

SAUD HASHMI

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Professional Profile

- Lecturer offering 3 years of teaching experience in the Department of Chemical and Polymer & Petrochemical Engineering. In-house trainings and attend various lectures on teaching tools.
- Shift Engineer with more than 2 years of experience. Monitoring & optimization of plant parameters to achieve production target with best conversion efficiencies. Monitored plant performance against approved targets on a day-to-day basis and identified existing or potential technical problems.

Experience

NED University of Engineering & Technology, Karachi, Pakistan

2009 to Present

Lecturer

Appointed as lecturer in the department of Chemical Engineering.

- Developed course plans that met varied industrial needs, evaluated and assessed student development, and implemented study methodologies to enhance student's progress.
- Utilized varied teaching techniques to meet the needs of visual, kinesthetic and auditory learners for all subject areas.
- Identified areas of difficulty and prepared lessons to assist students in overcoming them.
- Set high expectations for student behavior, maintaining standards through classroom management techniques and positive reinforcement, resulting in increased positive student behavior and learning, emphasizing respect for all.
- Conducted classroom and lab instruction in Chemical and Polymer & Petrochemical Engineering.
- Designed and implemented lessons involving multimedia.
- Designed classroom presentations to meet students' needs and abilities.
- Handled lecturing responsibilities successfully.
- Arranging class schedules for whole academic year.
- Manage scholarships and evaluate the deserving students.
- Design practical manual for the laboratories.
- Conduct practical with demonstration at laboratories of the corresponding courses.
- Arrange lectures from industrial professionals'.

PAKISTAN PTA LIMITED (A UNIT OF ICI WORLDWIDE GROUP)

2007 to 2009

Chemical Engineer**Plant Operation Responsibilities**

- Responsible for Monitoring & optimization of plant parameters to achieve production target with best conversion efficiencies.
- Monitored plant performance against approved targets on a day-to-day basis and identified existing or potential technical problems.
- Able to Trouble shoots plant problems & handles emergencies accordingly.
- Responsible for Safe & smooth operation of oxidation plant to achieve production target.
- Responsible for Safe handover of plant equipment for corrective & preventive maintenance.
- Coordinate operational activities between oxidation, purification & utilities plant.
- Responsible for smooth start-up & shut down of oxidation plant.
- Preparation of daily, weekly and monthly report of plant activities.
- Prepared DCS & area check lists for process parameters monitoring.
- Calculated vessels acetic acid hold up & AA losses of oxidation plant.
- Carry out mass balance of reaction area.
- Carry out modification at thermal oxidizer unit.
- Prepared isolation plans for over hauling at filtration, drying and compressor area.
- Assisted two over hauls independently at filtration and compressor area.
- Participated in incident investigations and problem solving for the oxidation plant.
- Prepared operating procedure for online fin fan cleaning.
- Responsible for the T raining of apprentice operators at oxidation unit.
- Carry out validation and prepared validation papers for apprentice operators.
- Responsible for conducting safety audits & safety talks.
- Responsible for issuing work permits, hot work & vessel entry permits.
- Ensuring compliance of use of PPE's by operating / maintenance Personnel during equipment / piping first break ins activities.
- Conducting fire & toxic gas release drills.

Achievements

- **Changed the solvent ratio at oxidation:** This changed not only increased the production of CTA but also overcome the limitation of rovac's (Filtration Unit).
- **On Line cleaning of fin fans:** This improved the performance of Distillation column and safe the production loss.
- **Optimization of catalyst consumption:** This was done by providing sum up relay at flow transmitter of catalyst solution tank on DCS board.
- **Modification at Thermal oxidizer unit:** Providing raw water connection in place of demin water for quenching purpose at quench pot. This saves the loss of demin water.

COMPUTER SKILLS

Technical Software

- MATLAB R2009b, Origin Pro 8.
- Maximo.
- Delta-V. (HMI).
- Lotus Notes.
- Process Explorer and MIS.
- ValSpeQ.

Operating System & Utilities

- ChemDraw Ultra 8.0, EndNote.
- TAOrchestrator72.
- Microsoft Office (Word, Excel & Power point).
- MS Project & Visio.

Training

1. Topic: **Effective Teaching Techniques**

Held at: NED University of Engineering & Technology, Karachi. September 2009.

Duration: 15 days

Contents:

- This training covers the latest methodologies to improve the lecture delivering criterion.
- Use of multimedia resources and web modules for better learning.
- Computer based flash animated process descriptions.

2. Topic: **Duties and responsibilities of Invigilator**

Held at: NED University of Engineering & Technology, Karachi. September 2009.

Duration: 01 day

Contents:

- Training covers the duties and responsibilities of Invigilator, and general procedures in conducting examination.
- Monitoring and reporting procedure.

3. Topic: **Safety in Handling Laboratory Chemicals**

Held at: NED University of Engineering & Technology, Karachi. October 2009.

