Adnan Aslam

Associate Professor

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About

Dr. Adnan Aslam is working as Associate Professor in the School of Electrical Engineering and Computer Science. Dr. Adnan Aslam has a PhD in Mathematics. Dr. Adnan Aslam has published 28 research articles & conference papers having a citation count of 154, carried out 0 projects and filed 0 intellectual property.

Qualifications

PhD in Mathematics NUST, Islamabad , Pakistan	2009 - 2014
MPhil in Mathematics NUST, Islamabad , Pakistan	2007 - 2009
MSc in Mathematics University of the Punjab , Pakistan	2004 - 2006
BSc in Maths-A, Maths-B,Physics University of the Punjab , Pakistan	2003 - 2005
Experience	

2021- Present
2020 - 2021
2017 - 2020
2014 - 2017

Awards

2007

Research Articles

A fractional-operator approach for unraveling rabies disease dynamics in animal population

2025

Marya Zainab Adnan Aslam Takasar Hussain Muhammad Ozair Ahmed M. Shehata Kottakkaran Sooppy Nisar M. Abdalla Alexandria Engineering Journal, Volume:124, Pages 540-549

Impact Factor: 6.200 | Quartile: 1 | Citations: 1 DOI: https://doi.org/10.1016/j.aej.2025.03.082

Mathematical study of infectious disease of pines caused by bark beetles

2025

Takasar Hussain Muhammad Ozair Adnan Aslam Maham Afaq Muhammad Tanveer Muhammad Awais J. F. Gómez-Aguilar

Modeling Earth Systems and Environment, Volume:11, Issue:2, Article Number 149

Impact Factor: 2.700 | Quartile: 3

DOI: https://doi.org/10.1007/s40808-025-02305-2

Dynamics of rabies disease model under Atangana-Baleanu fractional derivative

2025

Marya Zainab Adnan Aslam Takasar Hussain Muhammad Ozair Alexandria Engineering Journal, Volume 115, Pages 390-400

