

Umer Saeed

Associate Professor

NUST Institute of Civil Engineering

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About

Dr. Umer Saeed is working as Associate Professor in the NUST Institute of Civil Engineering. Dr. Umer Saeed has a PhD in Mathematics. Dr. Umer Saeed has published 53 research articles & conference papers having a citation count of 744, carried out 0 projects and filed 0 intellectual property.

Qualifications

PhD in Mathematics	2009 - 2015
NUST, Islamabad , Pakistan	
BS in Mathematics	2005 - 2009
COMSATS Institute of Information Technology , Pakistan	

Experience

Associate Professor	2025- Present
NUST Institute of Civil Engineering	
Associate Professor	2024 - 2025
NUST Institute of Civil Engineering	
Associate Professor	2023 - 2023
NUST Institute of Civil Engineering	
Associate Professor	2021 - 2020
NUST Institute of Civil Engineering	
Associate Professor	2020 - 2024
NUST Institute of Civil Engineering	
Assistant Professor	2015 - 2021
(Do Not Use-Duplicate)NUST Institute of Civil Engineering	
Assistant Professor	2015 - 2015
The University of Poonch Rawalakot , The University of Poonch Rawalakot, Rawalakot, AJK	

Research Articles

Modified Haar wavelet method for linear and nonlinear Caputo fractional variable-order diffusion type equations	2025
Umer Saeed	
Engineering Computations , Pages:21	
Impact Factor: 1.9 Quartile: 2	
DOI: https://doi.org/10.1108/EC-02-2025-0174	
A generalized fractional-order discrete Hahn wavelet method for solving nonlinear fractional differential equations	2025
Umer Saeed Shafaq Idrees	
Engineering Computations , Volume 42 No. 5, Pages 1728-1750	
Impact Factor: 1.9 Quartile: 2	
DOI: https://doi.org/10.1108/EC-11-2024-0994	
A new scheme for the solution of the nonlinear Caputo–Hadamard fractional differential equations	2024
Umer Saeed Mujeeb ur Rehman	
Alexandria Engineering Journal , Volume: 105, Pages 56-69	
Impact Factor: 6.200 Quartile: 1 Citations: 3	

DOI: 10.1016/j.aej.2024.06.050

A method for solving Caputo–Hadamard fractional initial and boundary value problems <i>Umer Saeed</i> <i>Mathematical Methods in the Applied Sciences</i> , Volume 46, Issue13, Pages 13907-13921 Impact Factor: 2.9 Quartile: 1 Citations: 8 DOI: https://doi.org/10.1002/mma.9297	2023
A generalized CAS wavelet method for solving ψ-Caputo fractional differential equations <i>Umer Saeed</i> <i>Engineering Computations</i> , Volume 40, Issue 06, Pages 1351-1370 Impact Factor: 1.6 Quartile: 3 Citations: 6 DOI: https://doi.org/10.1108/EC-12-2022-0711	2023
Stability, Discretization, and Bifurcation Analysis for a Chemical Reaction System <i>Umer Saeed Qamar Din</i> <i>Match</i> , Volume 90, Issue 1, Pages 151-174 Impact Factor: 2.633 Quartile: 2 Citations: 10 DOI: 10.46793/match.90-1.151D	2023
Modification of Nicholson–Bailey model under refuge effects with stability, bifurcation, and chaos control <i>Umer Saeed Qamar Din Waqas Ishaque Muhammad Asad Iqbal</i> <i>Journal of Vibration and Control</i> , Volume 28, Issue (23-24), Pages 3524-3538 Impact Factor: 2.633 Quartile: 2 Citations: 11 DOI: https://doi.org/10.1177/10775463211034021	2022
Krawtchouk wavelets method for solving Caputo and Caputo–Hadamard fractional differential equations <i>Umer Saeed Shafaq Idrees Khurram Javid Qamar Din</i> <i>Mathematical Methods in the Applied Sciences</i> , Volume 45, Issue 17, Pages 11331-11354 Impact Factor: 3.007 Quartile: 1 Citations: 8 DOI: https://doi.org/10.1002/mma.8452	2022
Vieta–Lucas wavelets method for fractional linear and nonlinear delay differential equations <i>Shafaq Idrees Umer Saeed</i> <i>Engineering Computations</i> , Volume 39, Issue 9, Pages 3211-3231 Impact Factor: 1.675 Quartile: 3 Citations: 8 DOI: https://doi.org/10.1108/EC-02-2022-0094	2022
Generalized sine–cosine wavelet method for Caputo–Hadamard fractional differential equations <i>Shafaq Idrees Umer Saeed</i> <i>Mathematical Methods in the Applied Sciences</i> , Volume 45, Issue 16, Pages 9602-9621 Impact Factor: 3.007 Quartile: 1 Citations: 10 DOI: https://doi.org/10.1002/mma.8325	2022
A generalized Taylor operational matrix method for ψ-fractional differential equations <i>Mujeeb ur Rehman Momna Tariq Umer Saeed</i> <i>Mathematical Methods in the Applied Sciences</i> , Pages 1-23 Impact Factor: 3.007 Quartile: 1 Citations: 1 DOI: 10.1002/mma.8796	2022
Porosity effects on the peristaltic flow of biological fluid in a complex wavy channel <i>Umer Saeed Khurram Javid Zeeshan Asghar Muhammad Waqas</i> <i>Pramana - Journal of Physics</i> , Volume 96, Article Number: 2 Impact Factor: 2.219 Quartile: 2 Citations: 13 DOI: 10.1007/s12043-021-02241-7	2022
A wavelet method for solving Caputo–Hadamard fractional differential equation <i>Umer Saeed</i> <i>Engineering Computations</i> , Volume 39, No. 2, Pages 650-671 Impact Factor: 1.593 Quartile: 3 Citations: 5 DOI: 10.1108/EC-03-2021-0165	2022
Fractional Gegenbauer wavelets operational matrix method for solving nonlinear fractional differential equations	2021

