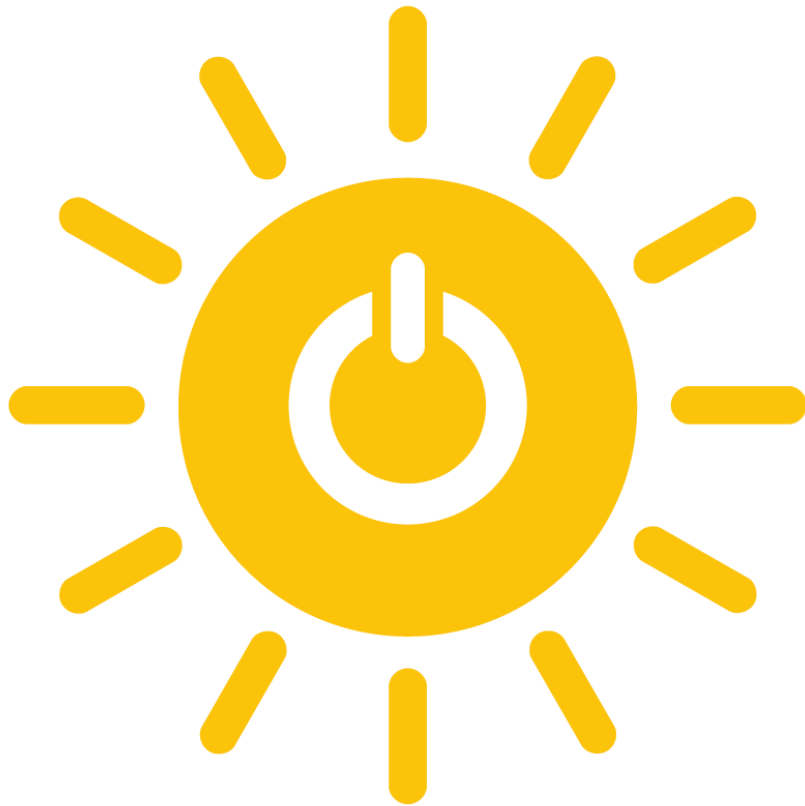
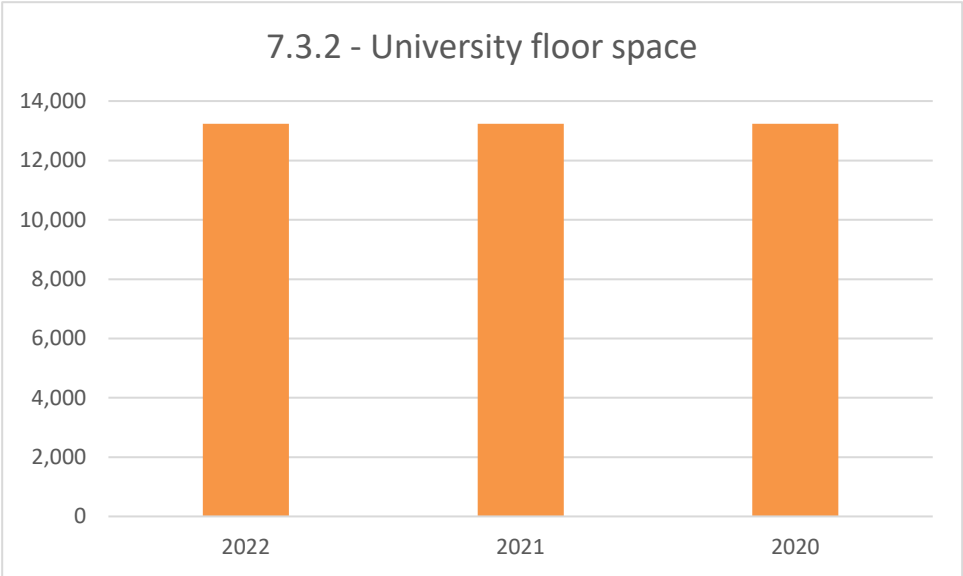
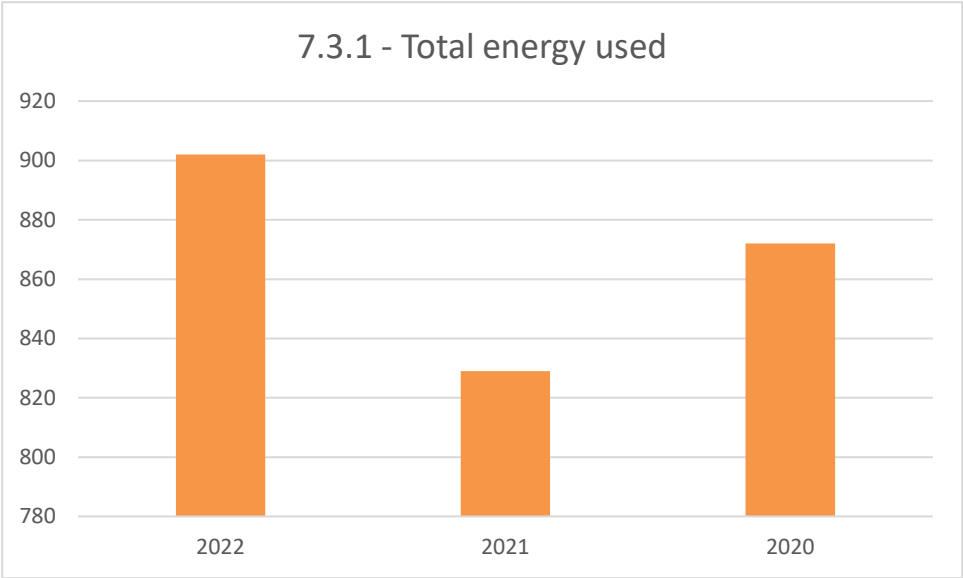


