**Dr. Asifa Tassaddiq
Associate Professor, Mathematics**

**Education:**

Ph.D. Mathematics, National University of Sciences and Technology Islamabad Pakistan, 2012

MSc. Mathematics, Lahore College for Women University Lahore Pakistan, 2002

BSc. Mathematics, Govt. College for Women University Madina Town Faisalabad, Pakistan, 2000.

# Academic Experience:

*Academic Appointments – Computer Sciences and Information Technology College, Majmaah University, Majmaah, Saudi Arabia*

2020 till date Associate Professor Mathematics

*Academic Appointments – Computer Sciences and Information Technology College, Majmaah University, Majmaah, Saudi Arabia*

2015 -2020 Assistant Professor Mathematics

*Academic Appointments – Govt College University Faisalabad Pakistan*

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| --- | --- | --- |
| 2013-15 | Assistant Professor | Mathematics |
| *Academic Appointments –* National University of Sciences and Technology Islamabad Pakistan |
| 2012-13 | Visiting Assistant Professor | Mathematics |
| *Academic Appointments – Sandal College Faisalabad Pakistan* |
| 2003-09 | Lecturer | Mathematics |

**Current Membership in Professional Organizations:**

American Mathematical Society

SIAM Group Special Functions and Orthogonal Polynomials Pakistan Mathematical Society

**Honors and Awards:**

* Roll of Honor MSC Mathematics
* Distinction of 2nd Positon MSc Mathematics
* Research grant for Mathematics Projects
* Travel Grant to Attend Conferences in Turkey Twice

# Service Activities (within and outside of the institution):

Member, Academic Development Unit, College of Computer and Information Sciences, Majmaah University Saudi Arabia 2019 -2020

Course convener Calculus II, Spring 2019, Majmaah University Saudi Arabia

Course convener Discrete Mathematics, Spring 2017, Majmaah University Saudi Arabia

Course convener Calculus II, Spring 2017, Majmaah University Saudi Arabia

Member, Internal Control and Auditing Unit, College of Computer and Information Sciences, Majmaah University Saudi Arabia, 2016 -2018

Member, Academic Development Unit, College of Computer and Information Sciences, Majmaah University Saudi Arabia 2016 -2018

Member, Internal Exam Review Committee, College of Computer and Information Sciences, Majmaah University Saudi Arabia 2016 -2018

Member, Internal Exam Review Committee, College of Computer and Information Sciences, Majmaah University Saudi Arabia 2016-2018

Member, Thesis Scruitnee Committee, Department of Mathematics, Govt. College University Faisalabad, Pakistan, 2014-2015

Member, Seminar and Conference Organizing Committee, Department of Mathematics, Govt. College University Faisalabad, Pakistan, 2014-2015

Member, Financial Assistance Committee, Department of Mathematics, Govt. College University Faisalabad, Pakistan, 2014-2015

