

Dr. Asif Waheed

Associate Professor (Tenured)

Head of Department

HEC Approved Supervisor

Member BoS

Department of Mathematics

COMSATS University Islamabad, Attock Campus

No. of Citations. 1110

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EDUCATION

COMSATS Institute of Information Technology, Islamabad, Pakistan ■ 2012

Ph.D. Mathematics

CGPA: 3.44/4.00

COMSATS Institute of Information Technology, Islamabad, Pakistan ■ 2008

MS Mathematics

CGPA: 3.50/4.00

RESEARCH PROJECTS & GRANTS

Project Title	PI/Co-PI	Amount (Rs.)	Agency	Status: Submitted/ Approved / Completed
Analytical Solutions of Nonlinear Fractional Obstacle Problems Occurring in Signal Processing	PI	0.08 million rupees	CIIT	completed
Some Approaches to the Development of Generalized Recurrence Relations for the Solution of Non-linear Equations	Co-PI	0.950 million rupees	HEC	Completed
Numerical Schemes for finding the Approximate Solutions of Nonlinear Equations	Co-PI	0.157 million rupees	CIIT	Completed
Intelligent Computing Methods for Fractional Partial Differential Equations: Applications in Nonlinear Wave Modelling Differential Equations: Applications in Nonlinear Wave Modelling	PI	2.5 M	HEC	Submitted

HONORS & AWARDS

- **Appreciation Letter by Dean FoS for Outstanding Performance in 2024-2025**
- **Research Productivity Award every year from 2008 to 2018 by COMSATS Institute of Information Technology (CIIT), Islamabad**
- **Research Productivity Award 2012 by Pakistan Council for Science and Technology (PCST), Islamabad.**
- **Research Productivity Award 2011 by Pakistan Council for Science and Technology (PCST), Islamabad.**
- **HEC Scholar under the HEC Indigenous" Ph.D. fellowships for 5000 Scholars" Program-(Batch-III).**

WORK EXPERIENCE

- **COMSATS University Islamabad, Attock campus**
Head of Department/Tenured Associate Professor, Department of Mathematics (January 2025 to date)
- **COMSATS University Islamabad, Attock campus**
Tenured Associate Professor, Department of Mathematics (February 2021 to date)
- **COMSATS University Islamabad, Attock campus**
Assistant Professor, Department of Mathematics (February 2015 to February 2021)
- **HITEC University, Taxila cantt**
Assistant Professor, Department of Mathematics (September 2012 to February 2015)
- **COMSATS Institute of Information Technology, Islamabad**
Visiting faculty member, Department of Mathematics (2010)

COURSES TAUGHT

Post Graduate Classes (MS/ PhD Mathematics)

1. Advanced Numerical Analysis
2. Numerical Linear Algebra
3. Advanced Numerical Techniques for Linear and Nonlinear Equations
4. Numerical Solutions of ODEs

**Under Graduate Classes (BS Electrical/Mechanical/Computer Engineering/
M. Sc Mathematics)**

1. Calculus-I	8. Numerical Computations
2. Calculus-II	9. Topics in Scientific Computing
3. Calculus and Analytical Geometry	10. Numerical Solution of Differential Equations
4. Optimization Theory	11. Partial Differential Equations
5. Calculus of Variation	12. Integral Equations
6. Multivariable Calculus	13. Numerical Optimization
7. Linear Algebra	14. Pre Calculus-I
	15. Exploring Quantitative Skills

AREAS OF INTEREST

Conducting active research in three major areas:

- Analytical Techniques for the solution of Fractional DEs by coupling with
 - Rieman- Liouville
 - Caputo
 - k Caputo
 - Caputo Febrizio
 - Conformable approach
- Numerical and Analytical Techniques for solution of ODEs
 - higher order nonlinear
 - fractional
 - integro-differential
 - boundary and value initial value
 - parametric boundary value
 - system of boundary value
 - system of obstacle boundary value problems
- Analytical techniques along with some transformation for solution of PDEs
 - exact solutions
 - solitary wave
 - pekons
 - cuspons