<p><i>Umer Saeed Sajjad Haider Qamar Din Khurram Javid Mujeeb ur Rehman</i> <i>Mathematical Sciences</i> , Pages 1-15</p> <p>Impact Factor: 2.070 Quartile: 1 Citations: 13 DOI: https://doi.org/10.1007/s40096-021-00376-7</p>	
<p>Green–Haar wavelets method for generalized fractional differential equations</p> <p><i>Mujeeb-ur-Rehman Dumitru Baleanu Jehad Alzabut Muhammad Ismail Umer Saeed</i> <i>Advances in Difference Equations</i> , Volume 2020, Article Number: 515</p> <p>Impact Factor: 2.803 Quartile: 1 Citations: 34 DOI: 10.1186/s13662-020-02974-6</p>	2020
<p>ψ-Haar wavelets method for numerically solving fractional differential equations</p> <p><i>Amjid Ali Teruya Minamoto Umer Saeed Mujeeb ur Rehman</i> <i>Engineering Computations</i> , Volume 38, Issue 2, Pages 1037-1056</p> <p>Impact Factor: 1.593 Quartile: 3 Citations: 3 DOI: 10.1108/EC-01-2020-0050</p>	2020
<p>2D numerical modeling of two dam-break flood model studies in an urban locality</p> <p><i>Sajjad Haider Umer Saeed Muhammad Shahid</i> <i>Arabian Journal of Geosciences</i>, Volume 13, Article Number 682</p> <p>Impact Factor: 1.827 Quartile: 3 Citations: 6 DOI: https://doi.org/10.1007/s12517-020-05709-9</p>	2020
<p>Discrete-Time Predator-Prey Interaction with Selective Harvesting and Predator Self-Limitation</p> <p><i>Zhihua Chen Qamar Din Muhammad Rafaqat Umer Saeed Muhammad Bilal Ajaz</i> <i>Journal of Mathematics</i> , Volume 2020, Article ID 6737098, 13 pages</p> <p>Impact Factor: 0.971 Quartile: 2 Citations: 6 DOI: https://doi.org/10.1155/2020/6737098</p>	2020
<p>Green-Haar method for fractional partial differential equations</p> <p><i>Muhammad Ismail Umer Saeed Mujeeb-ur-Rehman</i> <i>Engineering Computations</i> , Volume 37, Issue 4, Pages 1473-1490</p> <p>Impact Factor: 1.322 Quartile: 3 DOI: 10.1108/EC-05-2019-0234</p>	2020
<p>Bifurcation analysis and chaos control in discrete-time modified Leslie–Gower prey harvesting model</p> <p><i>Umer Saeed Muhammad Israr Muhammad Bilal Ajaz Qamar Din Irfan Ali</i> <i>Advances in Difference Equations</i> , Volume 2020, Article Number 45</p> <p>Impact Factor: 2.421 Quartile: 1 Citations: 21 DOI: https://doi.org/10.1186/s13662-020-2498-1</p>	2020
<p>Approximate Solutions for Fractional Boundary Value Problems via Green-CAS Wavelet Method</p> <p><i>Muhammad Ismail Jehad Alzabut Umer Saeed Mujeeb-ur-Rehman</i> <i>Mathematics</i> , Vol.7(12), Article Number 1164</p> <p>Impact Factor: 1.747 Quartile: 1 Citations: 28 DOI: https://doi.org/10.3390/math7121164</p>	2019
<p>Sine-cosine wavelet method for fractional oscillator equations</p> <p><i>Amir Saeed Umer Saeed</i> <i>Mathematical Methods in the Applied Sciences</i> , Volume 42, Issue18, Pages 6960-6971</p> <p>Impact Factor: 1.626 Quartile: 2 Citations: 14 DOI: 10.1002/mma.5802</p>	2019
<p>Bifurcation analysis and chaos control in a discrete-time plant quality and larch budmoth interaction model with Ricker equation</p> <p><i>Irfan Ali Qamar Din Umer Saeed</i> <i>Mathematical Methods in the Applied Sciences</i> , Volume 42, Issue 18, Pages 7395-7410</p> <p>Impact Factor: 1.626 Quartile: 2 Citations: 12 DOI: 10.1002/mma.5857</p>	2019
<p>A modified method for solving non-linear time and space fractional partial differential equations</p> <p><i>Umer Saeed Muhammad Umair</i> <i>Engineering Computations</i> , Volume 36, Issue 7, Pages 2162-2178</p> <p>Impact Factor: 1.322 Quartile: 2 Citations: 5 DOI: 10.1108/EC-01-2019-0011</p>	2019

