CURRICULUM VITAE

Postal Address:
Department of Mathematics, University of Peshawar,
Khbyer PukhtoonKhwa, Peshawar, Pakistan
Mobile # +923339341107, +923078405524
Email: raminmath@uop.edu.pk , rohulamin.math@gmail.com

Dr. ROHUL AMIN

Objectives:

To work within competitive environment so that I can fully utilize my Professional abilities for the best interest of the Organization and to be Professional in future.

Personal information:

Father Name:	Bakht Rawan
Date of Birth:	05/05/1985
Place of Birth:	Dir (Lower) Khbyer PukhtoonKhwa, Pakistan
Marital status:	Married
Nationality:	Pakistani

Academic Background:

PhD (Applied Mathematics)
Department of Mathematics, University of Peshawar, Session 2013-17

M. Phil (Pure Mathematics)
Department of Mathematics, University of Peshawar, Session 2011-13

M. Sc Mathematics,
1st division, Department of Mathematics, University of Peshawar, Session 2006-08

B. Sc (Math-A, Math-B, Computer Science) 1st division, University of Malakand, Session 2004-05

F. Sc Pre-engineering, 1st division, BISE Malakand, Session 2002-03

S. Sc Science Group, 1st division, BISE Swat, Session 2001

B. Ed (Bachelor of Education), 1st division, University of Peshawar, Session 2007-08

Experience:

(1) Currently working as a Lecturer at Department of Mathematics, University of Peshawar since 21st Oct 2-009 to till date, Also Visiting classes in Institute of Chemical Sciences and Department of Pharmacy University of Peshawar.

(2) I worked as a Teacher of Mathematics at Asia Model School & College Peshawar, from 02 February 2008 to 02 Jan 2009.

(3) Worked as Focal Person for Prime Minister Laptop Scheme

(4) Currently working as Staff Proctor, University of Peshawar

(5) Currently working as MPhil and PhD Program Coordinator since 2017

Languages:

- Mother tongue Pashto.
- Can Read, Write and speak easily Urdu and English.

Teaching Experience:

1. Teaching Mathematics in Department of Mathematics, University of Peshawar for the last 12 years.
2. Taught the following subjects in the University of Peshawar.
    - Pharmaceutical Mathematics
    - Mathematics for Chemists
    - Elements of set theory and mathematical logic
    - Discrete Structure
    - General topology
    - Topology-I
    - Topology-II
    - Calculus-I
    - Calculus-II
3. I am visiting teacher in the following institutions:
    - Institute of Chemical Sciences University of Peshawar since 2009.
    - Department of Pharmacy University of Peshawar since 2012.

Examination and Assessment Activities:

- External examiner for the MSc. Mathematics Examination of the University of Punjab.
- External examiner for the MSc. Mathematics Viva-voce Examination of the University of Haripur.
- Paper Setter & Examiner of University of Peshawar
- Remained paper setter & Examiner of Bannu University of Science & technology, Bannu.
- Paper Setter & Examiner of University of Haripur
- Paper Setter & Examiner of Khushal Khan Khattak University Karak

Supervisions:

HEC Approved PhD Supervisor

I have been awarded the status of HEC approved PhD Supervisor in the discipline of Physical Sciences since 22/12/2017 and onward.

BS Thesis Supervision (Completed)

1. Numerical solution of fractional pantograph delay differential equation using Haar wavelet collocation method (Uzma Naseer 2025)
2. Numerical solution of third order nonlinear ordinary differential equation using Haar wavelet collocation method (Tanver, idres 2025)
3. Numerical solution of multi-term pantograph delay differential equations using Haar wavelet collocation method (Syed Muhammad Saqib Ijaz, Bilal Hassan, Muhammad Yasir 2025)
4. Numerical solution of Bagley-Torvik equation using Haar wavelet collocation method (Javeria, Komal Riaz, Shamla Mehboob, Uzair Ahmad, July 1, 2024)
5. Numerical solution of second order nonlinear differential equation using Haar wavelet collocation method (Sohail Khan, Haris Khan, Saddam Husain, Syed Aqib Ali Shah, July 1, 2024)

