

Muhammad Bilal Sajid

Associate Professor
US-Pakistan Center for Advanced Studies in Energy

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About

Dr. Muhammad Bilal Sajid is working as Associate Professor in the US-Pakistan Center for Advanced Studies in Energy. Dr. Muhammad Bilal Sajid has a PhD in Mechanical Energy. Dr. Muhammad Bilal Sajid has published 35 research articles & conference papers having a citation count of 500, carried out 2 projects and filed 0 intellectual property.

Qualifications

PhD in Mechanical Energy King Abdullah University of Science and Technology , Saudi Arabia	2011 - 2015
MS in Mechanical Engineering UET Taxila , Pakistan	2005 - 2006
B.Sc (Hon) in Mechanical Engineering UET Lahore , Pakistan	2000 - 2004

Experience

Associate Professor US-Pakistan Center for Advanced Studies in Energy	2025- Present
Associate Professor US-Pakistan Center for Advanced Studies in Energy	2024 - 2024
Associate Professor US-Pakistan Center for Advanced Studies in Energy	2022 - 2019
Associate Professor US-Pakistan Center for Advanced Studies in Energy	2021 - 2024
Assistant Professor US-Pakistan Center for Advanced Studies in Energy	2019 - 2021
Assistant Professor Centre for Energy System	2016 - 2022
Assistant Professor National University of Science and Technology (NUST) , H-12 Islamabad	2016 - 2022
Assistant Professor FME, GIK Insittute , Topi Swabi KPK	2015 - 2016
Manager (Tech) Maritime Technologies Complex (MTC), NESCOM , H-11 Islamabad	2006 - 2010
Lab Engineer GIK Insitutute , Topi Swabi KPK	2004 - 2005

Research Projects

National Projects

Energy Efficiency Improvements for Building Sector of Pakistan

2018

Funding Agency: USAID

Amount: PKR 3,000,000.00

Status: Completed

Development of Hybrid Micro Combined Heat and Power System for Distributed Generation in Pakistan

2017

Funding Agency: USAID / USPCASE

Amount: PKR 3,000,000.00

Status: Approved_inprocess

International Projects

Research Articles

Techno-economic and GHG mitigation assessment of concentrated solar thermal and PV systems for different climate zones

2023

Mariam Mahmood Sheeraz Iqbal Asad Ullah Muhammad Bilal Sajid Zohaib Hassan Kareem M. AboRas Hossam Kotb Mokhtar Shouran Bdereddin Abdul Samad

Energy Reports , Volume:9, Page:4763-4780

Impact Factor: 5.2 | **Quartile:** 2 | **Citations:** 11

DOI: 10.1016/j.egy.2023.03.109

Performance Evaluation of an Evacuated Flat-Plate Collector System for Domestic Hot Water

2023

Applications

Hamza Saeed Mariam Mahmood Hassan Nazir Adeel Waqas Naveed Ahmed Majid Ali Abdul Haseeb Muhammad Bilal Sajid

Journal of Solar Energy Engineering, Transactions of the ASME, Volume 145, Issue 5, Article Number:051006, Pages:12

Impact Factor: 2.3 | **Quartile:** 3 | **Citations:** 3

DOI: 10.1115/1.4056790

Numerical analysis of a novel solar air heater design with V-ribs and jet cooling

2023

Muhammad haroon Iqbal Naveed Ahmed Majid Ali Mumtaz A Qaisrani Mariam Mahmood Adeel Waqas Wasif Iqbal Muhammad Bilal Sajid

Sustainable Energy Technologies and Assessments, Volume 57, Article Number 103252

Impact Factor: 7.632 | **Quartile:** 2 | **Citations:** 23

DOI: doi.org/10.1016/j.seta.2023.103252

Forecasting environmental and social benefits of adopting cleaner technologies in Indian brick manufacturing industry

2023

Akhtar Abbas Muhammad Bilal Sajid Jamsheed Sajid Naveed Ahmed

Energy for Sustainable Development , Volume 72, Pages 202-211

Impact Factor: 5.655 | **Quartile:** 2 | **Citations:** 6

DOI: https://doi.org/10.1016/j.esd.2022.12.001

Development and validation of Nusselt number correlations for a helical coil based energy storage integrated with solar water heating system

2022

Saqib Ayuob Mariam Mahmood Naveed Ahmed Adeel Waqas Hamza Saeed Muhammad Bilal Sajid

Journal of Energy Storage , Volume 55, Part D, Article Number 105777

Impact Factor: 8.907 | **Quartile:** 1 | **Citations:** 17

DOI: https://doi.org/10.1016/j.est.2022.105777

Barriers and drivers for adoption of energy efficient and environment friendly brick kiln technologies in Punjab, Pakistan

