



AHMED BAHAA EL-DIN SALEM

1. Name and academic rank

Ahmed Bahaa El-Din Salem, Associate Professor, Full time.

2. Education – degree, discipline, institution, year

- 2.1. Ph.D., Mechanical Engineering, Alexandria University, 2013.
- 2.2. M.S., Mechanical Engineering, Alexandria University, 2005.
- 2.3. B.S., Mechanical Engineering, Alexandria University, 1999.

3. Academic and Professional experience

3.1. Academic experience

- Beirut Arab University (BAU), Lebanon, Mechanical Department Coordinator of the ABET Accreditation Committee, 2023-Present.
- Beirut Arab University (BAU), Lebanon, Visiting Associate Professor, Fall 2023-Present, full time.
- Beirut Arab University (BAU), Lebanon, Visiting Assistant Professor, Fall 2018- Fall 2023, full time.
- Alexandria University, Associate Professor, November 2019- Present, full time.
- Arab Academy for Science, Technology & Maritime Transport, Smart Village Campus, Visiting Assistant Professor, February 2017- September 2018, part time.
- Alexandria University, Assistant Professor, February 2014- November 2019, full time.
- Alexandria University, Teaching Assistant, March 2005- February 2014.
- Alexandria University, Demonstrator, March 2000- March 2005.

3.2. Non-academic experience

Member in consultation group for:

- Fuel distribution network in Cairo International Airport.
- Water distribution network for water demand and firefighting in Alexandria Automotive Company.
- Water transporting pipelines in Cairo and Alexandria Water Company.
- Engineering Assessment for Influent Water Pipeline Drain at PetroGulf Company.
- Engineering Assessment for Influent Water Pipeline Drain at Al-Amal Petroleum Company.
- Hydraulic Analysis of a Jet Pipeline from West Delta Repository to Borg El-Arab Air Base.
- Design of Piping Arrangement of the Existing Water Injection System at Esh El-Mallaha Petroleum Company.
- Construction of Piping Arrangement of the Existing Water Injection System at Esh El-Mallaha Petroleum Company.

Training Programs & Short Courses for Engineers and Technicians

- Fluid Power Systems
- Pneumatic Circuits
- Hydraulic and Pneumatic Basics



- Pump Technology
 - Pipeline Design
 - Seals and Mechanical Seals
 - Valves
4. Professional credentials, certificates, or licensing
Authorization to practice engineering profession in Lebanon.
Engineers Syndicate.
ASME, AEE
5. Professional development activities
Attending “Grant proposal writing workshop”.
6. Contribution to the discipline
- 6.1. Service activities**
- **Mechanical Department Coordinator of the ABET Accreditation Committee, 2023 – Present**, Faculty of Engineering, Beirut Arab University (BAU), Beirut.
 - **Member of ABET Committee, September 2022 – Present**, Faculty of Engineering, Beirut Arab University (BAU), Beirut.
 - **Member at Faculty’s Council, 2024 – 2025, 2022 – 2023, 2020 – 2021, and 2018 – 2019** Faculty of Engineering, Beirut Arab University (BAU), Beirut.
 - **Member of the Faculty of Engineering Quality Unit, September 2022 – September 2023 and September 2023 – September 2024**, Faculty of Engineering, Beirut Arab University (BAU), Beirut.
 - **Member of the Research Committee, September 2022 – September 2023**, Faculty of Engineering, Beirut Arab University (BAU), Beirut.
 - **Head of the Central Committee for Examination, September 2017 – September 2018**, Arab Academy for Science, Technology & Maritime Transport, Smart Village Campus
 - **Academic Advisor of Specialized Scientific Programs “SSP”, January 2014 – 2017**, Faculty of Engineering, Alexandria University.
 - **Director of Fluid Mechanics and Hydraulic Machines Lab, January 2014 – 2017**, Faculty of Engineering, Alexandria University.
- 6.2. Publications**
- 6.2.1. Journal publications**
- El Khatib, Atef, Ahmad Al Miaari, Hassan Assoum, **Ahmad Salem**, and Ali Hammoud “**A Review on Flow Regimes and Aeroacoustic Coupling in Subsonic Flow Around Flat Plates.**” Arabian Journal for Science and Engineering, Jan. 2025: 1-25, <https://doi.org/10.1007/s13369-024-09937-z>
 - Nada Gaber, Ahmed Ibrahim, **Ahmed B. Rashad**, Essam Wahba, Zeyad El-Sayad, and Ali F. Bakr “**Improving pedestrian micro-climate in urban**



canyons: City Center of Alexandria, Egypt", ScienceDirect, Urban Climate, Vol. 34, Dec. 2020, 100670, <https://doi.org/10.1016/j.uclim.2020.100670>