6. Numerical solution for pantograph Volterra delay-integro-differential equation using Haar wavelet collocation method (July 1, 2024)
7. Numerical solution of second order differential equations by Haar wavelet method (Zia Ur Rahman, Muhammad Usman, Khalid Khan, Khkula Rahim, Maria Wadood, July 14, 2023)
8. Haar wavelet collocation method for solution of third order differential equation (Muhammad Haroon, Momna Hassnain, Mohammad Abid, Abd Ur Rehman, June 12, 2023)
9. Haar wavelet collocation method for solution of linear and nonlinear neutral delay differential equation (Nauman Ahmad Sher, Tahir Ali, Mehran Ud Din, Raheem Ullah August 12, 2021)
10. Numerical solution of linear and nonlinear variable order fractional differential equations using Haar wavelet (Hafsa, Aatif Nawaz, August 12, 2021)
11. Numerical solution of second order delay differential equations using Haar wavelet collocation method (Fakhar Zaman, Imad Ullah, Zohaib Khan, 2020).
12. Numerical solution of neutral delay partial differential equations using Haar wavelet collocation method (Muhammad Awais Barakat, 2018).

MS/MPhil Thesis Supervision (Completed)

1. Solving eight-order boundary value problems with mixed boundary conditions via linear Legendre multi-wavelets (Ayesha Khan, University of Peshawar, 2025)
2. Optimal control and semi analytical solution of a fractional diabetes model via Laplace Homotopy perturbation method (Johar Ali University of Peshawar, 2025)
3. Solution of sixth order linear and nonlinear integro-differential equations via Haar wavelet collocation method (Mursaleen Khan, University of Peshawar, 2025)
4. Numerical Solution of Fractional Oscillation Equations with Mixed Integral Terms Using Haar Wavelet Collocation Method (Mohammed Mohsen Fadhl Arabh, University of Peshawar, October 28, 2025)
5. Haar Wavelet Collocation Method for the Numerical Solution of Third and Fourth-Order Delay Differential Equations (Salman Khan, University of Peshawar, 2025)
6. Existence and Numerical Solution of Fifth Order Linear Integro-Differential Equations via Haar Wavelet Collocation Method (Syed Muhammad Usama, University of Peshawar , August 21, 2025)
7. Mathematical analysis of fractional model for propagation of malicious codes in wireless sensor network (Aifa Tariq, University of Peshawar, December 13, 2024)
8. A numerical solution of the integro-differential equation using the Haar wavelet collocation method (Izaz Ul Haq, University of Peshawar, October 02, 2024)
9. Haar wavelet method for the numerical solution of system of second order differential equations (Imdad Ullah, University of Peshawar, November 16, 2023)
10. Numerical solution of system of fractional integro-differential equation using Haar wavelet collocation method (Raheem Ullah, University of Peshawar, July 12 ,2023)
11. Numerical solution of one-dimensional boundary value problems of second and third order by reproducing kernel particle method (Muhammad Bilal, University of Peshawar, February 23, 2023)
12. Ulam-Hyers stability of a mathematical model of COVID-19 (Shaheen Fatima, University of Peshawar, March, 2023)

13. Numerical solution of fourth-order integro-differential equations using Haar wavelet collocation method (Muhammad Nawaz, University of Peshawar, May 18, 2022)
14. Existence and uniqueness of some fixed-point results in C*-algebra-valued generalized metric spaces (Arshad Yousaf, University of Peshawar, May 18, 2022)
15. Numerical solution of the system of delay Volterra-Fredholm integral equations via Haar wavelet (Asmatullah Khan, University of Peshawar, January 18, 2022)
16. Numerical solution of the systems of fractional order differential equations with Haar wavelet (Irfan Ullah Khan, University of Peshawar, October 03, 2020)
17. Numerical solution of second and third order integro-differential equations using Haar wavelet method (Muhammad Awais Barkat, University of Peshawar, October 03, 2020)
18. Numerical solution of delay integro-differential equations via Haar wavelet (Fazli Hadi, University of Peshawar, September 21, 2020)
19. Numerical solution of fractional integro-differential equations via Haar wavelet (Faheem Ullah University of Peshawar, January 08, 2020)
20. Numerical solution of delay integral equations using Haar wavelet collocation method (Waqar Ahmad, University of Peshawar, June 27, 2019)
21. Numerical solution of Abel's integral equations using Haar wavelet collocation method (Gul Islam, University of Peshawar, February 01, 2019)

PhD Thesis Supervision (Completed)

