

## RESUME

### PERSONAL INFORMATION:

Name : Khaled Mutlaq Eid RAWAJFEH  
Nationality : Jordanian  
Date and place of birth : 24-08-1953, Zarqa / JORDAN  
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Marital status : Married. Four children

### EDUCATION:

- G. S. E. C. (science) : 1971 Manama - BAHRAIN

- BSc Chem. Eng. (commended) : 1978 Polytechnic of South Bank (UK)

Options studied : Energy Engineering and Management

- Diplome D'etudes Approfondies (MSc) in Chem. Eng. : 1981 Institut National Polytechnique de Toulouse - FRANCE

Research subject : Fluid and particle mechanics:  
1) Design and study of a droplet classifier  
2) Determination of fluid velocity profiles by laser anemometry

- Diplome Docteur Ingenieur (PhD) in Chem. Eng. : 1984 Institut National Polytechnique de Toulouse - FRANCE

Research subject : Liquid/Liquid Extraction: Study of droplet breakage in a mechanically agitated sieve plate column: development of automatic experimental device for measurement of the breakage phenomena

### LANGUAGES:

Spoken, Read, and written : 1) Arabic Excellent  
2) English Excellent  
3) French Very Good

### AFFILIATION:

Jordanian Association of Engineers.

## **EXPERIENCE:**

- 1) Plant Engineer at the BP (Kent) Oil Refinery, England. May 1976 - April 1977. Day to day monitoring of the performance of an Aromatics plant at the refinery and conduction of test runs on the plant.
- 2) Project Engineer at the Arab Potash Company, JORDAN. Sep. 1978 - Nov. 1979. Technical and commercial evaluation of tender documents for the various items of equipment for the potash refinery.
- 3) Assistant Associe (Associate Assistant) at the Institut National Polytechnique de Toulouse, FRANCE. May 1984 - Dec 1984.  
Development of a software package, written in Pascal and 6502 machine language, for communication between a microcomputer (APPLE II+or APPLE IIe) and a MINITEL (special terminal supplied by the French Post and Telecommunications Authority) through the French National Telephone Network. The software also includes all the necessary utilities for the development of an information service. A contract was concluded with the Institut de Genie Chimique to commercialize the software.
- 4) Assistant professor at the Chemical Engineering Department at the Yarmouk University, JORDAN. July 1985 - Sep. 1986.
- 5) Assistant professor at the Chemical Engineering Department at the University of Jordan, JORDAN. Sep. 1986 to June 2001.
- 6) Associate professor at the Chemical Engineering Department at the University of Jordan, JORDAN. June 2001 to June 2008.
- 7) Chairman of the Chemical Engineering Department at the University of Jordan, JORDAN. Sep. 1988 to Sep. 1991.
- 8) Responsible staff member for Aspen Plus computer process simulator.
- 9) Member of the Industry and Mineral Resources committee at the Supreme Council of Science and Technology, JORDAN. Sep. 1988 to Sep. 1994.
- 10) Member of the Board of Directors of the Standards and Metrology Department. Ministry of Industry.
- 11) Member of Editorial Board of the Jordanian Engineer Journal. 1996 to 1997.
- 12) Assistant Dean for Student Affairs at the Faculty of Engineering and Technology at the University of Jordan. Sep. 1997 to Mar. 1999.
- 13) Vice Dean at the Faculty of Engineering & Technology at the University of Jordan. Mar. 1999 to Sep. 2001.
- 14) Dean of Student Affairs at the Hashemite University. Sep. 2001 to Feb. 2003.

- 15) Visiting Professor at Mutah University. Sep. 2003 to Sep. 2004.
- 16) Dean of Student Affairs at the University of Jordan August 2005 to August 2007.
- 17) Director of Consultation Center at The University of Jordan February 2011 to August 2011

## **SCOPE OF ACADEMIC WORK**

### **Teaching:**

#### **Under Graduate**

- Fundamentals of Chemical Engineering
- Advanced Transport Phenomena (momentum, energy and mass)
- Fluid mechanics
- Fluid mechanics laboratory
- Momentum and heat transfer
- Transport phenomena
- Chemical engineering modeling by statistical methods
- Chemical engineering modeling and analysis
- Mass transfer operations
- Mass transfer laboratory
- Engineering economy
- Supervision of practical projects
- Process dynamics and control
- Special topics: Separation processes
- Supervision of design projects:
  - Production of KCl from Dead Sea Brine
  - Production of Acetone
  - Production of Urea
  - Sea Water Desalination by MSF
  - Production of Ethylene Glycol
  - Production of KCl by Cold Crystallization
  - Production of Potassium Nitrate (Fertilizer Grade)
  - Production of Apple Juice
  - Production of Xylenes
  - Production of Orange Juice
  - Production of Tomato Products

#### **Graduate**

- Advanced momentum transfer.
- Advanced transport phenomena.
- Research supervision (MSc thesis):
  - 1) Recycle of Agricultural Waste Plastics in Jordan.
  - 2) Study of the Kinetics of KCl Crystallization in a Draft Tube Batch Crystallizer.
  - 3) Extraction of Uranium from purified wet process Jordanian phosphoric acid (28%): A Study of System Properties and Performance of a Pulsed Sieve Plate Column.

- 4) Simulation of a Carnallite Pan Fed by Concentrated Dead Sea Brine.
  - 5) Purification of Potassium Chloride produced in Jordan
- Examiner in many MSc thesis examination juries.

