

| Published research for the academic year 2023-2024                       |  |    |
|--|--|----|
| writer   | research   |    |
| Ahmed Salman Hammood<br>mohammed sabeeh<br>Ahmed Ghazi Abdulameer        | HDPE and aluminum hot press joining with modification small holes techniques   | -1 |
| Ahmed Salman Hammood   | Analyzing the Impact of Deformation Speed on Friction Factor and Coefficient of Friction in Aluminum Ring Compression Tests  | -2 |
| Iqbal Abdullah Rashid<br>Alshalal  | The impact of zirconia nanoparticles on the mechanical characteristics of 7075   | -3 |
| Iqbal Abdullah Rashid<br>Alshalal  | ENHANCEMENT OF HARDNESS AND WEAR RESISTANCE OF 2024ALUMINUM ALLOY CARBON NANOTUBE COMPOSITE WITH TITANIUM ADDITIVES  | -4 |
| Auday Awad Abtan<br>mohammed sabeeh<br>Iqbal Abdullah Rashid<br>Alshalal | Microstructure, Mechanical Properties, and Heat Distribution ANSYS Analyzing Model of CP Copper and 316 Stainless Steel Tubes Torch Brazing with Flux Coated low Silver Filler | -5 |
| mohammed sabeeh<br>Auday Awad Abtan                                      | Microstructure and Mechanical Properties Assessments of 304 Austenitic Stainless Steel and Monel 400 Dissimilar GTAW Weldment  | -6 |
| Ahmed Salman Hammood<br>mohammed sabeeh<br>Ahmed Ghazi<br>Abdulameer     | Aluminum Alloy joining to HDPE and PVC Polymers by using new small holes hot press lap joining Process   | -7 |
| Nazar Yasir Jasim<br>Tawfeeq Kadhém Salman<br>Laith Jaafer Habeeb        | EXPLORATION OF THE EFFECT OF THE PENDULUM WITH PERPENDICULAR MASS MOVEMENT ON THE STATIC AND DYNAMIC CONDITIONS IN MEM   | -8 |
| Israa Riyadh<br>Mohammed   | Assessing the Radionuclide Concentration and its Hazard Indices in Soil and Hina Leave Samples from Basra/Iraq   | -9 |

|   |  |            |
|---|--|------------|
| <b>Hasanain Adnan Abdul Wahhab<br/>Wessam Hammed alawee</b> | <b>Analytical Study of Intake Air Temperature Effect on SI Engine Performance and Exhaust Temperature</b>  | <b>-10</b> |
| <b>Hasanain Adnan Abdul Wahhab<br/>Laith Jaafer Habeeb</b>  | <b>Numerical Analysis on Cooling Aluminum Heated Rod by Nanofluids inside Annuls Cylindrical Region</b>  | <b>-11</b> |
| <b>Hasanain Adnan Abdul Wahhab</b>                          | <b>Influence of water-in-fuel (diesel and biodiesel) emulsions on the performance and emission characteristics of a single-cylinder diesel engine</b>        | <b>-12</b> |
| <b>Hasanain Adnan Abdul Wahhab</b>                          | <b>Survey to water in-diesel emulsion characteristics as an alternative fuel for CI engine</b>   | <b>-13</b> |
| <b>Hasanain Adnan Abdul Wahhab</b>                          | <b>Influence of twisted tape inserts with perforation on heat transfer and pressure drop inside circular tube: Numerical and experimental investigation.</b> | <b>-14</b> |
| <b>Hasanain Adnan Abdul Wahhab</b>                          | <b>Influence of swirl flow pattern in single tube burner on turbulent flame blow-off limit</b>   | <b>-15</b> |
| <b>Hasanain Adnan Abdul Wahhab</b>                          | <b>Effects of nozzle diameter and number of carbon atoms in fuel on flame quenching in counter burner</b>  | <b>-16</b> |
| <b>Hasanain Adnan Abdul Wahhab</b>                          | <b>Comparative assessment of friction head losses in pipe flow</b>   | <b>-17</b> |