1. Solution of Convection-Diffusion-Reaction models using Haar wavelet collocation method (Sakina Sher Zaman, University of Peshawar, November 15, 2024)
2. Numerical solution of two and three-dimensional interface problems using Haar wavelet and meshless methods (Muhammad Faheem, University of Peshawar, December 13, 2024)
3. Higher-order Haar wavelet approximations for integral and integro-differential equations (Shumaila Yasmeen, University of Peshawar, November 17, 2023)
4. Numerical simulation of epidemic models with integer and fractional order derivatives (Arshad Alam Khan, University of Peshawar, February 22, 2023)

MS/MPhil Thesis Supervision (in progress)

1. Muzammil ilahi Baig
2. Shamla Mehboob
3. Javeria

PhD Thesis Supervision (in progress)

1. Javed Khan
2. Muhammad Osama

Thesis Evaluated

BS

1. Solution of Modified Burgers' Equation via Cubic Trigonometric B-Spline Based Differential Quadrature Method (BS project in respect of Sajid Ali supervised by Dr. Arshad Ali letter No. 600/Math/ICP dated: 23-11-2020)
2. A Meshfree Method for the Solution of Kdv-Mkdv Equation Using Radial Basis Functions (BS project in respect of Javeria Shahid supervised by Dr. Arshad Ali letter No. 682/Math/ICP dated: 07-01-2021)

MS/MPhil

1. Numerical Solutions for Magnetohydrodynamic Mixed-Convection Flow of Non-Newtonian Nanofluid over a Stretching Sheet (Sana Miraj MPhil scholar in Qurtuba University of Science & information Technology, Phase 3, Hayatabad Peshawar, 25/08/2025)
2. Mathematical Analysis of Malaria Disease Model via Decay in Mosquitoes Population, (Amir Alam. University of Swat)
3. Purturb solution for convective MHD two phase fluctuating channel flow of second grade fluid using light hill method (Noor Hayat Khan MPhil scholar in Qurtuba University of Science & information Technology, Phase 3, Hayatabad Peshawar, Pakistan 28/10/2024)
4. Some results in vague soft expert set (Fareed Ullah Khan, MPhil scholar of mathematics, Gomal University, Dera Ismail Khan 30-07-2024)
5. A new approach to fuzzy soft group theory (Muhammad Asghar MPhil scholar of mathematics, Gomal University, Dera Ismail Khan 03-07-2024)
6. Few structures in bipolar vague soft topological spaces in terms of bipolar vague soft generalised-open sets (Khizar Hayat MPhil scholar of mathematics, Gomal University, Dera Ismail Khan 03-05-2024)
7. An Enhancement in Gauss Elimination Method for Solving Linear System of Equations (Khalil Ullah MS scholar in Qurtuba University of Science & information Technology K1, Phase 3, Hayatabad Peshawar, Pakistan 29/07/2022)
8. Criteria for Approximate solutions to Caputo-Fabrizio fractional differential equations (Eiman supervised by Dr. Kamal Shah letter No. UOM/Sec/M.Phil/3,864/40998 dated: 10-04-2021 University of Malakand Chakdara Dir lower 21-04-2021)
9. Degree product matrix and polynomial for a graph (Zahid Ullah MS scholar in Qurtuba University of Science & information Technology K1, Phase 3, Hayatabad Peshawar, Pakistan 17/04/2019)
10. Amended Sine-Cosine algorithm for high dimensional optimization problem (Nadia Parveen Kohat University of Science and Technology 10-02-2022)
11. Efficient numerical algorithms for computation of highly oscillatory integrals with and without stationary point (Noor Jamal MS scholar in Qurtuba University of Science & information Technology K1, Phase 3, Hayatabad Peshawar, Pakistan 07/02/2019)
12. Application of some different types of numerical methods for the solution of multi points problems (Huma Akbar MS scholar in Qurtuba University of Science & information Technology K1, Phase 3, Hayatabad Peshawar, Pakistan 07/08/2018)

International Workshops /Seminars /Conferences:

- 2-Day workshop on Semester System: Rethinking Education (Phase-III), March 16-17, 2017, Institute of Education and Research, University of Peshawar in collaboration with Fulbright.
- CIMPA-UNESCO-IRAK SCHOOL Inverse Problems: Theory and applications Erbil, Kurdistan Region-Iraq, May 5, 2014 - May 14, 2014.
- International Workshop on Solutions of Differential Equations from Transform Techniques ($SDET^2$ -2014), January 30 to February 1, 2014. COMSTECH Building, 33 Constitution Avenue, G-5/2, Islamabad Pakistan.
- Symmetries, Differential Equations and Applications (S∂EA–II) 27th Jan - 30th Jan (2014). Center for Advanced Mathematics & Physics (CAMP) National University of Sciences & Technology (NUST), Campus H - 12, Islamabad, 44000, Pakistan.

