

CURRICULUM VITAE



PERSONAL DETAILS

Name : PROF. DR. ADNAN A. ABDULRAZAK

Department: Chemical Engineering Department

University: University of Technology - IRAQ.

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Academic Positions

1. 2006-2009, **Lecturer**, Chemical Engineering Department, University of Technology -IRAQ.
2. 2009-2019, **Asst. Professor**, Chemical Engineering Department, University of Technology -IRAQ.
3. 2016-2017, **Visiting Professor**, Department of Chemical and Biochemical Engineering, Western University – Canada.
4. 2019-2026, **Professor**, Chemical Engineering Department, University of Technology-IRAQ.

Teaching Experience

1. 2006-2009, **Lecturer**, Chemical Engineering core subjects for BSc program, University of Technology, Chemical Engineering Department -IRAQ. Subjects:
 - Petroleum Refinery Engineering
2. 2009-2019, **Associate Professor**, Chemical Engineering core subjects for BSc, MSc and PhD Programs, University of Technology, Chemical Engineering Department - IRAQ. Subjects:
 - Petroleum Refinery Engineering
 - Gas Technology
 - Petrochemical Industries
 - Chemicals from Petroleum
 - Polymer Technology

- Material Engineering
3. 2019-2016, **Professor**, Chemical Engineering core subjects for BSc, MSc and PhD Programs, University of Technology, Chemical Engineering Department -IRAQ.
- Subjects:
- Petroleum Refinery Engineering

Academic Services

1. Internal examiner for several PhD and MSc thesis, University of Technology / Iraq.
2. External examiner for several PhD and MSc thesis University of Baghdad / Iraq.
3. External examiner for several MSc thesis University of Tikrit / Iraq.
4. External examiner for several MSc Technical College / Iraq.
5. Evaluation panel for research proposals.

Academic Qualifications

1. **PhD** in Chemical Engineering, University of Technology, Chemical Engineering Department-IRAQ, 2004.
2. **MSc** in Chemical Engineering, University of Technology, Chemical Engineering Department-IRAQ, 1987.
3. **BSc** in University of Technology, Chemical Engineering Department-IRAQ, 1981.

List of Publications

Refereed Journals

1. Mohammed Ibrahim Nabeel, Kadhim Taieh Nabil, Mohammed Ahmed Shehab, Ying Li, Guangjun Gou, Adnan A. AbdulRazak and Khalid T. Rashid “comparative performance of graphene and mxene in flexible pressure sensors ” *Sens. Diagn.*, <https://doi.org/10.1039/D5SD00223k>
2. A. M. Jaffar, M. A. Shehab, K. T. Rashid, et al. “ Influence of Functionalization Solvents and Ligands on Fe(III) Catalysis in Epoxide Ring-Opening Reactions Using Mesoporous Silica Supports.” *ChemistrySelect* 11, no. 3 (2026): e07131. <https://doi.org/10.1002/slct.202507131>
3. Firas K. Al-Zuhairi, Zaidoon M. Shakor, Hasan Sh. Majdi, Adnan A. AbdulRazak, Ali Al-Shathr, Emad N. Al-Shafei, Biogas and biomethane production via anaerobic

digestion: Experimental analysis and modeling using hybrid ANN-GA optimization, *Sustainable Chemistry for the Environment*, Volume 13, 2026, 100315, <https://doi.org/10.1016/j.scenv.2026.100315>.