**7**

**AFFORDABLE AND  
CLEAN ENERGY**





# ILMA UNIVERSITY CHAMPIONS SUSTAINABILITY WITH WORKSHOP ON ENERGY EFFICIENCY AND CLEAN ENERGY

ILMA University proudly announces the successful culmination of its highly anticipated workshop, held on July 2, 2022, dedicated to promoting the paramount importance of energy efficiency and clean energy. This event underscores ILMA University's unwavering commitment to environmental sustainability and its fervent dedication to fostering awareness and eco-conscious practices within the community.

The workshop provided an illuminating platform for students, faculty, and the general public to delve into the critical significance of energy conservation and the shift towards cleaner, more sustainable energy sources. With renowned experts and thought leaders in the field of sustainability and energy conservation as keynote speakers, participants gained invaluable insights and real-world experiences.

The significance of this workshop lies in its contribution to addressing climate

change and promoting environmental sustainability. By championing energy efficiency and clean energy, ILMA University empowers individuals and communities to make informed choices that will shape a more sustainable and eco-conscious future for all.



# ILMA UNIVERSITY SOLAR POWER





## ILMA UNIVERSITY EXPLORES COLLABORATIVE OPPORTUNITIES WITH CANTONMENT BOARD CLIFTON (CBC)

A delegation from ILMA University paid a visit to the Cantonment Board Clifton (CBC) office on April 20, 2022, to discuss avenues for promoting higher education and fostering a spirit of learning among CBC officers and their children. The meeting, held at the CBC office, also included a tour of the newly constructed state-of-the-art buildings designed to enhance customer facilitation through digital infrastructure.

Led by Mr. Muhammad Saleem Hassan Wattoo, Cantonment Executive Officer, the meeting provided an opportunity for both ILMA University and CBC representatives to engage in a productive dialogue aimed at strengthening collaboration between the two institutions. The discussions

revolved around the potential initiatives and programs that could be developed to support the higher education aspirations of CBC officers and their families.



