



Abdulhakim sulaiman ali Al Hinai

Lecturer

الهندسة الكيميائية والبتروكيميائية.....

College of Engineering and Architecture

University of Nizwa, Sultanate of Oman

Extension: 469

eMail: abdulhakim.alhinai@unizwa.edu.om

Office Location: Building 27 office #15

Time at UoN: Since 2019

Marital Status: ...

Abdulhakim began his academic journey at the University of Nizwa as a demonstrator, a role he earned through exceptional performance and distinguished achievements during his BSc studies in the USA, where he was granted an exceptional joint-Master. His unwavering dedication to excellence led him to pursue and complete an advanced master's degree from one of the world's top 100 prestigious universities (Leeds, UK). In recognition of his academic merit and growing expertise, he was proudly promoted to the position of lecturer—marking a significant milestone in a career defined by ambition, excellence, and international accomplishment.

Academic Qualifications

MSc Advanced Chemical Engineering (CGPA: 4/4), University of Leeds, UK , 2024,
Performance Comparison of Differently dried Graphene Oxide-Based Membranes for
Desalination by FO: Chemical free Modification and Characteristics Approach

BSc Chemical Engineering, USA (CGPA: 3.93/4), University of South Carolina , 2018, MIBK -
Methyl isobutyl Keton

Teaching Activities

CHPE 101

CHEM 101

EGNG 101

CHPE 102

CHPE 307

CHPE 202

CHPE 306

Research Activities

- *Research Interests*

Abdulhkim`s areas of interest focus on the application of nanomaterials in water desalination, wastewater treatment and enhancing electrochemical cells performance. His notable achievements include supervising several student projects, including a 2023 project on green hydrogen using Donite Rock, which placed third in a national competition organized by Petroleum Development Oman (PDO). In addition to his academic achievements, he has gained substantial professional experience, having worked in various capacities, from a process engineer trainee at Schlumberger to a drilling fluids engineer trainee at Halliburton. His involvement in research includes work on nuclear power at USC, polymer case studies, and contributions to renewable hydrogen technology. He has published three papers in high-ranking journals and is actively engaged in ongoing research, including a collaborative project on water desalination with the University of Leeds.

HTPEMFCs

Nanotechnology & Nanomaterials

Water treatment & Wastewater

- *Conference Presentations*

Photocatalytic Treatment of Oily Wastewater Using Nano SiO₂/TiO₂ Nanocomposites, 4th International Conference on Petroleum Technology & Petrochemicals, UOT-Iraq, 4/12/2025

Applications of Green Nanotechnology in Petroleum Industry and Petroleum Geology: A review, 4th International Conference on Petroleum Technology & Petrochemicals, UOT-Iraq, 3/12/2025

Techno-economic Evaluation of a hybrid power generation and green hydrogen production for Al Mazunah in Oman, World Renewable Energy Congress WREC 2023, Kuala Lumpur , 24/09/2023

Integrated Gravity-flow Anaerobic-Aerobic Zoned Adequate Wastewater Treatment System (iGAZA), Engineering for Palestine Conference , Palestine Polytechnic University, Hebron, Palestine , 29-30 September 2025

- **Conference Attendance**

4th International Conference on Petroleum Technology & Petrochemicals, UOT-Iraq, 3/12/2025

Engineering for Palestine Conference , Palestine Polytechnic University, Hebron, Palestine , 24/09/2025

- **Publications**

Article:

1. 2025 [Eco-friendly Synthesis of ZnO NPs Using Date seed: A Sustainable Approach for the Treatment of Produced Water from the Siba Oilfield](#)
2. 2025 [A Review of Historical Nanoscience, Low-Dimensional Nanomaterials: The art of fabrication, Characteristics, and Applications in wastewater](#)
3. 2025 [Performance comparison of differently dried graphene oxide-based membranes for desalination by forward osmosis](#)
4. 2024 [Techno Economic Design and Analysis of A Hybrid Renewable Energy System for Jazirat Al Halaniyat in Oman](#)
5. 2024 [Performance Analysis of a Proposed Hybrid Energy Generation and Green Hydrogen Production System for Al Mazunah in Oman](#)
6. 2024 [Effect of Polymer-Entwined Reduced Graphene Oxide Laminates on the Performance and Stability of Forward Osmosis Membranes for Water Desalination](#)

Community Services

31/10/2024: On October 30, 2024, I had the privilege of participating as a referee at an educational project competition held at the National Entertainment Center in the Wilayat of Manah. This event showcased innovative student projects in Engineering, environmental science, and other scientific fields. It was inspiring to witness the enthusiasm and

dedication of young students as they presented their work, demonstrating impressive skills and knowledge. Evaluating these projects allowed me to contribute to fostering academic excellence and support the next generation of scientific thinkers in our community.

22/10/2024: On Tuesday, 22 nd 2024, Um Alfadhel School hosted a workshop on the topic of ``Green Hydrogen,`` presented by Mr. Abdulhakim Alhinai, a lecturer from the Department of Chemical and Petrochemical Engineering. The workshop was organized as part of the school's ongoing initiative to introduce students to cutting-edge scientific topics and to promote sustainability and clean energy solutions. The central theme of the workshop was green hydrogen, an innovative and promising technology in the field of renewable energy. Mr. Abdulhakim Alhinai elaborated on the significance of green hydrogen as a clean and sustainable energy source. He explained how hydrogen can be produced by splitting water using renewable energy, such as solar or wind power, and emphasized its potential in reducing global carbon emissions.

Membership in Professional Bodies

2017-Present: ALChE

1. Approved academic tutor at SuperProf (2023 - to date)
2. Best FYP Hollowfiber membrane (BSc) (2018)
3. Best Chemistry lecturer appointed by SQU researcher (2022)
4. Outstanding credential (Leeds, UK) - 2024
5. Talker at Saudi Aramco (2020)

Ref.: <https://www.unizwa.edu.om/staff/cea/abdulhakim.alhinai>