

## Motasem Saidan, PhD



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### SUMMARY

International experienced projects manager, with a demonstrated track record of innovation, research and development, and technical management. Fully responsible for leading multiple development projects simultaneously and working closely with cross-functional teams while achieving targeted costs, timing, and customer specifications. Extensive background in application of project management tools to development projects. Core competencies include:

- Research and development, process optimization, problem solving & trouble-shooting, technical consultation, and process improvements within the industries.
- Professional interests include technical research, health, environmental & Safety, sustainability and development in industry.
- Technical writing, Joint Venture negotiation, and MoUs & win-win agreement formulation.

Skilled in delivering solutions to common industrial problems using low-cost and state-of-art techniques.

Assistant Professor in the Chemical Engineering Department, Faculty of Engineering & Technology, University of Jordan.

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## EDUCATION

### **PhD in Chemical Engineering (Polymer Engineering)**

Darmstadt University of Technology- Darmstadt, Germany, 2005

### **MSc in Chemical Engineering**

University of Jordan- Amman, Jordan, 2001

### **BSc in Chemical Engineering**

University of Jordan- Amman, Jordan, 1998

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## HONORS

- Awarded a grant for "Application of self-healing polymer in paint industries" research by SRTD-EU program (2009-2010)
  - Awarded a grant for "Development of Jordanian Cost-Effective Nano Paints with Enhanced Properties" research by HCST, Jordan (2008-2010)
  - Awarded a grant for "Fabrication of PEM Fuel Cell" research by MoHE, Jordan (2009-2011)
  - Awarded One-year fellowship for post-doc at Chemical and Biomolecular Engineering, Georgia Tech, Atlanta, GA, USA (2005-2006)
  - Granted a three-year DFG fellowship for PhD at Darmstadt University of Technology- Darmstadt, Germany (2002)
  - Granted a two-year partial-scholarship for Chemical Engineering MSc degree, University of Jordan (1998-2001)
  - Granted a five-year scholarship for Chemical Engineering BSc degree, University of Jordan (1993-1998)
  - Awarded IASTE international training for Chemical Engineering, Public Power Corporation, Petolemais, Greece (1997)
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## WORK EXPERIENCES

**University of Jordan, Amman, Jordan**

**September 2012- to date**

### **Assistant Professor, Chemical Engineering Dept**

Responsible for teaching several undergraduate courses in industrial process safety, environmental engineering, pollution prevention and cleaner production. Moreover, supervising of BSc graduation project.

**Princess Sumaya University for Technology, Amman, Jordan**

**2007- September 2012**

### **Assistant Professor, Environmental Management Dept Acting Head**

Swiss-Jordanian Environmental Management & Technology Master Program Coordinator

Responsible administratively and technically for:

- Program academic accreditation
- Program coordination and promotion
- Teaching Master courses and seminars
- Supervising MSc students thesis
- Researching on plastic waste management and sustainable development

**Royal Scientific Society, Amman, Jordan**

**March 2010 – November 2011**

**Executive Director, RSS Knowledge Sector (Industrial Technology Cluster)**

Responsible for:

- Deliver high quality and comprehensive consultation and research projects
- Create and deliver a clear strategy for the Industrial sector that focuses across revenue streams, people capability and cross team working. This is a critical component of the role.
- Oversee the Industrial sector to deliver its business and financial objectives.
- Ensure monthly Knowledge KPI's are produced for Executive review.
- Look to international best practice for Industrial Technology practices and revenue streams along with ensuring adequate intellectual and physical resources are available for implementation

**International R&D Clean Technologies Program Manager, USAID, Jordan**

**2010-2011**

Responsible for:

- Soliciting research ideas in the application of nanotechnology and other technologies in the industrial and private sectors.
- Managing of 750,000 US\$ R&D Projects.
- Managing of prototyping of 3 R&D projects.
- Establishing of local and international R&D networks in clean technologies applications.

