



❖ **Present Position and Address**

Dr. Gurunath Chandrasekhar Sankad
Professor in Mathematics
Department of Science and Humanities
BLDEA's Vachana Pitamaha Dr.P.G.Halakatti College of Engineering and Technology,
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❖ **Complete Academic Qualifications**

2010 Ph.D. (Mathematics: Fluid Dynamics) *National Institute of Technology (NIT), Warangal*
1990 M.Sc. (Mathematics) *Karnatak University Dharwad, Karnataka*
1989 PGDCA (Programming Languages) *Karnatak University Dharwad, Karnataka*
1988 B.Sc. (Mathematics, Physics, M. Statistics) *Karnatak University Dharwad, Karnataka*
1985 Intermediate (Class 12) (Physics, Chemistry, Mathematics and Biology) *Karnataka Pre-University Education Board, Bangalore*
1982 S. S. C. (Class 10) *Karnataka Secondary School Education Board, Bangalore*

❖ **Academic Experience**

June 2020 – August 2020, Head, Department of Science and Humanities, *BLDEA's Vachana Pitamaha Dr.P.G.Halakatti College of Engineering and Technology, Vijayapur*
October 2018 – January 2020, Head, Department of Mathematics, *BLDEA's Vachana Pitamaha Dr.P.G.Halakatti College of Engineering and Technology, Vijayapur*
July 2014 - as on date, Professor, Department of Mathematics, *BLDEA's Vachana Pitamaha Dr.P.G.Halakatti College of Engineering and Technology, Vijayapur*
August 2010 - June 2014, Associate Professor, Department of Mathematics, *BLDEA's Vachana Pitamaha Dr.P.G.Halakatti College of Engineering and Technology, Vijayapur*
September 2008 – July 2010, Selection grade Lecturer, Department of Mathematics, *BLDEA's Vachana Pitamaha Dr.P.G.Halakatti College of Engineering and Technology, Vijayapur*
September 2003 – August 2008, Senior grade Lecturer, Department of Mathematics, *BLDEA's Vachana Pitamaha Dr.P.G.Halakatti College of Engineering and Technology, Vijayapur*
January 1995 – August 2003, Lecturer, Department of Mathematics, *BLDEA's Vachana Pitamaha Dr.P.G.Halakatti College of Engineering and Technology, Vijayapur*

❖ Specialization

- Fluid Mechanics
- Entire Meromorphic functions
- Numerical Methods and Fortran programming

❖ Membership of professional bodies

- Life member of Indian Society of Theoretical and Applied Mechanics (**ISTAM**), IIT Kharagpur, W.B. with membership ID: **L/21602**
- Life member of Society of Technical Education (**ISTE**), New Delhi, with membership ID: **L/636**.

❖ Professional Responsibilities

- Member, B.O.E. (Mathematics), V.T.U. Belgaum 2012-13
- Member, B.O.E.(Mathematics), Karnataka State Akkamahadevi Women's University, Vijayapura, since 2011

❖ Scientific Records

- h-Index: 07
- i10-Index: 03
- Citations: 123

❖ Publications in refereed Journals

26. Mallinath Dhange, **Gurunath Sankad**, Diffusion of a solute in creeping sinusoidal movement of a couple stress fluid in an inclined conduit with wall features, *AIP Conference Proceedings*, 2246(1) (2020), pp. 020020.
25. G. Durga Priyadarsini, K. Rama Thulasi, **Gurunath C Sankad**, Distribution of Temperature in a Viscous Incompressible Fluid Flow using Differential Homotopy Perturbation Method, 81 (2019), pp. 5272-5275.
24. Mallinath Dhange, **Gurunath Sankad**, Slip Impact on Diffusion of a Solute in Creeping Sinusoidal Motion of a Newtonian Fluid with Wall Features, **International Journal of Analysis and Applications**, 17(4) (2019), pp. 659-673.
23. M. Dhange and **G. Sankad**, Creeping Sinusoidal Flow And Dispersion Of A Couple Stress Fluid With Chemical Reaction And Wall Effects, **ASRO Journal of Applied Mechanics** 3(1) (2018), pp. 6-20.
22. **Gurunath Sankad** and Mallinath Dhange, "Slip and chemical reaction effects on peristaltic transport of a couple stress fluid through a permeable medium with compliant wall", *International Journal: Applications and Applied Mathematics (AAM)*, 13(1) (2018), pp. 454 -471.
21. **G. C. Sankad** and Asha Patil, "Heat transfer inferences on the Herschel Bulkley fluid flow under peristalsis", **Frontiers in Heat and Mass Transfer (FHMT)**, 10, 17 (2018). [DOI:10.5098/hmt.10.17](https://doi.org/10.5098/hmt.10.17)
20. **G.C.Sankad** and P. S. Nagathan Influence of Wall Properties on the Peristaltic Flow of a Jeffrey Fluid in a Uniform Porous Channel under Heat Transfer, *Int. J. Res. Ind. Eng.*, 6(3) (2017) pp. 246–261.

