Dr. ABUZAR GHAFFARI

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Attock Campus

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Employment and Work Experience

Teaching as Assistant Professor at University of Education Attock Campus. (2016- Till to day)

Education

PhD Mathematics: Department of Mathematics & Statistics, Faculty of Basic & Applied Sciences, **International Islamic University**, Islamabad, **2012-2017**

MS/M.Phil. Mathematics: Department of Mathematics & Statistics, Faculty of Basic & Applied Sciences, **International Islamic University**, Islamabad, **CGPA 3. 65, 81%, 2009-2011.**

M.Sc. Mathematics: Department of Mathematics, Faculty of Basic & Applied Sciences, **International Islamic University**, Islamabad, **CGPA 3. 97, 88 %, 2006-2008.**

B.Sc. *Mathematics (A+B)-Statistics*: **Govt. Gordon College Rawalpindi**, **Grade A, 70%, 2004-2006.**

F.Sc. *Mathematics-Physics-Computer*: **Govt. Gordon College Rawalpindi**, **Grade C, 53%, 2002-2004.**

Matric *Science Group*: **Govt. High School Tench Bhtta, Rawalpindi, Grade A, 73%, 2000-2002.**

Skills

Good at MATLAB, MATHEMATICA, FORTRAN, MICROSOFT OFFICE.

Research Work

2015

1. Numerical study of unsteady MHD oblique stagnation point flow with heat transfer over an oscillating flat plate, **Canadian Journal of Physics 93 (10), 1138-1143, 2015. (Impact Factor =0.724)**

2. Analysis of Heat Transfer due to Stretching Cylinder with Partial Slip and Prescribed Heat Flux: A Chebyshev Spectral Newton Iterative Scheme, **Alexandria Engineering Journal 54 (4), 1029-1036, 2015.**

3. Mixed convection boundary layer flow over a horizontal elliptic cylinder with constant heat flux, **Zeitschrift für angewandte Mathematik und Physik, 66 (6), 3393-3403, 2015. (Impact Factor=1.687)**

2016

4. Numerical study of non-Newtonian Maxwell fluid in the region of oblique stagnation point flow over a stretching sheet, **Journal of Mechanics 32 (2), 175-184, 2016. (Impact Factor =0.819)**

5. Radiation effect on mixed convection boundary layer flow of a viscoelastic fluid over a horizontal circular cylinder with constant heat flux **Journal of Applied Fluid Mechanics, 9 (3), 1167-1174, 2016. (Impact Factor=0.89)**

6. Heat transfer in MHD stagnation point flow of a ferrofluid over a stretchable rotating disk, **Journal of Molecular Liquids 219, 526-532. (Impact Factor=3.648)**

7. Heat transfer analysis of unsteady oblique stagnation point flow of elastico-viscous fluid due to sinusoidal wall temperature over an oscillating-stretching surface: A numerical approach, **Journal of Molecular Liquids 219, 748-755. (Impact Factor=3.648)**

8. Influence of radiation on non-Newtonian fluid in the region of oblique stagnation point flow in a porous medium: A numerical study, **Transport in Porous Media 113 (1), 245-266 (Impact Factor=1.65)**

9. Influence of radiation on vertical wavy surface with constant heat flux: Using Keller box scheme, **Alexandria Engineering Journal 55 (3), 2221-2228, 2016.**

10. Numerical investigation on flow of second grade fluid due to stretching cylinder with Soret and Dufour effects. **Journal of Molecular Liquids, 221, 878-884 (2016) (Impact Factor=2.74)**

11. Hydromagnetic Hiemenz flow of micropolar fluid over a nonlinearly stretching/shrinking sheet: Dual solutions by using Chebyshev Spectral Newton Iterative Scheme. **Journal of Magnetism and Magnetic Materials, 416, 329-334 (2016) (Impact Factor=2.357)**

12. Heat transfer over a stretching cylinder due to variable prandtl number influenced by internal heat generation/absorption: a numerical study. **Revista Mexicana de Física, 62(4), 317–324 (2016) (Impact Factor=0.406)**

13. Numerical study of unsteady mixed convection stagnation point flow over a stretching cylinder with sinusoidal surface temperature. **Revista Mexicana de Física, 62(4) 290–298 (2016) (Impact Factor=0.406)**

14. Numerical study of unsteady MHD oblique stagnation point flow and heat transfer due to an oscillating stream. **Thermophysics and Aeromechanics, 23(3), 383-391 (2016) (Impact Factor=0.365)**

