

Lua'y A. Zeatoun

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Personal Background

Date of birth: November 4th, 1963
Nationality: US
Civil status: married / 6 children

EDUCATION

Ph.D., Chemical Engineering, 1997; Case Western Reserve University, Cleveland, Ohio. GPA:3.86/4
M.Sc., Mechanical Engineering (Thermal Power), 1988; Jordan University of Science & Technology, Irbid, Jordan. Excellent average (85/100)
B.Sc., Chemical Engineering, 1985; University of Technology, Baghdad, Iraq.
Very good average (87/100) and ranked first of the classes every year.

WORK EXPERIENCE

Erasmus+ Programs Participation

EGREEN, ELEGANT, WASEQ and INNOELA

Chairman of Chemical Eng. Dept.

2017- 2019; Jordan University of Science & Technology, Irbid, Jordan

Associate Professor

2007- 2023; Jordan University of Science & Technology, Irbid, Jordan

- * 9 undergraduate courses in Chemical Engineering: Reaction Eng Mass Transfer Operations, Separation processes, Air pollution, Water and Wastewater Treatment, Summer Training, Unit Operation Lab Fluid lab and Heat Transfer Lab.

- * 4 graduate courses: Advanced Transport Phenomena, Advanced Air Pollution, Advanced water and Wastewater Treatment and Advanced Mass Transfer.

Assistant Professor

1998-2007; Jordan University of Science & Technology, Irbid, Jordan

- * 15 undergraduate courses in Chemical Engineering: Air pollution, Water and Wastewater Treatment, Mass Transfer Operations, Separation Processes, Applied Numerical Methods for Chemical Engineering, Chemical Reaction Engineering, Chemical Reactor Design, Petroleum Refining

* Supervision of 9 master students

1. Faten Ibrahim Qarqaz, Phenol and Heavy Metals Removal from Aqueous Solutions using Fig Leaves, 2006.
2. Samiha Mohammed Shehadeh, Adsorption of Phenol and Heavy Metals onto Plant Adsorbents using Packed Bed, 2006.
3. Refat Mahmoud Al-Shannaq, Binary Vapor-Liquid Equilibrium of MTBE + Ethyl alcohol and MTBE + Isopropyl alcohol systems, 2006.
4. Nusybah A. Al-Amayreh, The Study of Air Quality at Engineering Workshops of JUST, 2018.
5. Mai A. Bani Saied, Study of Ambient Factors Affecting the Level of Indoor Air Quality at Different Hospitals, 2018.
6. Amani Bani Khalid, Kinetics of Photocatalytic Degradation of COD in Aqueous Dispersions of Nanoparticles under UV Irradiation, 2022.
7. Bilal Mahmoud Abu-Zraiq, Study the Cyclone Effect on Gas- Pollutants Concentration of JUST Medical-Waste Incinerator, 2023.
8. Haitham Meqdadi, Air pollution measurements with computational modeling of indoor particulate matters in a petroleum refinery area, 2023 started.
9. Omar Al_Rabay'ah, Evaluating and Forecasting Ambient Air Quality in Central Amman: A Comparative Study between Statistical Method and Neural Network Models, 2023 started.

Senior Research Associate

Summer, 2001- 2004; Case Western Reserve University, Cleveland, Ohio

- * Study the kinetics of titania formation.
- * Modeling piston reactor using Fluent.

Visiting Researcher

Summer, 2000; Case Western Reserve University, Cleveland, Ohio

- * Renovation of Membrane experiment for undergraduate lab.

Summer, 1999; Case Western Reserve University, Cleveland, Ohio

- *Setup an experiment to study the membrane properties using TGA and dilatometer.

Connection with Industry/ Faculty for Factory

Summer, 2008; Process Cooling-System Design for plastic recycling factory.

Summer, 2007; Cost and Process Optimization of Salt Dryer for salt factory.

Summer, 2006; Production of Pharmaceutical Salts for salt factory.

Environmental Auditing of Ready Mix Factories for cement.

Plant Manager

1990-1991; Al-Nahiya Slurry Seal & Asphalt Emulsions, Abu Dhabi, U.A.E.

- *Production of cold asphalt emulsion.
- *Application of slurry seal for pavement.

*Marketing.

Field Engineer

1988-1990; Central work shop of Public Security Dept, Amman, Jordan

- *Auto maintenance.
- *Parts supply.

RESEARCH EXPERIENCE (Experimental & Modeling)

1999-2008; Jordan University of Science & Technology, Irbid, Jordan

- * Water and wastewater treatment using adsorption.
- * Air pollution monitoring.
- * Vapor-Liquid Equilibrium.
- * Fine-particle processing.
- * Fluent simulations for piston reactor.
- * Developing a method for tar sands extraction using polyaphrons.

1993-1997; Case Western Reserve University, Cleveland, Ohio

- * Growing transparent, oriented, and high quality CVD diamond films using open oxyacetylene torch.
- * Identifying morphology, thickness and quality of the synthesized films by SEM, Raman and X-ray diffraction.
- * Interfacing mass flow controllers by Lab VIEW for flame cycling.
- * Fluent simulations of 3-D hot filament CVD reactor, open and enclosed oxyacetylene torch.
- * Optimization of growth conditions of CVD diamond films by atmospheric oxyacetylene torch using STATGRAPHICS (statistical experimental design software).

1986-1988; Jordan University of Science & Technology, Irbid, Jordan

- * Developing a fluid-dynamics computer code GENMIX from single phase to two-phase calculations using Fortran language.

Reviewer

- *Engineering Journal of the University of Qatar.
- *Journal of Solid Waste Technology and Management.
- * International Journal of Low-Carbon Technologies.

PROFESSIONAL SOCIETIES

Air & Waste Management Association (USA), Society for the Advancement of Material and Process Engineering (SAMPE), USA and Jordanian Association for Engineers.

COMPUTER SKILLS

Software: Matlab, Fluent, Aspen, Chemkin (Chemical Reaction Kinetics), STATGRAPHICS, GENMIX (Computational Fluid Dynamics), LabVIEW, TurboCAD, Grapher and Microsoft Office (Word, PowerPoint, Excel).

Languages: FORTRAN, and G-Language.

Operating Systems: VMS, UNIX, and DOS

INTERESTS

Jogging, swimming, gardening and auto repairing.