reading (Science and Technology).

Registration:

Life member ship registered as Professional Engineer with Pakistan Engineering council Islamabad. Registration No: CHEM /4538.

Key skills:

Technical and Management Skills

1. Instrument designing (PID), Process Flow Diagram (PFD), Conceptual Engineering Design Specifications (Equipment Specifications, Data for Instruments, CFD Modelling, Matlab Modelling).
2. Unit operation selection, Plant commissioning and Operation.
3. Laboratory, pilot plant and commercial plant data Collection and analysis.

Personal Skills

1. Ability to communicate orally, in writing, or via electronic means being able to motivate and encourage others, whilst taking the lead.
2. Ability to see opportunities and to set and achieve goals.
3. Ability to handle change and adapt to new situations.
4. Having energy and enthusiasm in pursuing projects

Reference

To be Provide upon Request.