Member, Timetable Unit, Sandal College Faisalabad, 2006 to 2009

**Most Important Publications and Presentations (Past 5 years):**

1. “A new representation of the extended k-gamma function with applications”, by **A. Tassaddiq** Mathematical Methods in the Applied Sciences, 2021, In press, Article DOI: 10.1002/mma.7480 (ISI; Scopus; IF 2.62; Q1)
2. "On Modifications of the Gamma Function by Using Mittag-Leffler Function" by **A. Tassaddiq** and A. Alruban *Journal of Mathematics*, vol. 2021, Article ID 9991762, 12 pages, 2021. <https://doi.org/10.1155/2021/9991762> (ISI; Scopus; IF 0.9; Q2)
3. “Impact of Cattaneo-Christov Heat Flux Model on MHD Hybrid Nano-Micropolar Fluid Flow and Heat Transfer with Viscous and Joule Dissipation Effects” by **A. Tassaddiq**, Scientific Reports, 2021; Vol. 11 (1), (ISI; Scopus; IF 4.1; Q1)
4. “Joule heating in magnetohydrodynamic micropolar boundary layer flow past a stretching sheet with chemical reaction and microstructural slip”, by A. Khan, A. Saeed, **A. Tassaddiq**, *et al*. Case Studies in Thermal Engineering 25, 100870, 2021(ISI; Scopus; IF 4.01; Q1) https://doi.org/10.1016/j.csite.2021.100870
5. “A convective flow of williamson nanofluid through cone and wedge with non-isothermal and non-isosolutal conditions: a revised buongiorno model”, by A. Dawar, Z. Shah, **A. Tassaddiq**, *et al*. Case Studies in Thermal Engineering 24, 100869, 2021(ISI; Scopus; IF 4.01; Q1) https://doi.org/10.1016/j.csite.2021.100869
6. “Insight into the dynamics of second grade hybrid radiative nanofluid flow within the boundary layer subject to Lorentz force”, by M. Jawad, A. Saeed, **A. Tassaddiq**, *et al*. Scientific Reports 11 (1), 1-14,2021(ISI; Scopus; IF 4.1; Q1) https://doi.org/10.1038/s41598-021-84144-6
7. “Modeling and simulation-based investigation of unsteady MHD radiative flow of rate type fluid; a comparative fractional analysis”, by Asifa, P. Kumam, **A. Tassaddiq**, *et al*. Mathematics and Computers in Simulation, 2021(ISI; Scopus; IF 1.67; Q2) https://doi.org/10.1016/j.matcom.2021.02.005
8. “Computational study of the convection-diffusion equation using new cubic B-spline approximations”, by **A. Tassaddiq**, *et al*. AIMS Mathematics 6 (5), 4370-4393,2021(ISI; Scopus; IF 0.898; Q2) https://doi.org/10.3934/math.2021259
9. “Bio-convective micropolar nanofluid flow over thin moving needle subject to Arrhenius activation energy, viscous dissipation and binary chemical reaction”, by A. Khan, A. Saeed, **A. Tassaddiq**, *et al*. Case Studies in Thermal Engineering,2021,100989, (ISI; Scopus; IF 4.01; Q1) https://doi.org/10.1016/j.csite.2021.100989.
10. “Bio-convective and chemically reactive hybrid nanofluid flow upon a thin stirring needle with viscous dissipation”, by A. Khan, A. Saeed, **A. Tassaddiq**, *et al.*  *Sci Rep* **11,**8066 (2021). https://doi.org/10.1038/s41598-021-86968-8
11. “A cubic B-spline collocation method with new approximation for the numerical treatment of the heat equation with classical and non-classical boundary conditions”, by **A. Tassaddiq**, *et al.* 2021 Phys. Scr. 96 045212(ISI; Scopus; IF 1.985; Q2)
12. “Darcy-Forchheimer Hybrid Nano Fluid Flow with Mixed Convection Past an Inclined Cylinder” by M. Bilal, I. Khan, T. Gul, **A. Tassaddiq**, *et al.* CMC-Computers Materials & Continua, Vol.66, No.2, 2021, pp.2025-2039. (ISI; Scopus; IF 4.1; Q1)
13. “A new representation of the generalized Krätzel function”, by **A. Tassaddiq**, Mathematics 2020, 8(11), 2009; https://doi.org/10.3390/math8112009. (ISI; Scopus; IF 1.74; Q1)
14. “A ratio-dependent nonlinear predator-prey model with certain dynamical results”, by **A. Tassaddiq**; M. S. Shabbir; Q. Din; K. Ahmad; S. Kazi, IEEE Access, 8, 195074 – 195088, 2020. (ISI; Scopus; IF 4.08; Q1)