- periodic

RESEARCH PAPERS

Total Impact Factor: 65

Total Publications:48

1. M. Zeb, M. Awais, **A.Waheed**, N. Vrinceanu and E. Antonescu, Intelligent framework for dual solutions of copper oxide nanoparticles suspension in thermally varied fluid reservoirs using the Koo–Kleinstreuer–Li (KKL) Model, Alexandria Engineering Journal, 124, (2025), 435-445. **(I.F=6.85)**
2. B. Ullah, U. Afzal, **A. Waheed**, U. Khan, W. Emam, and H. A. E. W Khalifa, Significance of nanoparticle aggregation for thermal transport over magnetized sensor surface, Nanotechnology Reviews, 13(2024), 20240089 **(I.F=6.85)**.
3. Ali Rehman, Muhammad Zeb, **A. Waheed**, M. Inc, Budur Yaqoob and Rashid Jan, Stability analysis of nonlinear convective boundary layer flow on shrinking surface in the presence of viscous dissipation, Modern Physics Letters B. 38(23) (2024), 2450165**(I.F=1.9)**.
4. **A. Waheed**, M. Inc and N. Bibi, Multi Type Solitary Wave Solution of KdV equation, International Journal of Modern Physics B. 38 (19) (2024), 2450242, 12 pages. **(I.F=1.7)**
5. **A.Waheed**, M. Awais, M. A. Z. Raja, M. Y. Malik, and A. S. Alqahtani, Peakon and solitary wave solutions of Lax equation: Nero-Computing Procedure, International Communication In heat and mass transfer.152 (2024), 107321.**(I.F=7)**
6. M. Shoaib, K. S. Nisar, M. A. Z. Raja, **A. Waheed**, M. Saleem, Heat transfer rate in Falkner–Skan fluid flow of ZnO-EG over a moving wedge: Intelligent back propagated neural networks, International Journal of Modern Physics B, 38(2)(2024), 2450025, 18 pages. **(I.F=1.7)**
7. S. E. Alhazmi, A. Imran, M. Awais, M. Abbas, W. Alhejaili, **A. Waheed**, Thermal convection in nanofluids for peristaltic flow in a non-uniform channel, Scientific Reports, 12(1) (2022). **(I. F=4.6)**.
8. **A. Waheed**, A. Imran, S.Javed, D. Baleanu, M. Zeb and S. Ahmad, Study of eletroosmotic nano fluid transport for scraped suface heat exchanger with heat transfer phenomenon, Thermal Science, 2(25)(2021),S213-S218. **(I.F=1.54)**.
9. A. Imran, **A. Waheed**, S.Javed, D. Baleanu, M. Zeb and S. Ahmad, Investigation of eletroosmosis flow of copper nanoparticles with heat transfer due to metachronal rhythm, Thermal Science, 2(25)(2021),S193-S198. **(I.F=1.54)**.

10. **A. Waheed**, A. Nazir, U. Khan, N. Ahmed, S. T. Mohyud Din and B.B. Mohsin, On Mathematical Model of HIV CD 4 + T-cells, 60 (2021), 995-1000, Alexandria Engineering Journal. **(I.F=2.46)**.
11. A. Imran, A. M. Siddiqui, M. A. Rana and **A. Waheed**, Mathematical analysis of eyring fluid in a scraped surface heat exchanger, J. National Sci. Found. Sri Lanka, 48 (1) (2020), 3-14. **(I. F=0.419)**.
12. S. Javeed, K. S. Alimgeer, S. Nawaz, **A. Waheed**, M. Suleman, D. Baleanu and M. Atif, Soliton solutions of mathematical physics models using exponential function technique, Symmetry, 12 (2020), 176. doi:10.3390/sym12010176 **(I.F=2.143)**.
13. **A. Waheed**, A. Nazir, S. Ahmed, M. Zeb, U. Khan, N. Ahmed and S. T. Mohyud Din, On Conformable mathematical model of immune system coupled with intestinal microbiome, 2020, 23(6) (2019), S193-S198, Thermal Science, <https://doi.org/10.2298/TSCI190709409>. **(I.F=1.54)**.
14. **A. Waheed**, A. U. Rehman, M. I. Qureshi, F. A. Shah, K. A. Khan and G. Farid, On k Caputo fractional derivative and associated inequalities, IEEE access, (2019). Digital Object Identifier 10.1109/ACCESS.2019.2902317 **(I.F=4.011)**.
15. S. Ullah, G. Farid, K. A. Khan, **A. Waheed** and S. Mehmood, Generalized fractional inequalities for quasi-convex functions published in an international journal of Advances in Difference Equations, 15 (2019), 16 pages. **(I.F=1.5)**.
16. S. Javed, D. Baleanu, A. **Waheed**, M. S. Khan and H. Affan, Analysis of Homotopy Perturbation Method for Solving Fractional Order Differential Equations, Mathematics, 7 (40)(2019), 1-14. **(I.F=1.105)**
17. **A. Waheed**, S. T. Mohyud Din and N. Farid, Multi-type solitary wave solutions of Chafee Infante equation, Nonlinear Sci. Lett. A, 9(4)(2018), 322-332.
18. **A. Waheed**, S. T. Mohyud Din, M. Zeb and M. Usman, Some higher order algorithms for solving fixed point problems, Commun. Maths. Appl. 9(1)(2018), 41-52.
19. M. Usman, M. Hamid, S. T. Mohyud Din , **A. Waheed** and W. Wang, Exploration of uniform heat flux on the flow and heat transportation of ferrofluids along a smooth plate: Comparative investigation, Int. J. Biomathematics, 11(4) (2018), 19pages. **(I.F=0.86)**
20. F. Saba, N. Ahmed, U. Khan, **A. Waheed**, M. Rafiq and S. T. Mohyud Din, Thermophysical analysis of water based(Cu 2 Al2 O3) hybrid nanofluid in an asymmetric channel with dilating/squeezing walls considering different shapes of nanoparticles, App. Sci. 8 (2018), 1549. **(I.F=2.217)**

