

# Absaar UI Jabbar

Assistant Professor

School of Interdisciplinary Engineering & Sciences

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## About

Dr. Absaar UI Jabbar is working as Assistant Professor in the School of Interdisciplinary Engineering & Sciences. Dr. Absaar UI Jabbar has a PhD in Computational Fluid Dynamics. Dr. Absaar UI Jabbar has published 11 research articles & conference papers having a citation count of 55, carried out 5 projects and filed 0 intellectual property.

## Qualifications

<b>PhD in Computational Fluid Dynamics</b> Technical University of Dortmund , Germany	2011 - 2018
<b>MSc in Computer Aided Engineering Design</b> University of Strathclyde , United Kingdom	2006 - 2007
<b>BE in Mechanical Engineering</b> UET Lahore , Pakistan	1999 - 2002

## Experience

<b>Assistant Professor</b> School of Interdisciplinary Engineering & Sciences	2022- Present
<b>Assistant Professor</b> Research Centre for Modelling & Simulation	2019 - 2022
<b>Assistant Professor</b> Research Centre for Modelling & Simulation	2011 - 2018
<b>Assistant Professor</b> Research Centre for Modelling & Simulation	2008 - 2011
<b>Research Associate</b> Technical University Dortmund, Germany , Vogelpothsweg 87, 44227 Dortmund, Germany	2011 - 2018
<b>Assistant Professor</b> University of Engineering and Technology, Lahore , UET, GT Road, Lahore	2008 - 2008
<b>Mechanical Engineer</b> Packages Limited , Shahrah-e-Roomi P.O. Amer-sidhu, Lahore-54760	2004 - 2005
<b>Mechanical Engineer</b> NESPAK , 1-C, Model Town Extension Block N Model Town, Lahore, Punjab 54000	2003 - 2004

Research Projects

National Projects

<b>GenAI empowered smart agriculture for enhanced productivity in Pakistan</b> <b>Funding Agency:</b> National University of Sciences and Technology <b>Amount:</b> PKR 1,000,000.00 <b>Status:</b> Approved_inprocess	2024
<b>NUST Digital Twin through Advanced Modeling &amp; Simulation</b> <b>Funding Agency:</b> NUST <b>Amount:</b> PKR 50,000,000.00 <b>Status:</b> Approved_inprocess	2024
<b>Machine learning based CFD for aerodynamic applications</b> <b>Funding Agency:</b> NESCOM <b>Amount:</b> PKR 100,000.00 <b>Status:</b> Approved_inprocess	2023
<b>Indoor Thermal Comfort, Air Quality and Energy Management of Selected Hospitals in Islamabad Capital Territory</b> <b>Funding Agency:</b> NUST <b>Amount:</b> PKR 940,000.00 <b>Status:</b> Approved_inprocess	2022
<b>Integrated Modeling of the Cure Process and the Damage Behavior of CFRP Composites</b> <b>Funding Agency:</b> BRAIA, China <b>Amount:</b> PKR 1,230,000.00 <b>Status:</b> Completed	2021