19. **Sankad G.** and Dhange M, "Effect of Chemical Reactions on Dispersion of a Solute in Peristaltic Motion of Newtonian Fluid with Wall Properties", **MALAYSIAN JOURNAL OF MATHEMATICAL SCIENCES**, 11(3) (2017), pp. 347-363.
18. M. Y. Dhange and **G. C. Sankad**, "Peristaltic Pumping and Dispersion of a MHD Couple Stress Fluid with Chemical Reaction and Wall Effects", **Journal of Advances in Mathematics and Computer Science**, 24(3) (2017), pp. 1-12.
17. **G. C. Sankad** and M. Y. Dhange, "Effect of compliant walls on magneto-hydrodynamic peristaltic pumping of an incompressible viscous fluid with chemical reactions", **APRN Journal of Engineering and Applied Sciences**, 12(3) (2017), pp. 654-660.
16. Dhange Mallinath and **Sankad Gurunath**, "On Magnetohydrodynamic peristaltic pumping of an incompressible viscous fluid with chemical reactions and wall properties", **International Journal of Pure and Applied Mathematics**, 113(7) (2017), pp. 32-41.
15. **G. C. Sankad** and Asha Patil, "non-Newtonian Fluid Flow in a Peristaltic Channel Lined with Porous Material under Low Intensity Magnetic Field", **International Journal of Pure and Applied Mathematics**, 113(6) (2017), pp. 422-431.
14. **G. C. Sankad** and Pratima S. Nagathan," Transport of mhd couple stress fluid through peristalsis in a porous medium under the influence of heat transfer and slip effects", **International Journal: Int. J. Applied Mechanics and Engineering**, 22 (2017), pp. 403-414.
13. **G. C. Sankad** and Asha Patil, "Impact of Permeable Lining of the Wall on the Peristaltic Flow of Herschel Bulkley Fluid", **International Journal: Applications and Applied Mathematics (AAM)**, 11(2) (2016), pp. 663 -679.
12. **Gurunath Sankad** and Mallinath Dhange, "Peristaltic pumping of an incompressible viscous fluid in a porous medium with wall effects and chemical reactions", **International Journal: Alexandria Engineering Journal**, 55 (2016), pp. 2015-2021.
11. **G. C. Sankad** and Pratima S. Nagathan," Unsteady MHD Peristaltic Flow of a Couple Stress Fluid through Porous Medium with Wall and Slip Effects", **International Journal: Alexandria Engineering Journal** , 55 (2016), pp. 2099-2105.
10. **G. C. Sankad** and Asha Patil, "Effect of Porosity on the Peristaltic Pumping of a Non-Newtonian Fluid in a Channel", **International Journal: Journal of New Results in Science**, 10 (2016), pp.01-09.
9. **G. C. Sankad** and Pratima S. Nagathan, "Influence of the Wall Properties on the Peristaltic Transport of a Couple Stress Fluid with Slip Effects in Porous Medium", **International Journal: Procedia Engineering**, 127 (2015), pp. 862-868.
8. **G. C. Sankad** and Asha Patil,"Peristaltic Flow of Herschel Bulkley Fluid in a Non-Uniform Channel with Porous Lining", **International Journal: Procedia Engineering**, 127 (2015), pp. 686-693.
7. **G. C. Sankad** and G. Radhakrishnamacharya," Influence of Wall Properties on the Peristaltic Transport of a Micropolar Fluid in an inclined channel", **International Journal: Journal of New Results in Science**, 6 (2014), pp.62-75.
6. **G. C. Sankad**, P. S. Nagathan, Asha Patil and M. Y. Dhange "Peristaltic transport of a Herschel-Bulkley fluid in a non-uniform channel with wall effects", **International Journal of Engineering, Science and Innovative Technology (IJESIT)**, 3(3) (2014), pp. 669-678.