- 1st International Alumni's Mathematics UET Conference, dated 26 February 2022, Lahore, Pakistan.
- Two days 2nd International Conference on "Orthogonal Polynomials, Special functions and Computer Algebra: Applications in Engineering" (OPSFCA-2022) on October 15th – 16th, 2022.

Research Projects Awards:

- Research collaboration with Chinese collaborator, Liping Gao, Department of Computational Mathematics, School of Sciences, China University of Petroleum Qingdao, China, for a period of 26 days (from 09 August to 04 September 2023).
- https://www.sciencedirect.com/science/article/pii/S2666818124001591 Project titled "Elaboration of Haar collocation technique for solution of the nonlinear Volterra-Fredholm fractional integro-differential equations of constant order" supported by the National Science Centre, Poland under Grant No. 2017/27/B/ST8/00351.
- Research collaboration with Chinese collaborator, Liping Gao, Department of Computational Mathematics, School of Sciences, China University of Petroleum Qingdao, China, for a period of 11 days (from 14 June to 24 June 2019).

Research Papers:

2026

1. Shumaila Yasmeen, **Rohul Amin**, Higher order Haar wavelet method for the numerical solution of integro-differential equations, *Engineering Computations*, 2026, https://doi.org/10.1108/EC-10-2025-1120
2. Javed Khan, **Rohul Amin**, Arshed Ali, Imtiaz Ahmad, Efficient Numerical Solution of the Fractional Bagley-Torvik Equation in Fluid-Structure Systems Using Radial Basis Function Collocation, *Facta Universitatis-Series Mathematics and Informatics*, 2026,

2025

1. **Rohul Amin**, Haar wavelet method for the solution of sixth-order boundary value problems, *J. Comput. Nonlinear Dynam, February 10, 2025, 1-13.* https://doi.org/10.1115/1.4067859
2. **Rohul Amin**, Raheem Ullah, Imran Khan, Wojciech Sumelka, Haar wavelet method with Caputo derivative for solution of a system of fractional integro-differential equations, *Journal of Applied Analysis and Computation, 2025, 15(3), 1641-1658.* https://doi.org/*10.11948/20240325*
3. **Rohul Amin**, Muhammad Nawaz, Kamal Shah, and Thabet Abdeljawad, Haar wavelet collocation method for existence and numerical solutions of fourth-order integro-differential equations with bounded coefficients, *Nonlinear Engineering-Modeling and Application*, 2025; 14: 20250125, 1-14, https://doi.org/10.1515/nleng-2025-0125
4. Kamal Shah, Arshad Ali, **Rohul Amin**, Zeeshan Ali, Bahaaeldin Abdalla, Thabet Abdeljawad, Manar Alqudah, Investigating Jerk Phenomenon by Using Fractal-Fractional, Analysis, Fractals (2025) 2540207 (13 pages), https://doi.org/10.1142/S0218348X25402078
5. Shumaila Yasmeen, **Rohul Amin**, Higher order Haar wavelet method for the numerical solution of second-order integro-differential equations, *Applied Mathematics-A Journal of Chinese Universities, 2025, 40(4): 901-915,* http://www.amjcu.zju.edu.cn/amjcub/2020-2029/202504/901-915.pdf

6. **Rohul Amin**, Imran Khan, Suayip Yuzbasi, Haar wavelet method for the solution of fourteenth order boundary value problems, *International Journal of Numerical Modelling: Electronic Networks, Devices and Fields*, **02 September 2025**, https://doi.org/10.1002/jnm.70104

7. **Rohul Amin**, Khursheed J. Ansari, Imdad Ullah, Izaz Ul Haq, Haar Wavelet Method for Solution of Systems of Second- Order Differential Equations and Integro-Differential Equations, *Int. J. Appl. Comput. Math*., (2025) 11:163, 1-21. https://doi.org/10.1007/s40819-025-01965-z

8. Muhammad Faheem, Muhammad Asif, **Rohul Amin**, Nadeem Haider, Fahd Jarad, An investigation of discontinuities in time-dependent 2D and 3D parabolic partial differential equations utilizing collocation methods: a comparative analysis of complex interface problems, *Computational and Applied Mathematics*, (2026) 45:121, 1-32 https://doi.org/10.1007/s40314-025-03539-7