# RESEARCH PUBLICATIONS

| TITLE  | ILMA Author  | HJRS Category | Journal Name:                                   |
|--|--------------|---------------|---|
| The role of renewable energy consumption and health expenditures in improving load capacity factor in ASEAN countries: Exploring new paradigm using advance panel models | Asif Razzaq  | W             | "Renewable Energy "                             |
| Clean energy consumption, economic growth, and environmental sustainability: What is the role of economic policy uncertainty?  | Zahoor Ahmed | W             | "Renewable Energy "                             |
| Inspecting energy consumption, capital formation and economic growth nexus in Pakistan   | Raja Rehan   | W             | Sustainable Energy Technologies and Assessments |

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|---|------------------------|---|---|
| How Do Renewable Energy, Economic Growth and Natural Resources Rent Affect Environmental Sustainability in a Globalized Economy? Evidence From Colombia Based on the Gradual Shift Causality Approach | Zahoor Ahmed           | W | "Frontiers in Energy Research "             |
| Dynamic influence of natural resources, financial integration and eco-innovation on ecological sustainability in EKC framework: Fresh insights from China   | "Mubeen Abdur Rehman " | W | "Resources Policy "                         |
| Energy efficiency, carbon neutrality and technological innovation: a strategic move towards green economy   | Zhang Yu               | W | "Economic Research-Ekonomska Istrazivanja " |
| Renewable energy transition and environmental sustainability through economic complexity in BRICS countries: Fresh insights from novel Method of Moments Quantile regression                          | Asif Razzaq            | W | Renewable Energy                            |
| How volatility in green financing, clean energy, and green economic practices derive sustainable performance through ESG indicators? A sectoral study of G7 countries                                 | Asif Razzaq            | W | Resources Policy                            |



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| Do renewable energy consumption and financial globalisation contribute to ecological sustainability in newly industrialized countries?           | "Asif Razzaq<br>"     | W | "Renewable Energy<br>"   |
| "Clean and green: the relevance of hotels' website quality and environmental management initiatives for green customer loyalty<br>"              | Shafique Ur<br>Rehman | W | "British Food Journal<br>"   |
| Information transmission in regional energy stock markets  | Sitara Karim          | W | "Environmental Science<br>and Pollution Research<br>"                  |
| Transition towards ecological sustainability through fiscal decentralization, renewable energy and green investment in OECD countries            | Asif Razzaq           | W | "Renewable Energy<br>"   |
| Nexuses between crude oil imports, renewable energy, transport services, and technological innovation: a fresh insight from Germany              | Zhang Yu              | X | "Journal of Petroleum<br>Exploration and<br>Production Technology<br>" |
| Towards sustainable development in the European Union countries: Does economic complexity affect renewable and non-renewable energy consumption? | "Zahoor<br>Ahmed<br>" | W | "Sustainable<br>Development<br>"                                       |



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| "Influence of fiscal decentralization and renewable energy investment on ecological sustainability in EU: What is the moderating role of institutional governance?" | "Asif Razzaq "     | W | "Renewable Energy "           |
| Does structural transformation in economy impact inequality in renewable energy productivity? Implications for sustainable development                              | Kashif Raza Abbasi | W | Renewable Energy              |
| Investigating the nexuses between transportation Infrastructure, renewable energy Sources, and economic Growth: Striving towards sustainable development            | Zhang Yu           | W | Ain Shams Engineering Journal |
| CLIMATE FINANCE IN THE WAKE OF COVID-19: CONNECTEDNESS OF CLEAN ENERGY WITH CONVENTIONAL ENERGY AND REGIONAL STOCK MARKETS  | SITARA KARIM       | X | "Climate Change Economics "   |
| The Coal, Petroleum, and Gas Embedded in the Sectoral Demand-and-Supply Chain: Evidence from China  | Zhang Yu           | W | Sustainability                |
| Asymmetric effects of high-tech industry and renewable energy on consumption-based carbon emissions in MENA countries   | "Asif Razzaq "     | W | "Renewable Energy "           |

