

|     | Statistics of researches published in international and local journals for Sustainable Energy Engineering Department faculty for the period (2017-2024) |               |        |       |     |
|-----|---|---------------|--------|-------|-----|
| No. | Year  | International | Scopus | Local | Sum |
| 1   | 2017  | 0             | 1      | 0     | 1   |
| 2   | 2018  | 1             | 1      | 0     | 2   |
| 3   | 2019  | 2             | 1      | 1     | 4   |
| 4   | 2020  | 0             | 7      | 2     | 9   |
| 5   | 2021  | 3             | 2      | 0     | 5   |
| 6   | 2022  | 14            | 8      | 2     | 24  |
| 7   | 2023  | 3             | 5      | 5     | 13  |
| 8   | 2024  | 0             | 5      | 1     | 6   |
|     | Total   | 23            | 30     | 11    | 64  |

| No. | Researchers Name   | Research Title   | Journal Name  | Year of publication | Type of Journal | Notes   |
|-----|--|--|---|---------------------|-----------------|---|
| 1   | Ahmed F.Al-Neama et al   | An experimental and numerical investigation of the use of liquid flow in serpentine microchannels for microelectronics cooling         | Applied Thermal Engineering   | 2017                | Scopus          | Collaboration With researchers outside the department |
| 2   | Ahmed F.Al-Neama et al   | Thermal management of GaN HEMT devices using serpentine minichannel heat sinks   | Applied Thermal Engineering   | 2018                | Scopus          | Collaboration With researchers outside the department |
| 3   | Ali Alkhabbaz<br>Laith M. Jasim<br>Hudhaifa Hamzah             | Effect of porous sleeve position on natural convection in a concentric annulus   | International Energy & Engineering Congress Proceedings Book                            | 2018                | International   | Collaboration With researchers outside the department |
| 4   | Khalid E.Hammo .et al  | Modeling and construction of two-axis sun tracking system for a mobile solar cell panel  | International Journal of Scientific and Engineering Research                            | 2019                | web of science  |   |
| 5   | Maiser Idris Ismail et al                                      | Robust Optimisation Of Serpentine Fluidic Heat Sinks For High Density Electronics Cooling  | Proceedings of the 16th UK Heat Transfer Conference                                     | 2019                | web of science  | Collaboration With researchers outside the department |
| 6   | Omar Mohammad Hamdoon et al                                    | Modeling and Simulation of a Desiccant Evaporative Cooling System  | Tikrit Journal Of Engineering Sciences  | 2019                | Local           |   |
| 7   | Ali Alkhabbaz<br>In Cheol Kim<br>HyunTae Jeong<br>Young Ho Lee | Optimization Methodology of Small Scale Horizontal Axis Shrouded Tidal Current Turbine   | Computer Science and Data Engineering,  | 2019                | Scopus          | Collaboration With researchers outside the department |
| 8   | Omar Mohammad Hamdoon  | Performance analysis of hybrid photovoltaic thermal solar system in Iraq climate condition   | Thermal Science and Engineering Progress  | 2020                | Scopus          |   |
| 9   | Omar Mohammad Hamdoon  | Analysis of two-phase flow in a double-pipe heat exchanger filled with porous media  | International Journal of Heat and Mass Transfer   | 2020                | Scopus          |   |
| 10  | Mohammed Saleh Mohammed<br>Taha Ahmed Abdullah                 | Specific Exergy Costing Analysis and Optimization of CCPP Power Plant  | International Journal of Mechanical and Production Engineering Research and Development | 2020                | Scopus          |   |