15. “New generating functions of I -function satisfying Truesdell’s F q -equation” by AA Bhat, **A. Tassaddiq**, DK Jain, H Naaz Advances in Difference Equations 2020 (1), 1-12.(ISI; Scopus; IF 2.56; Q1)
16. "Unsteady Ferro fluid Slip Flow in the Presence of Magnetic Dipole With Convective Boundary Conditions," by Islam, S. Zubair, M. A. **Tassaddiq,** et al., in IEEE Access, vol. 8, pp. 138551-138562, 2020. (ISI; Scopus; IF 3.76; Q1)
17. “Entropy generation in MHD Casson fluid flow with variable heat conductance and thermal conductivity over non-linear bi-directional stretching surface” by Sohail, M., Shah, Z., **A.** **Tassaddiq** *et al.* . *Sci Rep* **10,**12530 (2020). (ISI; Scopus; IF 4.1; Q1)
18. “Stability, bifurcation, and chaos control of a novel discrete-time model involving Allee effect and cannibalism” by Shabbir, M.S., Din, Q., Ahmad, K. **A. Tassaddiq** *et al.* . *Adv Differ Equ* **2020,**379 (2020). (ISI; Scopus; IF 2.56; Q1)
19. “An application of theory of distributions to the family of λ-generalized gamma function” by **A. Tassaddiq**. *AIMS Mathematics*, 2020, 5(6): 5839-5858. (ISI; Scopus; IF 0.884; Q2)
20. “Fractional integral inequalities involving Marichev–Saigo–Maeda fractional integral operator” by **Tassaddiq, A**., Khan, A., Rahman, G. *et al.*  *J Inequal Appl* **2020,**185 (2020). (ISI; Scopus; IF 1.731; Q1) )
21. “Heat and mass transfer together with hybrid nanofluid flow over a rotating disk” by **A. Tassaddiq**, S. Khan, M. Bilal, T. Gul, S. Mukhtar, Z. Shah, E Bonyah, 2020 AIP Advances 10(5):55317 (ISI; Scopus; IF 1.731; Q2)
22. “Comparative Analysis of Natural Transform Decomposition Method and New Iterative Method for Fractional Foam Drainage Problem and Fractional Modified Regularized Long Wave equation” by Rashid Nawaz, Nasir Ali, Laiq Zada, Zahir Shah, **A. Tassaddiq** and Nasser Aedh Alreshidi (ISI; Scopus; IF 4.536; Q1)
23. “MHD flow of a generalized Casson fluid with Newtonian heating: A fractional model with Mittag–Leffler mem-ory” by **A. Tassaddiq**, I. Khan, K. S. Nisar and Jagdev Singh, Alexandria Engineering Journal (2020), (ISI; Scopus; IF 2.82; Q2)
24. Double Controlled Quasi-Metric Type Spaces and Some Results by Abdullah Shoaib, Sabeena Kazi, **Asifa Tassaddiq** , Shaif S. Alshoraify, and Tahair Rasham, Complexity Volume 2020, Article ID 3460938, 8 pages. (ISI; Scopus; IF 2.47; Q2)
25. "Dynamical Complexity in a Class of Novel Discrete-Time Predator-Prey Interaction With Cannibalism," by M. S. Shabbir, Q. Din, R. Alabdan, **A. Tassaddiq** and K. Ahmad, IEEE Access, vol. 8, pp. 100226-100240, 2020, (ISI; Scopus; IF 4.09; Q1).
26. “Influence of chemical reactions and mechanism of peristalsis for the thermal distribution obeying slip constraints: Applications to conductive transportation” N. Imran, **A. Tassaddiq**, M. Javed, N. A. Alreshidi, M. Sohail, I. Khan, Journal of Materials Research and Technology, 2020, 9(3), 6533-6543. (ISI; Scopus; IF 3.327; Q1)
27. “Darcy-Forchheimer MHD Hybrid Nanofluid Flow and Heat Transfer Analysis over a Porous Stretching Cylinder” by A. Saeed, **A. Tassaddiq**, A. Khan, M. Jawad, W. Deebani, Z. Shah, S. Islam, Coatings 2020, 10, 391. (ISI; Scopus; IF 2.33; Q2)
28. “Hall Effect on Radiative Casson Fluid Flow with Chemical Reaction on a Rotating Cone through Entropy Optimization” by W. Deebani, **A. Tassaddiq**, Z. Shah, A. Dawar, F. Ali, Entropy 2020, 22, 480. (ISI; Scopus; IF 2.419; Q2)
29. "Mandelbrot Sets and Julia Sets in Picard-Mann Orbit," by C. Zou, A. A. Shahid, **A. Tassaddiq**, A. Khan and M. Ahmad, IEEE Access, vol. 8, pp. 64411-64421, 2020. (ISI; Scopus; IF 4.09; Q1)
30. "CR Iteration in Generation of Antifractals With s-Convexity,"by D. Li, A. A. Shahid, **A. Tassaddiq**, A. Khan, X. Guo and M. Ahmad, in IEEE Access, vol. 8, pp. 61621-61630, 2020. (ISI; Scopus; IF 4.09; Q1)
