

# Academic Curriculum Vita

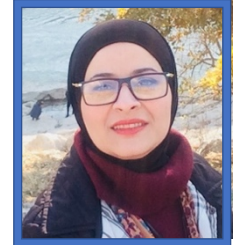


## Personal Information:

Full Name: *Dr. Reem A. Ahmed Alrawi*

Academic Title: *Lecturer*

Email: [reem.alrawi@su.edu.krd](mailto:reem.alrawi@su.edu.krd)



## Education:

- **Ph.D. in Environmental Technology – Universiti Sains Malaysia 2012**  
**Thesis Title**” *Settling Behavior, Morphology and Treatment of High Solid Palm Oil Mill Effluent*”
- **M.Sc. in Environmental Engineering - Baghdad University 2003**  
**Thesis Title** “*Utilization of Discharge Water from Boilers and Softeners in the Preparation of Soap*”
- **B.SC. in Chemical Engineering - Al-Nahrain University 1996**

## Employment:

- **Salahaddin University - Water Resources Engineering Department** – Erbil /Iraq (since 2014). As a lecturer.
- **Climate Change Expert** selected by the Climate Reality Project “this project founded and run by former U.S. Democratic Vice-President and 2007 Nobel Laureate Al Gore” – (Istanbul/Turkey - 2013). Deliver public lectures and presentations in Erbil on the vital issues related to climate change free of charge as a volunteer speaker.
- **Social Responsibility National Expert – (ISO 26000)** – Iraq (2013)
- **Together to Protect Human & The Environment Association (NGO)** – Erbil/Iraq (2012). Part time as a humanitarian aid volunteer.
- **Universiti Sains Malaysia (USM)** – Penang/ Malaysia (2007- 2012).
  - Researcher in a Postgraduate Research Grant Scheme (USM-RU-PRGS) (2009 - 2011).
  - Researching, conducting tutorials and laboratory sessions for three years during my USM fellowship.
- **NAWCO - Wakileh Contracting** –Amman /Jordon (2003 - 2005).  
This company is specialized in supplying and installing engineering equipment, water and wastewater treatment equipment. They also design water and wastewater treatment systems. I worked there as a researcher and administrator. <http://www.naw-co.com>

- **Ministry of Industry and Minerals** – Baghdad/ Iraq (2000 - 2001) I worked their part time as a researcher during my master research.
- **Baghdad University** – Baghdad/ Iraq.
  - Part time lecturer in Petroleum University - Engineering College (1996 - 1997).
  - Part time lecturer in Astrology Science - College of Science (1998 – 1999).
  - Part time lecturer in Environmental Engineering - Engineering College (2000 – 2001).

## Qualifications

### *Certificates and Workshops*

- National Expert on Social Responsibility ISO 26000 (June – 2014, February- 2014 and September 2013 in Istanbul/ Turkey).
- CADCA “Community Anti-Drug Coalitions of America” International Programs (October 2013, December 2013, March 2014 and May 2014).
- Climate Change Expert (June-2013- Istanbul/ Turkey).
- The Art of Writing Publishable Scientific Manuscript 1 & 2 (2012 – Pinang/ Malaysia).
- Thesis Examination (2012 - Pinang/ Malaysia).
- Fundamental Statistical Analysis for Research Students (2010 – Pinang/ Malaysia)
- Symposium of USM Fellowship Holders (2009 - Pinang/ Malaysia).
- PASS Special Workshop (2009 – Pinang/ Malaysia).
- Hands on Bilog Microbial Identification Workshop (2008 – Pinang/ Malaysia).
- Occupational Safety and health Course for Post graduate Students (2007 – Pinang/ Malaysia).
- Methodology, Scientific Writing and Statistical Techniques Workshop (2007 – Pinang/ Malaysia).
- Water and Wastewater Analysis Workshop A Hands – on Approach (2007 – Pinang/ Malaysia).
- Upper Intermediate level 2 of English Language Course (2006 – Pinang/ Malaysia).

## Teaching experience:

### *Teaching Courses*

- Water & Wastewater Treatment Technologies (MSc)
- Design of Waste Water Treatment Plant (Diploma)
- Water and Wastewater Treatment (Undergraduate)
- Introduction to Chemical Engineering (Undergraduate)
- General Chemistry (Undergraduate)
- Water & Wastewater Treatment Technologies (Undergraduate)

- Water Supply & Sewerage (Undergraduate)
- Water and Wastewater Analysis – Practical (Undergraduate)
- Mathematics II (Undergraduate)
- General Chemistry (Undergraduate)
- Fundamental of Petroleum Engineering (Undergraduate)
- Information Technology (Undergraduate)
- Environmental Engineering (Undergraduate)