|  |   |            |
|--|---|------------|
| <b>Kadhim R. Gbashi</b>  | <b>Enhancing the electrical conductivity and light absorption of <math>\alpha</math>-Fe<sub>2</sub>O<sub>3</sub> nanoparticles using Sn<sup>4+</sup> as a dopant for optoelectronics application.</b> | <b>-18</b> |
| <b>Ahmed Salman<br/>Hammood<br/>Ahmed Ghazi<br/>Abdulameer</b> | <b>Optimizing Failure Diagnosis in Helical Gear Transmissions with Stochastic Gradient Descent Logistic Regression using Vibration Signal Analysis for Timely Detection</b>                           | <b>-19</b> |
| <b>Luttfi Ahmed Luttfi</b>                                     | <b>Fault Diagnosis of Actuator Damage in UAVs Using Embedded Recorded Data and Stacked Machine Learning Models</b>  | <b>-20</b> |
| <b>Luttfi Ahmed Luttfi<br/>Sameera Sadey Shijer</b>            | <b>Application of AdaBoost for Stator Fault Diagnosis in Three-Phase Permanent Magnet Synchronous Motors Based on Vibration-Current Data Fusion Analysis</b>  | <b>-21</b> |
| <b>Luttfi Ahmed Luttfi</b>                                     | <b>Improved UAV blade Unbalance Prediction Based on Machine Learning and ReliefF Supreme Feature Ranking Method</b>   | <b>-22</b> |
| <b>Ahmed Salman<br/>Hammood</b>                                | <b>Towards Condition Monitoring: Fabrication Analysis of A Helical and Finite Element Gear Transmission Rig for Fault Simulation</b>  | <b>-23</b> |
| <b>Laith Jaafer Habeeb</b>                                     | <b>Experimental study of flow pattern transition in a two-phase flow at rectangular channel</b>   | <b>-24</b> |
| <b>Laith Jaafer Habeeb</b>                                     | <b>Comprehensive study of cooling techniques for leading edge of modified gas turbine blade</b>   | <b>-25</b> |

|  |   |            |
|--|---|------------|
| <b>Laith Jaafer Habeeb</b>                           | <b>Numerical and experimental study of flow around a golf ball with dimples by Laser-Doppler anemometer technique</b>   | <b>-26</b> |
| <b>Ahmed Hikkmet Jassim</b>                          | <b>Performance Evaluation of SP1848-27145 Thermoelectric Generator in Thermal Electricity Generation Cells</b>  | <b>-27</b> |
| <b>Ahmed Hikkmet Jassim<br/>Hasanain Adnan Abdul</b> | <b>Performance enhancement of a solar water collector by using aluminum porous media and nanoparticle's</b>   | <b>-28</b> |
| <b>Hasanain Adnan Abdul</b>                          | <b>Interfacial Engineering for Advanced Functional Materials: Surfaces, Interfaces, and Applications</b>  | <b>-29</b> |
| <b>Hasanain Adnan Abdul</b>                          | <b>Effects of nano-additives in developing alternative fuel strategy for CI engines: A critical review with a focus on the performance and emission characteristics</b>   | <b>-30</b> |
| <b>Hasanain Adnan Abdul</b>                          | <b>The Change of Flow Pattern from Stratified to Stratified-Wavy for Condensation in Wire on Tube Heat Exchangers</b>   | <b>-31</b> |
| <b>Hasanain Adnan Abdul</b>                          | <b>Effect of FIPs strategy and nanoparticles additives into the renewable fuel blends on NOX emissions, PM size distribution and soot oxidation in CRDI diesel engine</b> | <b>-32</b> |
| <b>Hasanain Adnan Abdul</b>                          | <b>Experimental and Numerical Analyses of Water Droplet Condensation on Photovoltaic Surfaces under Clean and Dusty Conditions</b>  | <b>-33</b> |
| <b>Kadhim R. Gbashi</b>                              | <b>Synthesis and characterization of ZnO nanostructure thin films for optoelectronic applications</b>   | <b>-34</b> |