Abeera Ayaz Ansari

Assistant Professor

US-Pakistan Center for Advanced Studies in Energy

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LinkedIn:

About

Dr. Abeera Ayaz Ansari is working as Assistant Professor in the US-Pakistan Center for Advanced Studies in Energy. Dr. Abeera Ayaz Ansari has a PhD in Wastewater Treatment, Oxygenic Photogranules. Dr. Abeera Ayaz Ansari has published 22 research articles & conference papers having a citation count of 349, carried out 3 projects and filed 0 intellectual property.

Qualifications

PhD in Wastewater Treatment, Oxygenic Photogranules 2015 - 2020
University of Massachusetts at Amherst , United States

MS in Biofuels, Algae Based Wastewater Treatment 2012 - 2014
NUST, Islamabad , Pakistan

BE in Wastewater Treatment 2008 - 2012
NUST, Islamabad , Pakistan

Experience

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

Assistant Professor 2022 - 2020
US-Pakistan Center for Advanced Studies in Energy

Assistant Professor 2020 - 2022
US-Pakistan Center for Advanced Studies in Energy

Awards

President's Gold Medal 2018
Awarded for MS Energy Systems Engineering

President's Gold Medal 2013
Awarded for B.E. Environmental Engineering

Research Projects

National Projects

Impact of Climate Change on the Fishery Communities dependent upon Manchar Lake, Sindh, Pakistan 2023
Funding Agency: The Pulitzer Center's
Amount: PKR 1,088,100.00
Status: Approved_inprocess

Ducted Wind Turbines for Urban Areas 2024
Funding Agency: NUST
Amount: PKR 1,000,000.00
Status: Approved_inprocess

Reclamation of Industrial Wastewater Using Novel Aeration- Free Oxygenic Photogranulation (OPG) 2022
Technology for bioenergy prospective
Funding Agency: NUST
Amount: PKR 990,000.00
Status: Completed

International Projects

Research Articles

Parametric analysis and prototype development of smog-free tower for sustainable urban environment 2025

Muhammad Hamza sana yaqub Majid Ali Mustafa Anwar Abeera Ayaz Ansari Qazi Shahzad Ali Awais Bokhari Muhammad Murtaza

Separation and Purification Technology, Volume 362, Part 2, Article Number 131776

Impact Factor: 8.100 | **Quartile:** 1

DOI: https://doi.org/10.1016/j.seppur.2025.131776

Investigating the impact of oxygenic photo granules (OPGs) structure on wastewater treatment and bioenergy generation 2025

Kinza Rizwan Ali Raza Abeera Ayaz Ansari Asif Hussain Ghayoor Abbas Israf Ud Din Bilal Alam Khan Umair Yaqub Qazi

Journal of Environmental Chemical Engineering, Volume 13, Issue 3, Article Number 116838

Impact Factor: 7.400 | **Quartile:** 1

DOI: 10.1016/j.jece.2025.116838

Performance prediction of sludge volume index of oxygenic photogranule based wastewater treatment system using machine learning algorithms 2024

Sidra Yasin Abeera Ayaz Ansari Abdul Kashif Janjua Joseph Gitau Gikonyo Ghayoor Abbas

Journal of Water Process Engineering, Volume 66, Article Number 106064

Impact Factor: 6.300 | **Quartile:** 1

DOI: https://doi.org/10.1016/j.jwpe.2024.106064

Current and future implications of bitcoin mining on energy and climate change 2024

Muhammad Yousaf Bukhari Dr Abeera Ayaz Ansari Dr Muhammad Yousif Dr Muhammad Hassan Usama Hassan

MRS Energy and Sustainability , Pages: 14

Impact Factor: 3.300 | **Quartile:** 3 | **Citations:** 5

DOI: 10.1557/s43581-024-00084-4

The Coupled Effect of Light and Iron on the Photogranulation Phenomenon 2023

Abeera Ayaz Ansari Arfa Ayaz Ansari Joseph G. Gikonyo Ahmed S. Abouhend Chul Park

