

Asad Javed

Assistant Professor
School of Mechanical & Manufacturing Engineering

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About

Dr. Asad Javed is working as Assistant Professor in the School of Mechanical & Manufacturing Engineering. Dr. Asad Javed has a PhD in Biohydrogen Production. Dr. Asad Javed has published 29 research articles & conference papers having a citation count of 451, carried out 1 projects and filed 0 intellectual property.

Qualifications

PhD in Biohydrogen Production	2020 - 2024
United Arab Emirates University , United Arab Emirates	
MS in Thermal Power	2012 - 2015
UET Lahore , Pakistan	
BE in Mechanical	2008 - 2012
UET Lahore , Pakistan	

Experience

Assistant Professor	2024- Present
School of Mechanical & Manufacturing Engineering	
Lecturer	2014 - 2018
COMSATS University, Islamabad, Sahiwal Campus , Sahiwal	
Lecturer	2013 - 2014
The University of Lahore, Lahore , Lahore	

Research Projects

National Projects

Designing and fabrication of an upscale continuous flow stirred tank (CSTR) bioreactor for biogas generation and its application in IC engines as biofuel

Funding Agency: NUST
Amount: PKR 500,000.00
Status: Approved_inprocess

International Projects

Research Articles

Performance and Environmental Sustainability of Fish Waste Biodiesel on Diesel Engines	2025
Mehmood Ali Muhammad Shakaib Syed Asad Ali Zaidi Asad Javed Sohaib Zia Khan Ashraf Aly Hassan	
Sustainability , Volume 17(12), Article Number 5385	
Impact Factor: 3.300 Quartile: 2	
DOI: https://doi.org/10.3390/su17125385	
Interesterification of waste cooking oil via microwave irradiation for glycerol-free biodiesel production	2025
Muhammad Umer Qadeer Muhammad Ayoub Muhammad Hamza Nazir Asad Javed Zulqarnain Imtisal Zahid Mariam Ameen Farooq Sher Alhassan Ibrahim	
Biomass and Bioenergy , Volume 197, Article Number 107739	
Impact Factor: 5.800 Quartile: 1 Citations: 1	
DOI: https://doi.org/10.1016/j.biombioe.2025.107739	
Optimization of hydrogen production using a coculture of Chlamydomonas reinhardtii and activated sludge bacteria	2024

Abdelsalam Zidan Asad Javed Ashraf Aly Hassan

Chemosphere , Volume: 369, Article Number: 143789, Pages:11

Impact Factor: 8.1 | **Quartile:** 1 | **Citations:** 1

DOI: <https://doi.org/10.1016/j.chemosphere.2024.143789>

Structural and thermal investigation of lignocellulosic biomass conversion for enhancing sustainable imperative in progressive organic refinery paradigm for waste-to-energy applications

2024

Tayyab Qureshi Muhammad Farooq Shahid Imran Muhammad Adeel Munir Muhammad Asad Javed Ihsanullah Sohoo Muhammad Sultan Ateekh Ur

Rehman Muhammad Farhan Muhammad Asim John M. Andresen

Environmental Research , Volume 246, Article Number 118129

Impact Factor: 8.3 | **Quartile:** 1 | **Citations:** 15

DOI: [10.1016/j.envres.2024.118129](https://doi.org/10.1016/j.envres.2024.118129)

A kinetic modeling and energy conversion evaluation of biohydrogen production using a co-culture of green microalgae and wastewater activated sludge

2024

Muhammad Asad Javed Ashraf Aly Hassan

International Journal of Hydrogen Energy, Volume 57, Pages 148-160

Impact Factor: 7.2 | **Quartile:** 1 | **Citations:** 9

DOI: [10.1016/j.ijhydene.2024.01.020](https://doi.org/10.1016/j.ijhydene.2024.01.020)

A novel two-stage immobilized bioreactor for biohydrogen production using a partial microalgal-bacterial (*Chlorella vulgaris* and wastewater activated sludge) co-culture

2024

Muhammad Asad Javed Sarah Mohamed Alhamdi Alyammahi Fatema Abdulla Alhar Alshehhi Sheym Ali Almukhaini Aljneibi Salama Ali Obaid Alketbi Ashraf Aly Hassan

