



## 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

الحالة الاجتماعية: ....

### المؤتمرات الأكاديمية

MSc Advanced Chemical Eng , 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 , University of South Carolina , 2018, MIBK - Methyl isobutyl Keton

### أنشطة التدريس

CHPE 101

CHEM 101

EGNG 101

CHPE 102

CHPE 307

### الأنشطة البحثية

الاهتمامات البحثية -

Abdulhakim`s areas of interest focus on the application of nanomaterials in water desalination and enhancing hydrogen production in fuel and electrochemical cells. 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

#### العرض في المؤتمرات -

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

#### المنشورات -

##### مقال:

Techno Economic Design and Analysis of A Hybrid Renewable Energy System for Jazirat Al 2024 .1 Halaniyat in Oman, Al Busaidi, A., Al lamki, H., AL Hinai, A., & Kazem, H. A. (2023). Techno Economic Design and Analysis of A Hybrid Renewable Energy System for Jazirat Al Halaniyat in Oman. <https://doi.org/10.20508/ijrer.v13i3.13679.g8778>

Performance Analysis of a Proposed Hybrid Energy Generation and Green Hydrogen 2024 .2 Production System for Al Mazunah in Oman, Ahmed Said Al Busaidi, Manal Abdullah Al Hinai, Abdul Hakeem Al Hinai, Hamza Al Lamki, Hussein A Kazem, K. J. Sabareesaan, `` Performance Analysis of a Proposed Hybrid Energy Generation and Green Hydrogen Production System for Al Mazunah in Oman,`` International Journal of Engineering Trends and Technology, vol. 72, no. 8, pp. 44-53, 2024. Crossref, <https://doi.org/10.14445/22315381/IJETT-V72I8P106>

Effect of Polymer-Entwined Reduced Graphene Oxide Laminates on the Performance and 2024 .3 Stability of Forward Osmosis Membranes for Water Desalination, Mohamed Edokali, Rachel Bocking, Alexander Massey, Abdulhakim Alhinai, David Harbottle, Robert Menzel, Ali Hassanpour, Effect of polymer-entwined reduced graphene oxide laminates on the performance and stability of forward osmosis membranes for water desalination, Polymer,2024,127644,ISSN 0032-3861,<https://doi.org/10.1016/j.polymer.2024.127644>. ((<https://www.sciencedirect.com/science/article/pii/S0032386124009807>

#### خدمة المجتمع

On October 30, 2024, I had the privilege of participating as a referee at an :31/10/2024 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

On Tuesday, 22 nd 2024, Um Alfadhel School hosted a workshop on the topic of :22/10/2024 ``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.

---

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