

## AMJAD EL-QANNI

Chemical and Petroleum Engineering, University of Calgary  
2500 University Drive, NW, Calgary, AB, Canada  
Tel: 403-210-9587, CP: 587-700-5380  
E-mail: [aelqanni@ucalgary.ca](mailto:aelqanni@ucalgary.ca)

---

### **EDUCATION**

**2013-Present: *PhD***, Chemical and Petroleum Engineering (first class academic standing), specialty of Energy and Environment, University of Calgary, Schulich School of Engineering, Calgary, Canada.

**2010-2012: *MSc***, Sciences and Techniques of Urban Environments (first class academic standing), specialty of Atmosphere, Water and Urban Environments, École Centrale de Nantes, Faculty of Engineering, Nantes, France. **Thesis:** "Utilization of Metal Oxide Nanoparticles for Adsorptive Removal and Subsequent Oxidation of Different Organic Pollutants from Wastewater".

**2004-2009: *BSc***, Chemical Engineering (first class academic standing), An-Najah National University, Faculty of Engineering, Nablus, Palestine. **Graduation project:** "Powder Detergent Production by Spray Dryer Process".

### **ACADEMIC AND PRACTICAL EXPERIENCES**

#### **June 2014-Present: Chematics and Lab Safety Leader - University of Calgary**

- Providing regular and ongoing feedback to the lab supervisors regarding safety performance.
- Participating in a preventive maintenance program and a process for not using defective equipment.
- Reporting unsafe or unhealthy conditions and/ or practices in the workplace.
- Submitting direct notifications with resources such as equipment, personal protective equipment, etc., to ensure a safe workplace environment.

#### **2013-2014: Teaching Assistant for ENGG 311: Engineering Thermodynamics-University of Calgary**

- Conducting all assigned laboratory sessions.
- Delivering a brief overview of the theoretical background related to the experiments.
- Supervising and interacting with the students during the experimental work.

#### **2014-2015: Teaching Assistant for ENGG 201: Behavior of Liquids, Gases and Solids-University of Calgary**

- Supervising all assigned laboratory sessions.
- Responsible for marking all quizzes, lab reports, invigilation and delivering tutorial sessions.

#### **May-September 2012: Internship-University of Calgary**

- Joined the catalysis for bitumen upgrading (CBUG) research group.
- Worked on the master thesis under the supervision of Dr. Nashaat N. Nassar and Prof. Pedro Pereira Almaso, University of Calgary, and Jean-Francois Sini, École Centrale de Nantes.

#### **February-September 2010: Staff Environmental Engineer-Universal Group for Engineering and Consulting-Nablus, Palestine**

- Participated in preparing many environmental impact assessment technical reports and presentations, including:
  1. Feasibility study for Ramallah and Betunia wastewater treatment plants, Ramallah, West Bank.
  2. The new city of Rawabi, Ramallah, West Bank.
  3. Beneficiary assessment study for Zahret Al Finjan landfill, Jenin, West Bank.
  4. Environmental assessment of the Tulkarem municipal light industrial area, Tulkarem, West Bank.

### **2009-2010: Part and Full Time Research Assistant-An-Najah National University**

- Developed novel fouling resistance membranes for seawater desalination.
- Testing the performance of the developed membranes in a pilot-scale Reverse Osmosis Unit, using real seawater samples.

### **June-September, 2008: Internship-Arab Pharmaceutical Manufacturing Co. Ltd (Hikma Group)-Salt, Jordan**

- Obtained practical trainings in the most production units, quality control and quality assurance, validation departments and water treatment units.
- Performed the specifications and placing orders for equipment and machines for both liquid and air filtration systems.

### **AFFILIATIONS**

- Member: Chemical Institute of Canada and Constituent Societies (MCIC), September 2014.
- Research Assistant in CBUG, University of Calgary, May 2012-Present.
- Scholar of An-Najah National University, 2009-Present.

### **PROFESSIONAL CERTIFICATIONS AND DEVELOPMENTS**

- Overview of the National Instrument LabVIEW Environment, April 2014.
- VMGSim Training Course, March 2014.
- Valve Tube Bending Training Course, February 2014.
- H<sub>2</sub>S Alive, February 2013.
- Workplace Hazardous Materials Information systems (WHIMIS), May 2012.
- Maintenance and computer programming "A+" and Financial Excel, January 2009.
- International Computer Driving License (ICDL), December 2008.
- Intensive course (40 hour) on Water Chemistry in Reverse Osmosis and Nanofiltration, April 2009.

### **PUBLICATIONS**

#### **• *Journal Papers (Peer Reviewed):***

1. ***El-Qanni, A.***, N. Nassar, G. Vitale, and A. Hassan, "Catalytic Thermo-Oxidative Decomposition of Methylene Blue after Adsorption over Maghemite Nanoparticles: Computational Modeling and Thermodynamics Studies", *Applied Catalysis B: Environmental*, (***Under Review***).
2. ***El-Qanni, A.***, N. Nassar, and M.Hmoudah, "Utilization of Metal Oxide Nanoparticles as Adsorbents and/or Catalysts for Wastewater Treatment: A review", *Nanotechnology Reviews*, (***In Preparation***).