2022

Akhtar Abbas Muhammad Bilal Sajid Nadia Shahzad Emad Uddin Mariam Mahmood Usman Salahuddin

Energy Reports , Volume 8, Pages 15563-15573

Impact Factor: 5.2 | **Quartile:** 2 | **Citations:** 2

DOI: https://doi.org/10.1016/j.egy.2022.11.128

Energetic, economic, and greenhouse gas emissions assessment of biomass and solar photovoltaic systems for an industrial facility

2022

Jamsheed Sajid Muhammad Bilal Sajid Muhammad Muneeb Ahmad Muhammad Kamran Rameen Ayub Naveed Ahmed Mariam Mahmood Akhtar Abbas

Energy Reports , Volume 8, Pages 12503-12521

Impact Factor: 4.937 | **Quartile:** 2 | **Citations:** 15

DOI: doi.org/10.1016/j.egy.2022.09.041

Performance enhancement of solar updraft tower plant using parabolic chimney profile configurations: A numerical analysis <i>Muhammad Saad Naveed Ahmed Mariam Mahmood Muhammad Bilal Sajid</i> <i>Energy Reports</i> , Volume 8, Pages 4661-4671 Impact Factor: 4.937 Quartile: 2 Citations: 17 DOI: https://doi.org/10.1016/j.egyr.2022.03.134	2022
Investigation of free and forced vortex induced thermal energy exchange potential <i>Muhammad Bilal Sajid Muhammad Talha Riaz Taqi Ahmad Cheema Muhammad Tayyab Ali Ul Atas Khan Khuram Pervez Amber Cheol Woo Park</i> <i>Sustainable Energy Technologies and Assessments</i> , Volume 52, Part B, Article Number 102107 Impact Factor: 7.632 Quartile: 2 Citations: 5 DOI: doi.org/10.1016/j.seta.2022.102107	2022
Economic and environmental analysis of green transport penetration in Pakistan <i>Muhammad Shahid Kafait Ullah Kashif Imran Neha Masroor Muhammad Bilal Sajid</i> <i>Energy Policy</i> , Volume 166, Article Number 113040 Impact Factor: 6.142 Quartile: 1 Citations: 18 DOI: https://doi.org/10.1016/j.enpol.2022.113040	2022
Energy conservation and climate change mitigation potential of improving efficiency of room air conditioners in Pakistan <i>Waqas Ali Muhammad Bilal Sajid Awad B.S. Alqaity Shujaat Abbas Muhammad Asaad Iftikhar Jamsheed Sajid Akhtar Abbas</i> <i>Energy Reports</i> , Volume 8, Pages 6101-6109 Impact Factor: 4.937 Quartile: 2 Citations: 10 DOI: doi.org/10.1016/j.egyr.2022.04.040	2022
Assessment of long-term energy and environmental impacts of the cleaner technologies for brick production <i>Akhtar Abbas Muhammad Bilal Sajid Muhammad Asaad Iftikhar Asif Hussain Khoja Muhammad Muneeb Muhammad Shahid Kafait Ullah</i> <i>Energy Reports</i> , Volume 7, Pages 7157-7169 Impact Factor: 4.937 Quartile: 2 Citations: 31 DOI: 10.1016/j.egyr.2021.10.072	2021
Techno-economic potential assessment of mega scale grid-connected PV power plant in five climate zones of Pakistan <i>Adeel Waqas Naseer Ahmed Atif Naveed Khan Naveed Ahmed Adnan Aslam Kashif Imran Muhammad Bilal Sajid</i> <i>Energy Conversion and Management</i> , Volume 237, Article Number 114097 Impact Factor: 11.533 Quartile: 1 Citations: 60 DOI: https://doi.org/10.1016/j.enconman.2021.114097	2021
Numerical Investigation of Non-Uniform Flow in Twin-Silo Combustors and Impact on Axial Turbine Stage Performance <i>Hafiz Muhammad Hassan Adeel Javed Asif Hussain Khoja Majid Ali Muhammad Bilal Sajid</i> <i>Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy</i> , Pages 1-13 Impact Factor: 1.616 Quartile: 4 Citations: 18 DOI: https://doi.org/10.1177/0957650920982103	2021
Thermal management of solar PV module by using hollow rectangular aluminum fins <i>Sheher Yar Khan Adeel Waqas Naveed Ahmad Mariam Mahmood Nadia Shahzad Muhammad Bilal Sajid</i> <i>Journal of Renewable and Sustainable Energy</i> , Volume 12, Article Number 063501 Impact Factor: 2.219 Quartile: 4 DOI: https://doi.org/10.1063/5.0020129 .	2020
Investigation of thermal energy exchange potential of a gravitational water vortex <i>Muhammad Bilal Sajid Muhammad Tayyab Taqi Ahmad Cheema Muhammad Sohail Malik Atif Muzaffar Cheol Woo Park</i> <i>Renewable Energy</i> , Volume 162, Pages 1380-1398 Impact Factor: 8.001 Quartile: 1 Citations: 14 DOI: https://doi.org/10.1016/j.renene.2020.08.097	2020
Dynamic simulation and parametric analysis of solar assisted desiccant cooling system with three configuration schemes <i>Muhammad Bilal Sajid Abdul Samad Farooq Abdul Waheed Badar Mehreen Fatima Anam Zahra M. Salman Siddiqui</i> <i>Solar Energy</i> , Volume 197, Pages 22-37 Impact Factor: 5.742 Quartile: 2 Citations: 40	2020

