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 2011 - 2015
King Abdullah University of Science and Technology , Saudi Arabia

MS in Mechanical Engineering 2005 - 2006
UET Taxila , Pakistan

B.Sc (Hon) in Mechanical Engineering 2000 - 2004
UET Lahore , Pakistan

Experience

Associate Professor 2025- Present
US-Pakistan Center for Advanced Studies in Energy

Associate Professor 2024 - 2024
US-Pakistan Center for Advanced Studies in Energy

Associate Professor 2022 - 2019
US-Pakistan Center for Advanced Studies in Energy

Associate Professor 2021 - 2024
US-Pakistan Center for Advanced Studies in Energy

Assistant Professor 2019 - 2021
US-Pakistan Center for Advanced Studies in Energy

Assistant Professor 2016 - 2022
Centre for Energy System

Assistant Professor 2016 - 2022
National University of Science and Technology (NUST) , H-12 Islamabad

Assistant Professor 2015 - 2016
FME, GIK Insittute , Topi Swabi KPK

Manager (Tech) 2006 - 2010
Maritime Technologies Complex (MTC), NESCOM , H-11 Islamabad

Lab Engineer 2004 - 2005
GIK Insitutute , Topi Swabi KPK

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.egyr.2023.03.109

Performance Evaluation of an Evacuated Flat-Plate Collector System for Domestic Hot Water Applications 2023

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.egyr.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.egyr.2022.09.041

Performance enhancement of solar updraft tower plant using parabolic chimney profile configurations: A numerical analysis 2022

Muhammad Saad Naveed Ahmed Mariam Mahmood Muhammad Bilal Sajid

Energy Reports , Volume 8, Pages 4661-4671

Impact Factor: 4.937 | **Quartile:** 2 | **Citations:** 17

DOI: https://doi.org/10.1016/j.egyr.2022.03.134

Investigation of free and forced vortex induced thermal energy exchange potential 2022

Muhammad Bilal Sajid Muhammad Talha Riaz Taqi Ahmad Cheema Muhammad Tayyab Ali Ul Atas Khan Khuram Pervez Amber Cheol Woo Park

Sustainable Energy Technologies and Assessments, Volume 52, Part B, Article Number 102107

Impact Factor: 7.632 | **Quartile:** 2 | **Citations:** 5

DOI: doi.org/10.1016/j.seta.2022.102107

Economic and environmental analysis of green transport penetration in Pakistan 2022

Muhammad Shahid Kafait Ullah Kashif Imran Neha Masroor Muhammad Bilal Sajid

Energy Policy , Volume 166, Article Number 113040

Impact Factor: 6.142 | **Quartile:** 1 | **Citations:** 18

DOI: https://doi.org/10.1016/j.enpol.2022.113040

Energy conservation and climate change mitigation potential of improving efficiency of room air conditioners in Pakistan 2022

Waqas Ali Muhammad Bilal Sajid Awad B.S. Alquaity Shujaat Abbas Muhammad Asaad Iftikhar Jamsheed Sajid Akhtar Abbas

Energy Reports , Volume 8, Pages 6101-6109

Impact Factor: 4.937 | **Quartile:** 2 | **Citations:** 10

DOI: doi.org/10.1016/j.egyr.2022.04.040

Assessment of long-term energy and environmental impacts of the cleaner technologies for brick production 2021

Akhtar Abbas Muhammad Bilal Sajid Muhammad Asaad Iftikhar Asif Hussain Khoja Muhammad Muneeb Muhammad Shahid Kafait Ullah

Energy Reports , Volume 7, Pages 7157-7169

Impact Factor: 4.937 | **Quartile:** 2 | **Citations:** 31

DOI: 10.1016/j.egyr.2021.10.072

Techno-economic potential assessment of mega scale grid-connected PV power plant in five climate zones of Pakistan 2021

Adeel Waqas Naseer Ahmed Atif Naveed Khan Naveed Ahmed Adnan Aslam Kashif Imran Muhammad Bilal Sajid

Energy Conversion and Management , Volume 237, Article Number 114097

Impact Factor: 11.533 | **Quartile:** 1 | **Citations:** 60

DOI: https://doi.org/10.1016/j.enconman.2021.114097

Numerical Investigation of Non-Uniform Flow in Twin-Silo Combustors and Impact on Axial Turbine Stage Performance 2021

Hafiz Muhammad Hassan Adeel Javed Asif Hussain Khoja Majid Ali Muhammad Bilal Sajid

Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy, Pages 1-13

Impact Factor: 1.616 | **Quartile:** 4 | **Citations:** 18

DOI: https://doi.org/10.1177/0957650920982103

Thermal management of solar PV module by using hollow rectangular aluminum fins 2020

Sheher Yar Khan Adeel Waqas Naveed Ahmad Mariam Mahmood Nadia Shahzad Muhammad Bilal Sajid

Journal of Renewable and Sustainable Energy, Volume 12, Article Number 063501

Impact Factor: 2.219 | **Quartile:** 4

DOI: https://doi.org/10.1063/5.0020129.