2024

1. Shumaila Yasmeen, **Rohul Amin**, Higher-order Haar wavelet method for solution of fourth-order integro-differential equations, *Journal of Computational Science*, Volume 81, September 2024, 102394, pp 1-10 (**Impact Factor: 3.1)** https://doi.org/10.1016/j.jocs.2024.102394

2. Imran Khan, Khursheed J. Ansari, **Rohul Amin**, Sundas, Hifza Farheen, Application of linear Legendre multi-wavelets collocation method for solution of fourth order boundary value problems, Engineering with Computers, *2024, 1-11* (**Impact Factor: 7.3)** *https://doi.org/10.1007/s00366-024-02078-9*

3. **Rohul Amin,** Muhammad Awais, Kamal Shah, Shah Nazir, Thabet Abdeljawad, Solution of third order nonlinear integro-differential equations with parallel computing for intelligent iot and wireless networks using Haar wavelet method, *Nonlinear Engineering-Modeling and Application, 2024; 13: 20240039, 1—8, https://doi.org/*10.1515/nleng-2024-00392192-8029

4. Sakina Sher Zaman, **Rohul Amin**, Nadeem Haider, Ahmad Aloqaily, Nabil Mlaiki, Haar wavelet collocation technique for numerical solution of porous media equations, *Partial Differential Equations in Applied Mathematics*, Volume 10, 2024, 100728, https://doi.org/10.1016/j.padiff.2024.100728.

5. Muhammad Faheem, Muhammad Asif, Nadeem Haider, **Rohul Amin**, Qasem-Al-Mdallal, Hybrid Haar wavelet and meshfree methods for hyperbolic double interface problems: Numerical implementations and comparative performance analysis, *Partial Differential Equations in Applied Mathematics, 11 (2024) 100773* https://doi.org/10.1016/j.padiff.2024.100773

6. Sakina Sher Zaman, **Rohul Amin**, Nadeem Haider, Ali Akgül, Numerical solution of Fisher's equation through the application of Haar wavelet collocation method, *Numerical Heat Transfer, Part B: Fundamentals*, May 2024, 1-12 https://doi.org/10.1080/10407790.2024.2348129

7. **Rohul Amin**, Nauman Ahmad Sher, Tahir Ali, Mehran Ud Din, Raheem Ullah, Theoretical analysis and numerical solution of linear and nonlinear neutral delay differential equations, *Journal of Science and Arts*, Volume 24, Issue 1, 2024, 133-144. https://doi.org/10.46939/J.Sci.Arts-24.1-a12

2023

1. Kamal Shah, **Rohul Amin**, Thabet Abdeljawad, Utilization of Haar wavelet collocation technique for fractal-fractional order problem, *Heliyon*, Volume 9, Issue 6, June 2023, e17123. https://doi.org/10.1016/j.heliyon.2023.e17123, (**Impact Factor: 3.776, based on JCR 2022**)

2. **Rohul Amin**, Hafsa, Fazli Hadi, Mohamed Altanji, Kottakkaran Sooppy Nisar, Wojciech Sumelka, Solution of variable order nonlinear fractional differential equations using Haar wavelet collocation technique**,** *Fractals*, Vol. 31, No. 2 (2023), 2340022 (9 pages). DOI: 10.1142/S0218348X23400224 (**Impact Factor: 4.555, based on JCR 2022**)

3. Jiraporn Reunsumrit, Kamal Shah, Aziz Khan, **Rohul Amin**, Israr Ahmad, Thanin Sitthiwirattham, Extension of Haar wavelet techniques for Mittag-Leffler type fractional Fredholm integro-differential equations, *Fractals*, Vol. 31, No. 2 (2023), 2340038 (14 pages). DOI: 10.1142/S0218348X23400388 (**Impact Factor: 4.555, based on JCR 2022**)

4. Muhammad Asif, **Rohul Amin**, Nadeem Haider, Imran Khan, Qasem M. Al-Mdallal, Salem Ben Said, A hybrid numerical technique, for solving three- dimensional second-order parabolic partial differential equations, *Fractals*, Vol. 31, No. 2 (2023), 2340018 (16 pages). DOI: 10.1142/S0218348X23400182 (**Impact Factor: 4.555, based on JCR 2022**)