Environmental Science and Technology (ES&T) , Volume 57, No. 24, Pages 9086-9095

Impact Factor: 11.4 | **Quartile:** 1 | **Citations:** 5

DOI: https://doi.org/10.1021/acs.est.3c00432

The fate and dynamics of iron during the transformation of activated sludge into oxygenic photogranules (OPGs) under hydrodynamic batch conditions for environmental applications 2022

Abeera Ayaz Ansari Arfa Ayaz Ansari Asif Hussain Khoja Gitau J. Gikonyo Ahmed S. Abouhend Chul Park

Journal of Environmental Chemical Engineering, Volume 10, Issue 4, Article Number 108190

Impact Factor: 7.968 | **Quartile:** 1 | **Citations:** 6

DOI: https://doi.org/10.1016/j.jece.2022.108190

Investigating the characterisation, kinetic mechanism, and thermodynamic behaviour of coal-biomass blends in co-pyrolysis process 2022

Hamad Gohar Asif Hussain Khoja Abeera Ayaz Ansari Salman Raza Naqvi Rabia Liaquat Muhammad Hassan Khalil Hasni Umair Yaqoob Qazi Imtiaz Ali

Process Safety and Environmental Protection, Volume 163, Pages 645-658

Impact Factor: 6.158 | **Quartile:** 1 | **Citations:** 52

DOI: 10.1016/j.psep.2022.05.063

Thermokinetics synergistic effects on co-pyrolysis of coal and rice husk blends for bioenergy production 2022

Maham Tauseef Abeera Ayaz Ansari Asif Hussain Khoja Salman Raza Naqvi Rabia Liaquat William Nimmo Syed Sheraz Daood

Fuel , Volume 318, Article Number 123685

Impact Factor: 6.609 | **Quartile:** 1 | **Citations:** 47

DOI: https://doi.org/10.1016/j.fuel.2022.123685

Environmental Impact Assessments of the Renewable Energy Technologies Adaptation 2022

Abdul Basit Muhammad Hassan Saira Kamwal Mustafa Anwar Syed Ali Abbas Kazmi Abeera Ayaz Ansari

Pakistan Journal of Engineering and Technology, Volume 5, Number 2, Pages 100-103

Impact Factor: N/A

DOI: 2664-2042, ISSN (e): 2664-2050

Photogranulation in a Hydrostatic Environment Occurs with Limitation of Iron 2021

Abeera A. Ansari Arfa A. Ansari Ahmed S. Abouhend Joseph G. Gikonyo Chul Park

Environmental Science and Technology (ES&T) , Volume 55(15), Pages 10672-10683

Impact Factor: 11.357 | **Quartile:** 1 | **Citations:** 17

DOI: https://doi.org/10.1021/acs.est.0c07374

Hydrodynamic granulation of oxygenic photogranules 2021

Joseph G. Gikonyo Abeera Ayaz Ansari Ahmed S. Abouhend John E. Tobiason Chul Park

Environmental Science: Water Research & Technology, Volume 7, Pages 427-440

Impact Factor: 5.819 | **Quartile:** 1 | **Citations:** 30

DOI: https://doi.org/10.1039/D0EW00957A

Development of Cost-Effective Fertilizer-Based Media for the Microalgae Cultivation Aimed at Effective Biomass Production 2020

Muneeb Qayyum Asif Hussain Khoja Salman Raza Naqvi Haider Ejaz Azra Nawar Abeera Ayaz Ansari

NUST Journal of Engineering Sciences, Volume 13, No. 2, Pages 45-51

Impact Factor: 0

DOI: https://doi.org/10.24949/njes.v13i2.628

Growth Progression of Oxygenic Photogranules and Its Impact on Bioactivity for Aeration-Free Wastewater Treatment 2020

Ahmed S. Abouhend Kim Milferstedt Jérôme Hamelin Caitlyn S. Butler Blanca Carbajal Gonzalez Chul Park Abeera A. Ansari

Environmental Science and Technology (ES&T), Volume 54(1), Pages 486-496

Impact Factor: 9.028 | **Quartile:** 1 | **Citations:** 79

DOI: https://doi.org/10.1021/acs.est.9b04745

Effects of seeding density on photogranulation and the start-up of the oxygenic photogranule process for aeration-free wastewater treatment 2019