### ***Final Year Engineering Projects***

- Groundwater Characteristics, Contamination, Protection and Suggested Remediation in Erbil City
- Sludge Treatment and Disposal
- Design of Primary Sedimentation Tank
- Evaluation the Quality of Tap Water in Erbil City/Kwestan
- The quality of different potable water types
- Suggesting Primer Treatment System for the Domestic Wastewater in Erbil City
- Basic Concept and Design Approach of Primary Treatment Plant for Domestic Wastewater
- Assessment of Water Quality Index (WQI) of Drinking Water Sample from Ifraz –II
- Sewage Treatment Plant

## **Research and publications**

1. Reem A. Ahmed Alrawi, Shuokr Qarani Aziz, Enas Sa'ad Fakhrey, Imad Ali Omar, Intisar Majeed Shaheed (2021). **The Effect of Blackwater Disposal on Municipal Wastewater and Soil Properties with Potential Solutions: Erbil as a Case Study, Kurdistan Region, Iraq.** Global NEST Journal, Vol 23, No 3, pp 434-443.
2. Hayder Mohammed Issa, Reem A. Ahmed Alrawi (2018). **Long-term Drinking Water Quality Assessment Using Index and Multivariate Statistical Analysis for Three Water Treatment Plants of Erbil City, Iraq.** UKH Journal of Science and Engineering. 2(2)' P 39-48
3. Ali Kattan, Reem A. Alrawi (2018). **Erbil City Household Water Consumption Data Collection Utilizing Smart Metering System.** ZANCO Journal of Pure and Applied Sciences.30 (s1); s1-s15
4. Ali Kattan, Reem Alrawi (2017). **Preliminary Design of Household Smart Water Consumption Metering Apparatus for Erbil City.** 4th International Conference on Applied Sciences, Energy and Environment, 21 May 2017, Ishik University, Erbil – Iraq.
5. Alrawi, Reem A., Ahmed, Anees, Ismail, Norli, & Omar, A. K. Mohd. (2016). **Estimating the Richardson-Zaki Index  $n$  for Non-Spherical Irregular Natural Sediments in a Concentrated Suspension.** ZANCO Journal of Pure and Applied Sciences 28(2), pp. s406-411.
6. Ghosh, Sadhan Kumar, Lee, Joonheon, Godwin, Achi Chibueze, Oke, Adekunle, Al-Rawi, Reem, & El-Hoz, Mervat. (2016). **Waste Management in USA through case studies: e-waste recycling and**

- waste to energy plant.** Paper presented at the “The 31<sup>st</sup> International Conference on Solid Waste Technology and Management”, Philadelphia, PA U.S.A.
7. Alrawi, R.A., Ahmad, A., Ismail, N. & Kadir, M.O.A. (2015). **Predicted Free Settling Velocity of Spherical Non-Oily Palm Oil Mill Effluent Particles at Different Particle Sizes.** *The Thirtieth International Conference on Solid Waste Technology and Management (ICSW 2015) Philadelphia, U.S.A.*
  8. Alrawi, R.A., Ahmad, A., Ismail, N. & Kadir, M.O.A. (2014). **The Empirical Settling Velocity of Palm Oil Mill Effluent (POME) Particles at Different Concentrations, Sizes and Densities.** *First International Engineering Conference on Development in Civil & Computer Engineering Applications (IEC 2014). Ishik University-Erbil, Iraq.*
  9. Kattan, Ali & Alrawi, Reem. (2014). **Pressure Vessel Design Using the Dynamic Self-adaptive Harmony Search Algorithm.** *The Fourth International Conference on Digital Information Processing and Communications (ICDIPC 2014), Malaysia.*
  10. Alrawi, R. A., Rahman, N. N. N. A., Ahmad, A., Ismail, N., & K., M. O. A. (2013). **Characterization of Oily and Non-Oily Natural Sediments in Palm Oil Mill Effluent.** *Journal of Chemistry*, vol. 2013.
  11. Alrawi, R.A., Ahmad, A., Ismail, N. & Kadir, M.O.A. (2011). **Effect of aluminium sulfate dosage and mixing ratio on organic loading removal and settling velocity of palm oil mill effluent particles.** *Journal of Industrial Research & Technology*, 1 (2), pp.103-109.
  12. Alrawi, R.A., Ahmad, A., Ismail, N. & Kadir, M.O.A. (2011). **Anaerobic co-digestion of palm oil mill effluent with rumen fluid as a co-substrate.** *Desalination*, 269, pp.50-57.
  13. Alrawi, R.A., Ahmad, A., I., N. & K., M.O.A. (2010). **Methane Production during Start-Up Phase of Mesophilic Semi-Continues Suspended Growth Anaerobic Digester.** *International Journal of Chemical Reactor Engineering*, 8, pp. A89.
  14. Alrawi, R.A., Ahmad, A., Ismail, N. & Kadir, M.O.A. (2010). **The Organic Load Reduction of Palm Oil Mill Effluent by Aluminum Sulfate.** *International Conference on Environmental Research and Technology (ICERT 2010)*, pp. 648. Pinang -Malaysia.
  15. Ahmed, R.A., Ahmad, A., Ismail, N. & Kadir, M.O.A. (2009). **Effect of Aluminium Sulfate on TSS Removal and Settling Velocity of Palm Oil Mill Effluent (POME) Particles.** *Proceedings of Symposium of USM Fellowship Holders 2009 Penang, Malaysia.* The Institute of Postgraduate Studies, Universiti Sains Malaysia.
  16. Ahmed, R.A., Ahmad, A. & Kadir, M.O.A. (2008). **Studies on Breakthrough Time of Strong Cation Exchange Resin in a Water Treatment Plant.** *International Conference on Environmental Research and Technology (ICERT 2008)*, Pinang -Malaysia. pp. 880-885.
  17. Sulaymon, A.H., Al-Sabti, M.D. & Al-Rawi, R.A.H. (Sept. 2004). **Studying the breakthrough time for strongly acidic cation exchanger.** *J. Engineering, A Scientific Refereed Journal published by: College of Engineering University of Baghdad*, 10 (3).