21. S. Javed, S. Saif, **A. Waheed** and D. Baleanu, Exact solutions of fractional mBBM equation and coupled system of fractional Boussinesq-Burgers, Results in Physics, 9 (2018), 1275-1281. **(I.F=2.147)**
22. **A. Waheed**, G. Farid, A. U. Rehman and W. Ayub, k-fractional integral inequalities for harmonically convex functions via caputo k-fractional derivatives, Bulletin of Mathematical Analysis and Applications, 10 (1) (2018), 55-67.
23. **A. Waheed**, S. T. Mohyud Din and I. Naz, On analytical solution of system of nonlinear fractional boundary value problems associated with obstacle, J. Ocean Engg. Sci, 3 (2018), 49-55.
24. N. Ahmed, Adnan, U. Khan, S.T. Mohyud Din and **A.Waheed**, Shape effects of nanoparticles on the squeezed flow between two Riga plates in the presence of thermal radiations, Eur. Phys. J. Plus, 132 (2017), 321-333. **(I. F=1.753)**.
25. G. Farid, A. U. Rehman, B.Tariq and **A. Waheed**, On Hadammard type inequalities for m-convex functions via fractional integrals, Journal of inequalities and special functions, 7 (4) (2016), 150-167.
26. S. T. Mohyud Din, **A.Waheed** and M. M. Rashidi, A study of nonlinear age-structured population model, International Journal of Biomathematics, 9(7) (2016), 1650091 (13 pages) **(I.F=0.939)**.
27. S. T. Mohyud Din, N. Ahmed and U. Khan, **A. Waheed**, S. Hussian and M. Darus, On combined effects of heat transfer and chemical reaction for the flow through an asymmetric channel with orthogonally deformable porous walls, Math. Prob. Engg, Volume 2016, Article ID 2568785, 10 pages, doi.org/10.1155/2016/25687. **(I.F=0.802)**
28. S. T. Mohyud Din, N. Ahmed, **A. Waheed**, M. A. Akbar and U. Khan, Solutions of fractional diffusion equations by variation of parameters method, Thermal Science Journal, 19(1) (2015), S69-S75. **(I.F=0.939)**
29. S. I. Khan, U. Khan, N. Ahmed, S. U. Jan, **A. Waheed** and S. T. Mohyud Din, Effects of viscous dissipation and convective boundary conditions on Blasius and Sakiadis problems for Casson fluid, Natl. Acad. Sci Lett.3 (38) (2015), 247-250. **(I.F=0.345)**.
30. N. Ahmed, U. Khan , S. U. Jan, Z. A. Zaidi ,**A. Waheed** and S. T. Mohyud Din, MHD Flow of an incompressible fluid through porous medium between dilating and squeezing permeable walls, Journal of Porous Media, 17(10)(2014),861-867. **(I.F=0.807)**.

