

Hina Sadaf

Associate Professor

College of Electrical & Mechanical Engineering

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About

Dr. Hina Sadaf is working as Associate Professor in the College of Electrical & Mechanical Engineering. Dr. Hina Sadaf has a PhD in Mathematics. Dr. Hina Sadaf has published 45 research articles & conference papers having a citation count of 961, carried out 1 projects and filed 0 intellectual property.

PhD in Mathematics Quaid-i-Azam University , Pakistan	2013 - 2016
MPhil in Mathematics Quaid-i-Azam University , Pakistan	2010 - 2012
MSc in Mathematics International Islamic University , Pakistan	2007 - 2009
BSc in Mathematics University of the Punjab , Pakistan	2004 - 2006

Associate Professor College of Electrical & Mechanical Engineering	2023- Present
Assistant Professor College of Electrical & Mechanical Engineering	2020 - 2023
Assistant Professor College of Electrical & Mechanical Engineering	2017 - 2020
Assistant Professor College of Electrical & Mechanical Engineering	2017 - 2017

National Projects	
Fluid flow analysis with addition of nanoparticles by means of contraction and expansion Funding Agency: HEC Amount: PKR 346,000.00 Status: Completed	2017

International Projects	
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Research Articles	
Complex cilia electroosmotic modulated flow analysis with rheology of fractional-order fluid model Shagufta Ijaz Hina Sadaf ZAMM Zeitschrift fur Angewandte Mathematik und Mechanik, Volume:105, Issue:5, Article Number e70069 Impact Factor: 2.300 Quartile: 1 DOI: DOI: 10.1002/zamm.70069	2025
Creeping flow of Carreau fluid through a porous slit Rabia Malik Hina Sadaf Tahreem Asif Soft Computing , Volume:28, Issue:23, Pages 13039-13051 Impact Factor: 3.100 Quartile: 2	2024

DOI: <https://doi.org/10.1007/s00500-024-10366-1>

Metachronal wave impact in a channel flow of Prandtl fluid model <i>Dr. Hina Sadaf Dr Zeeshan Asghar Dr Naheeda Iftikhar</i> <i>International Communications in Heat and Mass Transfer</i> , Volume: 155, Article Number: 107464 Impact Factor: 7 Quartile: 1 Citations: 9 DOI: 10.1016/j.icheatmasstransfer.2024.107464	2024
Mathematical modeling of Cross-fluid model in a peristaltic channel with viscous dissipation and MHD effects <i>Hina Sadaf Zeeshan Asghar Shagufta Ijaz</i> <i>ZAMM Zeitschrift fur Angewandte Mathematik und Mechanik</i> , Pages 1-8 Impact Factor: 2.300 Quartile: 1 Citations: 2 DOI: 10.1002/zamm.202300334	2024
Electroosmotic modulated Newtonian hybrid nanofluid flowing through a peristaltic tube <i>Naheeda Iftikhar Hina Sadaf Sohail Nadeem</i> <i>Journal of Thermal Analysis and Calorimetry</i> , Volume 149, Pages 2683-2695 Impact Factor: 4.400 Quartile: 1 Citations: 14 DOI: 10.1007/s10973-023-12847-1	2024
Entropy production in the swirling flow of viscous nanofluid over a stretching cylinder embedded in a porous medium <i>Rabia Malik Hina Sadaf Saamia raheem</i> <i>Computational Particle Mechanics</i> , Pages 1-12 Impact Factor: 3.3 Quartile: 1 Citations: 3 DOI: https://doi.org/10.1007/s40571-023-00667-x	2023
Electro-osmotically generalized bio-rheological fluid flowing through a ciliated passage <i>Shagufta Ijaz Rafia Hina Sadaf</i> <i>Materials Science and Engineering: B</i> , Volume 290, Article Number 116340 Impact Factor: 3.407 Quartile: 2 Citations: 11 DOI: doi.org/10.1016/j.mseb.2023.116340	2023
Generalized complex cilia tip modeled flow through an electroosmotic region <i>S. Ijaz M. Abdullah Hina Sadaf S. Nadeem</i> <i>Journal of Central South University</i> , Volume:30, Issue:4, Page:1217-1230 Impact Factor: 2.392 Quartile: 2 Citations: 13 DOI: 10.1007/s11771-023-5305-9	2023
Mathematical modelling of modified hybrid nanofluid in a peristaltic diverging tube with MHD and convective boundary conditions <i>Naheeda Iftikhar Hina Sadaf</i> <i>Computational Particle Mechanics</i> , Pages 1-15 Impact Factor: 3.116 Quartile: 1 Citations: 13 DOI: https://doi.org/10.1007/s40571-023-00553-6	2023
Cilia-driven flow analysis of cross fluid model in a horizontal channel <i>Hina Sadaf Zeeshan Asghar Naheeda Iftikhar</i> <i>Computational Particle Mechanics</i> , Pages 1-8 Impact Factor: 3.116 Quartile: 1 Citations: 35 DOI: https://doi.org/10.1007/s40571-022-00539-w	2022
Complex wave's impact on the cilia-generated flow in a vertical tube with an endoscope <i>Hina Sadaf Shagufta Ijaz</i> <i>Waves in Random and Complex Media</i> , Taylor and Francis Ltd. Impact Factor: 4.051 Quartile: 2 Citations: 9 DOI: https://doi.org/10.1080/17455030.2022.2152902	2022
Cattaneo–Christov heat flux model impact for Carreau fluid flow past a stretched cylinder with velocity slip and convective boundary conditions <i>Rabia Malik Hina Sadaf Zaib un Nisa</i> <i>Journal of Thermal Analysis and Calarometry</i> , Vol:147, Pages14621-14630 Impact Factor: 4.755 Quartile: 1 Citations: 4 DOI: https://doi.org/10.1007/s10973-022-11659-z	2022

