Lecturer Khalidah A.J. Al-Qayim

Department of Oil & Gas Refinery Engineering
Professor of Combustion and Unit Operations
Manager of Quality Assurance Office
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EDUCATION

PhD, University of Sheffield, UK, 2017
MSc, University of Baghdad, 2000
BSc, University of Baghdad, 1982

PROFILE

Researcher of renewable energy especially bioenergy and integrated solar thermal power systems, with 8 years of experience in biomass characterization and composition analysis. In addition, my area of expertise extends to techno-economic studies, kinetics modelling, thermal analysis and pilot scale testing procedures. Further, I have 10 years of teaching experience at university level with proven leadership and detail-oriented skills. Through my teaching career I participated in building many engineering courses curricula. My 6 years-experience in quality assurance of educational systems, added value to my teaching quality and delivering course objectives.

TEACHING

Since I joined Al-Farabi University College in 2017 till the present, I deliver the following courses at the Oil & Gas Refinery Engineering dept.:
Combustion Engineering – 3rd yr class
Unit Operations II – 4th yr class
Unit Operations III – 4th yr class
Technical English I – 1st yr class
Technical English II – 1st yr class

RESEARCH FOCUS

- Biomass and bioenergy systems
- Biomass characterization
- Carbon Capture and Storage
- Solar Thermal Energy
- Solar PV systems

PUBLICATIONS

1. Khalidah A J Al-Qayim. 2019. IOP Conf. Ser.: Mater. Sci. Eng. 518 042002.
2. Al-Qayim, K., Nimmo, and Pourkashanian, M. Effect of oxy-fuel combustion on ash deposition of pulverized wood pellets. *Biofuel Research Journal*. (accepted, under press)
3. Al-Qayim, K., Nimmo, W., Hughes, K., and Pourkashanian, M. Effect of the pyrolysis temperature on the intrinsic Reactivity of Wood pellets and Coal chars via Thermogravimetric Analysis. *Fuel*. 210 **(2017)** 811-825.
4. Al-Qayim, K., Nimmo, W. and Pourkashanian, M. Comparative Techno-economic Assessment of biomass and coal with CCS technologies in a pulverized combustion power plant in the United Kingdom. *International Journal of Green House Gas Control.* 43 (**2015**) 82–92.
5. Jaafar, K.A. Sanitary Inspection Data Survey of Drinking Water Resources in Sulaymaniyah Governorate. Statistical Analysis Report. WHO Reports, (**2012**).
6. Jaafar, K.A. & Baldwin R. Characterization of Iraqi Zahdi Dates Pits. *The Blessed Tree, Khalifa International Date Palm Award*. (2) **2010** 2, 50.
7. Jaafar, K.A. Biogas Production by Anaerobic Digestion of Date Palm Pulp Waste. *Al-Khawarzmi Engineering Journal.* (6) **2010**, 3, 14.
8. Doyle, P. & Jaafar. K.A. "Iraq Has an Opportunity to Become a Solar Leader" *DAI Journal, Winter **2009-2010**.* P 7-9.

CONFERENCE PROCEEDINGS PAPERS

1. Al-Qayim, K. Integrated solar thermal combined cycle for power generation in Iraq. *The 2nd International Conference on Sustainable Engineering Techniques.* Baghdad, Iraq. **2019.**
2. Finney K, Szuhanszki J, Al-Qayim K, Nimmo W & Pourkashanian M (2016) Comparison of Metal Aerosol Emissions from Air-Firing of Coal and Biomass for Carbon Capture applications. Glasco Scotland. 6-7 September **2016**.
3. Jaafar K.A. & Slaymoun, A. "Liquid-Liquid Equilibria of N-Methylpyrrolidone with Normal Alkanes and Aromatic Hydrocarbons". *International Conference of Chemical Engineering*. Bulgaria. **2002**.

AFFILIATIONS / MEMBERSHIP

- Energy Sustainability Committee at the Advisory Board of Prime Minister Office, Iraq.
- International Flame Research Foundation (IFRF), Europe
- Carbon Capture and Storage Research Center (UKCCSRC) - UK
- Iraqi Engineers Union, Iraq.
- Biomass & Bioenergy Journal (Elsevier) reviewer.