

Curriculum Vitae

Personals, Education, Qualifications...etc.

Dr. Abdelbagi Osman Elsiddig

Dec. 2022



This resume summarizes the personal and educational information as well as the academic background and achievements of the author.

Personals

Name: ABDELBAGI OSMAN ELSIDDIG MUSTAFA
Gender: Male
Date of Birth: 1st of Jan. 1976
Nationality: Sudanese
Religion: Islam
Languages: Arabic / English
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Education Periods

Primary School: 1982-1987
Intermediate School: 1987-1990
Secondary School: 1990-1993
Undergraduate: 1995-2001
Graduate Studies: 2003 -2010

Qualifications

Ph.D. in ***Chemical Engineering***, Department of Chemical Engineering, Universiti Teknologi PETRONAS-Malaysia (2010).

M. Sc. in ***Chemical Engineering***, Faculty of Engineering and Technology, University of Gezira – Sudan (2005).

B.Sc. (honor) - First Class, in ***Chemical Engineering Technology***, Faculty of Engineering And Technology, University of Gezira – Sudan (2001).

Occupation

- **Associate Professor** in the Department of Chemical Engineering, College of Engineering, *Najran University*, KSA.

- **Coordinator of Academic schedules**, College of Engineering, *Najran University, KSA*.
- **Laboratories Supervisor**, Department of Chemical Engineering, College of Engineering, *Najran University, KSA*.
- **Coordinator and member** of different committees for National Academic Accreditation, College of Engineering, *Najran University, KSA*.

Experience

- 1) **Teaching Assistant** for the Dept. of Chemical Engineering and Chemical Technology (2001 - 2003), Faculty of Engineering and Technology, *University of Gezira – Sudan*.
- 2) **Lecturer** for the Dept. of Chemical Engineering and Chemical Technology (2005 – 2006), Faculty of Engineering and Technology, *University of Gezira – Sudan*.
- 3) **PhD Researcher** in the field of **Process Integration** (2006 - 2010), Chemical Engineering Program, *University Teknologi PETRONAS – Malaysia*.
- 4) **Assistance Professor** for the Dept. of Chemical Engineering and Chemical Technology, Faculty of Engineering and Technology, University of Gezira – Sudan (March 2011- April 2015).
- 5) **Associate professor** for the Dept. of Chemical Engineering and Chemical Technology, Faculty of Engineering and Technology, University of Gezira – Sudan (December 2019- Jul. 2021).
- 6) **Deputy Dean**, Faculty of Engineering and Technology, University of Gezira_ Sudan. (Jan. 2012 – April 2015)
- 7) **Senate member**, University of Gezira _ Sudan (Jan. 2012 – April 2015).
- 8) **Faculty board member**, Faculty of Engineering and Technology, University of Gezira, Sudan (Jan. 2012 – April 2015).
- 9) **Head and member** for several academic committees in the Faculty of Engineering and Technology, University of Gezira_ Sudan (Jan. 2012 – April 2015).
- 10) **Supervisor and Internal examiner** for several M.Sc. students in the field of Chemical Engineering.
- 11) **Member in the curriculum development committee**, Faculty of Engineering and Technology, University of Gezira, Sudan

Courses Attended

- **Mass Integration Seminar (by Prof. M. El-Halwagi, University of Texas A & M _ USA) at Universiti Teknologi PETRONAS _ Malaysia.**
- **Polymer Reaction Engineering _intensive course (by Prof. Hans-Ulrich Moritz, University of Hamburg _Germany), at Universiti Teknologi PETRONAS _ Malaysia.**
- **State of the Art in Process Integration (by Prof. Robin Smith, UMIST _ UK) at University Teknologi PETRONAS _ Malaysia.**
- **Training course on Managerial Skills Development for Academic and Executive Leaders at University of Gezira _ Sudan**
- **Different Courses on the Development and Quality, at the Development and quality, Najran university, KSA**

Teaching Interest

- Introduction to/Principles of Chemical Engineering
- Heat Transfer for B.Sc. and M.Sc. levels
- Chemical Engineering Thermodynamics for B.Sc. and M.Sc. levels
- Fluid Mechanics for Chemical Engineering.
- Chemical Reaction Engineering and Reactor Design.
- Heat Integration for B.Sc. and M.Sc. levels