## Conferences and courses attended

- Participated in (Second International Conference of Engineering and Innovating Technology (SU\_IECIT-2019)). 14 -16 April 2019, Salahaddin University, Erbil -Iraq.
- Participated in the workshop (Water Resources and Environmental Challenges in Kurdistan Region-IRAQ). 18 – 19 Feb. 2019, Salahaddin University, Erbil -Iraq.
- Participated in (4<sup>th</sup> National Innovation Competition in Engineering ‘NICE 2018-Civil Category’). May 06, 2018, Ishik University, Erbil -Iraq.
- Participated in “4th International Engineering Conference (IEC2018). February 26-27, 2018 Ishik University and Erbil Polytechnic University, Erbil -Iraq.
- Presented Seminar “Preliminary Design of Household Smart Water Consumption Metering Apparatus for Erbil City”. 4th International Conference on Applied Sciences, Energy and Environment, 21<sup>st</sup> May 2017, Ishik University, Erbil - Iraq
- Participated in “First International Conference on Water and Energy in Kurdistan Challenges and Alternatives” on 14<sup>th</sup>-15<sup>th</sup> May 2017. Salahaddin University, Erbil -Iraq
- Presented Seminar “Sustainable Development Goals & Eco Bag Campaign”. Earth’s Day Conference, 25<sup>th</sup> April 2016, Al-Hayat Private University, Erbil – Iraq.
- Presented Seminar “Impact of Climate Change on Water Resources”. Kurdistan Water Week Workshop 6-8 March 2016, University of Salahaddin- Collage of Engineering, Erbil- Iraq
- Attended CADCA’s Mid –Year Training Institute (MYTI), themed Mission Possible: Agent Change, (2-6 August 2015), Indianapolis, IN- USA.
- Participated in Thirtieth International Conference on Solid Waste Technology and Management (ICSW 2015) Philadelphia, USA.
- Participated in First International Engineering Conference on Development in Civil & Computer Engineering Applications (IEC 2014). Ishik University-Erbil, Iraq.
- Participated in International Conference on Environmental Research and Technology (ICERT) 2010 (2 June 2010) Pinang -Malaysia.
- Participant in Symposium of USM Fellowship Holders (14th -15<sup>th</sup> November 2009) Pinang – Malaysia.
- Participant in International Conference of Environmental Research and Technology (ICERT) 2008 (29<sup>th</sup> May 2008), Pinang – Malaysia.

## Funding and academic awards

- Award for winning the prize of 1<sup>st</sup> place in the event of (4<sup>th</sup> National Innovation Competition in Engineering ‘NICE 2018-Civil Category’). May 06, 2018, Ishik University, Erbil -Iraq.
- Awarded the Universiti Sains Malaysia (USM)) Fellowship 2007-2010 (full fee exemption).
- Sanggar Sanjung Award for excellent achievement in category of journal publication (2010 – Pinang/ Malaysia).
- Holder of Postgraduate Research Grant Scheme\_ Universiti Sains Malaysia (USM) (USM-RU-PRGS) (2009 - 2011).

## Professional memberships

- Member in Kurdistan Engineering Union
- Member in Iraq Union of Engineers

## Professional Social Network Accounts:

- *ResearchGate*

<https://www.researchgate.net/profile/Reem-Alrawi>

- *Google Scholar*

<https://scholar.google.com/citations?user=e05MyXgAAAAJ>

- *LinkedIn*

[https://iq.linkedin.com/in/reem-alrawi-42ab2272?trk=public\\_profile\\_browsemap](https://iq.linkedin.com/in/reem-alrawi-42ab2272?trk=public_profile_browsemap)

- *ORCID*

<https://orcid.org/0000-0003-3038-5469>