

CURRICULUM VITAE

An individual with positive attitude towards work, flexible personality, result oriented and eager to learn something new.

Dr. AAMIR SHAHZAD

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Residence Status: Sargodha, Pakistan

ABOUT MYSELF:

I am a Mathematics teacher with experience teaching at the university level. I hold PhD in Mathematics, with a research focus on CAGD (Computer Aided Geometric Design). I am passionate about helping students understand complex mathematical concepts and encouraging their academic growth.

EDUCATION:

- 2015-2018 **Ph.D. (Computational Mathematics)**, University of Sargodha, Sargodha, Pakistan
Supervisor: Prof. Dr. Muhammad Faheem Khan
Dissertation: Analysis of Subdivision Depth for Subdivision Curves and Surfaces
- 2011-2013 **M.Phil. Mathematics**, University of Sargodha, Sargodha, Pakistan
Supervisor: Prof. Dr. Muhammad Faheem Khan
Thesis: A new approach for estimating error bounds of binary subdivision schemes
- 2009-2011 **M.Sc. Mathematics**, University of Sargodha, Sargodha, Pakistan

PROFESSIONAL EDUCATION:

M.Ed. Allama Iqbal Open University, Islamabad, Pakistan

B.Ed. Allama Iqbal Open University, Islamabad, Pakistan

WORK EXPERIENCE:

- **Undergraduate and Graduate** teaching experience at **Baba Guru Nanak University, Nankana Sahib** as a **Lecturer** from **26-07-2024 to-date**.

- **Postgraduate** teaching experience at **Superior University, Lahore, Sargodha Campus, Sargodha** as a **Visiting Assistant Professor** from **28-01-2023 to 25-07-2024**.
- **Graduate** teaching experience at **Superior College of Commerce, Sargodha** as a **Visiting Lecturer** from **02-10-2016 to 27-01-2023**.
- **Undergraduate and Graduate** teaching experience at **University of Sargodha, Sargodha** as a **Visiting Lecturer** from **01-10-2016 to 31-03-2017**.
- **Undergraduate and Graduate** teaching experience at **University of Sargodha, Sargodha** as a **Visiting Lecturer** from **01-10-2015 to 31-03-2016**.
- **Undergraduate and Graduate** teaching experience at **University of Sargodha, Sargodha** as a **Visiting Lecturer** from **01-10-2014 to 31-03-2015**.
- **Graduate** teaching experience at **ILM College of Commerce, Sargodha** as a **Visiting Lecturer** from **08-08-2014 to 07-08-2015**.
- **Graduate** teaching experience at **Shiblee College of Commerce and Science, Sargodha** as a **Visiting Lecturer** from **02-09-2013 to 07-08-2014**.
- **Undergraduate and Graduate** teaching experience at **University of Sargodha, Sargodha** as a **Visiting Lecturer** from **01-10-2012 to 31-03-2013**.
- **Undergraduate and Graduate** teaching experience at **University of Sargodha, Sargodha** as a **Teaching Assistant** from **15-09-2011 to 15-03-2012**.

RESEARCH PAPERS (PUBLISHED):

- 1) **Shahzad, A.**, Khan, F., Ghaffar, A., Mustafa, G., Nisar, K. S. and Baleanu, D. (2020). A novel numerical algorithm to estimate the subdivision depth of binary subdivision schemes. *Symmetry*, 12(66) 1-13.
- 2) Khan, F., Mustafa, G., **Shahzad, A.**, Baleanu, D. and Maysaa, M. A-Q. (2020). A computational method for subdivision depth of ternary schemes. *Mathematics*, 8(817), 1-22.
- 3) Mustafa, G., **Shahzad, A.**, Khan, F., Baleanu, D. and Chu, Y. (2020). A new computational approach to estimate the subdivision depth of n-ary subdivision scheme. *IEEE Access*, 8, 187146-187155.
- 4) **Shahzad, A.**, Khan, F., Ghaffar, A., Yao, S., Inc, M. and Ali, S. (2021). A novel numerical method for computing subdivision depth of quaternary schemes. *Mathematics*, 9(809) 1-20.
- 5) Karim, S.A.A., Khan, F., Mustafa, G., **Shahzad, A.**, Asghar, M. (2023). An efficient computational approach for computing subdivision depth of non-stationary binary subdivision schemes, *Mathematics*, 11(2449) 1-12.
- 6) Khan, F., Khan, A. M., Ahmed, A., **Shahzad, A.**, Ramzan, M. and Hayat, F. Significant Behavior of Generalized Fractional Operators with Different Versions of Mittag-Leffler Functions and its Applications. *Annual Methodological Archive Research Review*, 3(8) 520-544.
- 7) Khan, A. M., Khan, F., Ahmed, A., Ramzan, M., **Shahzad, A.** and Hayat, M. A. Modification of Inequalities by Prabhakar Fuzzy Fractional Operators along with its Applications. *Annual Methodological Archive Research Review*, 3(8) 607-630.
- 8) Ramzan, M., Shahzad, M. H., **Shahzad, A.**, Hayat, M. A., Hayat, F. and Khan, F. Mathematical Analysis of Non-Newtonian Fluid Flow through Wavy Conduit. *Annual*

