

Prof. Samir I. Abu-Eishah - Short CV

Chemical & Petroleum Engineering

Professional Experience:

UAE University: 2004 - Now. Yarmouk University and Jordan University of Science & Technology (JUST) (1982-2003), Sabbatical Leave (University of Jordan, 1994/1995), Sabbatical Leave and Leave of Absence (University of Bahrain, 1997-2001).

Chairman: Chemical Engineering Department at JUST (1996-1997).

Research Assistant: Chemical Engineering Department, Lehigh University, USA (1979-1982)

Operation Engineer (Jordan Petroleum Refinery Co., 1975-1977).

Scholarships:

PhD (Lehigh University, 1982), M.Sc. (Iowa State University, 1979) and B.Sc. (Cairo University, 1975); all in Chemical Engineering.

Publications: Over 40 articles in International Refereed Journals and has several presentations at International, Regional and Local Conferences. Also supervised 12 MSc Theses. Over 560 Citations in Google Scholar, overall h-index = 14, m-index = 16. Examples of most Recent Publications:

- Abu-Eishah, S.I., Babahar, H.S.A., Maraqa, M. Minimization of SO₂ Emissions at ADGAS (Das Island, UAE): I- Current vs. Modified Schemes, J. Petroleum & Environmental Biotechnology, 2014, 5(2), 1000173, 10 pages, ISSN: 2157-7463.
- Abu-Eishah, S.I., Babahar, H.S.A., Maraqa, M. Minimization of SO₂ Emissions at ADGAS (Das Island, UAE): II- Impact on Air Quality, J. Petroleum & Environmental Biotechnology, 2014, 5(2), 1000172, 10 pages, ISSN: 2157-7463.
- Abu-Eishah, S.I., Utilization of Ionic Liquids in Wood and Wood-Related Applications: A Review, Chapter 16, pp. 419-460, in "Ionic Liquids- Current State of the Art", Scott T. Handy (Editor), ISBN 978-953-51-2122-0, InTech Open Access, May 2015.
- Samir I. Abu-Eishah, Rashid S. Mohammad, "Phase Behavior of a United Arab Emirates Stock-Tank Oil and Carbon Dioxide at Reservoir Conditions: Experiments and Thermodynamic Modeling," Open Journal of Yangtze Oil and Gas (OJOGas), 1:1-21, April 2016, www.scirp.org/journal/ojogas

Papers in processing for publication:

1. Band Gap Narrowing of Titanium Oxide by Codoping – A Review, Samir I. Abu-Eishah (> 425 cited references)
2. Synthesis and Characterization of Cu-doped TiO₂ Nanocatalysts Prepared by the Sol-Gel Method, Samir I. Abu-Eishah and Haya A.R. Ahmed, Abbas Khalil.
3. Synthesis and Characterization of Ag-doped TiO₂ Nanocatalysts Prepared by the Sol-Gel Method, Samir I. Abu-Eishah, Haya A.R. Ahmed, Abbas Khalil.
4. Rheological Characteristics of Cu-doped TiO₂ Nanocatalysts Prepared by the Sol-Gel Method, Samir I. Abu-Eishah and Haya A.R. Ahmed.
5. Synthesis and Characterization of Cu-doped TiO₂ Nanoclusters using the Inert Gas Condensation Technique, Haya A.R. Ahmed, Samir I. Abu-Eishah, Ahmed I. Ayesh

Presentations at International, Regional and Local Conferences and Workshops: Examples of most Recent Conference papers/Presentations:

1. Abu-Eishah, S.I., Modeling and Simulation of Fluid Phase Behavior of CO₂/UAE Stock-Tank Oil at Reservoir Conditions, Abu Dhabi International Research and Development (ADRAC) Conference 2014, Abu Dhabi, Feb 24-27, 2014.
2. Abu-Eishah, S.I., Modification of the SO₂ Emissions Schemes at ADGAS (UAE) and Its Impact on Air Quality, GPC Fourth International Gas Processing Symposium, Doha, Qatar, Oct 26-27, 2014.
3. Amjad S Qazaq, Adesoji A Adesina, Mamdouh A Allawzi, Samir I Abu-Eishah, Talal Yusaf, Australian dump-site leachate treated in annular bubble column photoreactor, In "Chemeca 2014: Processing excellence; Powering our future", Barton, ACT: Engineers Australia 2014: 193-204.
4. Abu-Eishah, S.I., Invited Speech on "CO₂ to Liquid Fuels, State of the Art", Clean Gas and Advanced Fuels Based on Natural Gas or CO₂, The Petroleum Institute Research Center (PIRC), Abu Dhabi, UAE, Nov. 8, 2016.
5. Haya A.R. Ahmed, Ahmad I. Ayesh, Samir I. Abu-Eishah, Saleh T. Mahmoud, Synthesis and Characterization of Cu-doped TiO₂ Thin Films Produced by the Inert Gas Condensation Technique, Oral presentation at FTAPS2017 (Frontiers in Theoretical and Applied Physics, UAE 2017) Conference, American University of Sharjah, Feb. 22-25, 2017.
6. Sama Aly, Dima Kanaan, Amr El-Dieb, Mahmoud Reda Taha, **Samir Abu-Eishah**, Ceramic Waste Powder, an Alternative Ingredient for a Greener Concrete, in Sustainability: Advanced and sustainable materials, Int. Structural Engineering & Construction Conference (ISEC 9), Valencia, Spain, July 24-29, 2017.