5. **G. C. Sankad** and G. Radhakrishnamacharya, "Effect of Magnetic Field on the Peristaltic Transport of Couple Stress fluid in a Channel with Wall properties", *International Journal of Biomathematics*, 4(3) (2011), pp 365-378.
4. **G. C. Sankad**, G. Radhakrishnamacharya and J. V. Ramanamurthy, "Long Wavelength Approximation to Peristaltic Motion of Micropolar Fluid with Wall Effects", *Adv. Appl. Math. Mech.*, 2 (2010), pp. 222-237.
3. **G. C. Sankad** and G. Radhakrishnamacharya, "Effect of Wall Properties on Peristaltic Transport of Micropolar Fluid in a non-Uniform Channel", *Int. J. of Appl. Math. and Mech*, 6(1) (2010), pp. 94-107.
2. **G. C. Sankad** and G. Radhakrishnamacharya, "Effect of Magnetic Field on Peristaltic Motion of Micropolar Fluid with Wall Effects" *Journal of Applied Mathematics and Fluid Mechanics*, 1 (2009), pp. 37-50.
1. **G. C. Sankad** and G. Radhakrishnamacharya, "Influence of Wall Properties on the Peristaltic Motion of a Herschel-Bulkley Fluid in a Channel", *APRN Journal of Engineering and Applied Sciences*, 4(10) (2009), pp. 27-35.

❖ Publications in Book Chapters

3. Mallinath Dhange and Gurunath Sankad, "**Outcome of Wall Features on the Creeping Sinusoidal Flow of MHD Couple Stress Fluid in an Inclined Channel with Chemical**" Advances in Mathematical Methods and High performance Computing (ISSN 1571-8689 ISSN 1876-9896 (electronic) Advances in Mechanics and Mathematics ISBN 978-3-030-02486-4 ISBN 978-3-030-02487-1 (eBook) <https://doi.org/10.1007/978-3-030-02487-1>) Springer Nature Switzerland AG 2019, volume-41 pp. 371-384.
2. Gurunath Sankad and Pratima S. Nagathan, "**Effects of Slip on the Peristaltic Motion of a Jeffrey Fluid in Porous Medium with Wall Effects**" Advances in Mathematical Methods and High performance Computing (ISSN 1571-8689 ISSN 1876-9896 (electronic) Advances in Mechanics and Mathematics ISBN 978-3-030-02486-4 ISBN 978-3-030-02487-1 (eBook) <https://doi.org/10.1007/978-3-030-02487-1>) Springer Nature Switzerland AG 2019, volume-41 pp. 415-425.
1. G. C. Sankad and Ishwar Maharudrappa, "**Boundary Layer Flow and Heat Transfer of Casson Fluid over a Porous Linear Stretching Sheet with Variable Wall Temperature and Radiation**", Lecture Notes in Mechanical Engineering (LNME), (ISSN 2195-4356 ISSN 2195-4364 (electronic) Lecture Notes in Mechanical Engineering ISBN 978-981-13-1902-0 ISBN 978-981-13-1903-7 (eBook) <https://doi.org/10.1007/978-981-13-1903-7>) Springer Nature Singapore Pte Ltd. 2019, pp.167-176

❖ Doctoral Students Supervision

Completed

- | | |
|------|---|
| 2017 | Asha B. Patil
Study of peristaltic motion of non-Newtonian fluids through porous medium |
| 2018 | P .S. Nagathan
The study of compliant wall effect on peristaltic transport of viscous fluid under various conditions |
| 2018 | M. Y. Dhange
Some flow problems in peristalsis on dispersion: effects of wall properties |

