

## 1- Personal Details

**Name** : Dr. Vakkar Ali  
**Designation** : Associate Professor  
**Date of Birth** : 01/01/1964  
**Nationality** : Indian  
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## 2- Area of specialization:

<b>Major</b>	Mechanical Engineering
<b>Minor</b>	Thermal Engineering

## 3- Education & Qualifications

Date	Degree	University name	Country	Title of the Dissertation
May,2008	Ph.D.	Jamia Millia Islamia, New Delhi	India	A comparative study of factors influencing aerodynamic drag resulting fuel consumption in different models of aerodynamic vehicle.
June,1998	Master	Delhi University, New Delhi	India	Power Output and Efficiency of some Endo-reversible Power Generation Cycle, with finite – time Thermodynamics.
Feb,1995	Bachelor	Jamia Millia Islamia, New Delhi	India	Study and Analysis of Aerodynamic Drag on Automobiles.

## 4- Professional Activities:

Job Title	Place	Country	From	To
Member of Department Council.	MIE, Majmaah University	Saudi Arabia	Nov. 2013	Till Date
Coordinator of the Department Scientific and Research Committee.	MIE, Majmaah University	Saudi Arabia	Aug. 2020	Till Date
Director & Prof.	MACET, Patna, Bihar.	India	Dec. 2011	Sep. 2012
Head and Professor.	RGGI, Meerut, U.P. India.	India	Feb. 2011	Nov. 2011

## 5- Teaching Experiences

S.No.	Teaching Experiences	University	From	To
1	Associate Professor	College of Engineering, Majmaah University	Nov. 2013	Till Date
2.	Professor and Head	MVN, University, Haryana, India.	Oct. 2012	Oct.2013
3.	Director & Prof.	MACET, Patna, Bihar, India.	Dec. 2011	Sep.2012
4.	Professor and Head	RGGI, Meerut, U.P. India.	Feb. 2011	Nov.2011
5.	Professor	Al Falah University, Faridabad, India.	May 2010	Feb. 2011
6.	Associate Professor	IGOU, New Delhi, India	Aug. 2006	May 2010
7.	Associate Professor	PDCE,GBTU, Lucknow, India	Jan. 2000	Aug. 2006
9.	Assistant Professor	Delhi Aeronautical Institute, New Delhi, India	Aug. 1995	Dec. 1999
10.	Assistant Lecturer (Instructor)	Jamia Millia Islamia, New Delhi, India	Feb. 1987	Aug. 1995

## **6- Areas of Specialization**

#	Areas of Specialization
1.	Thermal Engineering.
2.	Fluid Mechanics and Nano Fluids.
3.	Thermodynamics.
4.	Heat Transfer.
5.	Refrigeration and Air Conditioning.
6.	Turbulent Flow
7.	Membrane Desalination Processes

## **7- Current membership in professional organizations**

#	Membership	ID
1	Institutional Web Page Membership, Majmaah University, Majmaah. K.S.A.	AD Scientific Index ID: 4692739
2	Gadah Welfare Association Delhi (Regd), New Delhi, India.	Index ID:FL-8
3.	<a href="https://www.scopus.com/authid/detail.uri?authorId=57206770570">https://www.scopus.com/authid/detail.uri?authorId=57206770570</a>	Index ID: 57206770570

## **8- Publications (Most important publications in the last 5 Years)**

#	Publications / Presentations	Journal (Conference)	Publishing Year (Conference Date)
1	Exploring the performance of biodiesel-hydrogen blends with diverse nanoparticles in diesel engine: A hybrid machine learning K-means clustering approach with weighted performance metrics.	International-journal-of-hydrogen-energy.	2024
2	Combining six superluminal and subluminal structured light fields with right and left circular polarizations in a chiral medium through superposition.	International Journal of Physics	2024
3.	Machine learning-based prediction of mechanical and thermal properties of nickel/cobalt/ferrous and dried leaves fiber-reinforced polymer hybrid composites.	International Journal Polymers Composites	2024
3	Predicting physico-mechanical and thermal properties of loofa cylindrical fibers and Al <sub>2</sub> O <sub>3</sub> /Al-SiC reinforced polymer hybrid composites using artificial neural network techniques.	International Journal of Construction-and-Building-Materials.	2023
4	Influence of dimension variations of a fin and wall emissivity on the Nano fluids flow inside a square cavity using the two-phase Lattice Boltzmann method.	International Journal of Engineering-Analysis-with-Boundary-Elements.	2023
5.	Two-phase simulation of a shell and tube heat exchanger filled with hybrid Nano fluid.	International Journal of Engineering-Analysis-with-Boundary-Elements.	2023
6.	Improving performance evaluation coefficient and parabolic solar collector efficiency with hybrid Nano fluid by innovative slotted tabulators.	International Journal of Sustainable-Energy-Technologies-and-Assessments.	2022

7.	Lattice Boltzmann-based numerical analysis of Nano fluid natural convection in an inclined cavity subject to multi physics fields.	International Journal of Scientific Reports.	2022
8.	Challenging ANN and RSM approaches to forecast $\beta$ -SiC nanoparticles efficacy on performance of liquid ethylene glycol and propylene glycol.	International Journal of Powder Technology.	2021
9.	Chaotic Dynamics and Chaos Control in a Fractional-Order Satellite Model and Its Time-Delay Counterpart.	International Journal of Hindawi.	2021
10.	Thermodynamic analysis and optimization of solar thermal engine: Performance enhancement.	International Journal of Physics	2020
11.	On Natural Frequency of Finite Element Model Geometrically Imperfect Shear Deformable Functionally Gradient Sandwich Arches in Thermal Environment.	International Journal of Applied Mechanics.	2019

## 9- MAJOR RESEARCH PROJECTS

#	Research Project	Status (Now/Finished)	Funded by
1.	Machine learning-based prediction of mechanical and thermal properties of nickel/cobalt/ferrous and dried leaves fiber-reinforced polymer hybrid composites.	Continue	Deanship of Scientific and Research, Majmaah University, K.S.A.
2.	Influence of dimension variations of a fin and wall emissivity on the Nano fluids flow inside a square cavity using the two-phase Lattice Boltzmann method.	Finished	Deanship of Scientific and Research, Majmaah University, K.S.A.
3.	Predicting physico-mechanical and thermal properties of loofa cylindrical fibers and Al <sub>2</sub> O <sub>3</sub> /Al-SiC reinforced polymer hybrid composites using artificial neural network techniques.	Finished	Deanship of Scientific and Research, Majmaah University, K.S.A.