<p>Generalized fractional order Chebyshev wavelets for solving nonlinear fractional delay-type equations</p> <p><i>Amir Saeed Umer Saeed</i></p> <p><i>International Journal of Wavelets, Multiresolution and Information Processing</i>, Volume 17, Issue 3, Article Number 1950014</p> <p>Impact Factor: 0.739 Quartile: 4 Citations: 12</p> <p>DOI: 10.1142/S0219691319500140</p>	2019
<p>Sine–cosine wavelets operational matrix method for fractional nonlinear differential equation</p> <p><i>Umer Saeed</i></p> <p><i>International Journal of Wavelets, Multiresolution and Information Processing</i>, Volume 17, Issue No. 04, Article 1950026</p> <p>Impact Factor: 0.739 Quartile: 4 Citations: 4</p> <p>DOI: 10.1142/S0219691319500267</p>	2019
<p>Bifurcation analysis and chaos control in discrete-time system of three competing species</p> <p><i>Umer Saeed Irfan Ali Qamar Din</i></p> <p><i>Arabian Journal of Mathematics</i>, Volume 8, Issue 1, Pages 1-14</p> <p>Impact Factor: N/A Citations: 23</p> <p>DOI: https://doi.org/10.1007/s40065-018-0207-7</p>	2019
<p>Differential quadrature method for nonlinear fractional partial differential equations</p> <p><i>Umer Saeed Qamar Din Mujeeb Ur Rehman</i></p> <p><i>Engineering Computations</i> , Volume 35, Issue 6, Pages 2349-2366</p> <p>Impact Factor: 1.246 Quartile: 3 Citations: 9</p> <p>DOI: 10.1108/EC-04-2018-0179</p>	2018
<p>CAS Wavelet Picard Technique for Burger?s?Huxley and Burgers Equation</p> <p><i>Umer Saeed Khadija Gilani</i></p> <p><i>International journal of applied and Computational Mathematics</i>, NULL</p> <p>Impact Factor: 0 Citations: 7</p> <p>DOI: 10.1007/s40819-018-0565-z</p>	2018
<p>Neimark?Sacker bifurcation and chaos control in discrete-time predator?prey model with parasites</p> <p><i>Umer Saeed Umer Saeed Irfan Ali Qamar Din</i></p> <p><i>Nonlinear Dynamics</i> , Pages 1–10</p> <p>Impact Factor: 4.604 Quartile: 1 Citations: 11</p> <p>DOI: 10.1007/s11071-018-4507-4</p>	2018
<p>CAS wavelet quasi-linearization technique for the generalized Burger?Fisher equation</p> <p><i>Umer Saeed Khadija Gilani</i></p> <p><i>Mathematical Sciences</i> , NULL</p> <p>Impact Factor: 0 Citations: 9</p> <p>DOI: 10.1007/s40096-018-0245-5</p>	2018
<p>Haar Adomian Method for the Solution of Fractional Nonlinear Lane-Emden Type Equations Arising in Astrophysics</p> <p><i>Umer Saeed</i></p> <p><i>TAIWANESE JOURNAL OF MATHEMATICS</i> , NULL</p> <p>Impact Factor: 0.718 Quartile: 2 Citations: 19</p> <p>DOI: 10.11650/tjm/7969</p>	2017
<p>Bifurcation analysis and chaos control in a host-parasitoid model</p> <p><i>Qamar Din Umer Saeed</i></p> <p><i>Mathematical Methods in the Applied Sciences</i>, Volume 40, Issue 14, Pages 5391-5406</p> <p>Impact Factor: 1.180 Quartile: 2 Citations: 42</p> <p>DOI: 10.1002/mma.4395</p>	2017
<p>Haar wavelet operational matrix method for system of fractional nonlinear differential equations</p> <p><i>Umer Saeed</i></p> <p><i>International Journal of Wavelets, Multiresolution and Information Processing</i>, Volume 15, Issue 5, Article Number 1750043</p> <p>Impact Factor: 0.540 Quartile: 4 Citations: 5</p> <p>DOI: 10.1142/S0219691317500436</p>	2017
<p>CAS Picard method for fractional nonlinear differential equation</p> <p><i>Umer Saeed</i></p> <p><i>Applied Mathematics and Computation</i> , Volume: 307, Pages: 102-112</p> <p>Impact Factor: 2.300 Quartile: 1 Citations: 23</p>	2017