Nano-mediated blood flow rheology under the convective heat transfer rate in an tapered region <i>S. Ijaz Hina Sadaf E. N. Meraj</i> <i>Waves in Random and Complex Media</i> , Pages 1-18 Impact Factor: 4.051 Quartile: 2 Citations: 4 DOI: https://doi.org/10.1080/17455030.2022.2117877	2022
Biomechanics of cilia-assisted flow with hybrid nanofluid phenomena impulses by convective conditions <i>S. Ijaz N. Nasir Hina Sadaf R. Mehmood</i> <i>Waves in Random and Complex Media</i> , Pages 1-25 Impact Factor: 4.051 Quartile: 2 Citations: 21 DOI: https://doi.org/10.1080/17455030.2022.2085344	2022
Melting heat transfer by forced convection of Sisko fluid <i>Asif Munir Rabia Malik Hina sadaf Masood khan</i> <i>Waves in Random and Complex Media</i> , Pages 1-12 Impact Factor: 4.853 Quartile: 2 DOI: https://doi.org/10.1080/17455030.2022.2064560	2022
Consequences of gold nanoparticles of MHD blood flow in a wavy tube with wall properties <i>Naheeda Iftikhar Hina Sadaf Abdul Rehman</i> <i>Waves in Random and Complex Media</i> , Pages 1-17 Impact Factor: 4.853 Quartile: 2 Citations: 5 DOI: 10.1080/17455030.2021.2017067	2022
Physiological transport of Rabinowitsch fluid model with convective conditions <i>Hina Sadaf Iqra Shahzadi</i> <i>International Communications in Heat and Mass Transfer</i> , Volume 126, Article Number 105365 Impact Factor: 6.782 Quartile: 1 Citations: 23 DOI: https://doi.org/10.1016/j.icheatmasstransfer.2021.105365	2021
Theoretical investigation for convective heat transfer on Cu/water nanofluid and (SiO₂-copper)/water hybrid nanofluid with MHD and nanoparticle shape effects comprising relaxation and contraction phenomenon <i>Naheeda Iftikhar Abdul Rehman Hina Sadaf</i> <i>International Communications in Heat and Mass Transfer</i> , Volume 120, Article Number 105012 Impact Factor: 6.782 Quartile: 1 Citations: 66 DOI: https://doi.org/10.1016/j.icheatmasstransfer.2020.105012	2021
Analysis of Carreau fluid flow by convectively heated disk with viscous dissipation effects <i>Rabia Malik Hina Sadaf Fiza dastar</i> <i>Zeitschrift Fur Naturforschung Section A-A Journal of Physical Sciences</i> , Volume 75, Issue 10, Pages 825–832 Impact Factor: 1.426 Quartile: 3 Citations: 6 DOI: https://doi.org/10.1515/zna-2020-0041	2020
Adverse effects of a hybrid nanofluid in a wavy non- uniform annulus with convective boundary conditions <i>Hina Sadaf Sara. I. Abdelsalam</i> <i>RSC Advances</i> , Volume 10, Issue 26, Pages 15035-15043 Impact Factor: 3.361 Quartile: 2 Citations: 89 DOI: DOI: 10.1039/d0ra01134g	2020
Fluid flow analysis of cilia beating in a curved channel in the presence of magnetic field and heat transfer <i>Hina Sadaf Sohail Nadeem</i> <i>Canadian Journal of Physics</i> , Volume 98(2), Pages 191-197 Impact Factor: 1.240 Quartile: 4 Citations: 46 DOI: DOI: 10.1139/cjp-2018-0715	2020
Mixed convection analysis of cilia-driven flow of a Jeffrey fluid in a vertical tube <i>Hina Sadaf Adnan Kiani Nazir Ahmad Mir</i> <i>Canadian Journal of Physics</i> , Volume 98(2), Pages 111-118 Impact Factor: 1.240 Quartile: 4 Citations: 13 DOI: DOI: 10.1139/cjp-2018-0753	2020