31. M. A. Noor K. I. Noor, **A. Waheed**, Decomposition method for solving a system of third order boundary value problems, Mathematical and Computational Applications, 19(3)(2014), 230-240.
32. M. Usman, I. Rashid, T. Zubair, **A. Waheed** and S. T. Mohyud Din, Homotopy Analysis Method for Zakharov-Kuznetsov (ZK) equation with fully nonlinear dispersion, Scientific Research and Essays, 8(23)(2013), 1065-1072.
33. M. A. Noor K. I. Noor, **A. Waheed** and E. A. Al. Said, Variation of parameters method for solving a class of eighth-order boundary value problems, Int. J. Comput. Method. 9(2)(2012), 16 pages. **(I.F=0.481)**
34. M. A. Noor K. I. Noor, **A. Waheed** and E. A. Al. Said, Variation of parameters method for solving nonlinear Volterra's integro differential equations, Adv. Appl. Math. Mech., 4 (2012), 190-204. **(I.F=0.528)**
35. **A. Waheed**, M. A. Noor and S. T. Mohyud Din, On exact solutions of higher order boundary value problems, World Appl. Sci. J., 16(7)(2012), 898-902.
36. M. A. Noor K. I. Noor, **A. Waheed** and E. A. Al. Said, Some new solitary solutions of modified Benjamin- Bona-Mahony equation, Comput. Math. Appl., 62(2011), 2126-2131. **(I.F=1.747)**
37. M. A. Noor K. I. Noor, **A. Waheed** and E. A. Al. Said, An efficient method for solving system of third-order nonlinear boundary value problems, Math. Prob. Eng., volume 2011, Article ID 250184, 14 pages, doi:10.1155/2011/250184. **(I.F=0.777)**
38. M. A. Noor K. I. Noor, **A. Waheed**, S. K. Khatri and E. A. Al. Said, A new method for solving fifth-order obstacle boundary value problems, Int. J. Phy. Sci., 6(7)(2011), 1798-1802.
39. M. A. Noor K. I. Noor, **A. Waheed** and E. A. Al. Said, On computational methods for solving system of forth-order nonlinear boundary value problems, Int. J. Phy. Sci., 6(1) (2011), 128-135.
40. S. T. Mohyud Din, M. A. Noor and **A. Waheed**, Variation of parameters method for initial and boundary value problems, World Appl. Sci. J., 11 (5) (2010), 622-639.
41. M. A. Noor K. I. Noor, **A. Waheed** and E. A. Al. Said, Modified variation of parameters method for solving system of second-order nonlinear boundary value problems, Int. J. Phy. Sci., 5(16)(2010), 2426-2431. **(I.F=0.540)**
42. M. A. Noor, S. T. Mohyud Din, **A. Waheed** and E. A. Al. Said, Exp-function Method for travelling wave solutions of nonlinear evolution equations, Appl. Math. Comput., 216 (2010), 477-483. **(I.F=1.536)**

43. S. T. Mohyud Din, M. A. Noor and **A. Waheed**, Variation of parameters method for solving sixth order boundary value problems, Comm. Kor. Math.Soc., 24(4) (2009), 605-615.
44. S. T. Mohyud Din, M. A. Noor and **A. Waheed**, Exp-function method for generalized traveling solutions of Calogero-Degasperis-Fokas equation, Zeitschrift fur Naturforsch, 65(1-2), (2010), 1-7. **(I.F=0.933)**
45. S. T. Mohyud Din, M. A. Noor and **A. Waheed**, Exp-function method for generalized traveling solutions of good Boussinesq equations, J. Appl. Math. Comput., 30 (2009), 439-445.
46. S. T. Mohyud Din, M. A. Noor and **A. Waheed**, Exp-function method for solving Kuramoto-Sivashinsky and Boussinesq equations, J. Appl. Math. Comput., 29(2009), 1-13.
47. M. A. Noor, S. T. Mohyud Din, and **A. Waheed**, Exp-function method for generalized traveling solutions of master partial differential equations, Acta Appl. Math., 104 (2008), 131-137. **(I.F=0.43)**
48. M. A. Noor, S. T. Mohyud Din, and **A. Waheed**, Variation of parameters method for solving fifth order boundary value problems, Appl. Math. Inf. Sci., 2(2) (2008), 135-141.