Ongoing

1. Ishwar Maharudrappa
Joined in 2013
Topic -MHD Boundary Layer Flow of non-Newtonian Fluids with various effects
2. Umesh Bhujakkanvar
Joined in 2017
Topic- Some Fluid Flow Problems in the Stenotic Region
3. R. S. Metri
Joined in 2018
Topic-Effect of porosity on peristaltic flow of non-Newtonian fluid model
4. G. Durga Priyadarsini
Joined in 2019
Topic-Physiological fluid flow in a narrow tube: an analytical approach

❖ Invited lectures

2. Resource person for invited talk on **Laplace transform and its applications** at One week FDP on **Mathematics and its Engineering Applications** conducted by Department of Mathematics & Mechanical Engineering, BLDEA's VP Dr. P. G. Halakatti College of Engineering and Technology, Vijayapur – 586 103, Karnataka., during 26-31, Jan 2017.
1. Resource person for invited talk on **Fundamental of Linear Algebra and vector space** at One week **ISTE-PTU** sponsored workshop on “**Wavelets & Applications**” conducted by Department of Computer science & Engineering, BLDEA's VP Dr.PGH College of Engineering and Technology, Bijapur – 586 103, Karnataka., during 9-13, June 2014.

❖ Organizing Conferences/Workshops/STTP/FDP

1. One week FDP on **Mathematics and its Engineering Applications** conducted by Department of Mathematics & Mechanical Engineering, BLDEA's VP Dr. P. G. Halakatti College of Engineering and Technology, Vijayapur – 586 103, Karnataka., during 26-31, Jan 2017.

❖ Conferences/Workshops/STTP/FDP Attended

28. Participated in one week workshop under **AICTE sponsored QIP Short term** course on **Special functions for Scientists and Engineers** on March 02-06, 2020 conducted by IIT Indoor (M.P.).
29. Attended a full day workshop on **QS Rankings & Ratings** on 20 January 2020 at Indian Institute of Science (IISc) Bangalore, sponsored by SRM Institute of Science & Technology (SRMIST).
26. Participated in two days National Level Workshop on **Quality Enhancement Measures in Higher, Technical, Professional and Management Educational Institutions with Special focus on NIRF INDIA Rankings** held at JNTU Hyderabad, Kukatpally, Hyderabad on October 18-19, 2019.

25. Participated in one week **AICTE sponsored QIP Short term** course on **Advanced Matrix Algebra and Applications** on September 17-23, 2019 conducted by IIT Kharagpur (W.B.)
24. Attended one week faculty development program on **PEDAGOGY FOR HIGHER EDUCATION** jointly organized by **INTERNAL QUALITY ASSURANCE CELL & ACADEMIC AFFAIRS COMMITTEE**, Vachana Pitamaha Dr. P. G. Halakatti College of Engineering & Technology, Vijayapur (Karnataka) during July 22-26 2019
23. Participated in one week **AICTE sponsored QIP Short term** course on **Computational methods for integral and differential equations** on December 10-16, 2018 conducted by IIT BHU Varanasi (U.P.)
22. Attended **National conference on Mathematical Modeling in Science and Engineering (MMSE 2018)** organized by NIT, Warangal(Telagana), India on March 27-28, 2018 and presented a paper entitled “**Casson fluid over an imperious linear stretching membrane of MHD boundary layer flow**” in the oral paper presentation season.
21. Participated in one week **QIP Short Term** Course on **Biology for Engineers** on June 4-8, 2018 conducted by **IIT Bombay**.
20. Attended one day workshop on **New Model Curriculum for first year BE/B. Tech-CBCS Detailed Syllabus(2018-19) as per Outcome-Based Education (OBE) format including Course Outcomes (CO) and Bloom’s Taxonomy** under TEQIP-1.3 for the course Engineering Mathematics under Basic Sciences Board held on 17-05-2018 at VTU Belagavi organized by **Visvervaraya Technological University, Belagavi**.
19. *International Conference on Numerical Heat Transfer and Fluid Flow (NHTFF2018)*, organized by NIT, Warangal(Telagana), India on January 19-21, 2018 co-author **Ishwar Maharudrappa** presented a research paper entitled “**Boundary layer flow and heat transfer of Casson fluid over a porous linear stretching sheet with variable wall temperature and radiation**” in the oral paper presentation season.
18. Attended **IInd International Conference on Modern Mathematical Methods and High Performance in Science and Technology (M3HPCST-2018)**, organized by Inderprastha Engineering College, Ghaziabad, Uttar Pradesh, India on January 4-6, 2018 and presented a research paper with co-author M. Y .Dhange entitled “**Outcome of wall features on the creeping Sinusoidal flow of MHD couple stress fluid in an inclined channel with chemical reaction**” in the oral paper presentation season.
17. Attended **IInd International Conference on Modern Mathematical Methods and High Performance in Science and Technology(M3HPCST-2018)**, organized by Inderprastha Engineering College, Ghaziabad, Uttar Pradesh, India on January 4-6, 2018 and presented a research paper entitled “**Effects of slip on the Peristaltic Motion of a Jeffrey Fluid in Porous Medium with Wall Effects**” in the oral paper presentation season.
16. Participated in one week **QIP Short Term** Course on **Modern Biophysical Techniques** on December 15-19, 2016 conducted by **IIT Bombay**.
15. Participated in three days workshop on **MATHEMATICA AS ATEACHING AID** held between March 10-12, 2016 under teaching education Quality improvement programme conducted by Department of Mathematics, **IIT Roorkee**.
14. Attended one day Workshop on **Energy Management**, 29th September 2014 conducted by Department of Mechanical Engineering, Vachana Pitamaha Dr. P. G. Halakatti College of Engineering & Technology, Bijapur (Karnataka).