15. Enhancement of heat transfer in elastico-viscous fluid due to nanoparticles, where the fluid is impinging obliquely to the stretchable surface: A numerical study. **Applications & Applied Mathematics, 11(1) 251-265 (2016).**

2017

16. Oblique stagnation point flow of a non-Newtonian nanofluid over stretching surface with radiation: a numerical study. **Thermal Science, 21(5) 2139-2153 (2017) (Impact Factor =0.94)**

17. A computational study of Brownian and thermophoresis effects on nonlinear radiation in boundary-layer flow of Maxwell nanofluid initiated due to elongating cylinder. **Canadian Journal of Physics, 95(10), 969-975 (2017)**

18. Hydromagnetic natural convection flow of water-based nanofluid along a vertical wavy surface with heat generation. **Journal of Molecular Liquids, 229, 246-254 (2017) (Impact Factor=2.74)**

19. The influence of heat radiation on mixed convection boundary layer flow of a viscoelastic fluid over a circular cylinder with constant surface temperature. **Thermophysics and Aeromechanics, 24(1), 115-124 (2017) (Impact Factor=0.365)**

2018

20. Mixed convection boundary-layer flow of a viscoelastic fluid due to horizontal elliptic cylinder with constant heat flux. **Thermal science, 22(1), 519-531 (2018) (Impact Factor =0.94)**

21. On oblique stagnation point flow of non-Newtonian Maxwell fluid influenced by non-linear radiation, **Revista Mexicana de Física 64 (4), 420-428 (2018) (Impact Factor = 0.595)**

22. **Time** Dependent Convective Non-orthogonal Hiemenz Flow of Viscoelastic Walter's B Fluid towards a Non-uniformly Heated Vertical Surface: Using Spectral Method, **Nihon Reoroji Gakkaishi 46 (4), 155-164 (Impact Factor = 0.377)**

23. Ghaffari, A., Javed, T., Mustafa, I., & Labropulu, F. (2018). Modeling and simulation of natural convection flow along a rough surface of sinusoidal nature with variable heat flux: Using Keller box scheme. **Thermal Science, (2018), 106-106.**

2019

24. Enhancement in heat and mass transfer over a permeable sheet with Newtonian heating effects on nanofluid: Multiple solutions using spectral method and stability analysis, **Pramana 93 (4), 53 (Impact factor 1.185)**

25. Influence of nonlinear radiation on natural convection flow of carbon nanotubes suspended in water-based fluid along a vertical wavy surface, **Physica Scripta 94 (11), 115214 (Impact factor 2.151)**

26. Analysis of Heat Transfer Enrichment in Hydromagnetic Flow of Hybrid Nanofluid Along Vertical Wavy Surface, **Journal of Magnetics 24 (2), 271-280 (Impact Factor 0.837)**

27. Iqbal, M. S., Khan, W., Mustafa, I., & Ghaffari, A. (2019). Numerical Study of Natural Convection Flow of Nanofluid Past a Circular Cone with Cattaneo–Christov Heat and Mass Flux Models. **Symmetry (2019), 11(11), 1363**.

2020

28. Mustafa, I., Abbas, Z., Arif, A., Javed, T., & Ghaffari, A. **(2020)**. Stability analysis for multiple solutions of boundary layer flow towards a shrinking sheet: Analytical solution by using least square method. **Physica A: Statistical Mechanics and its Applications**, 540, 123028.

29. Asghar, Z., Javid, K., Waqas, M., Ghaffari, A., & Khan, W. A. **(2020)**. Cilia-driven fluid flow in a curved channel: Effects of complex wave and porous medium. **Fluid Dynamics Research**.

Conferences and Workshops

1. Presented a paper in the **Seventh International Conference on Recent developments in Fluid Mechanics & Environmental Sciences**

2. Attended three days' workshop on **Testing & Evaluation** organized by HEC.

3. Attended three days' training on **Andragogical/Pedagogical skills** organized by PHEC.

Journal's Reviewer (ISI Recognized)

1. Journal of the Taiwan Institute of Chemical Engineers

2. Journal of the Brazilian Society of Mechanical Sciences and Engineering (BMSE)

3. International Journal of Mechanical Sciences

4. International Journal of Applied and Computational Mathematics (IACM)

5. Scientia Iranica

6. Canadian Journal of Physics

7. Results in Physics

8. Journal of Nanofluids