Research Supervision (PhD Mathematics)

Total Students: 2

1. **Tania Bibi**, Dark and Bright Soliton Solutions of Nonlinear PDEs, COMSATS University Islamabad, Attock Campus, Pakistan. (Registered)
2. **Basit Sohaib**, Advances in Peristaltic Transport Mechanism Involving Nanomaterials: A Comprehensive Analysis, COMSATS University Islamabad, Attock Campus, Pakistan. (Co-Supervisor, Registered)

Research Supervision (MS Mathematics)

Total Students: 27+2

1. Huma Akbar, Solving differential and integral equations by some new and modified schemes, Department of Mathematics, Mirpur University of Science and Technology, AJK, Pakistan, 2014.
2. Umber Hameed Khan, A study on nonlinear equations, Department of Mathematics, HITEC University, Taxila cantt. Pakistan, 2015.
3. Sumaira Tabraiz, Ostrowski's techniques and their modifications for nonlinear equations, Department of Mathematics, HITEC University, Taxila cantt. Pakistan, 2015.

4. Khalid Akber, Variational iteration homotopy perturbation method for solving PDEs, Department of Mathematics, HITEC University, Taxila cantt. Pakistan, 2015.
5. Naila Naseer, Two steps iterative methods for solving system of linear equations, Department of Mathematics, COMSATS Institute of Information Technology, Attock, Pakistan, 2015.
6. Qurut-ul-Ain, On convergence of optimal variational iteration method and its applications, Department of Mathematics, COMSATS Institute of Information Technology, Attock, Pakistan, 2016.
7. Nazish Farid, On Soliton solutions of Nonlinear PDEs, COMSATS Institute of Information Technology, Attock, Pakistan, 2017.
8. Iqra Naz, Analytical solution of system of fractional boundary value problems, COMSATS Institute of Information Technology, Attock, Pakistan, 2017.
9. Perveen Nawaz, Wavelet techniques for numerical solution of higher order BVPs, COMSATS Institute of Information Technology, Attock, Pakistan, 2017.
10. Marrium Izhar, Analytical of solution of system of absolute value obstacle boundary value problems, COMSATS Institute of Information Technology, Attock, Pakistan, 2017.
11. Humaria Rehman, Improved Four step iterative method for solving system of equations, COMSATS Institute of Information Technology, Attock, Pakistan, 2017.
12. Sidra-Tul- Muntaha, Analytical Treatment of a Discrete Delay Model for HIV Infection, COMSATS University Islamabad, Attock Campus, Pakistan, 2018.
13. Aqsa Bibi, On Optimal Solution of Even Order Obstacle Boundary Value Problems, COMSATS University Islamabad, Attock Campus, Pakistan, 2018.
14. Raheela Arif, On the applications of Caputo k fractional derivative, COMSATS University Islamabad, Attock Campus, Pakistan, 2018.
15. Ehtesham-ul-Haq, Analytical solution of fractional model of pollution for system of lakes, COMSATS University Islamabad, Attock Campus, Pakistan, 2018.
16. Maryam Bibi, Analytical solution of time fractional diffusion equation via k Caputo fractional derivative, COMSATS University Islamabad, Attock Campus, Pakistan, 2019.
17. Abdullah Saeed Khan, Spline methods for solving system of nonlinear second order obstacle boundary value problems, COMSATS University Islamabad, Attock Campus, Pakistan, 2019.
18. Amna Bibi, On Soliton Solutions of PDEs, COMSATS University Islamabad, Attock Campus, Pakistan, 2020.
19. Zaib Un Nisa, On fractional order Obstacle BVPs, COMSATS University Islamabad, Attock Campus, Pakistan, 2020.