**Royal Scientific Society, Amman, Jordan**

**2006-2011**

**Industry Consultant**

Responsible for

- Establishing and upgrading of chemical and mechanical testing facility
- Conducting hands-on workshops for the industry
- Testing of additives, rheology, and mechanical properties
- Testing of polymer properties and characterization
- Identifying the recycled/virgin produced plastic products
- Offering technical consultations to the drinking water bottles manufacturing industries
- Researching the structure-properties relationship of materials

- Researching the application of smart materials in different applications

**Business Park, Greensboro, North Carolina, USA**

**2007**

Researched on:

- Synthesis of novel classes of biocidal (antimicrobial, antifungal, antiviral) nanomaterials and incorporating them in biodegradable polymer.
- Synthesis of Novel classes of nanomagnetic materials and their applications medical technology and food safety

**Chemical & Biomolecular Eng, Georgia Tech, Atlanta, GA, USA**

**2005**

**Postdoctoral Associate**

Researched on:

- Improving the compression strength STFI of linerboard by addition of biopolymers.
- Effect of polymeric chemicals and fiber combination on water drainage and fine particle retention.
- Flocculation of clay suspension by different polymeric systems under turbulent conditions of pulping

**German Polymer Institute DKI, Darmstadt, Germany**

**2002-2005**

**3-months Post doc**

Researched on:

- TREF and CRYSTAF characterization methods to fractionate polymer and to show the crystallization profiles at different parameters

**Part-timer Research Assistant**

Researched on:

- Reactive extrusion of blends (Polyamide and Ionomers).
- Production of Piezoelectric polymers: (polycondensation and emulsion polymerization).
- Excellent knowledge of (TEM, ATR, and DSC) and processing machines (Twin extruder and pressing machines).

**Al-Balqa'a Applied University, Salt, Jordan**

**2001-2002**

**Polymer Labs Supervising Engineer**

- Helping in establishing a polymer engineering facility for polymer research and education
- Taught undergraduate-level labs courses in polymer synthesis, polymer characterization, and polymer processing at the Materials Science & Engineering Department

**Irshidat Co. for water Treatment, Amman, Jordan**

**1998 - 2000**

Sales and design engineer of industrial water treatment products, including simple Reverse Osmosis system for tap water, and industrial Reverse Osmosis unit for pharmaceutical purposes and Kidney dialysis units.

**Public Power Corporation, Ptolemais, Greece.**

**Jul- Aug, 1997**

Two months training in Ptolemais Amynden Lignite Center.

- Quality Control Dept.
- Thermal Power Plant.
- Lignite Briquetting Plant.

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## **INSTRUMENTATION SKILLS**

- Processing: Injection Molding, Blow Molding, and Extrusion
  - Mechanical: DMTS, Impact, Tension, Compression, Fatigue, Creep, and Hardness
  - Thermal: DMTS, DSC, and TGA
  - Microscopy: SEM and TEM
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## **ACCOMPLISHED PROJECTS**

- **Project Manager**  
International Energy, Environment, Water Clean Technology Research & Development Project: Funded by **USAID** (2010-2011)
- **Active Member**  
Preparation of Jordanian Green Building Guideline, 2010
- **Project Coordinator**  
Environmental Management & Technology, **International Swiss-Jordanian** Master Program (2008 to date)
- **Consultant**
  - ✓ Soil Testing and Contamination Analysis at Queen Alia Airport, 2010
  - ✓ Best Solutions for Storm Water Pollution Prevention at Queen Alia Airport, 2011
- **Team Leader**
  - ✓ Sustainable Energy Mix and Policy Framework for Jordan project: Funded by **Friedrich Ebert Stiftung (FES)** (2010)
  - ✓ Jordan Energy Status: Post-Fukushima & Arab Spring: Funded by **Friedrich Ebert Stiftung (FES)** (2011)
- **Constructions Projects Center Director**

Seismic Risk Assessment for Aqaba Special Economic Zone Project: Funded by **UNDP & SDC** (2010)

- **Project Coordinator**  
German- Jordanian Returning Experts Program: Funded by **CIM (AGEF)** (2009-2010)
  - **Principal Investigator (Polymeric Membrane)**  
Production of Hydrogen From Sea Water Using Solar Energy and Fuel Cell
  - **Principal Investigator**  
Modelling of THMs Formation in Amman's Drinking Water Distribution System (2000-2001)
  - **Principal Investigator**  
Optimization of Jordanian Oil Shale Combustion System (1998)
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## PUBLICATIONS

### ➤ Selected Journal Papers:

- ◆ **M. Saidan**, B. Al Hayek, N. Al Hmoud, D. Maradan, K. Zein "Environmental Meso-Economics in University Curriculum: New Master Program in Environmental Technology and Management" *Clean Technologies and Environmental Policy*, Volume 13, Number 1, March 2010, 191-194, DOI: 10.1007/s10098-010-0285-5
- ◆ Bradley H. Hartong, Malyuba Abu-Daabes, Tuan Le, **Motasem Saidan**, and Sujit Banerjee "Sludge Dewatering with Cyclodextrins" *Water Research*, Volume 41, Issue 6, March 2007, Pages 1201-1206.