31. “Thin Film Flow of Couple Stress Magneto-Hydrodynamics Nanofluid with Convective Heat over an Inclined Exponentially Rotating Stretched Surface” by **A.Tassaddiq**; I. Amin, M. Shutaywi, Z. Shah, F. Ali, F. S. Islam, A. Ullah, *Coatings* **2020**, *10*, 338. (ISI; Scopus; IF 2.33; Q2)
32. “On (p,q)-Sumudu and (p,q)-Laplace Transforms of the Basic Analogue of Aleph-Function” by **A. Tassaddiq**, A. A. Bhat, D. K. Jain and F. Ali Symmetry 12(3):390 2020. (ISI; Scopus; IF 2.41; Q2)
33. “Certain fractional conformable inequalities for the weighted and the extended Chebyshev functionals” by **A. Tassaddiq**, G. Rahman, K. S. Nisar, M. Samraiz, Advances in Difference Equations, (2020) 2020:96 (ISI; Scopus; IF 2.56; Q1)
34. “A new analytical approach for the research of thin-film flow of magneto hydrodynamic fluid in the presence of thermal conductivity and variable viscosity” by Ali L, **A. Tassaddiq**, Ali R et al. Z Angew Math Mech. 2020; (ISI; Scopus; IF 1. 2; Q2).
35. “Computation of the values for the Riemann Liouville fractional derivative of the generalized Polylogarithm functions” by **A. Tassaddiq**, R. Alabdan, Punjab University Journal of Mathematics 52(3) (2020) pp. 135-144. (ISI)
36. “Certain generalized fractional integral inequalities” by K S Nisar,G. Rahman, A Khan, **A. Tassaddiq** and M. S. Abouzaid, AIMS Mathematics, [2020, 5(2):](http://www.aimspress.com/journal/Math/2020/2.html) 1588-1602 (ISI; Scopus, IF 0.848; Q2)
37. “Heat Transfer Analysis in Sodium Alginate Based Nanofluid using MoS2 Nanoparticles: Atangana–Baleanu Fractional Model” by **A. Tassaddiq**, I. Khan and K. S. Nisar, Chaos, Solitons and Fractals 130 (2020) 109445. (ISI; Scopus; IF 3.064; Q1)
38. “Computational and Physical Examination About the Aspects of Fluid Flow Between Two Coaxially Rotated Disks by Capitalizing Non-fourier Heat Flux Theory: Finite Difference Approach” by S. Bilal, **A. Tassaddiq**, A. H. Majeed, K. S. Nisar and F. Ali (2020), Front. Phys. 7:209. (ISI; Scopus; IF 1.82; Q2)
39. Some new results for the Srivastava-Luo-Raina $\mathbb{M}$-transform pertaining to the incomplete H-functions by M. K. Bansal, D. Kumar, J. Singh, **A. Tassaddiq**, K. S. Nisar, AIMS Mathematics, 2020, 5(1): 717-722. (ISI; Scopus, IF 0.848; Q2)
40. “MHD Flow of a Fractional Second Grade Fluid over an Inclined Heated Plate” by **A. Tassaddiq**, Chaos Solitons and Fractals, 123 (2019), 341-346. (ISI; Scopus; IF 3.064; Q1)
41. “A New Representation of k-gamma Functions” by **A. Tassaddiq**, Mathematics, 7 (2019), 133. (ISI; Scoupus; IF 1.75; Q1)
42. “Some difference equations for Srivastava’s λ-generalized Hurwitz–Lerch zeta functions with applications” by **A. Tassaddiq**, Symmetry, 11 (2019), 311. (ISI; Scopus; IF 2.143; Q2)
43. A New Scheme Using Cubic B-Spline to Solve Non-Linear Differential Equations Arising in Visco-Elastic Flows and Hydrodynamic Stability Problems by **A. Tassaddiq**, A. Khalid, M.N Naeem, A. Ghaffar, F. Khan, S.A.A. Karim, K.S. Nisar, Mathematics 2019, *7*, 1078. (ISI; Scoupus; IF 1.747; Q1)
44. “A New Extension of the τ-Gauss Hypergeometric Function and Its Associated Properties” by H.M Srivastava, **A. Tassaddiq**, G. Rahman, K.S Nisar, I. Khan, Mathematics 7 (2019), 996. (ISI; Scoupus; IF 1.747; Q1)
45. “Some inequalities via fractional conformable integral operators” by K. S. Nisar, **A. Tassaddiq,** G. Rahman and A. Khan, Journal of Inequalities and Applications 2019 (2019), 217. (ISI; Scopus; IF 1.731; Q1)
46. “Analysis of differential equations involving Caputo-Fabrizio fractional operator and its applications to reaction diffusion equations” by A. Shaikh, **A. Tassaddiq,** K. S. Nisar and D. Baleanu, Advances in Difference Equations 2019 (2019), 1 :178. (ISI; Scopus; IF 2.56; Q1).
47. “A New Approach to the Solution of Non-Linear Integral Equations via Various FBe-Contractions” by S.K. Panda, **A. Tassaddiq** and R. P. Agarwal, Symmetry, 11 (2019), 206. (ISI; Scopus; IF 2.41; Q2)