Study of Al₂O₃/copper–water nanoparticle shape, slip effects, and heat transfer on steady physiological delivery of MHD hybrid nanofluid <i>Naheeda Iftikhar, Abdul Rehman Hina Sadaf Saleem Iqbal</i> <i>Canadian Journal of Physics</i> , 1239–1252 Impact Factor: 1.032 Quartile: 3 Citations: 19 DOI: 10.1139/cjp-2018-0551	2019
Heat and peristaltic propagation of water based nanoparticles with variable fluid features <i>Samreen Sheriff Hina Sadaf Noreen Sher Akbar Nazir Ahmad Mir</i> <i>Physica Scripta</i> , Volume 94, Number 12 Impact Factor: 1.985 Quartile: 2 Citations: 17 DOI: 10.1088/1402-4896/ab3316	2019
Slip analysis with thermally developed peristaltic motion of nanoparticles under the influence of variable viscosity in vertical configuration <i>Samreen Sheriff Dr Hina Sadaf Dr Noreen Sher Akbar Dr Nazir Ahmad Mir</i> <i>The European Physical Journal Plus</i> , Volume 134, Issue 8, Article Number 408 Impact Factor: 3.228 Quartile: 1 Citations: 9 DOI: 10.1140/epjp/i2019-12766-y	2019
Bio-fluid flow analysis based on heat transfer and variable viscosity <i>Hina Sadaf</i> <i>Applied Mathematics and Mechanics-English Edition</i> , Volume: 40, Issue: 7, Pages: 1029-1040 Impact Factor: 2.017 Quartile: 1 Citations: 8 DOI: https://doi.org/10.1007/s10483-019-2499-8	2019
Remarkable Role of Nanoscale Particles and Viscosity Variation in Blood Flow Through Overlapped Atherosclerotic Channel: A Useful Application in Drug Delivery <i>Shagufta Ijaz Hina Sadaf Zahid Iqbal</i> <i>Arabian Journal for Science and Engineering</i> , Volume: 44, Issue: 7, Pages: 6241-6252 Impact Factor: 1.711 Quartile: 2 Citations: 18 DOI: https://doi.org/10.1007/s13369-019-03779-w	2019
Physiological fluid flow analysis by means of contraction and expansion with addition of hybrid nanoparticles <i>Hina Sadaf Naheeda iftikhar Noreen Sher Akbar</i> <i>European Physical Journal Plus</i> , Volume: 134, Issue: 5, Article Number: 232 Impact Factor: 3.228 Quartile: 1 Citations: 17 DOI: 10.1140/epjp/i2019-12598-9	2019
Nano Fluid Flow Analysis in the Presence of Slip Effects and Wall Properties by Means of Contraction and Expansion <i>Hina Sadaf Rabia Malik</i> <i>Communications in Theoretical Physics</i> , NULL Impact Factor: 1.416 Quartile: 3 Citations: 8 DOI: 10.1088/0253-6102/70/3/337	2018
Induced magnetic field analysis for the peristaltic transport of non-Newtonian nanofluid in an annulus <i>Hina Sadaf Muhammad Usman Akbar Sohail Nadeem</i> <i>Mathematics and Computers in Simulation 148 (2018) 16–36</i> , NULL Impact Factor: 1.409 Quartile: 2 Citations: 47 DOI: https://doi.org/10.1016/j.matcom.2017.12.009	2018
Impact of wall properties on the peristaltic flow of Cu-water nano fluid in a non-uniform inclined tube <i>Abdul Rehman Hina Sadaf Muhammad Najam Khan Naheeda Iftikhar</i> <i>International Journal of Heat and Mass Transfer</i> , NULL Impact Factor: 4.346 Quartile: 1 Citations: 41 DOI: https://doi.org/10.1016/j.ijheatmasstransfer.2018.04.098	2018
Permeability conditions for the physiological viscous nanofluid: endoscopic analysis for uniform and non-uniform tubes <i>M. U. Akbar S. Nadeem Hina Sadaf</i> <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , Volume 39, Issue 9, Pages 3413-3423, September 2017 Impact Factor: 1.627 Quartile: 3 Citations: 2	2017