### ➤ Conference Papers:

- ◆ A. Ghani Albaali and **M. Saidan**, Modeling of Natural Convection Heating and Biochemical Changes in a Viscous Liquid Canned Food using Computational Fluid Dynamics, 2010, 2<sup>nd</sup> International Chemical Engineering Conference, University of Jordan, Jordan
- ◆ A. Ghani Albaali and **M. Saidan**, Using the Computational Fluid Dynamics to Analyze Heat Transfer during High-Pressure Processing of Liquid Food, 2010, 2<sup>nd</sup> International Chemical Engineering Conference, University of Jordan, Jordan

### ➤ Registered Patent:

- ◆ Ayoub Ghrir, Hussam Alkhasawneh, **Motasem Saidan** "Device and Method for Producing Ultra Fine Particles" File no. 48695, Amman, Jordan.

➤ **Books:**

- ◆ **Motsem Saidan**, Sustainable Energy Mix and Policy Framework for Jordan, 2011, ISBN: 978-9957-484-16-3 ردمك

➤ **Know-how:**

- ◆ **Motsem Saidan**, Fabrication of Fuel Cell PEM for Hydrogen Production Application, RSS, 2011
- ◆ **Motsem Saidan**, Distinguishing of Plastic Products Made From Virgin/ Recycled Plastics, RSS, 2011

➤ **Supervised Master Thesis:**

- ◆ Lina Ansur, Sustainable Management of plastic bags in Jordan, 2010, PSUT
- ◆ Lila Iril, Integrated Municipal Solid Waste Management, Cost Benefit Analysis for Recycling Program in Greater Amman Municipality (GAM), 2010, PSUT
- ◆ Ouamar Saoudi, Worldwide Tax in CO<sub>2</sub> Emissions, 2010, PSUT
- ◆ Dherar Al Sakarneh, Linking Water Loss from Supply Water Networks to CO<sub>2</sub> Emission, PSUT
- ◆ Amani Mahasneh, Optimum Water Efficiency Measures for Buildings in Urban Areas Based on Jordanian Green Building Guideline Requirements, PSUT
- ◆ Adnan Tarawneh, E-Waste Inventory Assessment and Management in Jordan, PSUT
- ◆ Tareq Tmimi, Ozone Depleting Substances Management in Jordan, PSUT

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## TRAINING COURSES

- *Plastic Waste Management, Berlin, Germany*
- *Train of Trainers, FHNW, Basel, Switzerland.*
- *Writing of Business Plan, Quartek Corporation, Greensboro, North Carolina, USA.*
- *Project Management, PMP, Project Management Institute, Jordan.*
- *Total Quality Management, Royal Scientific Society, Jordan.*
- *Decision Making & Problem Solving, Royal Scientific Society, Jordan.*
- *Leadership & Management, Royal Scientific Society, Jordan.*
- *Strategic Planning, SABEQ, USAID, Jordan.*
- *Balanced Scorecard, HCST, Jordan.*
- *Innovation and Technology Commercialization, HCST & PSUT, Jordan.*
- *Communication Skills, Royal Scientific Society, Jordan.*
- *Human Resources Management, Royal Scientific Society, Jordan.*

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## **PRACTICAL & COMPUTER SKILLS**

- Proficient in Microsoft windows, computer programming (Mathematical, MatLab) and applications using different operating systems (Windows, LINUX), software's (LaTeX).
- Result-focused and creative professional, who leverages his multi-cultural and business expertise to seek process innovation, improve productivity and add value to the shareholder;
- Motivated achiever and profit-minded executive, who visualizes the business through the eyes of the customer;
- Inclusive and challenge-oriented leader, who creates an environment of constant learning and continued team performance improvement.
- Project Management skills.

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## **PROFESSIONAL AFFILIATIONS**

- RSS representative, The National Nanotechnology Initiative - NNI, Jordan
- Member, Clean Technologies Innovation Cluster, Jordan
- RSS representative, The National Committee of Synchrotron Users, SESAME, Jordan
- Member, Project Management Institute, Jordan
- Member, Technology Commercialization Committee, QRCE, Jordan
- Member, Biomaterials Society.
- Member, Robert C. Williams American Museum of Papermaking.
- Member, Friends of Environment Society.
- Member, Jordanian Engineering Society.

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## **REFERENCES**

This will be provided upon your request