Sustainable Energy Technologies and Assessments, Volume 62, Article Number 103624

Impact Factor: 8.0 | **Quartile:** 1 | **Citations:** 9

DOI: [10.1016/j.seta.2024.103624](https://doi.org/10.1016/j.seta.2024.103624)

In-situ desorption of hydrogen sulfide from activated carbon: effect of temperature, pH and flowrate

2024

M. Sherief Muhammad Asad Javed B. Bunker M. A. Maraqa Ashraf Aly Hassan

International Journal of Environmental Science and Technology, Volume 21, Issue 1, Pages 359-370

Impact Factor: 3.1 | **Quartile:** 3

DOI: [10.1007/s13762-023-04974-x](https://doi.org/10.1007/s13762-023-04974-x)

Biohydrogen production of a halophytic cyanobacteria *Phormidium keutzingium* and activated sludge co-culture using different carbon substrates and saline concentrations

2023

Maitha Mohammed Al Nuaimi Muhammad Asad Javed Khaled A. El-Tarabily Woo Hyoung Lee Ashraf Aly Hassan

Energy Conversion and Management: X, Volume 20, Article Number 100487

Impact Factor: 7.100 | **Quartile:** 1 | **Citations:** 3

DOI: [10.1016/j.ecmx.2023.100487](https://doi.org/10.1016/j.ecmx.2023.100487)

Homoacetogenesis outcompetes GHG emissions during microalgal dark fermentative hydrogen production

2023

Muhammad Asad Javed Ashraf Aly Hassan

Energy Reports , Volume 9, Supplement 11, Pages 551-554

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

DOI: <https://doi.org/10.1016/j.egyr.2023.12.002>

Exogenous Carbon Substrates for Biohydrogen Production and Organics Removal Using Microalgal-Bacterial Co-Culture

2022

Muhammad Asad Javed Abdul Mannan Zafar Sulaiman Al-Zuhair Amro El Badawy Ashraf Aly Hassan

ACS Sustainable Chemistry & Engineering , Volume 10, Issue 47, Pages15490-15500

Impact Factor: 8.4 | **Quartile:** 1 | **Citations:** 9

DOI: [10.1021/acssuschemeng.2c04722](https://doi.org/10.1021/acssuschemeng.2c04722)

Biodesalination using halophytic cyanobacterium *Phormidium keutzingianum* from brackish to the hypersaline water

2022

Abdul Mannan Zafar Muhammad Asad Javed Ashraf Aly Hassan Endalkachew Sahle-Demessie Stephen Harmon

Chemosphere , Volume 307, Part 4, Article Number 136082

Impact Factor: 8.8 | **Quartile:** 1 | **Citations:** 16

DOI: [10.1016/j.chemosphere.2022.136082](https://doi.org/10.1016/j.chemosphere.2022.136082)

Photo fermentative biohydrogen production potential using microalgae-activated sludge co-digestion in a sequential flow batch reactor (SFBR)

2022

Muhammad Asad Javed Ashraf Aly Hassan

Regulate oxygen concentration using a co-culture of activated sludge bacteria and *Chlorella vulgaris* to maximize biophotolytic hydrogen production

2022

Muhammad Asad Javed Abdul Mannan Zafar Ashraf Aly Hassan

Algal Research , Volume 63, Article Number 102649

Impact Factor: 5.1 | Quartile: 1 | Citations: 38

DOI: 10.1016/j.algal.2022.102649

The role of oxygen regulation and algal growth parameters in hydrogen production via biophotolysis

2022

Muhammad Asad Javed Abdul Mannan Zafar Ashraf Aly Hassan Asad A. Zaidi Muhammad Farooq Amro El Badawy Tryg Lundquist Mohamad Mostafa

Ahmed Mohamed Sulaiman Al-Zuhair

Journal of Environmental Chemical Engineering , Volume 10, Issue 1, Article Number 107003

Impact Factor: 7.7 | Quartile: 1 | Citations: 81

DOI: 10.1016/j.jece.2021.107003

Unprecedented biodesalination rates—Shortcomings of electrical conductivity measurements in determining salt removal by algae and cyanobacteria

