

عبدالحكيم سليمان علي الهنائي

محاضر

الهندسة الكيميائية والبتروكيميائية.....

كلية الهندسة والعمارة

جامعة نزوى، سلطنة عمان

محول: 469

البريد الإلكتروني: abdulhakim.alhinai@unizwa.edu.om

موقع المكتب: Building 27 office #15

يعمل في الجامعة: منذ 2019

الحالة الاجتماعية: ....

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

المؤهلات الأكاديمية

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

أنشطة التدريس

CHPE 101

CHEM 101

EGNG 101

CHPE 102

CHPE 307

CHPE 202

CHPE 306

الأنشطة البحثية

الاهتمامات البحثية ـ

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

العرض في المؤتمرات ـ

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

حضور المؤتمرات ـ

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

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

المنشورات ـ

مقال:

1. 2026 Tuning polyamide structure via organic-phase incorporation of graphene oxide for high-performance thin-film nanocomposite membranes for forward osmosis seawater desalination

2. 2026 Enhanced performance of thin-film nanocomposite forward osmosis membranes via organic-phase incorporation of functionalized multiwalled carbon nanotubes

3. 2026 Green nanoparticles in drug delivery: Translational challenges and AI solutions

4. 2026 Impact of drying techniques on the structural properties and methyl orange degradation efficiency of Moringa oleifera mediated ZnO nanoparticles

5. 2026 Eco-friendly Synthesis of ZnO NPs Using Date seed: A Sustainable Approach for the Treatment of Produced Water from the Siba Oilfield

6. 2026 A Review of Historical Nanoscience, Low-Dimensional Nanomaterials: The art of fabrication, Characteristics, and Applications in wastewater

7. 2025 Performance comparison of differently dried graphene oxide-based membranes for desalination by forward osmosis

8. 2024 Techno Economic Design and Analysis of A Hybrid Renewable Energy System for Jazirat Al Halaniyat in Oman

9. 2024 Performance Analysis of a Proposed Hybrid Energy Generation and Green Hydrogen Production System for Al Mazunah in Oman

10. 2024 Effect of Polymer-Entwined Reduced Graphene Oxide Laminates on the Performance and Stability of Forward Osmosis Membranes for Water Desalination

خدمة المجتمع

: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.

العضوية في الهيئات المهنية

2017–الآن: AIChE

Approved academic tutor at SuperProf (2023 - to date) 2. Best FYP Hollowfiber membrane (BSc) .1 (2018) 3. Best Chemistry lecturer appointed by SQU researcher (2022) 4. Outstanding credential (Leeds, UK) - 2024 5. Talker at Saudi Aramco (2020) 6. GTA at the UoM

المرجع: https://www.unizwa.edu.om/staff/cea/abdulhakim.alhinai