Awards:

Hisham Hijjawi Award (Industry & Environment, 1994), Distinction in Scientific Research (JUST, 1997), Excellence in Research (University of Bahrain, 1999).

Consulting Experience: Examples

- PI: Utilization of Iron Slag in the Manufacture of Portland Cements, GHC (Emirates Steel Co.), 2009-2011.
- Member of a Jury of Experts for Industrial Claims, Judiciary Department, Abu Dhabi, UAE, 2012-2013.
- Reviewer of Awards (Ajman, UAE), Research Project (Saudi Arabia) and Promotion Case (Kuwait).

Research Grants (2011-2016): Examples

- PI: Experimental Investigation on the Conversion of CO₂ and Water Vapour into Hydrocarbons, UAE University, 2011-2013 (120,000 AED).
- PI: Experimental Investigation on the Conversion of CO₂ and Water Vapour into Hydrocarbons - Pilot Scale, Emirates Foundation, 2011-2013 (170,000 AED).
- Co-PI: Reusing Ceramic Waste Powder in Concrete – Towards Sustainable Construction Industry, UAEU-UPAR2 Research Grant # 31N208, (500,000 AED).

Most Recent Applications for Funding:

1. Corrosion Mitigation of Outdoor Electrical Equipment, submitted to ADWEA, June 2016 (PI)

2. Closing the CO₂ Cycle by Converting It Back to Hydrocarbons in Photocatalytic Reactors Energized by Visible-Light Solar Energy and Using Multi-Doped TiO₂ Nanocatalysts, UCBR, June 2016 (PI)
3. Proposal on Beach Well Intakes for Seawater Desalination, submitted to ADWEA, June 2016 (Co-PI)
4. Optimizing coupled water supply and reuse systems integrated with distributed treatment for water security, submitted to Institution Links: British Council UK-Gulf (The University of Leeds, Kuwait Institute for Scientific Research and UAE University (Co-PI)

Subjects or Courses Taught: (Last Two Years)

29 C.H. in AY 2015/2016 and 16 C.H. in Fall 2016/2017:

1. Process & Plant Design (UG, 2 sections per semester, Fall and Spring);
2. Water Desalination (UG, Fall 2016),
3. Graduation Projects (5 Senior Projects in two years);
4. Coordinator of Graduation Projects (Fall and Spring 2015/2016)
5. Fluid Phase Equilibria (Graduate, Spring 2015 and Spring 2016);
6. Graduate Master Seminar (Spring 2016);
7. PhD Graduate Seminars (Fall 2015, Spring 2015 and Fall 2016)
8. Supervised 2 Master Theses (1 in Materials Science and 1 in Petroleum Engineering).

Editorial Board and Technical Reviewer:

- Associate Editor - Emirates Journal for Engineering Research (2011-2015)
- Editor of the "Safety Manual" of the College of Engineering, June 2015. Available online at: <http://www.eng.uaeu.ac.ae/en/departments/civil/safetymanual2015.pdf>
- Technical Reviewer for over 14 International Journals and several other conferences. Also reviewer/evaluator of many Internal and External research proposals, promotion cases, and institutional scientific awards.

College and University Committees:

- Member of the Judiciary Committee for the Chancellor's Innovation Awards (fall 2016): Evaluating 18 innovative proposals in multidisciplinary areas at UAEU.
- Member of the University Program Periodic Review Committee (UPPRC, since Fall 2015): Revision of many SSRs and CAAs for different programs and colleges at UAEU.
- Member of the Promotion Committee, Chemical & Petroleum Engineering Department (since 2014)
- Chairman of the College Safety & Space Committee (since 2012)
- Chairman of the Peer Evaluation in Teaching (PET) Committee (AY 2014/2015)
- Nominated as Coordinator of the Water Technology Sector in the National Water Center (NCW), UAE University (Fall 2016).
- Member of the Executive Committee of the Water Resources Master Program (2005-2014)
- Member of the National Team to Study the Strategy of the UAE Industrial Development (2014).