DOI: 10.1007/s40430-017-0829-2	
Bio-mathematical analysis for the peristaltic flow of single wall carbon nanotubes under the impact of variable viscosity and wall properties <i>Iqra Shahzadi Hina Sadaf Sohail Nadeem Anber Saleem</i> <i>Computer Methods and Programs in Biomedicine</i> , Volume: 139, Pages: 137-147 Impact Factor: 2.674 Quartile: 1 Citations: 51 DOI: http://dx.doi.org/10.1016/j.cmpb.2016.10.016	2017
Exploration of single wall carbon nanotubes for the peristaltic motion in a curved channel with variable viscosity <i>Hina Sadaf Sohail Nadeem</i> <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , Volume: 39, Issue: 1, Pages: 117-125 Impact Factor: 1.627 Quartile: 3 Citations: 28 DOI: 10.1007/s40430-016-0612-9	2017
Analysis of Combined Convective and Viscous Dissipation Effects for Peristaltic Flow of Rabinowitsch Fluid Model <i>Hina Sadaf Sohail Nadeem</i> <i>Journal of Bionic Engineering</i> , JOURNAL OF BIONIC ENGINEERING Volume: 14 Issue: 1 Pages: 182-190 Impact Factor: 2.325 Quartile: 1 Citations: 61 DOI: 10.1016/S1672-6529(16)60389-X	2017
Influences of slip and Cu-blood nanofluid in a physiological study of cilia <i>Hina Sadaf Sohail Nadeem</i> <i>Computer Methods and Programs in Biomedicine</i> , Volume: 131, Pages: 169-180 Impact Factor: 2.503 Quartile: 1 Citations: 43 DOI: 10.1016/j.cmpb.2016.04.008	2016
Hypothetical analysis for peristaltic transport of metallic nanoparticles in an inclined annulus with variable viscosity <i>Hina Sadaf Sohail Nadeem</i> <i>Bulletin of the Polish Academy of Sciences - Technical Sciences</i> , Volume: 64, Issue: 2, Pages: 447-454 Impact Factor: 1.156 Quartile: 2 Citations: 8 DOI: 10.1515/bpasts-2016-0050	2016
Ciliary motion phenomenon of viscous nanofluid in a curved channel with wall properties <i>Sohail Nadeem Hina Sadaf</i> <i>European Physical Journal Plus</i> , Volume: 131, Issue: 3, Article Number: 65 Impact Factor: 1.753 Quartile: 2 Citations: 16 DOI: 10.1140/epjp/i2016-16065-y	2016
Trapping study of nanofluids in an annulus with cilia <i>Sohail Nadeem Hina sadaf</i> <i>AIP Advances</i> , Volume: 5, Issue: 12, Article Number: 127204 Impact Factor: 1.444 Quartile: 3 Citations: 28 DOI: 10.1063/1.4937474	2015
Effects of nanoparticles on the peristaltic motion of tangent hyperbolic fluid model in an annulus <i>sohail nadeem Hina sadaf Noreen Sher Akbar</i> <i>Alexandria Engineering Journal</i> , Volume 54, Issue 4, Pages 843-851 Impact Factor: 0 Citations: 36 DOI: 10.1016/j.aej.2015.07.003	2015
Theoretical Analysis of Cu-Blood Nanofluid for Metachronal Wave of Cilia Motion in a Curved Channel <i>Sohail Nadeem Hina sadaf</i> <i>IEEE Transactions on NanoBioscience</i> , Volume: 14, Issue: 4, Pages: 447-454 Impact Factor: 1.969 Quartile: 3 Citations: 48 DOI: 10.1109/TNB.2015.2401972	2015
Metachronal Wave of Cilia Transport in a Curved Channel <i>Sohail Nadeem Hina sadaf</i> <i>Zeitschrift Fur Naturforschung Section A-A Journal of Physical Sciences</i> , Volume: 70, Issue: 1, Pages: 33-38 Impact Factor: 0.886 Quartile: 3 Citations: 31 DOI: 10.1515/zna-2014-0117	2015

