

Junaid Akhlas

Ph.D.

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WORK EXPERIENCE

Assistant Professor – Polymer & Petrochemical Engineering Department. NED University of Engineering & Technology (Pakistan). Fluid Mechanics, Mechanics of Materials, Process Control & Instrumentation, and Separation Processes.	April 2017 – To date
Lecturer – Polymer & Petrochemical Engineering Department. NED University of Engineering & Technology (Pakistan). Fluid Mechanics, Mechanics of Materials, Process Control & Instrumentation, and Separation Processes.	March 2010 – March 2017
Materials Warehouse Officer. Engro Polymer & Chemicals Limited (Pakistan). Development of warehouse manual. Receipt, inspection, binning, and system entry of the operational spares for the expansion plants. Issuance of monthly stock transaction summary reports to finance and related process interfaces.	July 2009 – March 2010
Commissioning Engineer Chlor-Alkali Plant. Engro Polymer & Chemicals Limited (Pakistan). Support in the installation of electrolyzer cell frames. Box-up inspections, mechanical punch-listing and machinery test runs.	March 2009 – June 2009
Planning Engineer. Engro Polymer & Chemicals Limited (Pakistan). Shutdown Planning, Project Progress Reporting, Project Risk Management, Project Scheduling Support, Project Status Reviews.	March 2007 – March 2009
Intern. Fauji Fertilizer Company Limited (Pakistan). Intern. Pakistan International Airlines (Pakistan).	June 2005 – July 2005 December 2005

QUALIFICATION

PhD in Chemical Engineering. University of Padua (Italy). <i>On Erasmus Mundus Fellowship</i> Project: Petcoke & Coal Exploitation: Development of Environment Friendly Processes. Supervisor: Prof. Alberto Bertucco Highlights: Use of process simulation to develop, analyse, and optimize novel gasification schemes and treatment processes for the removal of heavy tars and trace elements from syngas. Analytical study of the effect of various reactor configurations on the sizing of biological wastewater treatment basins. Thermogravimetric analysis and kinetic model determination for the pyrolysis and combustion of various fuels.	2013-2017
Master of Chemical Engineering. NED University of Engineering & Technology (Pakistan). Masters Studies on Exchange. University of Padua (Italy). <i>On Erasmus Mundus Scholarship</i> Project: Simulation of Coal Gasification Process with Steam using Aspen-Plus™ Model. Supervisor: Prof. Alberto Bertucco.	2010-2013 2011-2012
Bachelor of Mechanical Engineering. NED University of Engineering & Technology (Pakistan). <i>First Class First Position out of 141 Candidates</i> Project: Study and Design of a 5-ton Truck-Mounted Telescopic Crane with a view to assist Reverse Engineering in Pakistan.	2003-2007

RESEARCH CONTRIBUTIONS

Akhlas J, Ruggeri F, Bertucco A (2015). Simulation of Steam Gasification of Coal with PreCombustion enabling Cleaner Coal Conversion. In: ICheAP 12, International Conference on Chemical & Process Engineering. Chemical Engineering Transactions, vol. 43, p. 2017-2022, Milan, 19-22 May 2015. DOI: 10.3303/CET1543337

Akhlas J, Baesso S, Bertucco A, Ruggeri F (2015). Coal gasification by indirect heating in a single moving bed reactor: Process development & simulation. AIMS Energy, vol. 3(4), p. 635-665, ISSN: 2333-8334. DOI: 10.3934/energy.2015.4.635

Akhlas J, Bertucco A, Ruggeri F, Guido C (2017). Treatment of Wastewater from Syngas Wet Scrubbing – Model-based Comparison of Phenol Biodegradation Basin Configurations. The Canadian Journal of Chemical Engineering. DOI: 10.1002/cjce.22848

SKILLS

English	Fluent
MS Office	Proficient
Aspen Plus™	Proficient
PRO-II™	Intermediate