4. Maryam Y. Ghadhban, Mohammed Ahmed Shehab, Ali A. Abdulabbas, Khalid T. Rashid, Adnan A. Abdulrazak, Lilla Nánai, István Kocserha, A novel Bi₂WO₆/MWCNTs-decorated PES photocatalytic membrane for efficient dye removal, *Journal of Membrane Science*, Volume 741, 2026, 125100, <https://doi.org/10.1016/j.memsci.2025.125100>.
5. Ghaidaa M. Jaid, Adnan A. AbdulRazak, Muayad al-Shaeli, Qusay F. Alsalhy, Raed A. Al-Juboori, Plastic waste-based Cu-BDC and COOH-MWCNT@Cu-BDC MOF for enhancing PPSU membrane for efficient heavy metal removal from industrial wastewater, *Journal of Environmental Chemical Engineering*, Volume 14, Issue 1, 2026, 120608, <https://doi.org/10.1016/j.jece.2025.120608>.
6. Mohammed Ahmed Shehab, Emma Szőri-Dorogházi, Tímea B. Gerzsenyi, Munaf Al-lami, Andrea Valsesia, Tamás Szabó, Khalid T. Rashid, Adnan A. AbdulRazak, Anett K. Leskó, Haidar Hasan Mohammed, Zoltán Németh, Utilization of semiconductor-decorated tungsten trioxide nanowire membranes for the elimination of microorganisms from potable water, *RSC Advances*, Volume 15, Issue 35, 2025, Pages 28613-28625, <https://doi.org/10.1039/d5ra04826e>.
7. Hussain Ali Ibrahim, Khalid T. Rashid, Adnan A. AbdulRazak, Mohammed Ahmed Shehab, Mohammed A. Salih, Munaf Al-lami, Mohammed A. Taher Al-Mayyahi, Sarah Z. Al-Ashoor, Sahab K. Shakir, Haidar Hasan Mohammed, Alhafadhi Mahmood, A novel poly(ether-Sulfone) mixed matrix membranes infused with TiO₂-BiFeO₃ nanomaterials for the removal of toxic Congo red dye from textile wastewater, *Chemical Engineering Journal Advances*, Volume 24, 2025, 100867, <https://doi.org/10.1016/j.ceja.2025.100867>.
8. Ali Al-Shathr, Bashir Y. Al-Zaidi, Safa Aal-Kaeb, Zaidoon M. Shakor, Hasan Sh. Majdi, May A. Alsaffar, Muhannad A.E. Al-Saedy, Ahmed Majeed Jassem, Ramzy S. Hamied, Firas K. Al-Zuhairi, Adnan A. AbdulRazak, Talib M. Albayati, James McGregor, “ Investigation of toluene alkylation with hept-1-ene over fresh and modified h-beta catalysts according to apparent activation energy values, South

African Journal of Chemical Engineering, Volume 54, 2025, Pages 114-132,
<https://doi.org/10.1016/j.sajce.2025.07.010>.

9. Zaidoon M. Shakor, Yaseen M. Tayib, Adnan A. AbdulRazak, Zainab Y. Shnain, Emad Al-Shafei “ Thermogravimetric Analysis Integrated with Mathematical Methods and Artificial Neural Networks for Optimal Kinetic Modeling of Biomass Pyrolysis: A Review” ACS Omega 2025, 10, 33, 36750–36770. doi/10.1021/acsomega.5c02250.
10. Mohammed Ahmed Shehab, Munaf Al-lami, Mohammad A. Taher, Haidar Hasan Mohammed, Adnan A. AbdulRazak, Khalid T. Rashid, Alhafadhi Mahmood, Mohammed Faleh Abd Al-Ogaili, Saad Alsarayefi, Recent progress in adsorptive removal of different contaminants by chitosan-based aerogel, RSC Advances, Volume 15, Issue 36, 2025, Pages 29727-29742, <https://doi.org/10.1039/d5ra03536h>.