Investigation of thermal energy exchange potential of a gravitational water vortex 2020

Muhammad Bilal Sajid Muhammad Tayyab Taqi Ahmad Cheema Muhammad Sohail Malik Atif Muzaffar Cheol Woo Park

Renewable Energy , Volume 162, Pages 1380-1398

Impact Factor: 8.001 | **Quartile:** 1 | **Citations:** 14

DOI: https://doi.org/10.1016/j.renene.2020.08.097

Dynamic simulation and parametric analysis of solar assisted desiccant cooling system with three configuration schemes 2020

Muhammad Bilal Sajid Abdul Samad Farooq Abdul Waheed Badar Mehreen Fatima Anam Zahra M. Salman Siddiqui

Solar Energy , Volume 197, Pages 22-37

Impact Factor: 5.742 | **Quartile:** 2 | **Citations:** 40

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 v(4)+v(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 2018

Dilshad Ahmed Khan Muhammad Bilal Sajid Sadia Gul Waqas Ahmad Khalil

1st International Conference on High Performance Energy Efficient Buildings and Homes (HPEEBH 2018), res.country(177,)

Citations: N/A

DOI: https://conferences.uet.edu.pk/hpeebh/2018/wp-content/uploads/2018/10/ABSTRACTS-Book-Final.pdf

Sustainable Residential Buildings in Pakistan: Challenges and Opportunities. 2018

*Waqas Ahmad Khalil Sadia Gul Rafia Akbar Sophia Owais Dilshad Ahmad Khan Muhammad Bilal Sajid**

1st International Conference on High Performance Energy Efficient Buildings and Homes (HPEEBH 2018), res.country(177,)

Citations: N/A

DOI: https://conferences.uet.edu.pk/hpeebh/2018/wp-content/uploads/2018/10/ABSTRACTS-Book-Final.pdf

Energy Consumption in Residential Sector of Pakistan. 2018

Sophia Owais Waqas Ahmad Khalil Rafia Akbar Sadia Gul Muhammad Bilal Sajid

1st International Conference on High Performance Energy Efficient Buildings and Homes (HPEEBH 2018), res.country(177,)

Citations: N/A

DOI: https://conferences.uet.edu.pk/hpeebh/2018/wp-content/uploads/2018/10/ABSTRACTS-Book-Final.pdf

Energy Consumption Profile of a K-12 School Building and Identification of Energy Conservation and Energy Efficiency Measures. 2018

Sadia Gul Waqas Ahmad Khalil Sophia Owais Rafia Akbar Muhammad Bilal Sajid

1st International Conference on High Performance Energy Efficient Buildings and Homes (HPEEBH 2018), res.country(177,)

Citations: N/A

DOI: https://conferences.uet.edu.pk/hpeebh/2018/wp-content/uploads/2018/10/ABSTRACTS-Book-Final.pdf

Design of 87 kW Photovoltaic System for a University Building to Obtain LEED Certification 2018

Rafia Akbar Sophia Owais Bhatti Waqas Ahmad Khalil Sadia Gul Muhammad Bilal Sajid

1st International Conference on High Performance Energy Efficient Buildings and Homes (HPEEBH 2018), res.country(177,)

Citations: N/A

DOI: https://conferences.uet.edu.pk/hpeebh/2018/wp-content/uploads/2018/10/ABSTRACTS-Book-Final.pdf

Development of Hybrid Micro Combined Heat and Power System Based on Solar Thermal and Biomass Resources 2018

Muhammad Zubair Brian.M. Fronk M. Bilal Sajid M. Asaad Iftikhar H.M. Abdullah

USAID-ASU Stakeholders Meeting and Expo , res.country(177,)

Citations: N/A

DOI: N/A

Design of a combined solar thermal water and space heating system for a commercial building in climatic conditions of Islamabad, Pakistan 2017

Hafiza Mahreen Fatima Muhammad Bilal Sajid Abdul Waheed Badar

13th International Conference on Emerging Technologies (ICET), res.country(177,)

Citations: N/A

DOI: https://ieeexplore.ieee.org/abstract/document/8281712

Heat transfer in microchannels using supercritical CO2 for Solar Tower Applications 2017

Muhammad Mohsin Tanveer Adeel Javed Muhammad Bilal Sajid Abdul samad Nouman Ali Muhammad Usman

2nd International conference on impact of Nanoscience on energy Technologies, res.country(177,)

Citations: N/A

DOI: N/A

Editorial Activities

Sustainability 2023
Reviewed Papers for Journals
Impact Factor: 3.9

Sustainability 2023
Reviewed Papers for Journals
Impact Factor: 3.9

Buildings 2022
Reviewed Papers for Journals
Impact Factor: 3.324

Sustainability 2022
Reviewed Papers for Journals
Impact Factor: 3.889

Sustainability 2022
Reviewed Papers for Journals
Impact Factor: 3.889

International Journal of Strategic Energy and Environmental Planning 2022
Reviewed Papers for Journals
Impact Factor: NA