

# Miqdam Tariq Chaichan

## List of Publications by Year in descending order

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104  
papers

4,982  
citations

93792

39  
h-index

111975

67  
g-index

107  
all docs

107  
docs citations

107  
times ranked

2953  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | A Comparative Study of Regression Models and Meteorological Parameters to Estimate the Global Solar Radiation on a Horizontal Surface for Baghdad City, Iraq. <i>International Journal of Renewable Energy Development</i> , 2022, 11, 71-81.                     | 1.2 | 11        |
| 2  | Prognostic of diesel engine emissions and performance based on an intelligent technique for nanoparticle additives. <i>Energy</i> , 2022, 238, 121855.  | 4.5 | 25        |
| 3  | Stability and thermal conductivity of different nano-composite material prepared for thermal energy storage applications. <i>South African Journal of Chemical Engineering</i> , 2022, 39, 72-89.   | 1.2 | 9         |
| 4  | Investigation the combined effects of exhaust gas recirculation (EGR) and alcohol-diesel blends in improvement of NOX-PM Trade-off in compression ignition (CI) diesel engine. <i>IOP Conference Series: Earth and Environmental Science</i> , 2022, 961, 012048. | 0.2 | 2         |
| 5  | PM and NOX emissions amelioration from the combustion of diesel/ethanol-methanol blends applying exhaust gas recirculation (EGR). <i>IOP Conference Series: Earth and Environmental Science</i> , 2022, 961, 012044.  | 0.2 | 2         |
| 6  | Long-term power forecasting using FRNN and PCA models for calculating output parameters in solar photovoltaic generation. <i>Heliyon</i> , 2022, 8, e08803.   | 1.4 | 12        |
| 7  | The Influence of Temperature and Irradiance on Performance of the photovoltaic panel in the Middle of Iraq. <i>International Journal of Renewable Energy Development</i> , 2022, 11, 501-513.   | 1.2 | 15        |
| 8  | Design and experimental evaluation of a <sc>PV</sc> /T system cooled by advanced methods. <i>International Journal of Energy Research</i> , 2022, 46, 9684-9709.  | 2.2 | 8         |
| 9  | Effect of dust and cleaning methods on mono and polycrystalline solar photovoltaic performance: An indoor experimental study. <i>Solar Energy</i> , 2022, 236, 626-643.   | 2.9 | 35        |
| 10 | Effect of CuO-water-ethylene glycol nanofluids on the performance of photovoltaic/thermal energy system: an experimental study. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 2022, 44, 3673-3691.                             | 1.2 | 3         |
| 11 | Nano-Iron Oxide-Ethylene Glycol-Water Nanofluid Based Photovoltaic Thermal (PV/T) System with Spiral Flow Absorber: An Energy and Exergy Analysis. <i>Energies</i> , 2022, 15, 3870.  | 1.6 | 10        |
| 12 | Assessment Cooling of Photovoltaic Modules Using Underground Water. <i>Arab Gulf Journal of Scientific Research</i> , 2022, , 151-169.  | 0.3 | 3         |
| 13 | Adding Nano-TiO <sub>2</sub> to Water and Paraffin to Enhance Total Efficiency of a Photovoltaic Thermal PV/T System Subjected to Harsh Weathers. <i>Nanomaterials</i> , 2022, 12, 2266.  | 1.9 | 6         |
| 14 | Ultralow Sulfur Diesel and Rapeseed Methyl Ester Fuel Impact on Performance, Emitted Regulated, Unregulated, and Nanoparticle Pollutants. <i>ACS Omega</i> , 2022, 7, 26056-26075.  | 1.6 | 4         |
| 15 | A comparison of dust impacts on polycrystalline and monocrystalline solar photovoltaic performance: an outdoor experimental study. <i>Environmental Science and Pollution Research</i> , 2022, 29, 88788-88802.   | 2.7 | 8         |
| 16 | Emissions Characteristics and Engine Performance from the Interaction Effect of EGR and Diesel-Ethanol Blends in Diesel Engine. <i>International Journal of Renewable Energy Development</i> , 2022, 11, 991-1001.  | 1.2 | 4         |
| 17 | Influence of fuel injection pressure and RME on combustion, NO emissions and soot nanoparticles characteristics in common-rail HSDI diesel engine. <i>International Journal of Thermofluids</i> , 2022, 15, 100173.   | 4.0 | 17        |
| 18 | A review of photovoltaic thermal systems: Achievements and applications. <i>International Journal of Energy Research</i> , 2021, 45, 1269-1308.   | 2.2 | 32        |