Dr. Abeera Ayaz Ansari Ahmed S. Abouhend Chul Park Ahmed S. Abouhend Chul Park

Algal Research, Volume 40, Article No.101495

Impact Factor: 4.008 | **Quartile:** 1 | **Citations:** 40

DOI: https://doi.org/10.1016/j.algal.2019.101495

Fermentation of Sugarcane Molasses Using Zymomonas Mobilis for Enhanced Bioethanol Production 2018

Asif Hussain Khoja Sabrina Mohidin Yahya Azra Nawar Dr. Abeera Ayaz Ansari Muneeb Qayyum

Journal of Advanced Research in Applied Sciences and Engineering Technology, Volume 11, Issue 1, Pages 31-38

Impact Factor: -

DOI: -

Physical abrasion method using submerged spike balls to remove algal biofilm from photobioreactors 2017

Asif Hussain Khoja Azra Nawar Naveed Akbar Abeera Ayaz Ansari Muneeb Qayyum Ehsan Ali

BMC Research Notes, Volume 10, Issue 1, Article Number 666

Impact Factor: - | **Citations:** 8

DOI: https://doi.org/10.1186/s13104-017-2995-9

Wastewater treatment by local microalgae strains for CO2 sequestration and biofuel production 2017

Dr. Abeera Ayaz Ansari Asif Hussain Khoja Azra Nawar Muneeb Qayyum Ehsan Ali

Applied Water Science, Volume 7, Issue 7, Pages 4151-4158

Impact Factor: N/A | **Citations:** 60

DOI: 10.1007/s13201-017-0574-9

Comparative study of bioethanol production from sugarcane molasses by using Zymomonas mobilis and Saccharomyces cerevisiae 2015

Asif Hussain Khoja Ehsan Ali Kashaf Zafar Dr. Abeera Ayaz Ansari Azra Nawar Muneeb Qayyum

African Journal of Biotechnology, Volume 14, Issue 31, Pages 2455-2462

Impact Factor: N/A

DOI: 10.5897/AJB2015.14569

Conference Proceedings

Plastic recycling via catalytic pyrolysis for energy generation 2024

Ali Raza Dr Asif Hussain Khoja Dr Abeera Ayaz Ansari Waqar ul Habib Khan Dr Salman Raza Naqvi Kinza Rizwan Ghayoor Abbas

24th EEEIC International Conference on Environment and Electrical Engineering, res.country(109,)

Citations: N/A

DOI: Nil

Socio-economic impacts of micro hydro power (MHP) electrification on the rural community of Pakistan: a case study of 150 kw MHP plant at village Lalkoo (Swat) 2023

Bilal Ayaz Khan Dr Abeera Ayaz Ansari Dr Muhammad Yousif

5th International Conference on Sustainable Energy Technologies (ICSET 2023), res.country(177,)

Citations: N/A

DOI: http://uspcase.uetpeshawar.edu.pk/icset-2023/

Bioethanol Production from sugarcane Molasses by using Zymomonas mobilis 2014

Asif Hussain Khoja Dr. Abeera Ayaz Ansari Azra Nawar Hamza Ehsan Ehsan Ali

3rd International Conference on Energy, Environment & Sustainable Development (EESD2014), res.country(177,)

Citations: N/A

DOI: https://www.researchgate.net/publication/280925297_Bioethanol_Production_from_sugarcane_Molasses_by_using_Zymomonas_mobilis

Editorial Activities

Bioresource Technology 2024

Reviewed Papers for Journals

Impact Factor: 11.4

Bioresource Technology 2023

Reviewed Papers for Journals

Impact Factor: 11.4

Environmental Science & Technology 2023

Reviewed Papers for Journals

Impact Factor: 11.4

Bioresource Technology 2023

Reviewed Papers for Journals

Impact Factor: 11.4

Trainings

SEC Training for Professionals on “Commercial Scale Biogas Plants” 2021

Partner: SAARC Energy Center

Duration: 05-Aug-2021 to 27-Aug-2021

AARDO-IIT Delhi online training program on "Clean Energy Solutions and Waste Management for Sustainable Development" 2021

Partner: AARDO and IIT Delhi

Duration: 31-May-2021 to 18-Jun-2021