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| The effect of gross domestic product, urbanization, trade openness, financial development, and renewable energy on CO2 emission   | Muhammad Suhrab & Jahangeer Ahmed Soomro | W | "Environmental Science and Pollution Research " |
| Oil price changes and stock returns: Fresh evidence from oil exporting and oil importing countries  | Sitara Karim                             | X | Cogent Economics and Finance                    |
| Analyze the environmental sustainability factors of China: The role of fossil fuel energy and renewable energy  | "Kashif Raza Abbasi "                    | W | Renewable Energy                                |
| How critical are resource rents, agriculture, growth, and renewable energy to environmental degradation in the resource-rich African countries? The role of institutional quality | Oluwasegun B. Adekoya & Muhammad Suhrab  | W | Energy Policy                                   |
| The impact of renewable energy, internet use and foreign direct investment on carbon dioxide emissions: A method of moments quantile analysis                                     | "Kashif Raza Abbasi "                    | W | "Renewable Energy "                             |
| Another perspective towards energy consumption factors in Pakistan: Fresh policy insights from novel methodological framework   | Kashif Raza Abbasi                       | W | Energy  |
| Energy Efficiency in the Post-COVID-19 Era: Exploring the Determinants of Energy-Saving Intentions and Behaviors  | Muhammad Irfan                           | W | "Frontiers in Energy Research "                 |

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| Prioritizing and overcoming biomass energy barriers: Application of AHP and G-TOPSIS approaches  | Muhammad Irfan    | W | Technological Forecasting and Social Change                  |
| "Renewable and non-renewable energy consumption in Bangladesh: The relative influencing profiles of economic factors, urbanization, physical infrastructure and institutional quality" | Muhammad Irfan    | W | "Renewable Energy"   |
| Financial development, renewable energy and CO2 emission in G7 countries: New evidence from non-linear and asymmetric analysis   | Saif Ullah        | W | renewable energy   |
| Impact of Oil Price, Economic Growth and Urbanization on CO2 Emissions in GCC Countries: Asymmetry Analysis  | Zhang Yu          | W | Sustainability   |
| Energy efficiency and Jevons' paradox in OECD countries: policy implications leading toward sustainable development  | Abdul Rehman Khan | X | "Journal of Petroleum Exploration and Production Technology" |

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|---|------------------------------------|---|---------------------------------------|
| Nexus Between Energy Efficiency, Renewable Energy Consumption, Foreign Direct Investment, Energy Consumption, Global Trade, Logistics and Manufacturing Industries of Emerging Economies: In the Era of COVID-19 Pandemic | Syed Abdul Rehman Khan             | W | "Frontiers in Environmental Science " |
| A novel Sustainable Development Goal 7 composite index as the paradigm for energy sustainability assessment: A case study from Europe   | Muhammad Irfan                     | W | Applied Energy                        |
| Links among energy intensity, non-linear financial development, and environmental sustainability: New evidence from Asia Pacific Economic Cooperation countries   | Muhammad Irfan                     | W | Journal of Cleaner Production         |
| Linking energy transitions, energy consumption, and environmental sustainability in OECD countries  | Muhammad Irfan                     | W | Gondwana Research                     |
| Integrating the Role of Green Fiscal Policies With Energy Prices Volatility and Energy Efficiency: Presenting a COVID-19 Perspective  | Junaid Jamshid & Romanus Osabohien | W | Frontiers in Energy Research          |
| The asymmetric influence of renewable energy and green innovation on carbon neutrality in China: Analysis from non-linear ARDL model  | Asif Razzaq                        | W | Renewable Energy                      |

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|--|---------------------|---|---|
| A Path Towards Green Revolution: How do Environmental Technologies, Political Risk, and Environmental Taxes Influence Green Energy Consumption?              | Zahoor Ahmed        | W | "Frontiers in Environmental Science "           |
| Do natural resources, economic growth, human capital, and urbanization affect the ecological footprint? A modified dynamic ARDL and KRLS approach            | Kashif Raza Abbasi  | W | "Resources Policy "                             |
| Investigating the Impact of Transport Services and Renewable Energy on Macro-Economic and Environmental Indicators   | Zhang Yu            | W | "Frontiers in Environmental Science "           |
| Prediction of electric vehicle charging duration time using ensemble machine learning algorithm and Shapley additive explanations                            | Irfan Ullah         | W | "International Journal of Energy Research "     |
| The asymmetric effect of temperature, exchange rate, metals, and investor sentiments on solar stock price performance in China: evidence from QARDL approach | Asif Razzaq         | W | "Environmental Science and Pollution Research " |
| Sustainable environment, energy and finance in China: evidence from dynamic modelling using carbon emissions and ecological footprints                       | Mubeen Abdur Rehman | W | Environmental Science and Pollution Research    |