- H. A. Warda, I. G. Adam, and **A. B. Rashad**, M. W. Gamal Aldin **"Integral Pumping Rings for Dual Mechanical Seals: Hydraulic Performance Evaluation Using Numerical Simulations"**, Taylor & Francis, Engineering Applications of Computational Fluid Mechanics, Vol. 14, No. 1, pp. 923-938, 2020, <https://doi.org/10.1080/19942060.2020.1771425>
- Omar O. Rabhy, I. G. Adam, M. Elsayed Youssef, **A. B. Rashad** and Gasser E. Hassan **"Numerical and Experimental Analysis for Transparent Solar Distiller used in Agriculture Greenhouse"**, ScienceDirect, Applied Energy, Vol. 253, Nov. 2019, 113564, <https://doi.org/10.1016/j.apenergy.2019.113564>
- H. A. Warda, E. M. Wahba, **A. B. Rashad**, A. A. Mahgoub, **"Experimental and Numerical Investigation of Axial Single Scroll Integral Pumping Devices for Dual Mechanical Seals"**, ELSEVIER, Alexandria Engineering Journal (AEJ), Vol. 57, No. 4, pp. 2719-2728, 2018, <https://doi.org/10.1016/j.aej.2017.10.007>
- H. A. Warda, I. G. Adam, and **A. B. Rashad**, M. W. Gamal Aldin **"Bi-directional Integral Pumping Devices for Dual Mechanical Seals: Influence of Mesh Type on Accuracy of Numerical Simulations"**, ELSEVIER, Alexandria Engineering Journal (AEJ), Vol. 57, No. 4, pp. 3255-3264, 2018, <https://doi.org/10.1016/j.aej.2017.11.013>
- H. A. Warda, I. G. Adam, and **A. B. Rashad**, M. W. Gamal Aldin **"Integral Pumping Device for Dual Mechanical Seals: Hydraulic Performance Generalization Using Dimensional Analysis"**, ASME, Journal of Engineering for Gas Turbines and Power, Vol. 140, No. 8, pp. 082507-1-082507-9, 2018, <https://doi.org/10.1115/1.4039083>
- H. A. Warda, I. G. Adam, and **A. B. Rashad**, **"Pipeline Leak Diagnosis Using Transient Analysis"**, Alexandria Engineering Journal (AEJ), Vol. 46, No. 5, pp. 639-658, 2007.
- H. A. Warda, I. G. Adam, and **A. B. Rashad**, **"Modeling Pressure Transient Due to Valve Closure in Leaking Viscoelastic Pipelines"**, Alexandria Engineering Journal (AEJ), Vol. 46, No. 5, pp. 621-638, 2007.

6.2.2. Conference Proceedings

- H. A. Warda, Sherif Haddara, I. G. Adam, **A. B. Rashad** and H. Alaa El-Deen **"Blade Trailing Edge Profile Effect on Low-Speed Centrifugal Pump Performance"**, 11th International Conference on The Role Of Engineering Towards A Better Environment, Alexandria Egypt, December 2017.
- Rabhy O. O., I. G. Adam, M. E. Youssef, G. E. Hassan, **A. B. Rashad** **"Experimental Study on a New Transparent Passive Solar Distiller in a**



Novel Agricultural Greenhouse", 11th International Conference on The Role Of Engineering Towards A Better Environment, Alexandria Egypt, December 2017.

- H. A. Warda, I. G. Adam, and **A. B. Rashad**, M. W. Gamal Aldin **"Effect of kinematic Viscosity of Barrier Fluids on The Performance of a bi-directional Integrated Pumping for Dual Mechanical Seals"**, ASME, Fluid Engineering Division Summer Meeting 2016, FEDSM 2016, Capitol Hill, Washington DC, USA, July 2016, <https://doi.org/10.1115/FEDSM2016-7763>
- H. A. Warda, I. G. Adam, and **A. B. Rashad**, **"Switching Criteria of Three Stage Air Valves"**, ASME International Mechanical Engineering Congress & Exposition, San Diego, California, USA, 2013, <https://doi.org/10.1115/IMECE2013-66729>
- H. A. Warda, I. G. Adam, **A. B. Rashad** and K. R. Elgohary, **"Dynamic Characteristics of Three Stage Air Valves"**, Conference of the ASCE Engineering Mechanics Institute, Northwestern University, Evanston, IL, USA, 2013.
- H. A. Warda, I. G. Adam, and **A. B. Rashad**, **"A Practical Implementation of Pressure Transient Analysis in Leak Localization in Pipelines"**, ASME, International Pipeline Conference (IPC), Calgary, Alberta, Canada, 2004, <https://doi.org/10.1115/IPC2004-0551>