5. Fazli Hadi, **Rohul Amin**, Ilyas Khan, J. Alzahrani, K. S. Nisar, Amnah S. al-Johani, Elsayed Tag Eldin, Nnumerical solutions of nonlinear delay integro-differential equations using Haar wavelet collocation method, *Fractals*, Vol. 31, No. 2 (2023) 2340039 (12 pages), DOI: 10.1142/s0218348x2340039x (**Impact Factor: 4.555, based on JCR 2022**)

6. **Rohul Amin**, Kamal Shah, Muhammad Awais, Ibrahim Mahariq, Kottakkaran Sooppy Nisar, Wojciech Sumelka, Existence and Solution of Third Order Integro-Differential Equations via Haar Wavelet Method, *Fractals*, Vol. 31, No. 2 (2023), 2340037 (12 pages). DOI: 10.1142/S0218348X23400376 (**Impact Factor: 4.555, based on JCR 2022**)

7. Shumaila Yasmeen, Siraj-ul-Islam , **Rohul Amin**, Higher order Haar wavelet method for numerical solution of integral equations, *Computational & Applied Mathematics*, volume 42 (4), 147, (2023), 1-16. https://doi.org/10.1007/s40314-023-02283-0 (**Impact Factor: 2.998, based on JCR 2021**)

8. Arshad A. Khan, Saif Ullah1, Mohamed Altanji, **Rohul Amin**, Nadeem Haider, Ahmed Alshehri , Muhammad Bilal Riaz, A numerical study of spatio temporal COVID-19 vaccine model via finite difference operator splitting and meshless techniques, *Scientific Reports*,| (2023) 13:12108, 1-38. https://doi.org/10.1038/s41598-023-38925-w

9. Khursheed J. Ansari, **Rohul Amin,** Hafsa Nazir, Atif Nawaz, Fazli Hadi, A computational algorithm for solving linear fractional differential equations of variable order, *Filomat*, Vol 37, No 30 (2023) , 1—11 https://journal.pmf.ni.ac.rs/filomat/index.php/filomat/article/view/17885

10. **Rohul Amin,** Kamal Sha, Liping Gao, Thabet Abdeljawad, On existence and numerical solution of higher order nonlinear integro-differential equations involving variable coefficients, *Results in Applied Mathematics, 20 (2023) 100399,* https://doi.org/10.1016/j.rinam.2023.100399

2022

1. **Rohul Amin**, Kamal Shah, Nabil Mlaiki¸ Suayip Yüzbasi, Thabet Abdeljawad, Arshad Hussain, Existence and numerical analysis using Haar wavelet for fourth-order multi-term fractional differential equations, *Computational and Applied Mathematics* (2022) 41:329, 15 pages, https://doi.org/10.1007/s40314-022-02041-8
(**Impact Factor: 2.998, based on JCR 2021**)

2. **Rohul Amin**, Nichaphat Patanarapeelert, Muhammad Awais Barkat, Ibrahim Mahariq, Thanin Sitthiwirattha, Two-dimensional Haar Wavelet Method for Numerical Solution of Delay Partial Differential Equations, *Journal of function spaces*, vol. 2022, Article ID 7519002, 9 pages, 2022. https://doi.org/10.1155/2022/7519002 (**Impact Factor: 1.281, based on JCR 2020**)

3. **Rohul Amin**, Kamal Shah, Hijaz Ahmad, Abdul Hamid Ganie, Abdel-Haleem Abdel-Aty and Thongchai Botmart, Haar wavelet method for solution of variable order linear fractional integro-differential equations, *AIMS Mathematics*, (2022) 7(4): 5431–5443. https://doi.org/10.3934/math.2022301, (**Impact Factor: 2.739, based on JCR 2020**)

4. **Rohul Amin**, Suayip Yuzbasi, Shah Nazir, Efficient numerical scheme for the solution of HIV infection CD4+ T-Cells using Haar wavelet technique, *CMES-Computer Modeling in Engineering and Sciences*, (2022) 130(3):1-15, 05 January 2022 https://doi.org/10.32604/cmes.2022.019154, (**Impact Factor: 1.593, based on JCR 2020**)

5. **Rohul Amin**, Norazak Senu, M. Bilal Hafeez, Noreen Izza Arshad, Ali Ahmadian, Soheil Salahshour, and Wojciech Sumelka, A computational algorithm for the numerical solution of nonlinear fractional integral equations, *Fractals*, Vol. 30, No. 1 (2022), 2240030. https://doi.org/10.1142/S0218348X22400308 (**Impact Factor: 4.536, based on JCR 2020**)