- Methodological Archive Research Review, 3(8) 660-689.
- 9) Arshad, A., Mubeen, S., **Shahzad, A.**, Niaz, T. and Ashraf, S. Novel results on refinement of Hermite-Hadamard type inequality with applications of Δ -convex function. *International Journal of Innovations in Science and Technology*, 7(3) 1904-1915.
 - 10) Shabbir, S., **Shahzad, A.**, Niaz, T., Ashraf, S, Namal, and Khan, F. Optimization of Production Planning with Python's SciPy: A Computational Study. *International Journal of Innovations in Science and Technology*, 7(4) 2288-2298.
 - 11) Suleman, F., **Shahzad, A.**, Niaz, T., Ali, M. and Ashraf, S. Prediction of Molecular and Physical Properties of Non-small Cell Lungs Cancer (NSCLC) Drugs using Mathematical Modelling and M-Polynomial Indices. *International Journal of Innovations in Science and Technology*, 7(4) 2900-2912.
 - 12) Ashraf, S., **Shahzad, A.**, Afzal, S.S. and Arshad, A. Dynamic Behavior of a Magnetized Multi-Component Hybrid Nanofluid on Elongating Interface Affected by Extraction and Permeable Media Interactions. *International Journal of Innovations in Science and Technology*, 7(4) 2928-2939.
 - 13) Feroz, R., Shabbir, S., **Shahzad, A.** and Ashraf, S. A Novel Numerical Python-Based Optimized Algorithm for Advancing in Aggregate Production Planning. *Spectrum of Engineering Sciences*, 4(1) 210-222.
 - 14) Raza, H., Niaz, T., **Shahzad, A.**, Ashraf, S. and Khan, W. A. Non-Newtonian MHD Transport of Ternary Hybrid Nanofluid In Porous Structures: Heat Transfer Analysis Over A Suction-Influenced Inclined Stretching Sheet. *Spectrum of Engineering Sciences*, 4(2) 526-538.
 - 15) Khan, W. A., **Shahzad, A.**, Shabbir, S., Ashraf, S. and Raza, H. A Computational Comparison of Linear Optimization Solvers in Python for Aggregate Production Planning Models. *Spectrum of Engineering Sciences*, 4(2) 512-525.
 - 16) Rehman, A., **Shahzad, A.**, Ashraf, S. and Saqib, Z. Thermal Transport in Porous Domains for MHD Non-Newtonian Ternary Hybrid Nano-fluid Past an Exponential Stretching Sheet Under Suction Effects. *Spectrum of Engineering Sciences*, 4(2) 938-948.
 - 17) Saqib, Z., Niaz, T., **Shahzad, A.**, Ashraf, S. and Rehman, A. Thermal and Flow Investigation of Blood-Driven $Al_2O_3-Fe_3O_4-CuO$ Ternary Hybrid Nano-fluid in Porous Channels Subject to MHD and Suction Along a Sinusoidal Stretching Surface. *Spectrum of Engineering Sciences*, 4(2) 949-958.
 - 18) Suleman, F., Khan, T., Alshehade, S. A., Ali, M., Irfan, H. M., **Shahzad, A.**, Al Zarzour, R. H. and Rasool, S. Exploring synergistic therapeutic potential of Erlotinib and artemisinin in non-small cell lung Cancer (NSCLC) using pharmacological networking and mathematical modeling. *Journal of Clinica Chimica Acta*, 1-12.

RESEARCH PAPERS (SUBMITTED):

- 1) Computational Study of MHD Maxwell Ternary Nanofluid Flow and Heat Transfer over Linearly Stretching Sheet Embedded in a Porous Medium. **(Submitted)**.
- 2) Combined Effects of Soret and Dufour on Heat Generating Second Grade Fluid Flow in Stagnation Point with Darcy-Forchheimer Law with Thermal Radiation Influence.

(Submitted).

- 3) A Computational Comparison of Linear Optimization Solvers in Python for Aggregate Production Planning Models. **(Submitted).**
- 4) Mathematical Simulation and Network Pharmacology Approach to Predict and Analyze Non-small Cell Lung Cancer (NSCLC) Behavior Using Fractional Derivatives. **(Submitted).**
- 5) Exploring Synergistic Therapeutic Potential of Erlotinib and Artemisinin in Non-Small Cell Lung Cancer (NSCLC) Using Network Pharmacology and Mathematical Models. **(Submitted).**
- 6) Novel results on Hermite-Hadamard kind inequalities for ρ -convex functions by means of (u, v) -fractional integral operators. **(Submitted).**
- 7) Novel Integral Inequalities-I Involving Strongly Exponentially (α, m) -Convex Function. **(Submitted).**

TEACHING INTEREST:

Calculus, Data Science, Machine Learning, Advance Operational Research, Mathematical Modeling and Simulations, Set Theory and Mathematical Logic, Programming Language for Mathematicians, Group Theory, Ring Theory, Advance Group Theory, Representation Theory, Linear Algebra, Differential Geometry, Complex Analysis, Topology, Mathematical Methods, Integral Equations, Business Mathematics, Discrete Mathematics, Introduction to Subdivision Schemes, Computer Aided Geometric Design, Advance Fluid Mechanics, Numerical Analysis, Differential Equations, Real Analysis, Probability and Statistics with Python, Special Theory of Relativity, Analytical Dynamics, Multivariable Calculus, Numerical Computing, Applied Mathematics, Applications of Differentials, Techniques of Integration, Quantitative Reasoning-I, Quantitative Reasoning-II.

RESEARCH INTEREST:

- CAGD (Computer Aided Geometric Design)
- Fractional Calculus
- Fluid Mechanics
- Optimization with Python
- Bio-Mathematics