

PROFILE

Name: **Dr. Sunitha G.**

Qualification: **M.Sc., Ph.D**

Area of Specialization: **Fluid Mechanics**



Vision

Mathematics is a continuous prayer to understand rather than to keep by hearting the formulas. Knowing mathematics can be intellectually satisfying and empowering. The underpinnings of everyday life are increasingly mathematical and technological. I share the vision of developing our intellectually vigorous community of students, engaging in research, teaching and learning that advance knowledge in diverse areas of mathematics and support contemporary progress in science.

Educational Qualifications

Specialization/ Subjects	University/Institution	Year of Award/ Passing	% of Marks
Ph.D., Fluid Mechanics Guide: Dr. Asha S K	Karnatak University, Dharwad	2020	
M. Sc. Mathematics	Government Science College, Chitradurga, Davangere University	2016	82.8
B. Sc [P. C. M.]	Government Science College, Chitradurga, Davangere University	2014	73.38
PUC/12th STD	Govt PU College for Girls, Chitradurga	2011	44.66
SSLC	S T S R Composit PU College, Nayakanahatti	2009	67.68

Professional Details (Academic/Research Experience)

Sl. No.	Designation	Institution/University	UG/PG	From	To
1	Research Fellow (Under NFST)	Karnatak University, Dharwad	Ph. D	2017	2020
2	Guest lecturer	Government Science College, Chitradurga	PG	Aug 2016	Nov 2016
3	Guest lecturer	Government Science College, Chitradurga	UG	March 2022	Jan 2023

4	Guest lecturer	Government Science College, Chitradurga	UG/PG	Feb 2023	Till Date.
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Areas of Research Interest:	
1	Peristaltic Fluid Flow.
2	Nanofluids.
3	Non-Newtonian Fluids.
Research Publications:	
International Journals /National Journals	
1	Asha S. K, Sunitha G and Chandrashekhar M. Hadapad (2021), Different Shapes of nanoparticles on Peristaltic Transport of a Casson fluid in the presence of MHD, thermal radiation and Porous medium. International Journal of Computational Materials Science and engineering. 10(2):2150008 [World Scientific].
2	Asha S. K and Sunitha G (2020), Double diffusion on peristaltic flow of nanofluid under the influences of magnetic field, porous medium and thermal radiation. Engineering Reports. 2(2): 1-19. [Wiley , ISSN: 2577-8196].
3	Asha S. K and Sunitha G (2020), Thermal radiation and Hall effects on Peristaltic blood flow with double diffusion in the presence of nanoparticles. Case Studies in Thermal Engineering. 17: 100560. [Elsevier , ISSN: 2214-157X].
4	Asha Shivappa Kotnurkar and Sunitha Giddaiah (2019), Bioconvection Peristaltic flow of a nano Eyring-Powell fluid containing gyrotactic microorganism. SN Applied Sciences. 1(1276): [Springer Nature , ISSN: 2523-3971].
5	Asha S. K and Sunitha G (2019), Influence of thermal radiation on Peristaltic blood flow of a Jeffrey Fluid with double diffusion in the presence of Gold nanoparticles. Informatics Medicine Unlocked. 17: 100272. [Elsevier , ISSN: 2352-9148].
6	Asha S. K and Sunitha G (2019), Peristaltic Transport of Eyring-Powell nanofluid in a non-uniform channel. Jordan Journal of Mathematics and Statistics. 12(3): 431-453. [Yarmuk University , ISSN: 2227-5487].
7	Asha S. K and Sunitha G (2019), Bioconvection Peristaltic Transport of Nanofluid in a non-uniform channel containing microorganism. Journal of Information and Computing Science. 14 (2): 134- 148. [World Academic Union , ISSN:1746-7659].
8	Asha S. K and Sunitha G (2019), Ohmic heating effect on peristaltic flow with double diffusive convection of nanofluid. International Journal of Advance and Innovative Research. 6(2)(10): 153-160. [Indian Academicians and Researchers Association , ISSN: 2394-7780].
9	Asha S. K, Sunitha G and Joonabi Beleri (2019), Effect of magnetic field on peristaltic transport of nanofluid containing gyrotactic microorganism. International Journal of Advance and Innovative Research, 6(2)(10): 141-146. [Indian Academicians and Researchers Association , ISSN: 2394- 7780].
10	Asha S. K and Sunitha G (2019), Peristaltic Blood flow of a Jeffrey fluid with gold nanoparticles with application of drug delivery. Journal of Information and Computational Science. 9(8): 407-419. [Zhongshan DaxueXue/Zhongshan University , ISSN: 1548-7741].

11	S. K. Asha and G. Sunitha (2019), Effect of Joule heating and MHD on peristaltic blood flow of Eyring-Powell nanofluid in a non-uniform channel. Journal of Taibah University of Science. 13(1): 155-168. [Taylor & Francis , ISSN: 1658-3655].
12	Asha S. K and Sunitha G (2018), Mixed Convection Peristaltic Flow of a Eyring-Powell nanofluid with Magnetic Field in a Non-Uniform Channel. Journal of Applied Mathematics and Computation. 2(8): 332-344. [Hill Publishing , ISSN: 2576-0653].
13	Asha S. K and Sunitha G (2017), Effect of Couple Stress in Peristaltic Transport of Blood Flow by Homotopy Analysis Method. Asian Journal of Science and Technology. 8(12): 6958-6964. [ISSN: 0976-3376].

Conference/ Workshops

Papers Presented at International Conferences

1. Presented a research paper entitled “Different Shapes of Nanoparticles on Peristaltic flow of a Casson fluid” in the **International Conference on Mathematics and its Applications**, held at Bangalore University, Bangalore, Karnataka during 28th and 29th February 2020.

