Junaid Ahmad Khan

Associate Professor

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Research Centre for Modelling & Simulation

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About

Dr. Junaid Ahmad Khan is working as Associate Professor in the Pakistan Navy Engineering College. Dr. Junaid Ahmad Khan has a PhD in Applied Mathematics. Dr. Junaid Ahmad Khan has published 29 research articles & conference papers having a citation count of 1546, carried out 5 projects and filed 0 intellectual property.

Qualifications

PhD in Applied Mathematics NUST, Islamabad , Pakistan	2012 - 2016
MS in (Computational Fluid Dynamics) NUST, Islamabad , Pakistan	2008 - 2010
BS in (Computational Physics) University of the Punjab , Pakistan	2004 - 2008
Experience	
Associate Professor Pakistan Navy Engineering College	2023- Present
Assistant Professor Pakistan Navy Engineering College	2022 - 2023
Assistant Professor School of Interdisciplinary Engineering & Sciences	2022 - 2022
Assistant Professor Research Centre for Modelling & Simulation	2021 - 2022
Assistant Professor	2016 - 2021

Research Projects

National Projects	
Design and Development of Autonomous Underwater vehicle (AUV) Pakistan Navy Engineering College	2024
(PNEC)	
Funding Agency: NUST Amount: PKR 10,000,000.00	
Status: Approved_inprocess	
Simulation Model for Electro-Optical Engagement System-Phase II in the field of Physics / Computer	2021
Vision & Engineering / Electronics Funding Agency: NESCOM	
Amount: PKR 200,000.00	
Status: Approved_inprocess	
Simulation Model for Electro-Optical Engagement System	2018
Funding Agency: NESCOM	
Amount: PKR 300,000.00	
Status: Completed	
Simulation Model for Electro-Optical Engagement System - Phase - II	2021
Funding Agency: NESCOM	
Amount: PKR 200,000.00 Status: Approved_inprocess	
Simulation Model for Electro-Optical Engagement Funding Agency: NESCOM	2018
Amount: PKR 300,000.00	
Status: Completed	
International Projects	
Research Articles	
Regression modeling of Bödewadt slip flow dynamics involving Reiner-Rivlin nanofluid based on a	2024
modified Buongiorno approach	
Tayyaba Ibrahim Meraj Mustafa Junaid Ahmad Khan Ammar Mushtaq	
Physica scripta, Volume 99, Number 10, Article Number 105042	
Impact Factor: 2.600 Quartile: 2	
DOI: 10.1088/1402-4896/ad78c1	
Bayesian and Numerical Techniques for Non-Newtonian Bödewadt Nanofluid Flow Above a Stretchable	2022
Stationary Disk	
Ume Hani Junaid Ahmad Khan Amar Ali Rauf F. Mustafa S. A. Shehzad Arabian Journal for Science and Engineering, Pages 1-15	
Impact Factor: 2.334 Quartile: 3 Citations: 5	
DOI: https://doi.org/10.1007/s13369-022-06773-x	
Rotationally symmetric flow of Reiner-Rivlin fluid over a heated porous wall using numerical approach	2021
Junaid Ahmad Khan Talat Rafiq Meraj Mustafa Hashmi	
Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, Pages 1-12	
Impact Factor: 1.758 Quartile: 3 Citations: 12 DOI: https://doi.org/10.1177/09544062211034204	
Numerical study of Bödewadt slip flow on a convectively heated porous disk in a nanofluid	2019
Talat Rafiq Meraj Mustafa Hashmi Junaid Ahmad Khan	
Physica Scripta, Volume 94, Issue 9, Article Number: 095701	
Impact Factor: 1.985 Quartile: 2 Citations: 14 DOI: https://doi.org/10.1088/1402-4896/ab1549	
A revised model to study the MHD nanofluid flow and heat transfer due to rotating disk: numerical	2018
solutions	
Junaid Ahmad Khan Tasawar Hayat Ahmed Alsaedi Meraj Mustafa Hashmi	
Neural Computing and Applications, NULL	
Impact Factor: 4.664 Quartile: 1 Citations: 30 DOI: https://link.springer.com/article/10.1007/s00521-016-2743-4	

