**الاسم المستخدم في نشرالبحوث حسب الكوكل سكولر**

**Ali Omran Al-Sulttani**

**الاتجاهات البحثية**

Solar energy, Solar radiation, Solar stills, Solar panel, Solar air collector, Photovoltaics, Renewable energy technologies, Sustainable energy Alternative energy, Heat transfer, Mass transfer, Thermal efficiency, Water treatment, Water quality, Water resources, Desalination, Wastewater treatment, Environmental pollution, Pollutants, Gases emissions, Alternative fuels, optimization techniques, Metaheuristic algorithms, Particle swarm optimization, Response surface method, Machine learning models.

**الدرجة العلمية**

**Assistant Prof. Dr. , PhD**

**الأبحاث المنشورة**

‏Al-Sulttani, A. O., Ahsan, A., Rahman, A., Daud, N. N., & Idrus, S. (2017). Heat transfer coefficients and yield analysis of a double-slope solar still hybrid with rubber scrapers: an experimental and theoretical study. *Desalination*, *407*, 61-74.‏

Al-Sulttani, A. O., Ahsan, A., Hanoon, A. N., Rahman, A., Daud, N. N. N., & Idrus, S. (2017). Hourly yield prediction of a double-slope solar still hybrid with rubber scrapers in low-latitude areas based on the particle swarm optimization technique. *Applied Energy*, *203*, 280-303.‏

Adam, N. M., Attia, O. H., Al-Sulttani, A. O., Mahmood, H. A., As’arry, A., & Rezali, K. A. M. (2020). Numerical Analysis for Solar Panel Subjected with an External Force to Overcome Adhesive Force in Desert Areas. *CFD Letters*, *12*(9), 60-75.

Tao, H., Al-Sulttani, A. O., Salih Ameen, A. M., Ali, Z. H., Al-Ansari, N., Salih, S. Q., & Mostafa, R. R. (2020). Training and Testing Data Division Influence on Hybrid Machine Learning Model Process: Application of River Flow Forecasting. *Complexity*, *2020*.

Hussein A. Mahmood, Ali O. Al-Sulttani, Osam H. Attia (2020). A Computational Fluid Dynamics Study to Optimize the Orientation of the Syngas Injector for Reducing Environmental Pollution and Performance Improvement of a Bi Engine. *International Journal of Mechanical & Mechatronics Engineering IJMME-IJENS. Vol 20, No:05,* 164-174*.*

Hason, M. M., Al-Sulttani, A. O., Abbood, I. S., & Hanoon, A. N. (2020, November). Emissions Investigating of Carbon Dioxide Generated by the Iraqi Cement Industry. In *IOP Conference Series: Materials Science and Engineering* (Vol. 928, No. 2, p. 022041). IOP Publishing.‏

Hason, M. M., Hanoon, A. N., Al Zand, A. W., Abdulhameed, A. A., & Al-Sulttani, A. O. (2020). Torsional Strengthening of Reinforced Concrete Beams with Externally-Bonded Fibre Reinforced Polymer: An Energy Absorption Evaluation. *Civil Engineering Journal*, *6*, 69-85.

Tao, H., Ewees, A. A., Al-Sulttani, A. O., Beyaztas, U., Hameed, M. M., Salih, S. Q., ... & Yaseen, Z. M. (2021). Global solar radiation prediction over North Dakota using air temperature: development of novel hybrid intelligence model. *Energy Reports*, *7*, 136-157.

‏Hawal, L. H., Al-Sulttani, A. O., & Hamza, J. N. (2023). Cadmium Removal from Contaminated Soil by Electro-Kinetic Method. *Journal of Ecological Engineering*, *24*(1), 79-86.

Hason, M. M., Abdulrahman, A. F., & Al-Sulttani, A. O. (2022, October). Iraqi Hawizeh Marsh: A half-century of water surface evaluation. In *AIP Conference Proceedings* (Vol. 2398, No. 1, p. 020014). AIP Publishing LLC.‏‏‏‏

AL-BAKRI, B. A., RASHAM, A., & ALSULTTANI, A. O. (2022). THERMAL PERFORMANCE OF MULTIPLE-PASS SOLAR AIR HEATER WITH PIN FINS. *Journal of Engineering Science and Technology*, *17*(3), 2192-2217.‏

Al-Sulttani, A. O., Ahsan, A., Al-Bakri, B. A., Hason, M. M., Daud, N. N. N., Idrus, S., ... & Yaseen, Z. M. (2022). Double-Slope Solar Still Productivity Based on the Number of Rubber Scraper Motions. *Energies*, *15*(21), 7881.‏