| 11  | Khalid E.Hammo<br>Omar A.Mohammed et al                        | Performance investigation and design optimization of micro scale compressed air axial turbine for domestic solar powered Brayton cycle | Sustainable Energy Technologies and Assessments   | 2020                | Scopus          | Collaboration With researchers outside the department |
| 12  | Omar Mohammad Hamdoon  | Improving the Performance of a Flat Plate Solar Collector Using Nano fluid as Working Fluid  | Al-Rafidain Engineering Journal   | 2020                | Local           |   |
| 13  | Taha Ahmed Abdullah<br>Mohammed Saleh Mohammed                 | Measurement correction of two dimensional-wind tunnel with porous walls using singularity method                                       | International Journal of Mechanical and Production Engineering Research and Development | 2020                | Scopus          |   |
| 14  | Taha Ahmed Abdullah  | Numerical investigation on wing performance using singularity method   | International Journal of Mechanical and Production Engineering Research and Development | 2020                | Scopus          |   |
| 15  | Omar Mohammad Hamdoon et al                                    | Analysis of two-phase flow in a double-pipe heat exchanger filled with porous media  | International Journal of Heat and Mass Transfer   | 2020                | Scopus          | Collaboration With researchers outside the department |
| 16  | Omar Mohammad Hamdoon  | A Review of Solar Air Heaters: Techniques for Thermal Performance Enhancement  | Al-Rafidain Engineering Journal   | 2020                | Local           |   |
| 17  | Al-sarraf,Ziad Shakeeb<br>Ahmed Fattah Ahmed<br>Khalid E.Hammo | Evaluation of Vibration Amplitude Stepping and Welding Performance of 20 kHz and 40 kHz Ultrasonic Power of Metal Welding              | Journal of Mechanical Engineering Research  | 2021                | Scopus          |   |

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|----|--|--|---|------|---------------|---|
| 18 | Mohammed Saleh<br>Mohammed<br>Taha Ahmed Abdullah<br>.et al                | Ultra-Light Aircraft Airfoil Design and Characteristics  | Journal of Mechanical<br>Engineering Research and<br>Developments                           | 2021 | International | Collaboration<br>With<br>researchers<br>outside the<br>department |
| 19 | Al-sarraf,Ziad Shakeeb<br>Ahmed Fattah Ahmed<br>Khalid E.Hammo             | Evaluation of Vibration Amplitude Stepping and Welding Performance of 20<br>kHz and 40 kHz Ultrasonic Power of Metal Welding         | Journal of Mechanical<br>Engineering Research   | 2021 | International |   |
| 20 | Ali Alkhabbaz<br>Ho-Seong Yang<br>A.H Samitha Weerakoon<br>Young-Ho Lee    | A novel linearization approach of chord and twist<br>angle distribution for 10 kW horizontal axis wind<br>turbine                    | Renewable Energy  | 2021 | Scopus        | Collaboration<br>With<br>researchers<br>outside the<br>department |
| 21 | Hudhaifa Hamzah<br>Laith M. Jasim<br>Ali Alkhabbaz<br>Besir Sahin          | Role of honeycomb in improving subsonic wind<br>tunnel flow quality: numerical study based on<br>orthogonal grid                     | J. Mechanical<br>Engineering Research<br>and Developments                                   | 2021 | International | Collaboration<br>With<br>researchers<br>outside the<br>department |
| 22 | Taha Ahmed Abdullah<br>Mohammed Saleh<br>Mohammed<br>Najim,Younis M        | ON CFD WING PERFORMANCE FOR ULTRA-LIGHT AIRPLANE   | International Journal of<br>Mechanical Engineering  | 2022 | Scopus        |   |
| 23 | Ahmed Khalid Ibrahim<br>Ramez Ibbrahim Said<br>ali,raed ahmed A            | PARTIALLY SHADING A PV MODULE: ANALYSIS AND DESIGN WITH SIMULATION   | International Journal on<br>Technical and Physical Problems<br>of Engineering (IJTPE)       | 2022 | Scopus        |   |