DOI: <https://doi.org/10.1016/j.solener.2019.12.076>

Investigation of the Thermal Performance of Salt Hydrate Phase Change of Nanoparticle Slurry Flow in a Microchannel

2019

Safi A. Memon Muhammad Bilal Sajid M. S. Malik Awad B. S. Alquaity M. Mohib ur. Rehman Taqi A. Cheema Moon Kyu Kwak Cheol Woo Park
Journal of Chemistry, Article Number 5271923, 10 pages

Impact Factor: 1.790 | **Quartile:** 3 | **Citations:** 6

DOI: 10.1155/2019/5271923

Cyclopentane combustion. Part II. Ignition delay measurements and mechanism validation

2017

Mariam J. Al Rashidi Juan C. Marmol Colin Banyon Muhammad B. Sajid Marco Mehl William J. Pitz Samah Mohamed Adamu Alfazazi Tianfeng Lu Henry J. Curran Aamir Farooq S. Mani Sarathy

Combustion and Flame, Volume 183, Pages 372-385

Impact Factor: 4.494 | **Quartile:** 1 | **Citations:** 55

DOI: 10.1016/j.combustflame.2017.05.017

Shock tube/laser absorption measurements of methane, acetylene and ethylene during the pyrolysis of n-pentane and iso-pentane

2016

Muhammad BSajid Tamour Javed Aamir Farooq

Combustion and Flame, Volume 164, Pages 1-9

Impact Factor: 3.663 | **Quartile:** 1 | **Citations:** 30

DOI: 10.1016/j.combustflame.2015.10.021

High-temperature measurements of methane and acetylene using quantum cascade laser absorption near 8 μm

2015

M.B.Sajid T. Javed A. Farooq

Journal of Quantitative Spectroscopy and Radiative Transfer, Volume 155, Pages 66-74

Impact Factor: 2.859 | **Quartile:** 1 | **Citations:** 31

DOI: 10.1016/j.jqsrt.2015.01.009

Measurements of linestrengths, N-2-, Ar-, He- and self-broadening coefficients of acetylene in the $\nu(4)+\nu(5)$ combination band using a cw quantum cascade laser

2014

Muhammad Bilal Sajid Et-touhami Es-sebbar Aamir Farooq

Journal of Quantitative Spectroscopy and Radiative Transfer, Volume 148, Pages 1-12

Impact Factor: 2.645 | **Quartile:** 2 | **Citations:** 17

DOI: 10.1016/j.jqsrt.2014.06.014

Measurement of the Rate of Hydrogen Peroxide Thermal Decomposition in a Shock Tube Using Quantum Cascade Laser Absorption Near 7.7 μm

2014

M. B. SAJID ET. ES-SEBBAR T. JAVED C. FITTSCHEN A. FAROOQ1

International Journal of Chemical Kinetics, Volume 46, Issue 5, Pages 275-284, Special Issue SI

Impact Factor: 1.517 | **Quartile:** 3 | **Citations:** 38

DOI: 10.1002/kin.20827

Conference Proceedings

Assessment of Energy Efficiency and Contribution of Climate Change Impacts via Room Air Conditioners in Pakistan

2019

Waqas Ali Muhammad Bilal Sajid

International Conference on Energy Conservation and Efficiency 2019, res.country(177,)

Citations: N/A

DOI: N/A

Energy Efficiency Improvements Opportunities in Cement Industry Of Pakistan

2019

Amjad Ullah Khan Muhammad Bilal Sajid Zeeshan Ahmad Khan

International Conference on Energy Conservation and Efficiency 2019, res.country(177,)