Impact Factor: 6.200 | Quartile: 1

Study of COVID-19 cases with real data analysis Wedad Albalawi Kottakkaran Sooppy Nisar Nadir Omer Adnan Aslam Takasar Hussain Muhammad Ozair Shahid Hussain Nida Hameed Alexandria Engineering Journal, Volume:113, Page:672-680 Impact Factor: 6.200 Quartile: 1 DOI: https://doi.org/10.1016/j.aej.2024.11.031	2025
Mathematical analysis of Lassa fever epidemic with real data Adnan Aslam Takasar Hussain Muhammad Ozair Arfah Hafeez Wedad Albalawi Mohammed Zakarya Nadir Omer Alexandria Engineering Journal, Volume:112, Page:672-687 Impact Factor: 6.200 Quartile: 1 Citations: 2 DOI: https://doi.org/10.1016/j.aej.2024.10.110	2025
Study of fractional order rabies transmission model via Atangana– Baleanu derivative Adnan Aslam Sidra Shafiq Marya Zainab Takasar Hussain Muhammad Ozair Salah Boulaaras Scientific Reports, Volume 14, Article Number: 25875 Impact Factor: 3.800 Quartile: 1 Citations: 2 DOI: https://doi.org/10.1038/s41598-024-77282-0	2024
Mathematical modelling approach to cholera transmission with vaccination strategy Adnan Aslam Wedad Albalawi Kottakkaran Sooppy Nisar Muhammad Ozair Takasar Hussain Muhammad Shoaib H.Y. Zahran Alexandria Engineering Journal, Volume 75, Pages 191-207 Impact Factor: 6.8 Quartile: 1 Citations: 3 DOI: https://doi.org/10.1016/j.aej.2023.05.053	2023
Mathematical study of nematode transmission in pine trees through bark beetles Takasar Hussain Muhammad Ozair Adnan Aslam Sajid Jameel Maryum Nawaz Abdel-Haleem Abdel-Aty Chaos, Solitons and Fractals, Volume 161, Article Number 112297 Impact Factor: 9.922 Quartile: 1 DOI: https://doi.org/10.1016/j.chaos.2022.112297	2022
Management of pine forests by assessment of insect pests and nematodes Muhammad Ozair Takasar Hussain Adnan Aslam Rabbisa Anees Muhammad Tanveer J. F. Gomez-Aguilar European Physical Journal Plus, Volume 136, Article Number 916 Impact Factor: 3.758 Quartile: 2 Citations: 8 DOI: https://doi.org/10.1140/epjp/s13360-021-01934-7	2021
Transmission and epidemiological trends of pine wilt disease: Findings from sensitivity to optimality Adnan Aslam Muhammad Ozair Takasar Hussain Aziz Ullah Awan Fatima Tasneem Nehad Ali Shah Results in Physics, Volume 26, Article Number 104443 Impact Factor: 4.565 Quartile: 2 Citations: 8 DOI: https://doi.org/10.1016/j.rinp.2021.104443	2021
Dynamical aspects of pine wilt disease and control measures Takasar Hussain Adnan Aslam Muhammad Ozair Fatima Tasneem J.F. Gomez-Aguilar Chaos, Solitons and Fractals, Volume 145, Article Number 110764 Impact Factor: 9.922 Quartile: 1 Citations: 23 DOI: https://doi.org/10.1016/j.chaos.2021.110764	2021
Charged particle dynamics in the surrounding of Schwarzschild anti-de Sitter black hole with topological defect immersed in an external magnetic field Sidra Shafiq Saqib Hussain Muhammad Ozair Adnan Aslam Takasar Hussain European Physical Journal C, Volume 80, Article number: 744 Impact Factor: 4.590 Quartile: 2 Citations: 13 DOI: https://doi.org/10.1140/epjc/s10052-020-8314-y	2020
Analysis of a mathematical model for the pine wilt disease using a graph theoretic approach Jhoana Patricia Romero-Leiton Aziz Ullah Awan Attia Sharif Takasar Hussain Muhammad Ozair Adnan Aslam Farhad Ali Applied Sciences, Volume 22, Pages 189-204 Impact Factor: N/A DOI: https://www.emis.de/journals/APPS/v22/A22-ro-ZAH33.pdf	2020
Bio-inspired Analytical Heuristics to Study pine Wilt Disease Model Muhammad Ozair Takasar Hussain Aziz Ullah Awan Adnan Aslam Riaz Ahmad Khan Farhad Ali Fatima Tasneem Scientific Reports, Volume10, Issue 1, Article number: 3534	2020

Impact Factor: $4.380 \mid$ Quartile: $1 \mid$ Citations: 9

DOI: 10.1038/s41598-020-60088-1

Dynamics of swine influenza model with optimal control

Takasar Hussain Muhammad Ozair Kazeem Oare Okosun Muhammad Ishfaq Aziz Ullah Awan Adnan Aslam

Advances in Difference Equations, Volume: 2019, Issue: 1, Article Number: 508

Impact Factor: 2.421 | Quartile: 1 | Citations: 8

DOI: DOI: 10.1186/s13662-019-2434-4

Charged particle dynamics in the vicinity of black hole from vector-tensor theory of gravity immersed

2019

2019

in an external magnetic field

Azeem Nazar Saqib Hussain Takasar Hussain Muhammad Ozair Adnan Aslam

Results in Physics, Volume: 14

Impact Factor: 4.019 | **Quartile:** 1 | **Citations:** 3 **DOI:** https://doi.org/10.1016/j.rinp.2019.102418

Solution of ordinary differential equations and Volterra integral equation of first and second kind with

2018

bulge and logarithmic functions using Laplace transform

Naila Bilqees Adnan Aslam Zahida Perveen Zulfiqar Ahmed International Journal of Advanced and Applied Sciences, NULL

Impact Factor: 0

DOI: 10.21833/ijaas.2018.09.012

Algebraic properties of first integrals for systems of second-order ordinary differential equations of