| 24 | Ahmed Khalid Ibrahim<br>ali,raed ahmed A<br>Dr.Ali Ghazi Mohammed<br>Kamil | Experimental Assessment of a Hot Water Solar Collector for Sustainable<br>Buildings in Iraq  | Gongcheng Kexue Yu<br>Jishu/Advanced Engineering<br>Science                                 | 2022 | Scopus        | Collaboration<br>With<br>researchers<br>outside the<br>department |
| 25 | Sufyan A.Mohammed<br>et al   | Fault Diagnosis of Crack on Gearbox Using Vibration-Based Approaches   | Symmetry publisher MDPI   | 2022 | Scopus        | Collaboration<br>With<br>researchers<br>outside the<br>department |
| 26 | Al-sarraf,Ziad Shakeeb<br>Khalid E.Hammo                                   | Design, Analysis and Fabrication of Ultrasonic Power   Horns Used to Produce<br>Medical (Surgical) Face Mask   and Their Supplements | International Research Journal of<br>Innovations in Engineering and<br>Technology (IRJIET)  | 2022 | International |   |
| 27 | Dr.Anas Obeed Balod<br>Sufyan A.Mohammed<br>Omar A.Mohammed                | A numerical comparison between fiber and particulate reinforcement of<br>AA3003 in composites sheets using finite element method     | International Research Journal of<br>Modernization in Engineering<br>Technology and Science | 2022 | International |   |
| 28 | Mohammed Saleh<br>Mohammed   | Environmental effect on the exergoeconomic performance of combined cycle<br>power plant for hot climate (Mosul climate)              | International Journal of<br>Mechanical Engineering  | 2022 | International |   |
| 29 | Taha Ahmed Abdullah  | The Effect of Airport Distance on Wing Aerodynamic Characteristics for Ultra-<br>Light Airplane                                      | International Research Journal of<br>Innovations in Engineering and<br>Technology (IRJIET)  | 2022 | International |   |
| 30 | Ahmed Khalid Ibrahim<br>Ramez Ibbrahim Said                                | A Comprehensive Review of Vertical Axis Wind Turbines For Urban Usage  | INTERNATIONAL JOURNAL OF<br>NOVEL RESEARCH AND<br>DEVELOPMENT                               | 2022 | International |   |
| 31 | Ahmed Khalid Ibrahim<br>Ramez Ibbrahim Said                                | A REVIEW OF RECENT SOLAR COLLECTORS: CLASSIFICATIONS, DEVELOPMENT,<br>APPLICATIONS AND NEW SYSTEMS                                   | International Research Journal of<br>Modernization in Engineering<br>Technology and Science | 2022 | International |   |
| 32 | Ahmed Khalid Ibrahim<br>Masters Student                                    | Modeling and Simulation of the Performance of Wind Turbines under Iraqi<br>Weathers Conditions                                       | International Research Journal of<br>Innovations in Engineering and<br>Technology (IRJIET)  | 2022 | International |   |
| 33 | Najim,Younis M<br>Masters Student  | Three Dimensional CFD of Supercritical CO2 Flow Characterization in a<br>Centrifugal Compressor                                      | International Research Journal of<br>Innovations in Engineering and<br>Technology (IRJIET)  | 2022 | International |   |
| 34 | Najim,Younis M<br>Masters Student  | Three-Dimensional CFD Simulations of Transient Cavitation in a Centrifugal<br>Pump   | International Research Journal of<br>Innovations in Engineering and<br>Technology (IRJIET)  | 2022 | International |   |
| 35 | Najim,Younis M<br>Masters Student  | Hydrothermal Analysis of Archimedean Spiral Channel Heat Sink for CPU<br>Cooling   | International Research Journal<br>of Innovations in Engineering &<br>Technology - IRJIET    | 2022 | International |   |
| 36 | Dr.Mahmoud U.Jasim<br>et al  | The Use of Solar Water Heaters in Iraq: An Economic Study  | Al Rafidain Engineering Journal   | 2022 | Local         | Collaboration<br>With<br>researchers<br>outside the<br>department |
| 37 | Dr.Mahmoud U.Jasim<br>Masters Student                                      | Simulation of U Tube Heat Exchanger Immersed in Oil inside Solar Evacuated<br>Tube   | International Research Journal of<br>Innovations in Engineering and<br>Technology (IRJIET ) | 2022 | International |   |