Consequences of convection-radiation interaction for magnetite-water nanofluid flow due to a moving plate Ammar Mushtaq Junaid Ahmad Khan Meraj Mustafa Hashmi Tasawar Hayat Ahmad Alsaedi Thermal Science, Volume 22(1B), Pages 443-451 Impact Factor: 1.541 Quartile: 3 Citations: 3 DOI: 10.2298/TSCI151128212M	2018
A numerical analysis for non-linear radiation in MHD flow around a cylindrical surface with chemically reactive species Junaid Ahmad Khan Meraj Mustafa Hashmi Results in Physics, Volume 8, Pages 963-970 Impact Factor: 3.042 Quartile: 1 Citations: 26	2018
DOI: 10.1016/j.rinp.2017.12.067 Numerical Solutions for Radiative Heat Transfer in Ferrofluid Flow due to a Rotating Disk: Tiwari and Das Model Meraj Mustafa Junaid Ahmad Khan T. Hayat A. Alsaedi International Journal of Nonlinear Sciences and Numerical Simulation, NULL Impact Factor: 1.033 Quartile: 3 Citations: 12 DOI: 10.1515/ijnsns-2015-0196	2018
Numerical tackling for viscoelastic fluid flow in rotating frame considering homogeneous-heterogeneous reactions Najwa Maqsood Meraj Mustafa Hashmi Junaid Ahmad Khan Results in Physics, NULL Impact Factor: 2.147 Quartile: 2 Citations: 16 DOI: 10.1016/j.rinp.2017.09.011	2017
Numerical study of partial slip effects on MHD flow of nanofluids near a convectively heated stretchable rotating disk Meraj Mustafa Junaid Ahmad Khan Journal of Molecular Liquids, Volume 234, Pages 287-295 Impact Factor: 4.513 Quartile: 1 Citations: 38 DOI: 10.1016/j.molliq.2017.03.087	2017
Numerical study for Bodewadt flow of water based nanofluid over a deformable disk: Buongiorno model Meraj Mustafa Hashmi Junaid Ahmad Khan T. Hayat F Alzahrani Indian Journal of Physics, Volume 91, Issue 5, Pages: 527-533 Impact Factor: 0.967 Quartile: 3 Citations: 19 DOI: 10.1007/s12648-017-0959-5	2017
Buoyancy effects on the MHD nanofluid flow past a vertical surface with chemical reaction and activation energy Meraj Mustafa Hashmi Junaid Ahmad Khan Tasawar Hayat Ahmed Alsaedi International Journal of Heat and Mass Transfer, Volume 108, Pages 1340-1346, Part: B Impact Factor: 3.891 Quartile: 1 Citations: 233 DOI: 10.1016/j.ijheatmasstransfer.2017.01.029	2017
Numerical Analysis of Sakiadis Flow Problem Considering Maxwell Nanofluid Meraj Mustafa Hashmi Junaid Ahmad Khan Thermal Science, Volume 21(6 Part B), Pages 2747-2756 Impact Factor: 1.433 Quartile: 3 Citations: 1 DOI: https://doi.org/10.2298/TSCI150306001M	2017
On three-dimensional flow of nanofluids past a convectively heated deformable surface: A numerical study Junaid Ahmad Khan Meraj Mustafa Ammar Mushtaq International Journal of Heat and Mass Transfer, Volume 94, Pages 49-55 Impact Factor: 3.458 Quartile: 1 Citations: 17 DOI: 10.1016/j.ijheatmasstransfer.2015.11.036	2016
On Bodewadt flow and heat transfer of nanofluids over a stretching stationary disk Meraj Mustafa Hashmi Junaid Ahmad Khan Tasawar Hayat Ahmed Alsaedi Journal of Molecular Liquids, Volume 211, Pages 119-125	2015