DOI: 10.1016/j.amc.2017.02.044	
A quadrature method for numerical solutions of fractional differential equations <i>Mujeeb ur Rehman Amna Idrees Umer Saeed</i> <i>Applied Mathematics and Computation</i> , Volume 307, Pages 38-49 Impact Factor: 2.3 Quartile: 1 Citations: 27 DOI: 10.1016/j.amc.2017.02.053	2017
FRACTIONAL-ORDER VECTOR-HOST DISEASE MODEL <i>Umer Saeed Muhammad Ozair Takasar Hussain Qamar Din</i> <i>Dynamics of Continuous, Discrete and Impulsive Systems Series B: Applications & Algorithms</i> , NULL Impact Factor: 0 DOI: http://watsci.org/dcdis/volumes/contents2017/v24n2b.html	2017
Radial basis function networks for delay differential equation <i>Umer Saeed</i> <i>Arabian Journal of Mathematics</i> , Volume 5, Pages 139-144 Impact Factor: - Citations: 1 DOI: doi:10.1007/s40065-016-0147-z	2016
Modified Variational Iteration Method for Sine-Gordon Equation <i>Umer Saeed</i> <i>TEM Journal</i> , Volume 5, Issue 3, Pages 305-312 Impact Factor: - DOI: DOI:10.18421/TEM53-09	2016
Qualitative behavior of a smoking model <i>Umer Saeed Muhammad Ozair Takasar Hussain Qamar Din</i> <i>Advances in Difference Equations</i> , Volume:2016, Issue:1, Article Number:96 Impact Factor: 0.335 Quartile: 4 Citations: 28 DOI: 10.1186/s13662-016-0830-6	2016
Qualitative Behaviour of Generalised Beddington Model <i>Qamar Din Muhammad Adil Khan Umer Saeed</i> <i>Zeitschrift Fur Naturforschung Section A-A Journal of Physical Sciences</i> , Volume 71, Issue 2, Pages 145-155 Impact Factor: 1.432 Quartile: 2 Citations: 19 DOI: DOI:10.1515/zna-2015-0410	2016
Gegenbauer wavelets operational matrix method for fractional differential equations <i>Mujeeb ur Rehman Umer Saeed</i> <i>Journal of the Korean Mathematical Society</i> , Volume: 52, Issue: 5, Pages: 1069-1096 Impact Factor: 0.356 Quartile: 4 Citations: 60 DOI: 10.4134/JKMS.2015.52.5.1069	2015
Modified Chebyshev wavelet methods for fractional delay-type equations <i>Mujeeb ur Rehman Umer Saeed Muhammad Asad Iqbal</i> <i>Applied Mathematics and Computation</i> , Volume 264, Pages 431-442 Impact Factor: 1.345 Quartile: 1 Citations: 60 DOI: 10.1016/j.amc.2015.04.113	2015
Haar wavelet Picard method for fractional nonlinear partial differential equations <i>Mujeeb ur Rehman Umer Saeed</i> <i>Applied Mathematics and Computation</i> , Volume: 264, Pages: 310-322 Impact Factor: 1.345 Quartile: 1 Citations: 43 DOI: 10.1016/j.amc.2015.04.096	2015
Modified Laguerre Wavelets Method for delay differential equations of fractional-order <i>Muhammad Asad Iqbal Umer Saeed Syed Tauseef Mohyud-Din</i> <i>Egyptian Journal of Basic and Applied Sciences</i> , Volume 2, Issue 1, Pages 50-54 Impact Factor: - DOI: doi:10.1016/j.ejbas.2014.10.004	2015
Haar wavelet operational matrix method for fractional oscillation equations <i>Umer Saeed Mujeeb ur Rehman</i> <i>International Journal of Mathematics and Mathematical Sciences</i> , Volume 2014, Article ID 174819, 8 pages	2014