POSTGRADUATE SUPERVISION

Graduated MSc Students

Degree	Thesis Title	Student name	Year of graduation	Role
MSc	A Study Mechanical Properties of Epoxy Resin Cured with Different Hardeners.	Maryem Emad	2010	Co-Supervisor
MSc	Removal of Copper (II) From Wastewater Using Modified Carbon Nanotubes.	Ayad Dari Jaafar	2012	Co-Supervisor
MSc	Study of Mechanical and Physical Properties of Carbon Nanotubes (CNTs) Composite Material for Applications in Chemical Reactor Material.	Hassen Hamid Hassen	2012	Co-Supervisor
MSc	Modified Multiwalled Carbon Nanotubes for Organic Wastewater Treatment.	Dhiyaa A. Hussein	2013	Co-Supervisor
MSc	Purification of ethanol produced by al Mosul state company for sugar production using carbon Nano filter.	Ahmed Talal Sadeq	2015	Co-Supervisor
MSc	Preparation and characterization of nanocatalyst for	Mohammed Ahmed Shehab	2015	Co-Supervisor

	desulfurization of vacuum gasoil (VGO).			
MSc	"Re-refining of used lubricant oil by solvent extraction"	Ghassan Rokan Daham	2015	Main Supervisor
MSC	Study of the Thermodynamics behavior for polymer blends.	Mohammed Shorbaz Graish	2017	Main Supervisor
MSC	Modification of Zeolite by Magnetic Nanoparticles for Organic Dye Removal	Zaianb Majid	2019	Main Supervisor
MSC	Preparation and characterization of mineral oil based nanoemulsion for metalwork lubrication applications.	Nuhad Badeea	2020	Main Supervisor
MSc	Preparation and characterization of Eco-Friendly composite membrane for separation process.	Sarah Mudhir Ahmed	2020	Main supervisor
MSc	Removal of Methylene blue dye from aqueous solution Using Industrial Waste Materials.	Firas Shihab Ahmed	2022	Main supervisor
MSc	Ultrasound- assisted adsorptive desulfurization of model fuel over Zn/Al ₂ O ₃ adsorbers.	Sahar Mohammed	2022	Main supervisor
PhD	Different Nanoparticles Additives to Membrane Polymers for Wastewater Treatment by Membrane Technology.	Dhiyaa A. Hussein	2023	Co-Supervisor
MSc	Green synthesis of nano catalysts using plant extracts for removing the organic pollutants in water	Shahnaz Bassim	2023	Main supervisor
PhD	Synthesis and evaluation of sustainable green composite (PLA/PBAT) membrane for effective simulated oil/water separation.	Maryam Y. Ghadhban	2024	Supervisor
MSc	Iraqi clays as sorbent material for organic pollutant compounds.	Mohamed Ahmed	2024	Main supervisor
MSc	Two dimensional MXene/PVA membrane for removal of lead and bovine serum albumin.	Zainab Emad	2024	Main supervisor

MSc	Non- thermal plasma technology for industrial waste water treatment.	Noora Nafia Ali	2025	Main supervisor
MSc	Fabrication and characterization of PES/ TiO ₂ -BiFeO ₃ modified membranes for removal of dye using the photocatalytic membrane process.	Hussein Ali Ibrahim	2025	Main supervisor
PhD	Mixed matrix membranes (MMM) for wastewater application: Experimental and modelling study.	Gadia Megida	2025	Supervisor

Graduated Higher Diploma Students

Degree	Thesis Title	Student name	Year	Role
Higher Diploma	Evaluation of Basra Crude Oil.	Haider Twomaz	2013	Main Supervisor
Higher Diploma	Additives for Lubrication Oil to Improve its Properties.	Wissam Adnan Hyder	2013	Main Supervisor

Ongoing MSc Students

Degree	Thesis Title	Student name	Status	Role
MSc	Regulation of the polymeric membrane network structure with green nano additives to adjust the antifouling and membranes selectivity features.	Saba Ali	ONGOING	Main supervisor

Ongoing PhD Students

Degree	Thesis Title	Student name	Status	Role
PhD	Treatment of oily wastewater produced from refinery processes via enhancing of the Permeability and Antifouling Characteristics of Polymeric mixed matrix membrane.	Lamyaa Adnan Abdulridha	ONGOING	Supervisor
PhD	Experimental investigation of ultrafiltration membrane performance through nan additive and structural optimization for wastewater treatment.	Rasha Haitham Khudhur	ONGOING	Supervisor