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| Effect of Financial Development, Foreign Direct Investment, Globalization, and Urbanization on Energy Consumption: Empirical Evidence From Belt and Road Initiative Partner Countries | Atta Ullah & Muhammad Sheraz    | W | Frontiers in Environmental Science                         |
| Nexus between tourism, hydropower, and CO2 emissions in India: fresh insights from ARDL and cumulative fourier frequency domain causality   | Kashif Raza Abbasi              | W | "Environment, Development and Sustainability "             |
| Energy transition for meeting ecological goals: Do economic stability, technology, and government stability matter?   | Zahoor Ahmed                    | W | "Frontiers in Environmental Science "                      |
| The role of financial stress, oil, gold and natural gas prices on clean energy stocks: Global evidence from extreme quantile approach   | Ummara Razi                     | W | "Resources Policy "  |
| The socioeconomic factors of investment-induced petroleum consumption: case of fast developing Chinese economy  | "Zhang Yu & Syed Abdul Rehman " | X | Journal of Petroleum Exploration and Production Technology |
| Do renewable energy consumption and green trade openness matter for human well-being? Empirical evidence from European Union countries  | Zahoor Ahmed                    | W | "Social Indicators Research "                              |
| The effect of green finance and unemployment rate on carbon emissions in china  | Muhammad Irfan                  | W | "Frontiers in Environmental Science "                      |

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| Assessing the Role of Green Finance and Education as New Determinants to Mitigate Energy Poverty  | Syed Abdul Rehman Khan | W | "Frontiers in Psychology "                     |
| Nexus between green technology innovation, green financing, and CO2 emissions in the G7 countries: The moderating role of social globalisation                          | Syed Abdul Rehman Khan | W | "Sustainable Development "                     |
| How technological innovation and institutional quality affect sectoral energy consumption in Pakistan? Fresh policy insights from novel econometric approach            | "Kashif Raza Abbasi "  | W | "Technological Forecasting and Social Change " |
| Revealing the Impacts of Banking Sector Development on Renewable Energy Consumption, Green Growth, and Environmental Quality in China: Does Financial Inclusion Matter? | Raja Rehan             | W | "Frontiers in Energy Research "                |
| Grey wolf optimizer-based machine learning algorithm to predict electric vehicle charging duration time   | Irfan Ullah            | W | "Transportation Letters "                      |
| Asymmetric effects of high-tech industry and renewable energy on consumption-based carbon emissions in MINT countries   | Asif Razzaq            | W | "Renewable Energy "                            |



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| <p>The dynamic influence of renewable energy, trade openness, and industrialization on the sustainable environment in G-7 economies</p>  | <p>"Mubeen<br/>Abdur Rehman<br/>"</p> | <p>W</p> | <p>"Renewable Energy<br/>"</p>                       |
| <p>Evaluating Barriers on Biogas Technology Adoption in China: The Moderating Role of Awareness and Technology Understanding</p>   | <p>Muhammad<br/>Irfan</p>             | <p>W</p> | <p>"Frontiers in<br/>Environmental Science<br/>"</p> |
| <p>Green Investment for Sustainable Business Development: The Influence of Policy Instruments on Solar Technology Adoption</p>   | <p>Muhammad<br/>Irfan</p>             | <p>W</p> | <p>"Frontiers in Energy<br/>Research<br/>"</p>       |
| <p>Recent Trends, Challenges, and Future Aspects of P2P Energy Trading Platforms in Electrical-Based Networks Considering Blockchain Technology: A Roadmap Toward Environmental Sustainability</p>       | <p>Muhammad<br/>Irfan</p>             | <p>W</p> | <p>"Frontiers in Energy<br/>Research<br/>"</p>       |
| <p>Do green innovation and financial globalization contribute to the ecological sustainability and energy transition in the United Kingdom? Policy insights from a bootstrap rolling window approach</p> | <p>Ummara Razi</p>                    | <p>W</p> | <p>"Sustainable<br/>Development<br/>"</p>            |