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|----|---|-----|-----------|
| 19 | Evaluation of Dust Elements on Photovoltaic Module Performance: an Experimental Study. Renewable Energy and Environmental Sustainability, 2021, 6, 30.  | 0.7 | 8         |
| 20 | Investigation of a nanofluid-based photovoltaic thermal system using single-wall carbon nanotubes: An experimental study. International Journal of Energy Research, 2021, 45, 10285-10303.                                      | 2.2 | 17        |
| 21 | Comparison and evaluation of solar photovoltaic thermal system with hybrid collector: An experimental study. Thermal Science and Engineering Progress, 2021, 22, 100845.  | 1.3 | 13        |
| 22 | Carbon nanotubes/paraffin wax nanocomposite for improving the performance of a solar air heating system. Thermal Science and Engineering Progress, 2021, 23, 100877.  | 1.3 | 32        |
| 23 | Engine performance and PM concentrations from the combustion of Iraqi sunflower oil biodiesel under variable diesel engine operating conditions. Journal of Physics: Conference Series, 2021, 1973, 012051.                     | 0.3 | 5         |
| 24 | Numerical and experimental evaluation of nanofluids based photovoltaic/thermal systems in Oman: Using silicone-carbide nanoparticles with water-ethylene glycol mixture. Case Studies in Thermal Engineering, 2021, 26, 101009. | 2.8 | 21        |
| 25 | The effect of first generation biofuel on emission characteristics under variable conditions of engine speeds and loads in diesel engine. Journal of Physics: Conference Series, 2021, 1973, 012041.                            | 0.3 | 0         |
| 26 | Controlling the melting and solidification points temperature of PCMs on the performance and economic return of the water-cooled photovoltaic thermal system. Solar Energy, 2021, 224, 1344-1357.                               | 2.9 | 36        |
| 27 | An investigation of effect of hematocrit on thermal conductivity of a bio-nanofluid (MWCNT or Tj ETQq1 1 0.784314 rgBT /Qverlock  | 1.3 | 5         |
| 28 | Influence of fuel injection timing strategies on performance, combustion, emissions and particulate matter characteristics fueled with rapeseed methyl ester in modern diesel engine. Fuel, 2021, 306, 121589.                  | 3.4 | 35        |
| 29 | Mathematical and neural network modeling for predicting and analyzing of nanofluid-nano PCM photovoltaic thermal systems performance. Renewable Energy, 2020, 145, 963-980.   | 4.3 | 101       |
| 30 | Computer simulation of CH <sub>4</sub> -G <sub>2</sub> -H <sub>2</sub> behaviour in a non-premixed combustion chamber. Thermal Science and Engineering Progress, 2020, 17, 100389.  | 1.3 | 4         |
| 31 | The Impact of Dust's Physical Properties on Photovoltaic Modules Outcomes. Innovative Renewable Energy, 2020, , 495-506.  | 0.2 | 4         |
| 32 | Progress of MWCNT, Al <sub>2</sub> O <sub>3</sub> , and CuO with water in enhancing the photovoltaic thermal system. International Journal of Energy Research, 2020, 44, 821-832.   | 2.2 | 58        |
| 33 | Impact of dust ingredient on photovoltaic performance: An experimental study. Solar Energy, 2020, 195, 651-659.   | 2.9 | 80        |
| 34 | CFD Simulation of the CO Emissions of Pollutants Contained in Flames H <sub>2</sub> -C <sub>3</sub> H <sub>8</sub> /Air. IOP Conference Series: Materials Science and Engineering, 2020, 928, 022079.                           | 0.3 | 1         |
| 35 | Evaluation and comparison of different flow configurations PVT systems in Oman: A numerical and experimental investigation. Solar Energy, 2020, 208, 58-88.   | 2.9 | 59        |
| 36 | A review of dust accumulation and cleaning methods for solar photovoltaic systems. Journal of Cleaner Production, 2020, 276, 123187.  | 4.6 | 152       |