Citations: N/A

DOI: N/A

Assessment of Indoor Air in Educational Building of NUST

2019

Tahir Nawaz Muhammad Bilal Sajid

National Conference on Water and Environment, res.country(177,)

Citations: N/A

DOI: N/A

Energy Performance Analysis of a Commercial Building using eQUEST <i>Dilshad Ahmed Khan Muhammad Bilal Sajid Sadia Gul Waqas Ahmad Khalil</i> <i>1st International Conference on High Performance Energy Efficient Buildings and Homes (HPEEBH 2018), res.country(177,)</i> Citations: N/A DOI: https://conferences.uet.edu.pk/hpeebh/2018/wp-content/uploads/2018/10/ABSTRACTS-Book-Final.pdf	2018
Sustainable Residential Buildings in Pakistan: Challenges and Opportunities. <i>Waqas Ahmad Khalil Sadia Gul Rafia Akbar Sophia Owais Dilshad Ahmad Khan Muhammad Bilal Sajid*</i> <i>1st International Conference on High Performance Energy Efficient Buildings and Homes (HPEEBH 2018), res.country(177,)</i> Citations: N/A DOI: https://conferences.uet.edu.pk/hpeebh/2018/wp-content/uploads/2018/10/ABSTRACTS-Book-Final.pdf	2018
Energy Consumption in Residential Sector of Pakistan. <i>Sophia Owais Waqas Ahmad Khalil Rafia Akbar Sadia Gul Muhammad Bilal Sajid</i> <i>1st International Conference on High Performance Energy Efficient Buildings and Homes (HPEEBH 2018), res.country(177,)</i> Citations: N/A DOI: https://conferences.uet.edu.pk/hpeebh/2018/wp-content/uploads/2018/10/ABSTRACTS-Book-Final.pdf	2018
Energy Consumption Profile of a K-12 School Building and Identification of Energy Conservation and Energy Efficiency Measures. <i>Sadia Gul Waqas Ahmad Khalil Sophia Owais Rafia Akbar Muhammad Bilal Sajid</i> <i>1st International Conference on High Performance Energy Efficient Buildings and Homes (HPEEBH 2018), res.country(177,)</i> Citations: N/A DOI: https://conferences.uet.edu.pk/hpeebh/2018/wp-content/uploads/2018/10/ABSTRACTS-Book-Final.pdf	2018
Design of 87 kW Photovoltaic System for a University Building to Obtain LEED Certification <i>Rafia Akbar Sophia Owais Bhatti Waqas Ahmad Khalil Sadia Gul Muhammad Bilal Sajid</i> <i>1st International Conference on High Performance Energy Efficient Buildings and Homes (HPEEBH 2018), res.country(177,)</i> Citations: N/A DOI: https://conferences.uet.edu.pk/hpeebh/2018/wp-content/uploads/2018/10/ABSTRACTS-Book-Final.pdf	2018
Development of Hybrid Micro Combined Heat and Power System Based on Solar Thermal and Biomass Resources <i>Muhammad Zubair Brian.M. Fronk M. Bilal Sajid M. Asaad Ittikhar H.M. Abdullah</i> <i>USAID-ASU Stakeholders Meeting and Expo , res.country(177,)</i> Citations: N/A DOI: N/A	2018
Design of a combined solar thermal water and space heating system for a commercial building in climatic conditions of Islamabad, Pakistan <i>Hafiza Mahreen Fatima Muhammad Bilal Sajid Abdul Waheed Badar</i> <i>13th International Conference on Emerging Technologies (ICET), res.country(177,)</i> Citations: N/A DOI: https://ieeexplore.ieee.org/abstract/document/8281712	2017
Heat transfer in microchannels using supercritical CO2 for Solar Tower Applications <i>Muhammad Mohsin Tanveer Adeel Javed Muhammad Bilal Sajid Abdul samad Nouman Ali Muhammad Usman</i> <i>2nd International conference on impact of Nanoscience on energy Technologies, res.country(177,)</i> Citations: N/A DOI: N/A	2017

Editorial Activities

Sustainability Reviewed Papers for Journals Impact Factor: 3.9	2023
Sustainability Reviewed Papers for Journals Impact Factor: 3.9	2023
Buildings Reviewed Papers for Journals Impact Factor: 3.324	2022
Sustainability Reviewed Papers for Journals Impact Factor: 3.889	2022
Sustainability Reviewed Papers for Journals Impact Factor: 3.889	2022
International Journal of Strategic Energy and Environmental Planning Reviewed Papers for Journals Impact Factor: NA	2022