6. Arshad Alam Khan, Saif Ullah, **Rohul Amin**, Optimal control analysis of COVID-19 vaccine epidemic model: A case study, *The European Physical Journal Plus*, **137,** 156 (2022) https://doi.org/10.1140/epjp/s13360-022-02365-8 (**Impact Factor: 3.911, based on JCR 2020**)
7. Kamal Shah, **Rohul Amin**, Guhar Ali, Nabil Mlaiki, Thabet Abdeljawad, Algorithm for the solution of nonlinear variable-order pantograph fractional integro-differential equations using Haar method, *Fractals*, Vol. 30, No. 8 (2022) 2240225 (9 pages) https://doi.org/10.1142/S0218348X22402253, (**Impact Factor: 4.536, based on JCR 2021**)

2021

1. **Rohul Amin**, Kamal Shah, Muhammad Asif, Imran Khan, A computational algorithm for the numerical solution of fractional order delay differential equations, *Applied Mathematics and Computation*, 402 (2021), 125863, 1-10. https://doi.org/10.1016/j.amc.2020.125863 (**Impact Factor: 3.472**, **based on JCR 2020**)

2. **Rohul Amin,** Hijaz Ahmad, Kamal Shah, M. Bilal Hafeez, W. Sumelka, Theoretical and computational analysis of nonlinear fractional integro-differential equations via collocation method, *Chaos, Solitons and Fractals*, 151 (2021) 111252. https://doi.org/10.1016/j.chaos.2021.111252 (**Impact Factor: 5.944**, **based on JCR 2020**)

3. **Rohul Amin,** B. Alshahrani, A. H. Abdel-Aty, Kamal Shah, Wejdan Deebani, Haar wavelet method for solution of distributed order time-fractional differential equations, *Alexandria Engineering Journal*, Volume 60, Issue 3, June 2021, Pages 3295-3303. https://doi.org/10.1016/j.aej.2021.01.039 (**Impact Factor: 3.732, based on JCR 2020**)

4. **Rohul Amin**, Ali Ahmadian, Nasser Aedh Alreshidi, Liping Gao, Mehdi Salimi, Existence and computational results to Volterra-Fredholm integro-differential equations involving delay term, *Computational & Applied Mathematics*, October 18, 2021, 40:276. https://doi.org/10.1007/s40314-021-01643-y (**Impact Factor: 2.239, based on JCR 2020**)

5. M. M. Alqarni, **Rohul Amin**, Kamal Shah, Shah Nazir, Muhammad Awais, Emad E. Mahmoud, Solution of third order linear and nonlinear boundary value problems of integro-differential equations using Haar wavelet method, *Results in Physics*, 25 (2021), 104176. https://doi.org/10.1016/j.rinp.2021.104176 (**Impact Factor: 4.019, based on JCR 2020**)

6. Hussam Alrabaiah, Israr Ahmad, **Rohul Amin**, Kamal Shah, A numerical method for fractional variable order pantograph differential equations based on Haar wavelet, *Engineering with Computers*, 2021, 1-15. https://doi.org/10.1007/s00366-020-01227-0. (**Impact Factor: 3**.938, **based on JCR 2020**)

7. Israr Ahmad, **Rohul Amin**, Thabet Abdeljawad, Kamal Shah, A numerical method for fractional pantograph delay integro-differential equations on Haar wavelet, *International Journal of Applied and Computational Mathematics*, 2021, 7:28, 1-13, 24 January 2021. https://doi.org/10.1007/s40819-021-00963-1

8. **Rohul Amin**, Kamal Shah, Q. M. Al-Mdallal, Imran Khan, Muhammad Asif, Efficient numerical algorithm for the solution of eight order boundary value problems by Haar wavelet method, *International Journal of Applied and Computational Mathematics*, 7:34 (2021), 1-18. https://doi.org/10.1007/s40819-021-00975-x

9. **Rohul Amin,** Ibrahim Mahariq, Kamal Shah, Muhammad Awais, Fahmi Elsayed, Numerical solution of the second order linear and nonlinear integro-differential equations using Haar wavelet method, *Arab Journal of Basic and Applied Sciences,* Volume 28, 2021, Pages 11-19, Published online: 04 Jan 2021. https://doi.org/10.1080/25765299.2020.1863561

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