| 38 | Omar Mohammad<br>Hamdoon<br>Masters Student                                | التصميم والتقييم الحراري لمكيف هواء شمسي هجين في الموصل / العراق   | Al-Rafidain Engineering Journal   | 2022 | Local         |   |
| 39 | Omar Mohammad.<br>Hamdoon<br>Zaid M.Almakhyoul<br>.et al                   | Heat Transfer Analysis of Melting Process Over A Horizontal Three Fins Tube with<br>Different Orientations                           | International Journal of<br>Advanced Research in<br>Engineering Innovation                  | 2022 | International |   |
| 40 | Ahmed F.Al-Neama   | Numerical Investigation of the Hydrothermal Characteristics of   Water Flow in<br>Compound Microchannel Heat Sinks                   | International Journal of<br>Advanced Research in<br>Engineering Innovation                  | 2022 | International |   |
| 41 | Dr.Mahmoud U.Jasim<br>et al  | Simulation of U Tube Heat Exchanger Immersed in Oil inside Solar Evacuated Tube  | International Research Journal of<br>Innovations in Engineering and<br>Technology           | 2022 | International |   |

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|----|--|--|--|------|---------------|---|
| 42 | Ali Alkhabbaz<br>Ho-Seong Yang<br>Watchara Tongphong<br>Young-Ho Lee                                 | Impacts of compact diffuser shroud on wind turbine aerodynamic performance: CFD and Experimental study   | International J. Mechanical Science  | 2022 | Scopus        | Collaboration With researchers outside the department |
| 43 | Ho-Seong Yang<br>Ali Alkhabbaz<br>Watchara Tongphong<br>Dylan Sheneth<br>Edirisinghe<br>Young-Ho Lee | FOWT stability study according to number of columns considering amount of materials used   | Energies   | 2022 | Scopus        | Collaboration With researchers outside the department |
| 44 | Hudhaifa Hamzah<br>Laith M. Jasim<br>Ali Alkhabbaz   | Preferred location of the porous sleeve in a concentric annulus depending on the thermal insulation  | Proceedings of the institution of mechanical engineers part C: Journal of              | 2022 | Scopus        | Collaboration With researchers outside the department |
| 45 | Mohammad Ghalandari<br>Azfarizal Mukhtar<br>Ahmad Shah Hizam Md<br>Yasir<br>Ali Alkhabbaz            | Thermal conductivity improvement in a green building with Nano insulations using machine learning methods  | Energy Reports   | 2023 | Scopus        | Collaboration With researchers outside the department |
| 46 | Omar Mohammad.<br>Hamdoon<br>Zaid M.Almakhyoul<br>et al  | Heat Transfer Analysis of the Melting Process on Finned Tubes (A Review on performance enhancement)  | Al-Rafidain Engineering Journal (AREJ)   | 2023 | Local         |   |
| 47 | Al-sarraj,Ghaidaa<br>ibraheem<br>Suha Hashem Ahmed<br>Sufyan A.Mohammed                              | Studying the bending behavior of polymer-based composites reinforced with wires of different geometric shapes by numerical analysis method                       | SVU-International Journal of Engineering Sciences and Applications                     | 2023 | عربية         |   |
| 48 | Sufyan A.Mohammed<br>.et al  | Gearbox Vibration Analysis Using a Spectrogram and Power Spectrum Approach   | ASME International Mechanical Engineering Congress and Exposition, Proceedings (IMECE) | 2023 | Scopus        | Collaboration With researchers outside the department |
| 49 | Dr.Ammar Younis<br>ibrahim Alrawy<br>Eman M.A.Sulaiman   | Integrated combined cycle system with parabolic trough technology: A comprehensive review  | International Journal of Engineering Sciences and Applications                         | 2023 | عربية         |   |
| 50 | Abdulrahman Habbo<br>Mohammed<br>Najim,Younis M<br>et al   | CFD of Fully Developed Channel Flow  | International Journal of Advance Research in Engineering Innovation                    | 2023 | International |   |