2016

maximal symmetry

K.S. Mahomed E. Momoniat Adnan Aslam

QUAESTIONES MATHEMATICAE, Volume 39, Issue, 6 Page: 715-726

Impact Factor: 0.398 | Quartile: 4 DOI: 10.2989/16073606.2015.1134698

Invariant linearization criteria for a three-dimensional dynamical system of second-order ordinary

2016

differential equations and applications

Adnan Aslam F.M.Mahomed Asghar Qadir

International Journal of Non-Linear Mechanics, Volume 78, Pages 9-16

Impact Factor: 2.074 | Quartile: 2 **DOI:** 10.1016/j.ijnonlinmec.2015.09.016

Symmetry classification and joint invariants for the scalar linear (1 + 1) elliptic equation

2015

2013

F.M. Mahomed A.G. Johnpillai Adnan Aslam

Communications in Nonlinear Science and Numerical Simulation, Volume 25, Issue 1-3, Pages 84-93

Impact Factor: 2.834 | Quartile: 1 | Citations: 2

DOI: 10.1016/j.cnsns.2014.11.022

Cotton-Type and Joint Invariants for Linear Elliptic Systems

F. M. Mahomed Adnan Aslam F. M. Mahomed

Scientific World Journal, Volume 2013, Article ID 540705, 6 pages

 $\textbf{Impact Factor: } 1.219 \mid \textbf{Quartile: } 2 \mid \textbf{Citations: } 2$

DOI: 10.1155/2013/540705

Noether gauge symmetry approach in quintom cosmology

2013

Davood Momeni Ratbay Myrzakulov Muhammad Raza Adnan Aslam Davood Momeni Ratbay Myrzakulov Muhammad Raza Mubasher Jamil Muneer Ahmad Rashid

Astrophysics and Space Science, Volume 348, Issue 2, Pages 533-540

Impact Factor: 2.401 | Quartile: 2 | Citations: 17

DOI: 10.1007/s10509-013-1569-0

Noether gauge symmetry for the Bianchi type I model in f (T) gravity

Ratbay Myrzakulov Adnan Aslam Ratbay Myrzakulov Mubasher Jamil

Physica Scripta, Volume 88, Issue 2, Article Number 025003

Impact Factor: 1.296 | Quartile: 3 | Citations: 19

DOI: 10.1088/0031-8949/88/02/025003

Noether Gauge Symmetry of Modified Teleparallel Gravity Minimally Coupled with a Canonical Scalar

2013

2013

Field

Davood Momeni Ratbay Myrzakulov Adnan Aslam Davood Momeni Ratbay Myrzakulov M Jamil

Canadian Journal of Physics, Volume 91, Issue 1, Pages 93-97

Impact Factor: 0.928 | Quartile: 3 | Citations: 24

DOI: 10.1139/cjp-2012-0281

Noether Symmetries of the Area-Minimizing Lagrangian

Adnan Aslam Asghar Qadir

Journal of Applied Mathematics, Volume 2012, Article ID 532690, 14 pages

Impact Factor: 0.834 | Quartile: 2 | Citations: 10

DOI: 10.1155/2012/532690

Conference Proceedings

Invariants for a system of two linear hyperbolic equations by complex methods

Adnan Aslam F. M. Mahomed Asghar Qadir Muhammad Safdar

The 13th AIMS Conference on Dynamical Systems, Differential Equations and Applications, res.country (233,)

Citations: N/A

DOI: https://aimsconference.org/conferences/2023/abstracts-compressed-2023-05-22-0937.pdf

Differential Invariants for Two and Three Dimensional Linear Parabolic Equations

Adnan Aslam Asghar Qadir Muhammad Safdar

International Conference on Symmetries, Differential Equations and Applications, res.country(224,)

Citations: N/A

DOI: 10.1007/978-3-030-01376-9_9

Book Chapters

Lie equivalence transformations and differential invariants for a generalized third-order Schrödinger partial differential equation with variable coefficients using real decomposition

Marya Zainab Adnan Aslam Muhammad Safdar

In: Analytical Methods in Differential Equations, Pages 14-21

Citations: N/A

DOI: https://doi.org/10.1515/9783111570518-002

2012

2023

2017

2025