Analysis of Nanoparticles on Peristaltic Flow of Prandtl Fluid Model in an Endoscopy <i>Sohail Nadeem Hina sadaf Muhammad Adil Sadiq</i> <i>Current Nanoscience</i> , Volume 10, Number 5, Pages 709-721 Impact Factor: 1.096 Quartile: 3 Citations: 17 DOI: 10.2174/1573413710666140322000351	2014
Analysis of peristaltic flow for a Prandtl fluid model in an endoscope <i>Sohail Nadeem Hina sadaf Noreen Sher Akbar</i> <i>Journal of Power Technologies</i> , Volume 94, Issue 2, Pages 1-11 Impact Factor: 0 DOI: https://www.researchgate.net/publication/312370644_Analysis_of_peristaltic_flow_for_a_Prandtl_fluid_model_in_an_endoscope	2014

Editorial Activities

Priyadharshini Anbalagan Reviewed Papers for Journals Impact Factor: 3.2	2025
Multiscale and Multidisciplinary Modeling, Experiments and Design Reviewed Papers for Journals Impact Factor: 2.0	2025
International Communications in Heat and Mass Transfer Reviewed Papers for Journals Impact Factor: 6.4	2025
Journal of Radiation Research and Applied Sciences Reviewed Papers for Journals Impact Factor: 2.5	2025
Advances in nanoparticles Reviewed Papers for Journals Impact Factor: N/A	2025
Physics of Fluids Reviewed Papers for Journals Impact Factor: 4.1	2025
Advances in Mechanical Engineering Reviewed Papers for Journals Impact Factor: 0.2	2025
Journal of Radiation Research and Applied Sciences Reviewed Papers for Journals Impact Factor: 1.7	2025
Journal of Radiation Research and Applied Sciences Reviewed Papers for Journals Impact Factor: 1.7	2025
International Communications in Heat and Mass Transfer Reviewed Papers for Journals Impact Factor: 6.4	2024
Scientific Reports Reviewed Papers for Journals Impact Factor: 3.8	2024
Interactions Reviewed Papers for Journals Impact Factor: 0	2024
Chinese Journal of Physics Reviewed Papers for Journals Impact Factor: 4.6	2024
Numerical Heat Transfer, Part A: Applications Reviewed Papers for Journals Impact Factor: N/A	2024