Impact Factor: 2.740 Quartile: 2 Citations: 115 DOI: 10.1016/j.molliq.2015.06.065	
Numerical study on three-dimensional flow of nanofluid past a convectively heated exponentially stretching sheet Meraj Mustafa Hashmi Junaid Ahmad Khan T. Hayat A. Alsaedi Canadian Journal of Physics, Volume 93, Issue 10, Pages 1131-1137 Impact Factor: 0.724 Quartile: 3 Citations: 10 DOI: 10.1139/cjp-2014-0433	2015
Numerical Study of Cattaneo-Christov Heat Flux Model for Viscoelastic Flow Due to an Exponentially Stretching Surface Meraj Mustafa Hashmi Junaid Ahmad Khan Tasawar Hayat Ahmed Alsaedi PLoS ONE, Volume: 10, Issue: 9, Article Number: e0137363 Impact Factor: 3.057 Quartile: 1 Citations: 142 DOI: 10.1371/journal.pone.0137363	2015
Model for flow of Casson nanofluid past a non-linearly stretching sheet considering magnetic field effects Meraj Mustafa Hashmi Junaid Ahmad Khan AIP Advances, Volume 5, Issue 7, Article Number: 077148 Impact Factor: 1.444 Quartile: 3 Citations: 184 DOI: 10.1063/1.4927449	2015
Three-dimensional flow of nanofluid over a non-linearly stretching sheet: An application to solar energy Meraj Mustafa Hashmi Junaid Ahmad Khan Tasawar Hayat Ahmed Alsaedi International Journal of Heat and Mass Transfer, Volume 86, Pages 158-164 Impact Factor: 2.857 Quartile: 1 Citations: 157 DOI: 10.1016/j.ijheatmasstransfer.2015.02.078	2015
Analytical and numerical solutions for axisymmetric flow of nanofluid due to non-linearly stretching sheet Meraj Mustafa Hashmi Junaid Ahmad Khan Tasawar Hayat Ahmed Alsaedi International Journal of Non-Linear Mechanics, Volume 71, Pages 22-29 Impact Factor: 1.920 Quartile: 2 Citations: 108 DOI: 10.1016/j.ijnonlinmec.2015.01.005	2015
Three-dimensional flow of nanofluid induced by an exponentially stretching sheet: An application to solar energy Meraj Mustafa Hashmi Junaid Ahmad Khan T. Hayat M. Sheikholeslami A. Alsaedi PLoS ONE, Volume: 10 Issue: 3 Article Number: e0116603 Impact Factor: 3.057 Quartile: 1 Citations: 68 DOI: 10.1371/journal.pone.0116603	2015
Simulations for Maxwell fluid flow past a convectively heated exponentially stretching sheet with nanoparticles Meraj Mustafa Hashmi Junaid Ahmad Khan Tasawar Hayat Ahmed Alsaedi AIP Advances, Volume 5, Issue 3, Article Number: 037133 Impact Factor: 1.444 Quartile: 3 Citations: 66 DOI: http://dx.doi.org/10.1063/1.4916364	2015
Sakiadis flow of Maxwell fluid considering magnetic field and convective boundary conditions Meraj Mustafa Hashmi Junaid Ahmad Khan Tasawar Hayat Ahmed Alsaedi AIP Advances, Volume 5, Issue 2, Article Number: 027106 Impact Factor: 1.444 Quartile: 3 Citations: 47 DOI: http://dx.doi.org/10.1063/1.4907927	2015
Boundary Layer Flow of Nanofluid Over a Nonlinearly Stretching Sheet With Convective Boundary Condition M. Mustafa Junaid A. Khan T. Hayat A. Alsaedi IEEE Tractions on Nanotechnology, Volume 14, Issue 1, Pages 159-168 Impact Factor: 1.702 Quartile: 2 Citations: 37 DOI: 10.1109/TNANO.2014.2374732	2015

2014

On Three-Dimensional Flow and Heat Transfer over a Non-Linearly Stretching Sheet: Analytical and

Numerical Solutions

Meraj Mustafa Hashmi Junaid Ahmad Khan Tasawar Hayat Ahmed Alsaedi

PLoS ONE, Volume 9, Issue 9, Article Number e107287 Impact Factor: 3.234 | Quartile: 1 | Citations: 76

DOI: 10.1371/journal.pone.0107287

On model for three-dimensional flow of nanofluid: An application to solar energy

Junaid Ahmed Kan M Mustafa T Hayat M A Farooq A Alsaedi S. J. Liao

Journal of Molecular Liquids, Volume 194, Pages 41-47 Impact Factor: 2.515 | Quartile: 2 | Citations: 110

DOI: 10.1016/j.molliq.2013.12.045

Conference Proceedings

Studying the Performance of Transonic Axial Flow Compressor by Implementing Circumferential Grooves, Tip Recess and Tip Injection

2012

2014

Junaid Ahmad Khan Ammar Mushtaq Khalid Parvez Sijal Ahmad

50th AIAA Aerospace Science Meeting including the New Horizons Forum and Aerospace Exposition, res.country(233,)

Citations: N/A

DOI: 10.2514/6.2012-329

Parametric Study of Tip Injection on Stability of Transonic Axial Flow Compressor

2011

Ammar Mushtaq Khalid Parvez Sijal Ahmed Memon Junaid Ahmad Khan

49th Aerospace Sciences Meeting Including the New Horizons Forum and Aerospace Exposition, res.country(233,)

Citations: N/A

DOI: doi/10.2514/6.2011-744

Effect of Circumferential Grooves and Tip Recess on Stall Characteristics of Transonic Axial Compressor Rotor

2011

Compressor Rotor

Junaid Ahmad Khan Khalid Parvez Sijal Ahmad Ammar Mushtaq

49th AIAA Aerospace Sciences Meeting including the New Horizons Forum and Aerospace Exposition, res.country(233,)

Citations: N/A

DOI: 10.2514/6.2011-743

Editorial Activities

2018

Reviewed Papers for Journals