20. Asia Bibi, Optimal variation of parameters method for solving fuzzy integral equations, COMSATS University Islamabad, Attock Campus, Pakistan, 2021.
21. Hifza Niaz, Some efficient numerical techniques for solving nonlinear obstacle boundary value problems, COMSATS University Islamabad, Attock Campus, Pakistan, 2021
22. Rabia Kainat, Numerical treatment of entropy optimized second order velocity slip flow, COMSATS University Islamabad, Attock Campus, Pakistan, Spring 2022.
23. Afkar Abbas, Numerical treatment for fully developed entropy optimized second grade nanofluid flow with activation energy, COMSATS University Islamabad, Attock Campus, Pakistan, Spring2022.
24. Nimra Bibi, Some exact solutions of nonlinear PDEs, COMSATS University Islamabad, Attock Campus, Pakistan, Fall 2022.
25. Mehreen Saleem, Appliatrion pf Caputo Febrizio fractional operator in obstacle boundary value problems, COMSATS University Islamabad, Attock Campus, Pakistan, Spring 2023.
26. Asad Ur Rehman, Wavelet Techniques for solving Fractional Boundary Value Poblems, COMSATS University Islamabad, Attock Campus, Pakistan, Spring 2023.
27. Bushra Naz, Soliton Solutions of Fractional PDEs by Exp function method, COMSATS University Islamabad, Attock Campus, Pakistan, Spring 2025,
28. Javeria Touqeer, Periodic Solutions of Fractional PDEs by Exp function method, COMSATS University Islamabad, Attock Campus, Pakistan, Fall 2025,
29. Laraib Zafar, Peakon Solutions of Fractional PDEs by Exp function method, COMSATS University Islamabad, Attock Campus, Pakistan, Spring 2026.

Research Supervision (MSc/BS Mathematics)

Total Students: 34

1. Hina Rasheed, Decomposition solution of nonlinear PDEs arising in engineering, Department of Mathematics, COMSATS Institute of Information Technology, Attock, Pakistan, 2016.
2. Asad Mehmood, Analytical treatment of nonlinear diffusion equations, Department of Mathematics, COMSATS Institute of Information Technology, Attock, Pakistan, 2016.
3. Rabia Sher Khan, Combined Laplace and differential transform method for numerical solution of PDEs, COMSATS Institute of Information Technology, Attock, Pakistan, 2016.
4. Aftab Ahmed Khan, Analytical solution of integral equations, COMSATS Institute of Information Technology, Attock, Pakistan, 2016.
5. Ayesha Iqbal, Direct computation method for solving nonlinear integral equations, COMSATS Institute of Information Technology, Attock, Pakistan, 2017.

- 6.** Laila Shaheen, Laplace transformation for solution of differential equations, COMSATS Institute of Information Technology, Attock, Pakistan, 2017.
- 7.** Javeria Qadir, Fourier series and integrals with applications, COMSATS Institute of Information Technology, Attock, Pakistan, 2017.
- 8.** Umm-e-Salma, Homotopy perturbation method for solving nonlinear equations, COMSATS Institute of Information Technology, Attock, Pakistan, 2017.
- 9.** Nosheen Bibi, Improved Ostrowski method for solving nonlinear transcendental equations, COMSATS Institute of Information Technology, Attock, Pakistan, 2017.
- 10.** Khuram Shezad, On exact solution of PDEs, COMSATS University Islamabad, Attock Campus, Pakistan, 2018.
- 11.** Rida Khan, Analytical solution of spring mass system, COMSATS University Islamabad, Attock Campus, Pakistan, 2018.
- 12.** Zainab Noor, Some techniques for solving linear systems, COMSATS University Islamabad, Attock Campus, Pakistan, 2018.
- 13.** Rabia Bibi, Numerical methods for differentiation and integration, COMSATS University Islamabad, Attock Campus, Pakistan, 2018.
- 14.** Laraib Tariq, Comparison among numerical techniques for solving PDEs , COMSATS University Islamabad, Attock Campus, Pakistan, 2019.
- 15.** Iqra Zohra, On interpolation techniques, COMSATS University Islamabad, Attock Campus, Pakistan, 2019.
- 16.** Humaira Bibi, Comparison among numerical techniques for solving ODEs, COMSATS University Islamabad, Attock Campus, Pakistan, 2019.
- 17.** Zaheer Ahmed, On numerical integration techniques, COMSATS University Islamabad, Attock Campus, Pakistan, 2019.
- 18.** Sadaf Malik, Comparison among iterative techniques for solving algebraic equations, COMSATS University Islamabad, Attock Campus, Pakistan, 2019.
- 19.** Maidah Malik, On numerical solution of ODEs, COMSATS University Islamabad, Attock Campus, Pakistan, 2020.
- 20.** Maryam Bibi, on comparison of Interpolation Techniques, COMSATS University Islamabad, Attock Campus, Pakistan, 2020.
- 21.** Deana Taj, on comparison of Numerical Techniques for solving ODEs, COMSATS University Islamabad, Attock Campus, Pakistan, 2020.
- 22.** Memoona Bibi, On interpolation techniques for unequally spaced data, COMSATS University Islamabad, Attock Campus, Pakistan, 2020.