Theoretical and Computational Fluid Dynamics	2024
Reviewed Papers for Journals	
Impact Factor: 3.4	
Journal of Applied Mathematics and Mechanics	2024
Reviewed Papers for Journals	
Impact Factor: 2.3	
Acta Mechanica Sinica	2024
Reviewed Papers for Journals	
Impact Factor: 3.5	
Engineering Applications of Artificial Intelligence	2024
Reviewed Papers for Journals	
Impact Factor: 8	
Numerical heat transfer. Part A. Applications	2023
Reviewed Papers for Journals	
Impact Factor: 2.56	
Scientific Reports	2023
Reviewed Papers for Journals	
Impact Factor: 4.6	
Journal of Advances in Mathematics and Computer Science	2023
Reviewed Papers for Journals	
Impact Factor: 1.54	
International Journal of Computational Materials Science and Engineering	2023
Reviewed Papers for Journals	
Impact Factor: 1.3	
BioNanoScience	2023
Reviewed Papers for Journals	
Impact Factor: N/A	
journal of mathematics & statistics	2023
Reviewed Papers for Journals	
Impact Factor: 0.36	
New Journal of Physics	2023
Reviewed Papers for Journals	
Impact Factor: 3.3	
Scientific Reports	2023
Reviewed Papers for Journals	
Impact Factor: 4.6	
Modern Physics Letters B	2023
Reviewed Papers for Journals	
Impact Factor: 1.9	
International Journal of Modern Physics B	2023
Reviewed Papers for Journals	
Impact Factor: 1.7	
Modern Physics Letters B	2023
Reviewed Papers for Journals	
Impact Factor: 1.9	
Scientific Reports	2023
Reviewed Papers for Journals	
Impact Factor: 4.6	
Heliyon	2023
Reviewed Papers for Journals	
Impact Factor: 4.0	
BioNanoScience	2023
Reviewed Papers for Journals	
Impact Factor: N/A	

Scientific Reports Reviewed Papers for Journals Impact Factor: 4.997	2023
 Reviewed Papers for Journals Impact Factor: N/A	2023
 Reviewed Papers for Journals Impact Factor: 0	2023
Far East Journal of Dynamical Reviewed Papers for Journals Impact Factor: 4.23	2023
Frontiers in Physics Reviewed Papers for Journals Impact Factor: 3.718	2023
Archive of Applied Mechanics Reviewed Papers for Journals Impact Factor: 2.467	2022
International Journal of Ambient Energy Reviewed Papers for Journals Impact Factor: 2.54	2022
International Journal of Amb Reviewed Papers for Journals Impact Factor: 2.54	2022
Waves in Random and Complex Media Reviewed Papers for Journals Impact Factor: 4.051	2022
 Reviewed Papers for Journals Impact Factor: 0	2022
 Reviewed Papers for Journals Impact Factor: 1.404	2022
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 Reviewed Papers for Journals Impact Factor: 3.56	2022
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Impact Factor: 6.268	
Reviewed Papers for Journals	2021
Impact Factor: 1.24	
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Impact Factor: 4.626	
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Impact Factor: 4.379	
Reviewed Papers for Journals	2021
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Reviewed Papers for Journals	2019
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Reviewed Papers for Journals	2019
Impact Factor: 2.5	
Reviewed Papers for Journals	2019
Impact Factor: 2.5	
Reviewed Papers for Journals	2019
Impact Factor: 2.5	
Reviewed Papers for Journals	2019
Impact Factor: 3.198	