Duration: 03 days

Contents:

- Awareness of chemical laboratories hazards
- Standard procedures in handling laboratory chemicals
- Remedial measures in case of accidents

4. Topic: ***Duties and responsibilities of class advisor***

Held at: NED University of Engineering & Technology, Karachi. April 2010

Contents:

- Pursued new learning tools to enhance educational programs.
- Awarded top performance rating in principal's evaluations due to individual assistance designed for students with special needs.
- Utilize advanced technology skills to create and publish training and development materials for individual and classroom distribution.
- Collaborated with colleagues in developing a program enabling teachers to better understand ADD in students.
- Developed entire curriculum, including social and communications skills. Implemented lesson plans of teachers to effectively teach elementary students in a variety of subjects.
- Assisted students by providing individualized instruction based on observation. Supervise entrance examinations.

5. Topic: ***Presentation and Communication Skills***

Held at: NED University of Engineering & Technology, Karachi. May 2010

Contents:

6. Topic: ***Theoretical /Practical Safety & Fire fighting training.***7. Topic: ***Skill improvement course*** on compressors, turbines, pumps, heat exchanger, valves and instrumentation.

Seminars / Conferences / Symposia / Lectures / Workshops attended

1. Advancement in solar cell technology at Chonbuk National University South Korea, 2011.
2. Hydrogen Technologies – Market presentations at NED UET , 2010.
3. Air quality and global warming workshop at NED UET , 2010.
4. Bio-diesel Alternative fuel for the present and future at NED UET , 2010.
5. Technological advances for treating oily production at NED UET , 2009.

Oral Presentations at Conferences

1. "Influence of Zwitterionic Monomer on the Rheology of NIPAM-based Copolymer Solutions", Fall Meeting of the Korean Society of Rheology, Jinju South Korea, 2012.
2. "Understanding the Swelling and Rheological Properties of NIPAM-Based Hydrogels Containing Zwitterions and MWCNTs," Meeting of the Korean Society of Rheology, Seoul, 2012.

Journal Papers

1. Mohammad-Vatankhah-Varnoosfaderani, Amin GhavamiNejad, **Hashmi S**, Florian J. Stadler "Mussel-Inspired pH-triggered Reversible Foamed Gel – the Surprising Effect of Water", ChemComm ID CC-COM-11-2012-038209, Under Review.
2. Mohammad-Vatankhah-Varnoosfaderani, **Hashmi S**, Amin GhavamiNejad, Florian J. Stadler "Mussel-Inspired Hydrogel with Reversible Sol-Gel Transition by Interaction of Catechols with Boric Acid", Macromolecules ma-2012-02465y, Under Review.
3. **Hashmi S**, GhavamiNejad A, Obiweluzor F, Vatankhah-Varnoosfaderani M, Stadler FJ, "Supramolecular Interaction Controlled Diffusion Mechanism and Improved Mechanical Behavior of Hybrid Hydrogel Systems of Zwitterions and CNT", Macromolecules 2012 DOI: 10.1021/ma301366h, Macromolecules, 2012, 45 (24), pp 9804–9815.
4. **Hashmi S**, Obiweluzor F, GhavamiNejad A, Vatankhah-Varnoosfaderani M, Stadler FJ, "On-line Observation of Hydrogels during Swelling and LCST-induced changes", Korea-Australia Rheology Journal 2012, 24, 3, 191-198.

Under-graduate Courses and Laboratories

Develop practical manual for organic synthesis and conduct the laboratory successfully.

Developed specification for petroleum refining laboratory, bid evaluation of equipments and set-up laboratory manual.

Teaching in following courses and conducting their corresponding laboratories.

1. Unit Processes in organic synthesis
2. Petroleum and Petrochemical Products
3. Petroleum Refining and Petrochemicals
4. Fluid Mechanics
5. Thermodynamics
6. Petrochemical Processes

Education

PHD CHEMICAL ENGINEERING

In Progress

Chonbuk National University South Korea.

Research Interest

Synthesis and Rheological characterization of Bio compactable polymer solutions and Hydrogels.

Structure property relationship of stimuli responsive hydrogels.

ATRP, RAFT and free radical polymerization.

Self healing hydro gel and soft-mater with network based on supra-molecular interactions.

M.E ENVIRONMENTAL

NED University of Engineering & Technology, Karachi.
M. Engg.(course work) of 30 credit hours with 3.25/4.0 GPA.

December 2010

B.E, Chemical

Dawood College of Engineering & Technology, Karachi.
Secured 77% marks (aggregate) in 04 year program.

December 2005

Affiliations

Member of Pakistan Engineering Council, bearing registration no. CHEM/6907, Karachi.

2008 to Date

Personal Information

Date of Birth: 16th February 1984

Marital Status: Married.

Domicile: Karachi.