23. Khadija bibi, On numerical integration techniques, COMSATS University Islamabad, Attock Campus, Pakistan, 2022.
24. Shaheena Sardar, On numerical differentiation techniques, COMSATS University Islamabad, Attock Campus, Pakistan, 2022.
25. Naseer Ahmed, On some forward difference and backward difference techniques for interpolation, COMSATS University Islamabad, Attock Campus, Pakistan, 2022.
26. Aleena Kazmi, Applications of Pade's approximation in BVPs, COMSATS University Islamabad, Attock Campus, 2023.
27. Zarkhan Ali, Comparison of Interpolation Techniques, COMSATS University Islamabad, Attock Campus, Pakistan, 2023
28. Laraib Zafar, Statistical Genetic Data Analysis, COMSATS University Islamabad, Attock Campus, Pakistan, 2023.
29. Aqib Javed, On Gaussian Quadrature Rule, COMSATS University Islamabad, Attock Campus, Pakistan, 2023.
30. Noor Ul Huda, Numerical Techniques for Solving Nonlinear Equations, COMSATS University Islamabad, Attock Campus, Pakistan, 2023
31. Musfira Ejaz, Least Square and Some Interpolation Techniques for Data Management, COMSATS University Islamabad, Attock Campus, Pakistan, 2023.
32. Shawaiz Jameel, Two Step iterative Techniques for Solving System of Linear Equations, COMSATS University Islamabad, Attock Campus, Pakistan, 2024
33. Ayesha Ayub, Least Square Approximation and its Applications in Machine Learning , COMSATS University Islamabad, Attock Campus, Pakistan, 2025
34. Alishba Bibi, Real World Applications of Eigenvalues and Eigenvectors, COMSATS University Islamabad, Attock Campus, Pakistan, 2025.

SEMINARS/CONFERENCES

Total : 19

- Attended one day training workshop on Challenges and SoS of BS Mathematics with Data Science at CUI Lahore Campus in summer 2025.
- Attended one day training workshop on Revision of Scheme of Studies at CUI Abbotabad Campus in summer 2024.
- Delivered a talk on '**On analytical solution of obstacle boundary value problem**' in COMSATS, Attock (29th November, 2017).
- Member of Organizing Committee for a two days workshop on "**Advancements in Pure and Applied Mathematics**" from 20th to 21st April, 2017 in COMSATS Institute of Information Technology Attock Campus.
- Organized and delivered a talk with titled "**Implementation and Applications of Maple**" in a one day workshop on "Maple" held on 28th February, 2017 in COMSATS Institute of Information Technology Attock Campus.

- Delivered a talk with titled "**The MAPLE Soft, Implementation and Applications**" in a workshop on "Scientific Documents Compilation" held on 30th May to 3rd June, 2016 in HITEC University, Taxila cantt.
- Attended a Symposium on "**Computational Complexities, Innovations and Solutions (CCIS)**" on May 9-10, 2016 in COMSATS Institute of Information Technology Abbotabad Campus.
- Delivered a talk on '**Taylor's Theorem and its Applications**' in COMSATS, Attock (23rd February, 2016).
- Delivered a talk on '**Variation of parameters method for Solving Higher Order Nonlinear Boundary and Initial Value Problems**' in COMSATS, Attock (13th October, 2015).
- Delivered a talk on '**Exp-function method and its applications**' in **HITEC University**, Taxila (May, 2012).
- Attended 3 days '**CAMP Conference on Mathematical Sciences**' from November 17-19, 2011.
- Delivered a seminar on '**Some Analytic Methods for Solving Higher Order Nonlinear Boundary and Initial Value Problems**' in **COMSATS**, Islamabad (June, 2011).
- Delivered a seminar on '**A new analytic technique for solving higher order PDEs**' in **HITEC University**, Taxila (May, 2011).
- Attended a three days symposium on '**Mathematics and its applications**' conducted by Department of Mathematics, **COMSATS** Institute of Information Technology, Lahore, (March, 2011). ○ Participated in "**All Pakistan Mathematical Conference**" held from June 22-23, 2010 at **NCP, Quaid-e-Azam University**, Islamabad.
- Attended a talk on '**Geometric Function Theory**' by **Prof. Dr Khalida Inayat Noor** conducted by Department of Mathematics, **COMSATS** Institute of Information Technology, Lahore, (March, 2009).
- Attended a one day workshop on '**Computational Mathematics**', **Pakistan Academy of Sciences**, Constitution Avenue, Islamabad, Pakistan, (June 2008).
- Attended a seminar on '**Solution of the MHD Falkner-Skan flow by HankelPad's method**' by **Abbas Bandy**, arranged by Department of Mathematics, **COMSATS** Institute of Information Technology, Islamabad, Pakistan, (Sept, 2008).