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|----|---|-----|-----------|
| 37 | Evaluation of aging and performance of grid-connected photovoltaic system northern Oman: Seven yearsâ€™ experimental study. <i>Solar Energy</i> , 2020, 207, 1247-1258.   | 2.9 | 32        |
| 38 | CFD Simulation of the Co Emissions of Pollutants Contained in Flames H <sub>2</sub> -C <sub>3</sub> H <sub>8</sub> /Air. , 2020, , .  |     | 1         |
| 39 | Flat solar air heater collector with phase change materials for domestic purposes in Iraqi climate. <i>IOP Conference Series: Materials Science and Engineering</i> , 2020, 928, 022099.  | 0.3 | 3         |
| 40 | The influence of dust physical specifications photovoltaic modules performance. <i>IOP Conference Series: Materials Science and Engineering</i> , 2020, 928, 022123.  | 0.3 | 4         |
| 41 | Photovoltaic panel type influence on the performance degradation due dust accumulation. <i>IOP Conference Series: Materials Science and Engineering</i> , 2020, 928, 022092.  | 0.3 | 5         |
| 42 | Combustion analysis and performance characteristics of compression ignition engines with diesel fuel supplemented with nano-TiO <sub>2</sub> and nano-Al <sub>2</sub> O <sub>3</sub> . <i>Case Studies in Thermal Engineering</i> , 2020, 20, 100651. | 2.8 | 26        |
| 43 | Evaluation of the electrical performance of a photovoltaic thermal system using nano-enhanced paraffin and nanofluids. <i>Case Studies in Thermal Engineering</i> , 2020, 21, 100678.   | 2.8 | 56        |
| 44 | A novel model and experimental validation of dust impact on grid-connected photovoltaic system performance in Northern Oman. <i>Solar Energy</i> , 2020, 206, 564-578.  | 2.9 | 43        |
| 45 | Improve the performance of a solar air heater by adding aluminum chip, paraffin wax, and nano-SiC. <i>Case Studies in Thermal Engineering</i> , 2020, 19, 100622.   | 2.8 | 47        |
| 46 | Impact of using Iraqi biofuelâ€™kerosene blends on coarse and fine particulate matter emitted from compression ignition engines. <i>AEJ - Alexandria Engineering Journal</i> , 2020, 59, 1717-1724.   | 3.4 | 12        |
| 47 | The effect of dust components and contaminants on the performance of photovoltaic for the four regions in Iraq: a practical study. <i>Renewable Energy and Environmental Sustainability</i> , 2020, 5, 3.   | 0.7 | 26        |
| 48 | The impact of adding nano-Al <sub>2</sub> O <sub>3</sub> and nano-ZnO to Iraqi diesel fuel in terms of compression ignition engines' performance and emitted pollutants. <i>Thermal Science and Engineering Progress</i> , 2020, 18, 100535.          | 1.3 | 52        |
| 49 | Biofuel Addition to Kerosene-A Way to Reduce the Level of Contamination. <i>Journal of Advanced Research in Fluid Mechanics and Thermal Sciences</i> , 2020, 68, 51-57.   | 0.3 | 3         |
| 50 | ENVIRONMENTAL IMPACT OF USING GENERATORS IN THE UNIVERSITY OF TECHNOLOGY IN BAGHDAD, IRAQ. <i>Journal of Thermal Engineering</i> , 2020, 6, 272-281.  | 0.8 | 9         |
| 51 | Experimental and deep learning artificial neural network approach for evaluating grid-connected photovoltaic systems. <i>International Journal of Energy Research</i> , 2019, 43, 8572-8591.  | 2.2 | 43        |
| 52 | Novel criteria for assessing PV/T solar energy production. <i>Case Studies in Thermal Engineering</i> , 2019, 16, 100547.   | 2.8 | 20        |
| 53 | Effect of nanomaterial addition on the thermophysical properties of Iraqi paraffin wax. <i>Case Studies in Thermal Engineering</i> , 2019, 15, 100537.  | 2.8 | 34        |
| 54 | Mathematical and neural network models for predicting the electrical performance of a PV/T system. <i>International Journal of Energy Research</i> , 2019, 43, 8100.  | 2.2 | 10        |