2022

Abdul Mannan Zafar Muhammad Asad Javed Ashraf Aly Hassan

Journal of Environmental Management , Volume 302, Part A, Article Number 113947

Impact Factor: 8.7 | Quartile: 1 | Citations: 20

DOI: 10.1016/j.jenvman.2021.113947

Conjoint effect of microwave irradiation and metal nanoparticles on biogas augmentation from anaerobic digestion of green algae

2019

Syed Asad Ali Zaidi Feng RuiZhe Adil Malik Sohaib Zia Khan Asad J. Bhutta Yue Shi Kashif Mushtaq

International Journal of Hydrogen Energy , Volume 44, Issue 29, Pages 14661-14670

Impact Factor: 4.939 | Quartile: 2 | Citations: 47

DOI: 10.1016/j.ijhydene.2019.02.245

Combining Microwave Pretreatment with Iron Oxide Nanoparticles Enhanced Biogas and Hydrogen Yield from Green Algae

2019

Syed Asad Ali Zaidi Ruizhe Feng Adil Malik Sohaib Zia Khan Yue Shi Asad Javed Ahmer H. Shah

Processes , Vol.7, Issue 1, Article No. 24

Impact Factor: 2.753 | Quartile: 2 | Citations: 75

DOI: <https://doi.org/10.3390/pr7010024>

Conference Proceedings

- Energy Extraction through an Intermodular Approach by Utilizing a Turbocharger for Small-Scale Thrust Applications** 2025
Asad Javed Muhammad Ahmad Ali Izhar Ullah
31st International Conference on Computational & Experimental Engineering and Sciences (ICCES2025), res.country(48,)
Citations: N/A
DOI: Nil
- A consortium of cyanobacterium *Trichormus variabilis* and wastewater activated sludge for biohydrogen yield and salt uptake** 2023
Muhammad Asad Javed Ashraf Aly Hassan
16th Conference for Challenges in Environmental Science and Engineering, res.country(13,)
Citations: N/A
DOI: NA
- Effect of glucose concentration and oxygen regulation on biohydrogen yield using microalgae and activated sludge co-culture—A source of green energy and waste energy utilization** 2022
Muhammad Asad Javed Ashraf Aly Hassan
2022 IEEE Green Technologies Conference (GreenTech), res.country(233,)
Citations: N/A
DOI: 10.1109/GreenTech52845.2022.9772037
- An experimental study of algal biomass and activated sludge co-culture for biophotolytic hydrogen potential and oxygen regulation** 2021
Muhammad Asad Javed Ashraf Aly Hassan
13th International Conference on Applied Energy, res.country(217,)
Citations: N/A
DOI: Nil
- Effect of bacteria and antioxidant on the generation of biohydrogen gas by algae** 2021
Muhammad Asad Javed Ashraf Aly Hassan
10th Algal Biomass, Biofuels and Bioproducts Conference, res.country(233,)
Citations: N/A
DOI: Nil
- GIS-based waste-to-energy and improved solid waste management practices for waste collection in Lahore—An approach towards sustainability** 2021
Abdul Mannan Zafar Iftikhar Ahmed Asad Javed Bhutta Khalid Mehmood Aniq Waris Noshaba Mahmood Hafsa Khan Ashraf Aly Hassan
2021 6th International Conference on Renewable Energy: Generation and Applications (ICREGA), res.country(2,)
Citations: N/A
DOI: 10.1109/ICREGA50506.2021.9388309
- Removal of heavy metals in sub-surface horizontal flow constructed wetland: approach to energy free treatment** 2021
Abdul Mannan Zafar Ifrah Kamil Asad Javed Bhutta Ashraf Aly Hassan Zainab Cheema Aasiya Sarwar Mahnoor Ishtiaq Khalid Mehmood
2021 6th International Conference on Renewable Energy: Generation and Applications (ICREGA), res.country(2,)
Citations: N/A
DOI: 10.1109/ICREGA50506.2021.9388226

