

## Suad Mohammad Al-Adwani

### **CONTACT DETAILS:**

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### **I. EDUCATION:**

- 2008-2012 Ph.D. in Chemical Engineering/Air Pollution Control, University of Waterloo, Ontario, Canada. Thesis: Predicting the Effect of Catalyst Axial Active Site Distributions on a Diesel Oxidation Catalyst Performance
- 2005-2007 M.Sc. in Chemical Engineering/ Air Pollution Control, University of Waterloo, Ontario, Canada. Thesis: A Hybrid Neural Network- Mathematical Programming Approach to Design an Air Quality Monitoring Network for an Industrial Complex
- 1998-2003 B.Sc. in Chemical Engineering from University of Kuwait, Kuwait.
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### **II. WORK EXPERIENCE:**

- a. Assistant Professor, 2012-Present, Kuwait University, College of Life sciences, Department of Environmental Technology Management.
- b. Teaching Assistant on scholarship, 2005-2012, Kuwait University.
- c. Research Assistant, 2003-2005, Kuwait Institute for Scientific Research / Petroleum Research and Studies Centre:
  - Author and project leader for project *titled "Database for the polymer industry in Kuwait"*.
  - Task leader in assessing of *plastic solid waste in Kuwait and methods of recycling*.
  - Task leader on *"Synergistic Effect of UV-Stabilizers and Light Transforming Additives on Polyethylene and Polypropylene under Kuwait Environmental Conditions"* with EQATE.

### **III. RESEARCH AREA:**

Heterogeneous catalysis, air pollution control from combustion sources and air quality monitoring; Modeling and optimization, pollution prevention, Environmental Impact Assessment.

### **IV. TEACHING EXPERIENCE:**

Instructor in Kuwait University for the following graduate and undergraduate courses:

522- AIR POLLUTION CONTROL

572- ATMOSPHERE AND CLIMATE

490- SPECIAL TOP.IN ENVIR.TECH.MANAG.

322- AIR QUALITY CONTROL TECHNOLOGY

311- ENVIRON.PLANN. & IMPACT ASSESSMENT

201- ENVIRONMENTAL CHEM. & PHYS.

221- SOCIAL PERSPECTIVE ON ENVIR.ISSUES

139- INTROD.TO ENVIRON.TECH.MANAG.

120- HUMANS& ENVIRONMENT

105- CHEMISTRY

108- CALCULAS

### **V. ADMINISTRATIVE RESPONSIBILITIES:**

- Officially initiated O2 club and worked as O2 advisor in Kuwait University (2014-2015)
- Coordinator of Several Department Committees:
  1. Library Committee (2013-2014)
  2. Departmental Activities (2014-2015)
  3. Laboratory Committee (2015-2016)
  4. Schedule Committee (2019-2020)
  5. Advisory and Student Support Committee (2020-2021)
- Member of College Committee, Research and Graduate Studies (2015-2016)
- Supervision of Internship Training, undergraduate students in Reqqa wastewater treatment plant (Fall 2013-2014)
- Supervision of Internship Training, undergraduate students in KNPC, Kuwait National Petroleum Company (Fall 2018-2019)

## Curriculum Vitae

- Supervision of Students Undertaken Senior Projects, Six undergraduate students “Assessment of Ground water Quality at South 7<sup>th</sup> Ring Road Landfill Site “ (Spring 2014-2015)
- Supervision of Students Undertaken Senior Projects, “The contamination of air pollution originated from road dust and roadside soil in Kuwait “ (Spring 2019-2020)

## VI. PROFESSIONAL DEVELOPMENT:

- a. Volunteer to represent Kuwait Chapter for Arab women in computing in ArabWIC Conference, Beirut, Lebanon (2017)
- b. Track Co-Chair for Modeling and Simulation of Environmental Systems (MSES'15) in Summer Simulation Multi-Conference (SummerSim'15) July 26-29, 2015 | Chicago, IL, USA.
- c. Participated in Teaching Excellency Academy training courses, University of Waterloo, Ontario, Canada (2011).
- d. Reviewer for “*Optimal Design of Air Quality Monitoring Network around an Oil Refinery Plant: A Holistic Approach*” manuscript in International Journal of Environmental science and technology, 2014.
- e. Reviewer for “*Comparative Analysis of Support Vector Machine and Artificial Neural Network Models for Soil Cation Exchange Capacity Prediction*” manuscript in International Journal of Environmental science and technology, 2015.
- f. Attended an air pollution conference, monitoring, modeling and management organized by Wessex Institute of Technology, UK and Siena University, Siena, Italy (2013)
- g. Received training on polymer characterization and processing, Institute of Polymer Engineering, Akron University, Ohio, USA (KISR 2004).
- h. Assigned by Kuwait University to have an intensive engineering training course on Nitinol stent electropolishing process in Boston Scientific Corporation, Seattle, USA (2002).

## VII. CONFERENCE PAPER:

- a. S.M. Al-Adwani, A. S. Busafar, “*Indoor air quality assessment of health construction in Kuwait*”, ICENLISK 2019, Singapore.

- b. S.M. Al-Adwani, W.S. Epling, ***“Axial precious metal design in a diesel oxidation catalyst for improving CO conversion performance”***, The 61<sup>st</sup> Canadian Chemical Engineering Conference, CSChE 2011, London, Ontario, Canada.
- c. Lena Ahmadi, S.M. Al-Adwani, ***“Zonal Analysis of PHEVs/Evs Penetration: A Mean to Mitigate Vehicle Emission”***, IEOM 2015 Conference, Dubai, UAE.
- d. S.M. Al-Adwani, ***“Effects of sulfur on various precious metal distribution along a monolith-supported catalyst”***, Graduate student research conference, University of Waterloo, Ontario, Canada (2012).
- e. S.M. Aladwani, W. Epling, J.soares, ***“Effect of thermal sintering and poisoning on light-off performance of zoned Pt-Pd/Al<sub>2</sub>O<sub>3</sub> diesel oxidation catalyst”***, SCS 2015, July 26-29, 2015, Chicago, IL,USA.

#### **VIII. PUBLICATIONS:**

- a. S.M. Al-Adwani, J. Soares, W.S. Epling, ***“Evaluating the Effects of Precious Metal Distribution along a Monolith-Supported Catalyst for CO oxidation”***Ind. Eng. Chem. Res. 51 (2012) 6672.
- b. S.M. Al-Adwani, A. Elkamel, T. Duever. K. Yetilmezsoy, S. A. Abdul-Wahab, ***“A hybrid mathematical programming based methodology to design an air quality monitoring network for an industrial complex”*** Can. J. Chem. Eng. (2015)