#### **• *Conference Presentations (Peer Reviewed Abstracts):***

1. ***A. El-Qanni***, N. N. Nassar, E. U. Ehrmann, M. Hmoudah, N. Marei, Hydrocarbons Recovery and Water Recycling from SAGD Produced Water Using Metal Oxide Nanoparticles, to be presented in 2<sup>nd</sup> Alberta Nano Research Symposium, Banff, AB, May 30-31, 2015.
2. N. Marei, N. N. Nassar, G. Vitale, ***A. El-Qanni***, M. Hmoudah, Size Effects on Adsorptive and Catalytic Properties of NiO Nanoparticles Towards Quinolin-65, to be presented in 2<sup>nd</sup> Alberta Nano Research Symposium, Banff, AB, May 30-31, 2015.

3. M. Hmoudah, N. N. Nassar, G. Vitale, **A. El-Qanni**, N. Marei, Development of New Iron Silicate-based Nanoparticles for Adsorptive Removal of Polar Heavy Hydrocarbons from Athabasca Bitumen, to be presented in 2<sup>nd</sup> Alberta Nano Research Symposium, Banff, AB, May 30-31, 2015.
4. **El-Qanni, A.** and N.N. Nassar, 2014. "Hydrocarbons Recovery from Mature Fine Tailings (MFTs): Characterizations and Mechanistic Insights", 64<sup>th</sup> Canadian Chemical Engineering Conference (CSCHE), Niagara Falls, ON.
5. Nassar, N. N. and **El-Qanni, A.**, 2012. "Iron Oxide Nanoparticles for Adsorption and Subsequent Catalytic Steam Gasification of Ionic Organic Pollutants from Produced Water", 62<sup>nd</sup> Canadian Chemical Engineering Conference (CSCHE), Vancouver, BC.

- **Conference Paper (Full Paper):**

H. A. Arafat and **A. El-Qanni**, Can Religion Serve as a Catalyst for Sustainable Waste Management? Islam as a Case Study, Proceedings of the 11th Mediterranean Research Meeting, Florence, Italy, March 24-27, 2010.

- **Seminar Presentations**

1. **Amjad El-Qanni**, New Nanoadsorbents-Catalysts for Hydrocarbons Recovery from Nexen's Produced Waters, 4<sup>th</sup> Chair Meeting, University of Calgary, March 10<sup>th</sup>, 2015.
2. **Amjad El-Qanni**, Alberta Innovates Technology Future's Mature Fine Tailings and Nexen's Produced Water Characterization "Preliminary Results", Research Group Seminar, University of Calgary, June 6<sup>th</sup>, 2014.
3. **Amjad El-Qanni**, Removal of Hydrocarbons from Produced Water "Exemplified by Methylene Blue" via Adsorption and Subsequent Catalytic Oxidation on the Surface of Metal Oxide Nanoparticles, 3<sup>rd</sup> Chair Meeting, University of Calgary, March 13<sup>th</sup>, 2014.
4. **Amjad El-Qanni**, Metal Oxide Nanoparticles as Adsorbents and Catalysts for Tailings Ponds Water Treatment, Research Group Seminar, University of Calgary, September 13<sup>th</sup>, 2013.
5. **Amjad El-Qanni**, Utilization of Iron Oxide Nanoparticles for Adsorptive Removal and Subsequent Oxidation of Cationic and Anionic Dyes from Wastewater, Research Group Seminar, University of Calgary, August 24<sup>th</sup>, 2012.

## **AWARDS and SCHOLARSHIPS**

1. **Engineering Graduate Excellence Scholarship Award (for the second time)**, awarded by the department of Chemical and Petroleum Engineering at the University of Calgary, January-April 2015.
2. **Schulich Student Activity Fund (SSAF)**, University of Calgary, October 2014 (to attend the 64<sup>th</sup> CSCHE Conference, Niagara Falls, ON, October 19-22, 2014).
3. **Faculty of Graduate Studies, Graduate Travel Award**, University of Calgary, December 2014 (for attending the 64<sup>th</sup> CSCHE Conference, Niagara Falls, ON, October 19-22, 2014).
4. **Best CSCHE Graduate Students Poster Award-2<sup>nd</sup> Place**, awarded in the 64<sup>th</sup> CSCHE Conference, Niagara Falls, ON, October 21<sup>st</sup>, 2014. In the news: Schulich PhD student wins award at the Canadian Society for Chemical Engineering Conference, November 24<sup>th</sup>, 2014. Link: <http://schulich.ucalgary.ca/news/schulich-phd-student-wins-award-canadian-society-chemical-engineering-conference>

5. **Engineering Graduate Excellence Scholarship Award**, awarded by the department of Chemical and Petroleum Engineering at the University of Calgary, January-April 2014.
6. **Graduate Research Scholarship (PhD)**, Chemical and Petroleum Engineering Department, Schulich School of Engineering, University of Calgary, 2013-Present.
7. **Summer Graduate Internship Award**, awarded by the CBUG in Chemical and Petroleum Engineering Department, Schulich School of Engineering, University of Calgary, April-September 2012.
8. **Graduate Research Scholarship (MSc)**, French Government (BGF) and An-Najah National University, 2010-2012.
9. **Dean's List of Honor**, An-Najah National University, Nablus, Palestine, 2007-2009.

### **SPOKEN LANGUAGES**

- Arabic: Native, English: Fluent, and French: Good.

### **PERSONAL INTERESTS**

- Passionate player in volleyball and basketball sports.
- Particular passion in voluntary work.
- Learning different languages.
- Exploring different cultures.

### **REFERENCES**

- Will be supplied upon request in addition to educational and courses certificates and others.