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| Race to environmental sustainability: Can renewable energy consumption and technological innovation sustain the strides for China?   | Muhammad Irfan              | W | "Renewable Energy "                            |
| How Do Financial Development and Renewable Energy Affect Consumption-Based Carbon Emissions?   | Husam Rjoub                 | Y | "MATHEMATICAL AND COMPUTATIONAL APPLICATIONS " |
| The key role of renewable energy consumption, technological innovation and institutional quality in formulating the SDG policies for emerging economies: Evidence from quantile regression | "Asif Razzaq & Ahsan Anwar" | W | "Energy Reports "                              |
| The dynamic effect of information and communication technology and renewable energy on CO2 emission: Fresh evidence from panel quantile regression   | Ahsan Anwar                 | W | "Frontiers in Environmental Science "          |
| Evaluating natural resources volatility in an emerging economy: The influence of solar energy development barriers   | "Muhammad Irfan "           | W | "Resources Policy "                            |
| "How do renewable energy consumption, financial development, and technical efficiency change cause ecological sustainability in European Union countries? "                                | Muhammad Irfan              | X | "Energy and Environment "                      |

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| Towards Sustainable Environment in G7 Nations: The Role of Renewable Energy Consumption, Eco-innovation and Trade Openness  | Muhammad Irfan               | W | "Frontiers in Environmental Science "        |
| "Waste-to-Renewable Energy Transition: Biogas Generation for Sustainable Development "  | Muhammad Irfan               | W | Frontiers in Environmental Science           |
| Renewable energy, nonrenewable energy, and environmental quality nexus: An investigation of the N-shaped Environmental Kuznets Curve based on six environmental indicators                | "Zahoor Ahmed "              | W | "Energy "                                    |
| Green growth and environmental quality in top polluted economies: the evolving role of financial institutions and markets   | "Zahoor Ahmed "              | W | Environmental Science and Pollution Research |
| How do green energy technology investments, technological innovation, and trade globalization enhance green energy supply and stimulate environmental sustainability in the G7 countries? | "Zahoor Ahmed "              | W | "Gondwana Research "                         |
| Nexus between international trade, renewable energy, and transport services: Leading toward practical implications and trade policies   | Zhang Yu & Abdul Rehman Khan | W | Frontiers in Environmental Science           |

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| Environmental degradation, renewable energy, and economic growth nexus: Assessing the role of financial and political risks?                               | "Zahoor Ahmed<br>" | W | Journal of Environmental Management                |
| Influence of economic policy uncertainty and financial development on renewable energy consumption in the BRICST region                                    | "Asif Razzaq<br>"  | W | "Renewable Energy<br>"                             |
| Natural resources, energy efficiency transition and sustainable development: Evidence from BRICS economies   | Asif Razzaq        | W | "Resources Policy<br>"                             |
| Investigating the inverted N-shape EKC in the presence of renewable and nuclear energy in a global sample  | Kashif Raza Abbasi | W | "Clean Technologies and Environmental Policy<br>"  |
| Modeling of machine learning with SHAP approach for electric vehicle charging station choice behavior prediction   | Irfan Ullah        | W | "Travel Behaviour and Society<br>"                 |
| How does fiscal decentralization lead to renewable energy transition and a sustainable environment? Evidence from highly decentralized economies           | "Asif Razzaq<br>"  | W | "Renewable Energy<br>"                             |
| The trade-off between energy consumption, economic growth, militarization, and CO2 emissions: does the treadmill of destruction exist in the modern world? | "Zahoor Ahmed<br>" | W | "Environmental Science and Pollution Research<br>" |

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| "Modeling the economic viability and performance of solar home systems: a roadmap towards clean energy for environmental sustainability "     | Muhammad Irfan    | W | Environmental Science and Pollution Research    |
| Influencing factors of consumers' buying intention of solar energy: a structural equation modeling approach                                   | "Muhammad Irfan " | W | Environmental Science and Pollution Research    |
| How to improve total factor energy efficiency under climate change: does export sophistication matter?  | Muhammad Irfan    | W | "Environmental Science and Pollution Research " |
| Does the potency of economic globalization and political instability reshape renewable energy usage in the face of environmental degradation? | Husam Rjoub       | W | "Environmental Science and Pollution Research " |