Book Chapters

- Microbial Mats and Its Significance in Biofuel Production** 2023
Muhammad Asad Javed Ashraf Aly Hassan
In: *Book on Basic Research Advancement for Algal Biofuels Production*, Chapter 3, Pages 59-75
Citations: N/A
DOI: https://doi.org/10.1007/978-981-19-6810-5_3

Editorial Activities

- Fuels** 2025
Reviewed Papers for Journals
Impact Factor: 2.7

Biomass Conversion and Biorefinery	2025
Reviewed Papers for Journals	
Impact Factor: 3.5	
Energies	2025
Reviewed Papers for Journals	
Impact Factor: 3.0	
Energies	2025
Reviewed Papers for Journals	
Impact Factor: 3.0	
Bioresource Technology Reports	2025
Reviewed Papers for Journals	
Impact Factor: N/A	
Bioresource Technology Report	2025
Reviewed Papers for Journals	
Impact Factor: N/A	
Journal of Environmental Management	2025
Reviewed Papers for Journals	
Impact Factor: 8.0	
Sustainability	2025
Reviewed Papers for Journals	
Impact Factor: 3.3	
Energies	2024
Reviewed Papers for Journals	
Impact Factor: 3.0	
Sustainability	2024
Reviewed Papers for Journals	
Impact Factor: 3.3	
Fermentation	2024
Reviewed Papers for Journals	
Impact Factor: 3.3	
Materials Today Sustainability	2024
Reviewed Papers for Journals	
Impact Factor: 7.1	
Energies	2024
Reviewed Papers for Journals	
Impact Factor: 3.0	
Water	2024
Reviewed Papers for Journals	
Impact Factor: 3.0	
Energy Reports	2024
Reviewed Papers for Journals	
Impact Factor: 4.7	
Biology and Life Sciences Forum	2024
Reviewed Papers for Journals	
Impact Factor: N/A	
Sustainability	2024
Edited Journal Issue / Proceeding / Book	
Impact Factor: 3.3	
Reviews in Environmental Science and Bio/Technology	2024
Reviewed Papers for Journals	
Impact Factor: 8.6	
Energies	2024
Reviewed Papers for Journals	
Impact Factor: 3.0	

Reviewed Papers for Journals Impact Factor: 7.1	2024
Reviewed Papers for Journals Impact Factor: 2.8	2024
Reviewed Papers for Journals Impact Factor: 2.8	2024
Reviewed Papers for Journals Impact Factor: 2.8	2024
Reviewed Papers for Journals Impact Factor: 7.7	2024
Reviewed Papers for Journals Impact Factor: 2.8	2024
Reviewed Papers for Journals Impact Factor: 3.3	2024
Reviewed Papers for Journals Impact Factor: 8.2	2024
Reviewed Papers for Journals Impact Factor: 3.0	2024
Reviewed Papers for Journals Impact Factor: 2.3	2024
Reviewed Papers for Journals Impact Factor: 7.7	2023
Scientific Reports Reviewed Papers for Journals Impact Factor: 3.8	2023
Energy Reports Reviewed Papers for Journals Impact Factor: 4.7	2023
Energy Reports Reviewed Papers for Journals Impact Factor: 4.7	2023
Energy Reports Reviewed Papers for Journals Impact Factor: 4.7	2023
Total Environment Research Themes Reviewed Papers for Journals Impact Factor: N/A	2023
Water, Air, & Soil Pollution Reviewed Papers for Journals Impact Factor: 3.8	2023
Sustainable Energy Technologies and Assessments Reviewed Papers for Journals	2023

Impact Factor: 7.1	
Energy Reports	2023
Reviewed Papers for Journals	
Impact Factor: 4.7	
Total Environment Research Themes	2023
Reviewed Papers for Journals	
Impact Factor: N/A	
Sustainable Energy Technologies and Assessments	2022
Reviewed Papers for Journals	
Impact Factor: 7.1	
BioEnergy Research	2022
Reviewed Papers for Journals	
Impact Factor: 3.1	
Energy Reports	2022
Reviewed Papers for Journals	
Impact Factor: 4.7	
Desalination	2022
Reviewed Papers for Journals	
Impact Factor: 8.3	