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|----|---|-----|-----------|
| 55 | Performance, regulated and unregulated exhaust emission of a stationary compression ignition engine fueled by water-ULSD emulsion. <i>Energy</i> , 2019, 181, 1036-1050.                          | 4.5 | 46        |
| 56 | The effect of dust accumulation and cleaning methods on PV panels's outcomes based on an experimental study of six locations in Northern Oman. <i>Solar Energy</i> , 2019, 187, 30-38.            | 2.9 | 121       |
| 57 | Artificial neural network modeling and analysis of photovoltaic/thermal system based on the experimental study. <i>Energy Conversion and Management</i> , 2019, 186, 368-379.                     | 4.4 | 108       |
| 58 | Experimental investigation of using nano-PCM/nanofluid on a photovoltaic thermal system (PVT): Technical and economic study. <i>Thermal Science and Engineering Progress</i> , 2019, 11, 213-230. | 1.3 | 150       |
| 59 | Analysis and forecasting of weather conditions in Oman for renewable energy applications. <i>Case Studies in Thermal Engineering</i> , 2019, 13, 100355.  | 2.8 | 32        |
| 60 | Performance and emitted pollutants assessment of diesel engine fuelled with biokerosene. <i>Case Studies in Thermal Engineering</i> , 2019, 13, 100381.   | 2.8 | 26        |
| 61 | Influence of the base fluid on the thermo-physical properties of PV/T nanofluids with surfactant. <i>Case Studies in Thermal Engineering</i> , 2019, 13, 100340.                                  | 2.8 | 61        |
| 62 | Modeling and experimental validation of a PVT system using nanofluid coolant and nano-PCM. <i>Solar Energy</i> , 2019, 177, 178-191.  | 2.9 | 210       |
| 63 | Evaluation and analysis of nanofluid and surfactant impact on photovoltaic-thermal systems. <i>Case Studies in Thermal Engineering</i> , 2019, 13, 100392.  | 2.8 | 81        |
| 64 | Photovoltaic/Thermal (PV/T) Systems. , 2019, , .  |     | 35        |
| 65 | PV/T Feasibility and Cost Assessment. , 2019, , 153-171.  |     | 0         |
| 66 | The Impact of Climatic Conditions on PV/PVT Outcomes. , 2019, , 173-222.  |     | 0         |
| 67 | Advanced PV/T Systems. , 2019, , 125-151.   |     | 0         |
| 68 | Applications and PV/T Systems. , 2019, , 223-263.   |     | 0         |
| 69 | Environmental Conditions and Its Effect on PV Performance. , 2018, , 83-129.  |     | 2         |
| 70 | Combustion and emission characteristics of E85 and diesel blend in conventional diesel engine operating in PPCI mode. <i>Thermal Science and Engineering Progress</i> , 2018, 7, 45-53.           | 1.3 | 35        |
| 71 | Comparison of prediction methods of PV/T nanofluid and nano-PCM system using a measured dataset and artificial neural network. <i>Solar Energy</i> , 2018, 162, 378-396.                          | 2.9 | 150       |
| 72 | Generating Electricity Using Photovoltaic Solar Plants in Iraq. , 2018, , .   |     | 47        |