### **Committees:**

- Faculty of Engineering and Technology Council
- Faculty of graduate studies
- Computer advisory board at the Faculty of Engineering and Technology
- Computer committee at the Department of Chemical Engineering
- Tender committees for laboratory equipment
- Graduate and undergraduate study plans committees
- Chairman of a committee to evaluate Chemical Engineering Education in Jordanian Universities. Ministry of Higher Education - Jordan.
- Student training.
- Study plans committees (undergraduate and graduate).
- Staff recruitment committees

### **Research:**

Process modeling and Computer simulation, hydrodynamics of liquid extraction equipment, and solid liquid extraction.

### **SEMINARS AND CONFERENCES:**

- 1) 1987 Summer School for Chemical Engineering Faculty. American Society for Engineering Education, Chemical Engineering Division. southeastern Massachusetts University, August 1987. North Dartmouth, MA. USA.
- 2) West Asian Countries Regional Seminar on Safety in Use of Chemicals. Organized by ILO in collaboration with the Jordanian Occupational Safety and Health institute. Amman-JORDAN. Sept. 5 - 8, 1988. Presentation of a paper on the safe disposal of dangerous wastes.
- 3) Renewable Energy: Research and Applications. 1992 International Renewable Energy Conference (June, 1992). Amman: Mechanical engineering Department, University of Jordan. Vice Chairman of Technical Session IX-(A).
- 4) Jordanian Chemical Engineering Conference I (October 1993). Amman.
- 5) Workshop on Hybrid Technologies for Waste Minimization. July 1999. Colorado. USA.

## **PUBLICATIONS:**

- 1) K. Eid, et al. Development of an Automatic Apparatus for Experimental Study on Drop Breakage in a Sieve Plate Pulsed Column. International Solvent Extraction Conference 86, MUNICH. August 1986.
- 2) K. Eid, et al. Description of the Experimental Device for the Study of Drop Breakage in a Pulsed Sieve Plate Column. Documentation Report for the Institute für technische Verfahrenstechnik in CLAUSTHAL, Germany.
- 3) K. Rawajfeh and A. Tamimi. Analysis and Performance of an Extended Surface Tubeless Flat-Plate Collector. International Mediterranean Congress on Solar and other New Renewable Energy Resources. Antalya, TURKEY, Nov. 14-19, 1988.
- 4) K. M. Rawajfeh. Disposal of Dangerous Wastes. West Asian Countries Regional Seminar on Safety in Use of Chemicals. Amman - JORDAN, 1988.
- 5) A. Tamimi and K. Rawajfeh. Analysis and Performance of an Extended Surface, Tubeless, Flat-Plate Solar Collector. ENERGY, Vol. 15, No. 11, 1990, p963.
- 6) A. Tamimi and K. Rawajfeh. Explosion Assessment in the Storage Tanks of Crude and Light Petroleum Distillates. AMSE TRANSACTIONS, Vol. 7, No. 1, 1991, p1.
- 7) A. Tamimi, B. Kailani and K. Rawajfeh. General Safety Practice in Laboratories. AMSE TRANSACTIONS, Vol. 7, No. 1, 1991, p11.
- 8) K. Eid, et al., Drop Breakage in a Pulsed Sieve Plate Column. Chemical Engineering Science, Vol. 46, No. 7, 1991, p1595.
- 9) A. Tamimi and K. Rawajfeh. Testing Results of Tubeless Flat Plate Phase Change Solar Collectors. Heat Transfer Engineering, Vol. 12, No. 3, 1991, p46.
- 10) A. Tamimi and K. Rawajfeh. Principles of Energy Conservation in Industrial Processes. Pacific and Asian Journal of Energy, Vol. 2, No. 1, June 1992, p17.
- 11) N. M. Abu Rumman, N. J. Rabadi and K. Rawajfeh. Non Similar solution of Mixed Convection from Inclined Walls Embedded in a Porous Medium. Dirasat, Vol. 21B, No. 3, 1994.
- 12) A. Al-Matar and K. Rawajfeh. A Study of Extraction Equilibrium in the System: Phosphoric Acid Produced in Aqaba-Uranium-0.5M DEPA-0.125M TOPO Diluted in Kerosene. Dirasat, Vol. 22 B, No. 6, 1995.
- 13) K. Rawajfeh and A. Al-Matar. Generalized Equation for Calculation of Fractional Recoveries and Presentation of Data for Solvent Extraction Systems. Dirasat, Vol. 27, No. 1, 2000.

- 14) K. Rawajfeh and A. Al-Matar. Uranium Extraction from Purified Wet Process Jordanian Phosphoric Acid: a Development Study. Hydrometallurgy, 56, 2000.
- 15) K. Rawajfeh and Y. Mubarak. Study of the Effect of Some Parameters Influencing the Removal of Iron from Feldspar Found in the South of Jordan Using Hydrochloric Acid. Dirasat, Vol. 28, No. 1, 2001.
- 16) M. A. S. Hiyassat and K. M. Rawajfeh. Alternative Models for Finding Cumulative Paid Capital and Remaining Balance for a Uniform Series of Cash Flows. The Engineering Economist, Vol. 46, No. 3, 2001.
- 17) A. Tamimi and K. Rawajfeh. Lumped modeling of solar-evaporative ponds charged from the water of the Dead Sea. Desalination vol. 216 (2007) pp. 356-366.
- 18) ورقة عمل بعنوان "العنف الطلابي في الجامعات" قدمت في ندوة "دور الجامعات في تحقيق الأمن الشامل" في مركز الدراسات الإستراتيجية الأمنية على مدار يومي 12-13/3/2007 .