

**Research plan for Energy and Renewable Energies Technology Center for the
academic year 2021-2022**

No.	Research name	Researcher name
1	Ultra-low sulfur diesel (ULSD) and rapeseed methyl ester (RME) fuels impact on performance, emitted regulated, unregulated, and nanoparticles pollutants	Miqdam Tariq Chaichan
2	Effect of dust and cleaning methods on mono and polycrystalline solar photovoltaic performance: an indoor experimental study	Miqdam Tariq Chaichan
3	High sulphur content diesel properties enhancement using PPCI mode and gasoline/diesel blend in reduction of NO_x and PM (size and number)	Miqdam Tariq Chaichan
4	Effects of fibers and fillers on mechanical properties of thermoplastic poly carbonate composites	Sanaa Abdulhadi Hafad Abdalkhalaq F. Hamood Rasha Abdul Hussain
5	studying mechanical behavior effect condition on the polt carbonate	Sanaa Abdulhadi Hafad Rasha Abdul Hussain Bashar Ridha Younus Hind Amir Mahdi Slafa Ismael Ibrahim Amerah Abbas Radhi
6	influence different types of fiber thermoset plastic	Sanaa Abdulhadi Hafad Rasha Abdul Hussain
7	Performance and emission characteristics of a modern diesel engine fueled with blends of nanoparticle additives into oxygenated fuels	Mohammed Ali Fayad
8	Engine performance and emission characteristics from castor oil methyl ester and its blends in modern diesel engine under various of fuel injection pressures	Mohammed Ali Fayad
9	Experimental effect of chemical composition of oxygenated fuels and exhaust gas recirculation (EGR) rates on morphological characteristics of soot nanoparticles.	Mohammed Ali Fayad Salman Hussien Omran Slafa Ismael Ibrahim Bashar Ridha Younus Sanaa Abdulhadi Hafad Amerah Abbas Radhi Hind Amir Mahdi
10	Effect of Welding speed on the microstructural characteristics of fiber laser welding dissimilar	Salman Hussien Omran Khairalla Salman Jabr Hasan Abdul-Rasool Abdul-Hadi

11	Optimization of mechanical wear resistance for recycled (AL-Mg-Si) reinforced sic composite material using PT method	Salman Hussien Omran Murtadha Mihsen Al-Masoodi Omer Hashim Hasoon
12	photodegradation of the pollutant clofibrate Acid by using Nanomaterials	Shaima Basim Khalaf Haussain Ismaiel Ahmed Abdul Amir
13	Simulation model of single phase Ac-Ac converter by using matlab	Salam Waley Shneen
14	Simulation model of single phase Dc-Dc converter by using matlab	Salam Waley Shneen
15	A Comparative Study of Regression Models and Meteorological Parameters to Estimate the Global Solar Radiation on a Horizontal Surface for Baghdad city, Iraq	Moafaq Kaseim Shiea
16	The Influence of Temperature and irradiance on Performance of Solar Cells In the Middle of Iraq	Moafaq Kaseim Shiea Roshen Tariq Ahmedhamdi
17	The Influence of solar chimney parameters on its efficiency and operation	Roshen Tariq Ahmedhamdi Moafaq Kaseim Shiea
18	Preparation of nanomaterials and study of their effect on the properties of solar cells	Marwa Kasim Abood al-jubory Evan Tariq Salem Hind Amir Mahdi
19	Preparation of nanoscale metal oxides and study of the effect of adding them on the performance of silicon solar cells	Marwa Kasim Abood al-jubory Evan Tariq Salem Hind Amir Mahdi
20	Preparation of a solar cell using niobium oxide paste	Marwa Kasim Abood al-jubory Evan Tariq Salem Hind Amir Mahdi
21	Investigation of Flowability of the Green Sand Mould by Remote Control of Portable Flowability Sensor	Dheya Najm Abdulamer
22	Thermal evaluation of the Mutual Diffusion Behavior of the Liquid/Solid bi Metals	Dheya Najm Abdulamer Bashar Ridha Younus
23	Impact of the moulding machine and the moulding materials on Flowability of the bentonite-bonded- green Sand	Dheya Najm Abdulamer
24	Experimental Study to Advance the Flow in the Pipeline Stations Employing Nanoparticles Agents.	Sajda Sabree Amerah Abbas Radhi
25	Effect of using sand filter and granular activated carbon filter on organic matter removal.	Amerah Abbas Radhi
26	Enhancing the fuel saving and emission reduction of light-duty vehicle by a new design of air condition worked by solar energy	Waleed Khalid Hussein AL-Ani

27	Impact of Asphalt layer and glass thickness on the thermal storage of pavement	Waleed Khalid Hussein AL-Ani
-----------	---	-------------------------------------