- Attended a seminar on '**Solving the classical Lienard differential equations by means of Homotopy Analysis Method**' by **Abbas Bandy**, conducted by Department of Mathematics, **COMSATS** Institute of Information Technology, Islamabad, Pakistan, (March, 2008).
- Attended a talk on '**Variational inequalities and its Applications**' by Prof. **Dr Muhammad Aslam Noor** organized by college of **Electrical and Mechanical Engineering, NUST**, Rawalpindi, Pakistan, (May,2007)

ADDITIONAL INFORMATION

- Head of Mathematics Department, Attock Campus (from 17-01-2025 to date)
- Convener of Campus Assets Condemnation, Auction and Disposal Committee (Fall2023- Spring 2025)
- Convener of Campus Health, Safety and Security Committee (Fall2023-Spring 2025)
- Convener of Campus Grievance Redresser Committee (Spring2025)
- Convener of Departmental Admission Campaign Committee (Fall2015-Spring 2025)
- Convener of Departmental Academic Review Committee (Fall2015-Spring 2025)
- Convener of Comprehensive Examination Committee(Spring2025)
- Focal Person of Campus Disable Students (Fall2024-Spring2025)
- Member of Departmental Advisory Committee (Fall2023-Spring 2025)
- Member of Campus Academic Review Committee (Fall2021 & Spring 2025)
- Member of Campus Master of Event, Convocation Committee (Fall-2016-Fall2024)
- Member of Campus Admission Campaign Committee (Fall2016-Fall2024)
- Member of Campus Unfair Mean Committee (Fall2022-Spring 2025)
- Batch Advisor (Fall2024)
- Departmental Operating Officer (Fall2020-Fall2023)
- Convener, Examination Material Dispose of Committee(Fall2020-Fall2023).
- Coordinator, Campus Weekly Report, Department of Mathematics (Fall2016-Spring2020)
- Member of Student Support Center(Fall2016-Spring2020)
- Member of Disciplinary Action Committee
- Member of Examination Committee, Department of Mathematics
- Member of Recreational Committee
- Member of Theses and Projects Evaluation Committee
- Member of Selection Committee

- Participated in one week training on '**Faculty Development**' in August 2016 at Faculty Development Academy, G-5/2, Islamabad.
- Participated in an in-house training on '**Quality Assurance in Education**' on April 10, 2014 at **HITEC University** Taxila cantt. ○ Appointed Chairman/ External member of quality assessment team by HEC, Pakistan at MUST, AJK in 2014.
- External Examiner/ Reviewer of MS/ M Phil scholars in the following universities of national and international repute:

1. International Islamic University, Islamabad

2. Air University, Islamabad

3. Pir Mehr Ali Shah-Arid Agriculture University, Rawalpindi

4. Mirpur University of Science and Technology, AJK

5. Abdul Wali Khan University Mardan

6. University of Wah, Wah cantt

7. University of Engineering & Technology, Taxila cantt.

8. University of Gujrat, Gujrat

9. Mohyud Din Islamic University, AJK

- Reviewer of many international journals.
- Qualified International GRE (Mathematics) conducted by ETS in 2007.
- Qualified GAT (Mathematics) conducted by NTS Pakistan in 2011.
- Qualified Arabic language course form AIU in Spring Semester 2002
- Qualified Quran Course 1, Batch 339 from Alfalah Trust, April 2022.