| 51 | Ali Alkhabbaz<br>et al   | Numerical and experimental investigation on water vortex power plant to recover the energy from industrial wastewater  | Renewable Energy   | 2023 | Scopus        | Collaboration With researchers outside the department |
| 52 | Ho-Seong Yang<br>Watchara Tongphong<br>Ali Alkhabbaz<br>Young-Ho Lee                                 | Comparison of different fidelity hydrodynamic-aerodynamic coupled simulation code on the 10 MW semi-submersible type floating offshore wind turbine              | Ocean Engineering  | 2023 | International | Collaboration With researchers outside the department |
| 53 | Khalid E.Hammo   | Stress Analysis of a Rectangular Shaft Carrying a Rotor System Due to Eccentricity   | SVU-International Journal of Engineering Sciences and Applications                     | 2023 | عربية         |   |
| 54 | Omar Mohammad<br>Hamdoon<br>et al  | Local thermal equilibrium analysis of complete phase change process inside porous diffuser using NanoFluids  | Applied Thermal Engineering  | 2023 | Scopus        | Collaboration With researchers outside the department |
| 55 | Ahmed Khalid Ibrahim<br>Ramez Ibbrahim Said  | Numerical Investigation on the Effect of Profile and Blade Numbers in a Savonius Vertical Axis Wind Turbine  | CFD Letters  | 2022 | Scopus        |   |
| 56 | Ahmed Khalid Ibrahim<br>Ramez Ibbrahim Said<br>et al   | :Natural convection from a horizontal cylinder placed in a square enclosure<br>CFD simulations simulation  | AIP Conference Proceedings   | 2023 | International | Collaboration With researchers outside the department |
| 57 | Omar Dhannoon jumaah   | Manufacturing of Gallium Nitride Thin Films in a Multi-Wafer MOCVD Reactor   | Journal of Thermal science and engineering application                                 | 2023 | Scopus        |   |
| 58 | Omar Mohammad<br>Hamdoon<br>et al  | -The Experimental Investigation of Double -Pass Solar Air Heater with V Corrugated Plate, Phase -Change Material and Baffles Under Recycling Operation           | Al-Rafidain Engineering Journal (AREJ)   | 2023 | Local         | Collaboration With researchers outside the department |
| 59 | Ali Alkhabbaz<br>et al   | The aero-hydrodynamic interference impact on the NREL 5-MW floating wind turbine experiencing surge motion   | Ocean Engineering  | 2024 | Scopus        | Collaboration With researchers outside the department |
| 60 | Ali Alkhabbaz<br>et al   | Cross-comparison analysis of environmental load components in extreme conditions for pontoon-connected semi-submersible FOWT using CFD and potential-based tools | Ocean Engineering  | 2024 | Scopus        | Collaboration With researchers outside the department |
| 61 | Ali Alkhabbaz<br>et al   | The Effect of Nacelle Shape and Blade Geometry on the Performance of Small Scale Wind Turbine  | Journal of Sustainability Research   | 2024 | Scopus        | Collaboration With researchers outside the department |

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|----|---|--|--|------|--------|--|
| 62 | Ali Alkhabbaz<br>et al  | -Thirteen vital factors for micro-scale radial turbine vane ' s design of geo-solar powered Brayton cycle applications   | Energy Conversion and Manage   | 2024 | Scopus | Collaboratio<br>n With<br>researchers<br>outside the<br>department |
| 63 | Omar Mohammad.<br>Hamdoon<br>Zaid M.Almakhyoul et.<br>al              | Energy Consumption Enhancement of a Solar Under Floor Heating System in a Small Family House Located in Mosul City, Iraq | Al-Rafidain Engineering Journal<br>(AREJ)  | 2024 | Scopus |  |
| 64 | Omar A.Mohammed<br>Sufyan A.Mohammed<br>Al-sarraj,Ghaidaa<br>ibraheem | Hybridization influence on the mechanical properties of hybrid composite laminates: A review                             | SVU-International Journal of<br>Engineering Sciences and<br>Applications (SVU-IJESA) | 2024 | عربية  |  |