

## 1- Personal Details

Name : Dr. Vakkar Ali  
 Date of Birth : 01.01.1964  
 Nationality : INDIAN  
 Telephone : 0164042750 Extn.2604  
 Mobile : 0535170605  
 Email : w.ahmad@mu.edu.sa



## 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  |
|------|--------|---|---------|--|
| 2008 | PhD    | Jamia Millia Islamia, New Delhi, 110025 | India   | A comparative study of factors influencing aerodynamic drag resulting fuel consumption in different models of aerodynamic vehicle. |
| 1998 | M.E    | Delhi University Delhi                  | India   | Power Output and Efficiency of some Endo-reversible Power Generation Cycle, with finite – time Thermodynamics.                     |

## 4- Professional Activities:

| Job Title            | Place                     | Country | From | To   |
|----------------------|---------------------------|---------|------|------|
| Technical Supervisor | Beacon Metal India Delhi. | India   | 1985 | 1987 |

## 5- Teaching Experiences

| # | Teaching Experiences | University                              | Country | From      | To        |
|---|----------------------|---|---------|-----------|-----------|
| 1 | Associate Professor  | Majmaah University, Majmaah,            | KSA     | Nov. 2013 | Till Date |
| 2 | Professor and Head   | MVN, Uni., Haryana                      | India   | Oct. 2012 | Oct. 2013 |
| 3 | Director & Professor | MACET, Patna                            | India   | Dec. 2011 | Sep. 2012 |
| 4 | Professor and Head   | RGGI, Meerut, U.P.                      | India   | Feb 2011  | Nov. 2011 |
| 5 | Professor            | Al-Falah School of Engineering & Tech.  | India   | May-2010  | Feb 2011  |
| 6 | Associate Professor  | Indira Gandhi National Open University  | India   | Aug-2006  | May-2010  |
| 7 | Associate Professor  | Priyadarshini College, GBTU             | India   | Jan-2000  | Aug-2006  |
| 8 | Assistant Professor  | Delhi Aeronautical Institute, New Delhi | India   | Aug-1995  | Dec-1999. |
| 9 | Assistant Lecturer   | Jamia Millia Islamia, New Delhi.        | India   | Feb-1987  | Aug-1995  |

## 6- Areas of Specialization

| # | Areas of Specialization |
|---|-------------------------|
| 1 | Fluid mechanics         |
| 2 | Heat Transfer           |
| 3 | Nano Fluids             |

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

| # | Membership                                 | ID  |
|---|--|-----|
| 1 | Fellow of Institution of Engineers (India) | --- |
| 2 | Fellow of System Dynamics Society (India ) | --- |

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

| #  | Publications / Presentations   | Journal (Conference)   | Publishing Year (Conference Date) |
|----|--|--|-----------------------------------|
| 1  | Investigation of the effect of wall geometry change on thermal resistance, temperature uniformity and FOM of a micro-heatsink containing Nano fluid flow.                                    | The European Physical Journal Plus   | 2022                              |
| 2  | Lattice Boltzmann-based numerical analysis of Nano fluid natural convection in an inclined cavity subject to multiphase fields” Scientific Reports volume 12, Article number: 5514 (2022).   | Scientific Reports   | 2022                              |
| 3  | Numerical simulation and exergy analysis of a novel Nano fluid-cooled heat sink” Journal of Thermal Analysis and Calorimetry volume 145, pages1651–1660 (2021).                              | Journal of Thermal Analysis and Calorimetry                                    | 2021                              |
| 4  | Challenging ANN and RSM approaches to forecast $\beta$ -SiC nanoparticles efficacy on performance of liquid ethylene glycol and propylene glycol” Volume 389, September 2021, Pages 204-214. | Powder Technology  | 2021                              |
| 5  | Aerodynamic drag analysis and its effect on power consumption of an automobile car"  | International Journal and Fluid Mechanics.                                     | 2020                              |
| 6  | Thermal and Fluid Dynamics Performance of MWCNT-Water Nano fluid Based on Thermal physical Properties: An Experimental and Theoretical Study   | Nature Research Scientific Reports   | 2020                              |
| 7  | An Experimental Investigation on the Effects of Ultra sonication Time on Stability and Thermal Conductivity of MWCNT- water Nano fluid: Finding the Optimum Ultra sonication Time"           | Ultrasonic Sonochemistry   | 2019                              |
| 8  | On the rheological properties of MWCNT-TiO <sub>2</sub> /oil hybrid fluid: An experimental investigation on the effects of shear rate, temperature, and solid concentration of nanoparticle. | International Journal of Powder Technology                                     | 2019                              |
| 9  | Thin film flow of micro polar fluid in a permeable medium"   | International Journal of Coatings  | 2019                              |
| 10 | On Natural Frequency of Finite Element Method Geometrically Imperfect Shear Deformable Functionally Gradient Sandwich Arches in Thermal Environment2019                                      | International Journal of Applied Mechanics                                     | 2019                              |
| 11 | Thermodynamic analysis and optimization of solar thermal engine: Performance enhancement"  | International Journal of Physical A Statistical Mechanics and its Applications | 2020.                             |

## **9- MAJOR RESEARCH PROJECTS**

| # | Research Project  | Status (Now/Finished) | Funded by               |
|---|---|-----------------------|-------------------------|
| 1 | Analysis of Entropy Generation in Newtonian and Non-Newtonian Fluids. | In Process            | Majmaah University, KSA |