International Projects

- Finite element modeling of piezoresistivity in graphene coated glass fiber reinforced polymer composites** 2025  
*Shahid Ahmad Absaar Ul Jabbar Yumna Qureshi Israr Ud Din*  
*Computational Materials Science* , Volume 258, Article Number 113976  
**Impact Factor:** 3.300 | **Quartile:** 2  
**DOI:** <https://doi.org/10.1016/j.commatsci.2025.113976>
- A comprehensive simulation study of integrated gasification, enrichment, and separation processes for biohydrogen production from sugarcane bagasse** 2025  
*Abeer Fawad Muhammad Abdul Qyyum Absaar Ul Jabbar*  
*International Journal of Hydrogen Energy* , Volume 137, Pages 905-916  
**Impact Factor:** 8.1 | **Quartile:** 1 | **Citations:** 2  
**DOI:** <https://doi.org/10.1016/j.ijhydene.2024.05.332>
- IGWO based robust nonlinear control design for androgen suppression therapy in prostate tumor patients** 2024  
*Atif Rehman Iftikhar Ahmad Absaar Ul Jabbar*  
*Biomedical Signal Processing and Control* , Volume 97, Article Number 106729  
**Impact Factor:** 4.900 | **Quartile:** 1 | **Citations:** 8  
**DOI:** <https://doi.org/10.1016/j.bspc.2024.106729>
- Barrier function based adaptive sliding mode controller for the hybrid energy storage system of plugin hybrid electric vehicles** 2023  
*Mubariz Ahmed Usman Masood Muhammad Kashif Azeem Iftikhar Ahmad Absaar Ul Jabbar*  
*Journal of Energy Storage* , Volume 72, Part B, Article Number 108051  
**Impact Factor:** 9.4 | **Quartile:** 1 | **Citations:** 4  
**DOI:** [10.1016/j.est.2023.108051](https://doi.org/10.1016/j.est.2023.108051)
- Robust adaptive nonlinear control of plugin hybrid electric vehicles for vehicle to grid and grid to vehicle power flow with hybrid energy storage system** 2023  
*Usman Masood Muhammad Kashif Azeem Iftikhar Ahmad Absaar Ul Jabbar*  
*ISA Transactions* , Volume 139, Pages 406-424  
**Impact Factor:** 5.911 | **Quartile:** 1 | **Citations:** 19  
**DOI:** <https://doi.org/10.1016/j.isatra.2023.03.035>
- Performance Evaluation of a Multi-Stage Gravitational Water Vortex Turbine with optimum number of Blades** 2022  
*Aamer Sharif Javed Ahmed Khan Tipu Muhammad Arif Muhammad Salman Abbasi Absaar Ul Jabbar Adnan Aslam Noon Muftooh Ur Rehman Siddiqi*  
*Journal of Mechanical Engineering Research and Developments* , Volume 45, No. 3, Pages 35-43  
**Impact Factor:** N/A  
**DOI:** [https://jmerd.net/Paper/Vol.45,No.3\(2022\)/35-43.pdf](https://jmerd.net/Paper/Vol.45,No.3(2022)/35-43.pdf)
- Performance Investigation of a Single-Stage Savanious Horizontal Water Turbine with Optimum Number of Blades** 2022  
*Irfan Ullah Muftooh Ur Rehman Siddiqi Muhammad Tahir Aamer Sharif Adnan Aslam Noon Javed Ahmed Khan Tipu Muhammad Arif Absaar Ul Jabbar Shahana Mujeeb Siddiqi Naveed Ullah Tufail Habib*  
*Journal of Mechanical Engineering Research and Developments* , Volume 45, No. 2, Pages 29-42  
**Impact Factor:** N/A  
**DOI:** [https://jmerd.net/Paper/Vol.45,No.2\(2022\)/29-42.pdf](https://jmerd.net/Paper/Vol.45,No.2(2022)/29-42.pdf)
- Performance Enhancement of Centrifugal Pump through Cavitation Reduction using Optimization Techniques** 2021  
*Adnan Aslam Noon Muhammad Arif Javed Ahmed Khan Tipu Absaar Ul Jabbar Muftooh Ur Rehman Siddiqi Aamer Sharif*  
*International Journal of Thermofluid Science and Technology* , Volume 8, Issue 4, Article Number 080404  
**Impact Factor:** N/A  
**DOI:** [10.36963/IJTST.2021080404](https://doi.org/10.36963/IJTST.2021080404)
- Strive to Reduce Slurry Erosion and Cavitation in Pumps through Flow Modifications, Design Optimization and Some Other Techniques: Long Term Impact on Process Industry** 2021  
*Adnan Aslam Noon Absaar Ul Jabbar Hasan Koten Man-Hoe Kim Hafiz Waqar Ahmed Umair Mueed Ahmad Adnan Shoukat Bilal Anwar*  
*Materials* , Volume 14, Issue 3, Article Number 521  
**Impact Factor:** 3.748 | **Quartile:** 1 | **Citations:** 22  
**DOI:** <https://doi.org/10.3390/ma14030521>

Conference Proceedings

<b>Umerical Investigation of Sugarcane Bagasse as Potential Feedstock in Pakistan Forbiohydrogen Production through Gasification</b> <i>Abeer Fawad Muhammad Abdul Qyyum Absaar UI Jabbar</i> <i>13th International Conference on Hydrogen Production, res.country(177,)</i> <b>Citations:</b> N/A <b>DOI:</b> Nil	2022
<b>Comparative analysis of thermal comfort surveys with CFD simulations</b> <i>Hassan Sařdar Malik Waqas Khalid Absaar UI Jabbar Adeel Waqas Ahmad Adnan Munir Jawad Aslam Hafiz Ali Haider Sehole</i> <i>11th Masters Conference: People and Buildings , res.country(231,)</i> <b>Citations:</b> N/A <b>DOI:</b> 10.5258/SOTON/P1086	2022

Editorial Activities

<b>International Journal of Hydrogen Energy</b> Reviewed Papers for Journals <b>Impact Factor:</b> 8.1	2024
<b>International Journal of Hydrogen Energy</b> Reviewed Papers for Journals <b>Impact Factor:</b> 8.1	2024
<b>Biomedical Signal Processing and Control</b> Reviewed Papers for Journals <b>Impact Factor:</b> 4.9	2024
<b>SoftwareX</b> Reviewed Papers for Journals <b>Impact Factor:</b> 3.4	2023
<b>ISA Transactions</b> Reviewed Papers for Journals <b>Impact Factor:</b> 5.911	2022
 Reviewed Papers for Journals <b>Impact Factor:</b> 4.008	2022