48. “Applications of Nanofluids for the Thermal Enhancement in Radiative and Dissipative Flow over a Wedge” by N. Ahmed, **A. Tassaddiq,** R. Alabdan, Adnan, U. Khan, S. Noor, S. T. Mohyud-Din, I. Khan, Appl. Sci. 9 (2019), 1976. (ISI; Scopus; IF 2.217; Q2)
49. “Application of Electric Field for Augmentation of Ferrofluid Heat Transfer in an Enclosure with Double Moving Walls” by M. Sheikholeslami, Z. Shah, A. Tassaddiq, A. Shafee , and I. Khan, IEEE Access, 7 (2019), 21048-21056. (ISI IF 3.75, Scoupus Q1)
50. “Cattaneo-Christov Heat Flux Model For Three-Dimensional Rotating Flow Of Cnts With Darcy-Forchheimer Porous Medium Induced By A Linearly Stretchable Surface” by Z. Shah, **A. Tassaddiq,** S. Islam , A. M. Alklaibi and I. Khan, Symmetry, 11 (2019), 331. (ISI; Scopus; IF 2.41; Q2)
51. “Some New Results Involving the Generalized Bose–Einstein and Fermi–Dirac Functions” by R. Srivastava , H. Naaz, S. Kazi and **A. Tassaddiq,** Axioms. 8 (2019), 63. (ISI; Scopus; ESCI; Q3, Cite Score 0.99)
52. “A New Representation of the Srivastava’s λ-generalized Hurwitz-Lerch Zeta Functions” by **A. Tassaddiq,** Symmetry, 10 (2018), 133. (ISI; Scopus; IF 2.41; Q2)
53. “Application of Atangana-Baleanu Fractional Derivative to Convection Flow of MHD Maxwell Fluid in a Porous Medium over a Vertical Plate” by K. A. Abro, I. Khan and **A. Tassaddiq**, Mathematical Modelling of Natural Phenomena 13 (2018), 1-12. (ISI; Scopus; IF 1.68; Q3)
54. “Natural convection heat transfer in an oscillating vertical cylinder” by I Khan, N A Shah, **A. Tassaddiq**, N. Mustapha, and S. A. Kechil, PloS one, 13 (2018) (ISI; Scopus; IF 2.77; Q1)
55. “Free convective micropolar fluid flow and heat transfer over a shrinking sheet with heat source” by S. R. Mishra, I. Khan, Q. M. Al-mdallal and **A. Tassaddiq**, Case Studies in Thermal Engineering, 11 (2018), 113-119. (ISI; Scopus; 4.010; Q1,SJR 1.15)
56. “Energy transfer of Jeffery–Hamel nanofluid flow between non-parallel walls using Maxwell–Garnetts (MG) and Brinkman models” by Z. Li, I. Khan, A. Shafee, I. Tlili, and **A. Tassaddiq**, Energy Reports, 4 (2018), 393-399. (ISI; Scopus; IF 3.83; Q1)
57. “Analysis of Stokes' Second Problem for Nanofluids Using Modern Approach of Atangana-Baleanu Fractional Derivative” by K. A. Abro, M. M. Rashidi, I. Khan, I. A. Abro, and **A. Tassaddiq**, Journal of Nanofluids, 7 (2018), 738-747. (ISI; Scopus; ESCI; Q2, Cite Score 1.79)
58. “A mathematical Study of Magnetohydrodynamic Casson Fluid via Special Functions with Heat and Mass Transfer embedded in Porous Plate” by K. A. Abro, H. S. Shaikh, N. Mustapha, I. Khan, and **A. Tassaddiq**, Malaysian Journal of Fundamental and Applied Sciences, 14 (2018), 52-58. (ISI;ESCI, IF 0)
59. “Atangana–Baleanu and Caputo Fabrizio Analysis of Fractional Derivatives for Heat and Mass Transfer of Second Grade Fluids over a Vertical Plate: A Comparative Study” by A. Khan, K. A Abro, **A. Tassaddiq**, and I. Khan, Entropy, 19 (2017), 279. (ISI; Scopus; IF 2.305; Q2)

# Professional Development Activities (most recent):

# Member Technical Program Committee, ICCMMS 2021: 15. International Conference on Computational Modeling in Materials & Structures, December 20-21, 2021 at Hindustan College of Engineering and Technology, India

# Guest Editor, Special Issue Fractals and Fractional, MDPI

# Editor, Fractals and Fractional, MDPI

# Reviewer, Journal of Integral Transforms and Special Functions

# Reviewer, Journal of Advances in Analysis

# Reviewer, Journal of Applied Mathematics

# Reviewer, Journal IEEE Access

# Reviewer, Mathematical Methods in Applied Sciences

# Reviewer, Kragujevac Journal of Mathematics

# Reviewer ISI Journals

## Supervised M. Phil Mathematics Thesis, 2012-2015

Principal Investigator of Mathematics Research Projects, 2013-20