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|----|---|-----|-----------|
| 73 | Comparison study of indoor/outdoor experiments of a photovoltaic thermal PV/T system containing SiC nanofluid as a coolant. <i>Energy</i> , 2018, 151, 33-44.   | 4.5 | 101       |
| 74 | Single slope solar distillator productivity improvement using phase change material and Al <sub>2</sub> O <sub>3</sub> nanoparticle. <i>Solar Energy</i> , 2018, 164, 370-381.                          | 2.9 | 88        |
| 75 | Traffic and outdoor air pollution levels near highways in Baghdad, Iraq. <i>Environment, Development and Sustainability</i> , 2018, 20, 589-603.  | 2.7 | 62        |
| 76 | Techno-economical assessment of grid connected PV/T using nanoparticles and water as base-fluid systems in Malaysia. <i>International Journal of Sustainable Energy</i> , 2018, 37, 558-575.            | 1.3 | 63        |
| 77 | Performance and emission characteristics of CIE using hydrogen, biodiesel, and massive EGR. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 5415-5435.                                      | 3.8 | 70        |
| 78 | Solar Photovoltaic Technology Principles. , 2018, , 47-82.  |     | 2         |
| 79 | Nanofluid based grid connected PV/T systems in Malaysia: A techno-economical assessment. <i>Sustainable Energy Technologies and Assessments</i> , 2018, 28, 81-95.                                      | 1.7 | 59        |
| 80 | Numerical study on the effect of operating nanofluids of photovoltaic thermal system (PV/T) on the convective heat transfer. <i>Case Studies in Thermal Engineering</i> , 2018, 12, 405-413.            | 2.8 | 61        |
| 81 | Experimental Study on Solar Air Heating. <i>Al-Khwarizmi Engineering Journal</i> , 2018, 14, 1-9.   | 0.3 | 9         |
| 82 | Photovoltaic Experiences in Iraq Neighborhood Countries. , 2018, , 131-183.   |     | 2         |
| 83 | Design, measurement and evaluation of photovoltaic pumping system for rural areas in Oman. <i>Environment, Development and Sustainability</i> , 2017, 19, 1041-1053.                                    | 2.7 | 34        |
| 84 | Photovoltaic/Thermal (PV/T) systems: Status and future prospects. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 77, 109-130.  | 8.2 | 323       |
| 85 | Techno-economic feasibility analysis of 1 MW photovoltaic grid connected system in Oman. <i>Case Studies in Thermal Engineering</i> , 2017, 10, 131-141.  | 2.8 | 92        |
| 86 | Climate change: The game changer in the Gulf Cooperation Council Region. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 76, 555-576.   | 8.2 | 104       |
| 87 | An experimental investigation of SiC nanofluid as a base-fluid for a photovoltaic thermal PV/T system. <i>Energy Conversion and Management</i> , 2017, 142, 547-558.                                    | 4.4 | 240       |
| 88 | Evaluation of the nanofluid and nano-PCM based photovoltaic thermal (PVT) system: An experimental study. <i>Energy Conversion and Management</i> , 2017, 151, 693-708.                                  | 4.4 | 311       |
| 89 | Novel technique for enhancement of diesel fuel: Impact of aqueous alumina nano-fluid on engine's performance and emissions. <i>Case Studies in Thermal Engineering</i> , 2017, 10, 611-620.             | 2.8 | 67        |
| 90 | Comparative study to use nano-(Al <sub>2</sub> O <sub>3</sub> , CuO, and SiC) with water to enhance photovoltaic thermal PV/T collectors. <i>Energy Conversion and Management</i> , 2017, 148, 963-973. | 4.4 | 149       |

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|-----|---|-----|-----------|
| 91  | Optimum design and evaluation of hybrid solar/wind/diesel power system for Masirah Island. Environment, Development and Sustainability, 2017, 19, 1761-1778.                              | 2.7 | 77        |
| 92  | Evaluation of the Economic and Environmental Aspects of Using Photovoltaic Water Pumping System. Lecture Notes in Electrical Engineering, 2017, , 715-723.                                | 0.3 | 12        |
| 93  | The impact of oil price fluctuations on common renewable energies in GCC countries. Renewable and Sustainable Energy Reviews, 2017, 75, 989-1007.   | 8.2 | 136       |
| 94  | Effect of Shadows on the Performance of Solar Photovoltaic. , 2017, , 379-385.  |     | 26        |
| 95  | Photovoltaic Thermal PV/T systems: A review. International Journal of Computation and Applied Sciences, 2017, 2, 62-67.   | 0.3 | 12        |
| 96  | Experimental analysis of the effect of dust's physical properties on photovoltaic modules in Northern Oman. Solar Energy, 2016, 139, 68-80.   | 2.9 | 136       |
| 97  | Design and assessment of solar concentrator distilling system using phase change materials (PCM) suitable for desertic weathers. Desalination and Water Treatment, 2016, 57, 14897-14907. | 1.0 | 61        |
| 98  | The Impact of Using Solar Colored Filters to Cover the PV Panel in Its Outcomes. Scholars Bulletin, 2016, 2, 464-469.   | 0.2 | 15        |
| 99  | Water solar distiller productivity enhancement using concentrating solar water heater and phase change material (PCM). Case Studies in Thermal Engineering, 2015, 5, 151-159.             | 2.8 | 73        |
| 100 | Improvement of NOx-PM Trade-off in CIE Though Blends of Ethanol or Methanol and EGR. Iarjset, 2015, 2, 121-128.   | 0.0 | 4         |
| 101 | Dust effect on photovoltaic utilization in Iraq: Review article. Renewable and Sustainable Energy Reviews, 2014, 37, 734-749.   | 8.2 | 107       |
| 102 | Status and future prospects of renewable energy in Iraq. Renewable and Sustainable Energy Reviews, 2012, 16, 6007-6012.   | 8.2 | 75        |
| 103 | Experimental evaluation of dust composition impact on photovoltaic performance in Iraq. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 0, , 1-22.               | 1.2 | 28        |
| 104 | Modeling and experimental validation of dust impact on solar cell performance. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 0, , 1-17.                        | 1.2 | 9         |