Research Interest

- Grass Root Design of Heat Exchanger Networks
- Retrofit Design of Heat Exchanger Networks
- Design and Development of Process Control Systems
- Design and Development of Chemical Reaction Engineering Systems

Prizes and Patents

- Senate Prize, University of Gezira (2000) for scoring 4/4 GPA
- National Patent for Designing new Shell and Spiral Tube heat Exchanger 2015

Publications

- 1) **Osman, A.**, Abdul Mutalib, M. I., Shuhaimi, M. and Amminudin, K. A. "Paths Combination for HENs Retrofit", Applied Thermal Engineering, **29**(15-14): 3103-3109. (2009).
- 2) Imad E. A. Mahajoub, Gurashi, A. Gasmelseed, Babker, M. O. and **Osman, A.** Elsiddig "Mathematical Model for the Equilibrium Flash Vaporization of the Nile Blend Crude Oil.", Gezira J. of Eng. & applied Sci., 10-(1):47-62 (2015).
- 3) **Osman, A.**, Abdul Mutalib, M. I. and Shigidi, I. "Heat Recovery Enhancement in HENs Using a Combinatorial Approach of Paths Combination and Process Streams' Temperature Flexibility", South African Journal of Chemical Engineering, 21: 37- 48, (2016).
- 4) **Osman, A.**, Rasha Hassan, Abdalla Sulman and Imad E. A. Mahajoub "Experimental Heat Transfer Enhancement in a Tubular Heat Exchanger", Gezira J. of Eng. & applied Sci., 13-(1) 108-134 (2018).
- 5) **Osman, A.**, Eltayeb, M., and Rajab, F., "Utility Paths Combination in HEN for Energy Saving and CO₂ Emission Reduction", Processes, 7- (425) 1-22 (2019)
- 6) Mirghani, M.S. and **Osman, A.** "Modified sol-gel process for synthesis of molybdenum oxide-doped titanium dioxide", MethodsX, 9, 101742, (2022).
- 7) **Osman, A.** and Mirghani, M.S. "Energy Savings in the Heat Exchanger Network of an Oil Refinery Pre-Heat Train Unit Using a Path's Combination at Different HRAT Values", Processes, 10, 2541, (2022).
- 8) Alyami, S.H.; Alqahtany, A.; Ashraf, N.; **Osman, A.**; Aldossary, N.A.; Almutlaqa, A.; Al-Maziad, F.; Alshammari, M.S.; Al-Gehlani, W.A.G. "Impact of Location and Insulation Material on Energy Performance of Residential Buildings as per Saudi Building Code (SBC) 601/602 in Saudi Arabia", Materials, 15, 9079, (2022).
- 9) **Osman, A.**, Abdul Mutalib, M. I. and Shuhaimi, M. "Path Analysis and Temperature Flexibility for the Retrofit of Heat Exchanger Networks" NPC, University Teknologi Petronas, Malaysia, (March 2008).
- 10) **Osman, A.**, Abdul Mutalib, M. I. and Shuhaimi, M. "Process Streams' Temperature Flexibility for Energy Savings in HENs" APCChE, Taipei, Taiwan, (Oct. 2010).
- 11) **Osman, A.** Elsiddig and Mohanad E. Mohammed, "Integrated Energy and CO₂ Emission Reduction in HEN of Crude Oil Pre-heat Train" The 1st Francophone Conference on Energy and Environment, Khartoum, Sudan, (Dec. 2014).
- 12) Markhi, M. E. and **Osman, A.** "Optimization and Retrofit of Heat Exchanger Networks of Variable Stream Flow", The 1st Francophone Conference on Energy and Environment, Khartoum, Sudan, (Dec. 2014).

- 13) Shetewy, M. S., Alsadig, H. A. and **Osman, A.**, “Design of a Power Plant from Human Household Wastewater”, The 1st Francophone Conference on Energy and Environment, Khartoum, Sudan, (Dec. 2014).

References:

- 1) Prof. Yousif Ali Ragab
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