Hason, M. M., Al-Sulttani, A. O., & Jasim, A. A. (2022). Performance evaluation of coronavirus closure on air quality over central, southern and northern parts of Iraq. *Journal of Environmental Engineering and Science*, *17*(4), 184-197.‏

Mahmood, H. A., Al-Sulttani, A. O., Mousa, N. A., & Attia, O. H. (2022). Impact of Lambda Value on Combustion Characteristics and Emissions of Syngas-Diesel Dual-Fuel Engine. *International Journal of Technology*, *13*(1), 179-189.‏

Ameen, A. M. S., Al-Sulttani, A. O., & Al-Bakri, B. A. (2021, June). Evaluating the effects of reservoir level and foundation depth on the dynamic behaviour of a rockfill dam using three-dimensional finite elements modelling. In *IOP Conference Series: Earth and Environmental Science* (Vol. 779, No. 1, p. 012044). IOP Publishing.‏

Al-Sulttani, A. O., Al-Mukhtar, M., Roomi, A. B., Farooque, A. A., Khedher, K. M., & Yaseen, Z. M. (2021). Proposition of new ensemble data-intelligence models for surface water quality prediction. *IEEE Access*, *9*, 108527-108541.‏

Mahmood, H. A., Al-Sulttani, A. O., & Attia, O. H. (2021, June). Simulation of Syngas Addition Effect on Emissions Characteristics, Combustion, and Performance of the Diesel Engine Working under Dual Fuel Mode and Lambda Value of 1.6. In *IOP Conference Series: Earth and Environmental Science* (Vol. 779, No. 1, p. 012116). IOP Publishing.‏

Hawal, L. H., Al-Sulttani, A. O., & Kariem, N. O. (2021). Adsorption of Lead Ions from Aqueous Solutions onto Rice Husks, Continuous System. *Journal of Ecological Engineering*, *22*(10), 269-274.

Al-Sulttani, A. O., Aldlemy, M. S., Zahra, M. M. A., Gatea, H. A., Khedher, K. M., Scholz, M., & Yaseen, Z. M. (2022). Thermal effectiveness of solar collector using graphene nanostructures suspended in ethylene glycol–water mixtures. *Energy Reports*, *8*, 1867-1882.‏

Hawal, L. H., Al-Sulttani, A. O., & Kariem, N. O. (2021). Chromium elimination from contaminated soil by electro-kinetic remediation, using garlic peels powder. *Journal of Ecological Engineering*, *22*(7).‏

Hamza, J. N., & Al-Sulttani, A. O. (2022). Impact of using magnetic water on the micro structure of leached saline-sodic soil. *Environmental Monitoring and Assessment*, *194*(9), 608.‏

MAHMOOD, H. A., AL-SULTTANI, A. L. I. O., & MOSA, A. (2022). NUMERICAL INVESTIGATION OF DIESEL ENGINE PERFORMANCE OPERATED IN DUAL FUEL PHASE WITH INCREASING SYNGAS DIESEL ADDITION RATIO AND LAMBDA VALUE OF. *Journal of Engineering Science and Technology*, *17*(4), 2412-2430.‏

Mahmood, H. A., Al-Sulttani, A. O., Mousa, N. A., & Attia, O. H. (2022). Impact of Lambda Value on Combustion Characteristics and Emissions of Syngas-Diesel Dual-Fuel Engine. *International Journal of Technology*, *13*(1), 179-189.‏

Mahmood, H. A., Al-Sulttani, A. O., Attia, O. H., & Adam, N. M. (2021). A numerical study to improve the position and angle of the producer gas injector inside the intake manifold to minimize emissions and efficiency enhancement of a bi engine. *EUREKA: Physics and Engineering,(5)*, 100-109.‏

Mahmood, H. A., Al-Sulttani, A. O., & Attia, O. H. A Computational Fluid Dynamics Study to Optimize the Orientation of the Syngas Injector for Reducing Environmental Pollution and Performance Improvement of a Bi Engine.‏‏

**الكتب والمؤلفات**

**رسائل الماجستيرالذي اشرف عليها**

- Effect of Design and Operation Parameters on the Performance of Solar Still for Desalination Water Production.

- Minimum Instream Flow Requirement of Rivers and Main Channels within Babylon Governorate

**اطاريح الدكتوراه الذي اشرف عليها**