2. Presented a research paper entitled “Ohmic heating effect on Peristaltic flow with double-diffusive convection of nanofluid” in the **International Conference on Global Advancement of Mathematics**, held at Acharya Institute of Technology, Bangalore, Karnataka during 25th and 26th June 2019.

3. Presented a research paper entitled “Effect of Joule heating and MHD on Peristaltic Blood Flow of Eyring-Powell nanofluid in a Non-Uniform Channel” in the **International Conference on Recent Trends in Mathematics**, held at Rajalakhamagouda Institute, Belagavi, Karnataka during 27th to 29th December 2018.

4. Presented a research paper entitled “Mixed convection Peristaltic flow of a Eyring-Powell nanofluid with magnetic field in a non-uniform channel” in the **International Conference on Advances in Pure and Applied Mathematics**, held at Kamaraj University, Madurai, Tamilnadu during 6th to 8th September 2018.

Papers Presented at National Conferences

1. Presented a research paper entitled “Influence of thermal radiation on Peristaltic blood flow of a Jeffrey Fluid with double diffusion in the presence of Gold nanoparticles”, in the **National Conference on Mathematics and its Applications**, held at Karnatak University, Dharwad, Karnataka during 07th and 08th November 2019.

2. Presented a research paper entitled “Peristaltic Blood Flow of a Jeffrey Fluid in presence of Nanoparticles” in the **National Conference on Recent Developments of Mathematics in Industrial Applications**, held at Kuvempu University, Shivamogga, Karnataka during 11th and 12th April 2019.

3. Presented a research paper entitled “Peristaltic Flow of Nano Eyring-Powell fluid through a Non-Uniform Channel containing Gyrotactic Micro-organism in Bioconvection” in the **National Conference on Analysis and its Applications**, held at Karnatak University, Dharwad, Karnataka during 1st and 2nd March 2019.

4. Presented a research paper entitled “Effect of couple stress in peristaltic transport of blood flow” in the **National conference on Analysis and its application**, held at Karnatak University, Dharwad during 9th and 10th March 2018.

Paper Presented at Seminar

Presented a research paper entitled “Peristaltic Blood flow of an Jeffrey Fluid through Asymmetric Channel in presence of Gold Nanoparticles” in the One Day **National Seminar on Recent Trends & Applications in Mathematics**, held at Government Science College, Chitradurga, Karnataka during 26th March 2019.

Workshops/conference Attended:

1. National Conference on Industrial Applications of Mathematics and its Developments, held at Kuvempu University, Shivamogga during November 13th and 14th, 2020.

2. Conference on Science and Technology in Kannada, held at Science Centre, Karnatak University, Dharwad during November 23rd and 24th, 2018.

3. Workshop on Essence of partial differential equations, held at M. E. S. Degree College of Arts, Commerce and Science, Bengaluru on March 20th to 22nd, 2018.

4. Workshop on Society, Research and Development held at Karnatak University, Dharwad during 19th February 2018.

5. National Conference on Analysis and its Application, held at Karnatak University, Dharwad during 15th and 16th March 2017.

6. International Conference on Differential Geometry, Analysis and Fluid Mechanics, held at Kuvempu University, Shivamogga during February 04th to 05th, 2016.

Review Evaluation of the Research paper

1. Framing the features of nanolayer and diameter of Carbon nanotubes in the flow of human blood over a stretching cylinder in presence of dual heat flux and magnetic induction, Numerical Heat Transfer, Part A: Applications [Taylor & Francis].

2. Influence of Induced Magnetic Field and Surface Roughness of Casson nanofluid Flow over an exponentially stretching sheet, Journal of Umm Al-Qura University for Applied Sciences [Springer].

3. Peristaltic Transport of a Second-Grade dusty fluid in a tube, Journal of Mechanical Engineering Research [Academic Journals].

4. Modelling and Programming of Proformas used in the simulation of solar powered adsorption continuous refrigeration system with Trnsys, Journal of Mechanical Engineering Research [Academic Journals].

5. Design and Model Analysis of Muffler, Journal of Mechanical Engineering Research [Academic Journals].

<u>Awards/Achievements</u>	
1	Awarded as a Research Fellow in the year April 2017 under the scheme “National Fellowship and Scholarship for Higher Education of ST Students” (Ministry of Triable affairs, Govt of India, New Delhi).
2	Second Rank in M.Sc [Mathematics], Davangere University, Davangere in the year 2016.
3	Received Best Research Publication Award in Science Day 2020 from Karnatak University Dharwad for “ <i>Thermal radiation and Hall effects on Peristaltic blood flow with double diffusion in the presence of nanoparticles</i> ”.
4	Received Best Paper Award in Science 2021 in International Conference on Current Scenario in Pure and Applied Mathematics from Kongunadu Arts and Science College, Tamilnadu for “ <i>Chemical Reaction and Hall effects on Peristaltic Flow of Casson Fluid through an Asymmetric Channel in presence of Slip effects</i> ”.
5	Wiley top cited Article 2020-21 in Engineering Reports “ <i>Double diffusion on peristaltic flow of nanofluid under the influences of magnetic field, porous medium and thermal radiation</i> ”.

<u>Personal Details</u>		
Gender	Female	
Date of Birth	20-05-1993	
Religion	Hindu	
Caste	S T (Nayaka)	Rural
Contact details	Address for Communication	
	Permanent address	
	Dr. Sunitha G	
	Dr. Sunitha G D/O Giddaiah	
	# Ananya Nilaya	
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Challakere (T), Chitradurga (D) 577536.		
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	ResearchGate Link: https://www.researchgate.net/profile/Sunitha-G-K	