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DOI: <https://doi.org/10.1155/2014/174819>
- Hermite Wavelet Method for Fractional Delay Differential Equations** 2014
Umer Saeed Mujeeb ur Rehman
Journal of Difference Equations, Volume 2014, Article ID: 359093
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DOI: 10.1155/2014/359093
- Haar Wavelet-Picard technique for fractional order nonlinear initial and boundary value problems** 2014
Umer Saeed Mujeeb ur Rehman Muhammad Asad Iqbal
Scientific Research and Essays, Volume 9(12), Pages 571-580
Impact Factor: N/A
DOI: <https://doi.org/10.5897/SRE2013.5777>
- Wavelet-Galerkin Quasilinearization Method for Nonlinear Boundary Value Problems** 2014
Mujeeb ur Rehman Umer Saeed
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Umer Saeed Mujeeb ur Rehman
Applied Computational Intelligence and Soft Computing, Volume 2014, Article ID 454231, 5 Pages
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Umer Saeed Muhammad Ozair Takasar Hussain
Advanced Studies in Biology, Volume 6, No. 2, Pages 47-56
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Umer Saeed Mujeeb ur rehman
Applied Mathematics and Computation, Volume: 220, Pages: 630-648
Impact Factor: 1.6 | **Quartile:** 1 | **Citations:** 65
DOI: 10.1016/j.amc.2013.07.018
- Awareness and Risk Factors Associated with Barbers in Transmission of Hepatitis B and C from Pakistani Population: Barber's Role in Viral Transmission** 2010
Yasir Waheed Umer Saeed Sher Zaman Safi Waqas Nasir Chaudhry Ishtiaq Qadri
Asian Biomedicine, Volume 4, No. 3, Pages 435-442
Impact Factor: 0.248 | **Quartile:** 4 | **Citations:** 28
DOI: 10.2478/abm-2010-0053