13. Attended **IInd International Conference on Applications of Fluid Dynamics**, organized by Department of Mathematics, S.V. University, Tirupati – 517 502. A.P. INDIA (July 21-23, 2014) and presented a research paper with co-author M. Y .Dhange entitled “**Dispersion of a solute in peristaltic motion: an overview**” in the oral paper presentation season.
12. Attended **IInd International Conference on Applications of Fluid Dynamics**, organized by Department of Mathematics, S.V. University, Tirupati – 517 502. A.P. INDIA (July 21-23, 2014) and presented a research paper entitled “**Peristaltic Motion of Couple Stress fluid in a non-Uniform Channel with Wall Properties**” in the oral paper presentation season.
11. Participated in the two days National Level Workshop on **GeoGebra: Dynamic Mathematics made easy and Programming with Scilab** on December 28 and 29 2013 conducted by Department of Mathematics, BEC, Bagalkot (Karnataka).
10. Participated in the two days National Level Workshop on **Latex and its Applications** on August 31st and September 1st, 2013 organized by Smt. Kamala & Shri Venkappa M. Agadi College of Engineering & Technology, Lakshmeshwar -582 116 Dist. Gadag, Karnataka.
9. Attended Workshop on **Applications Mathematics- In Science and Engineering**, 22nd September 2012 conducted by Department of Mathematics, Karnataka college Dharwad, Karnataka.
8. Participated National Workshop on **Mathematical Models for Bio fluid Flows and Applications** (January 22-26, 2010), organized by Department of Mathematics, Sri Venkateswara University, Tirupati (A.P.).
7. Attended 54th Congress of the Indian Society of Theoretical and Applied Mechanics (*an International Meet*), organized by Netaji Subhas Institute of Technology New Delhi – 110045 (December 18-21, 2009) and presented a research paper entitled”**Influence of Wall Properties on Peristaltic Motion of a Micropolar Fluid in an Inclined Channel**” in the Technical season.
6. Attended National Workshop on Computational Methods with Splines, March 20–21, 2009 conducted by Department of Mathematics, NIT Warangal.
5. Attended STTP on **Advanced Computational Techniques**, January 27–31, 2009 conducted by Department of Mathematics, NIT Warangal.
4. Attended 53th Congress of the **Indian Society of Theoretical and Applied Mechanics** (*an International Meet*), organized by University College of Engineering, Osmania University, Hyderabad (December 27-30, 2008).
3. Attended STTP on **Modeling and Simulation of Engineering Systems**, July 7–19, 2008 conducted by Centre for Automation and Instrumentation, NIT Warangal.
2. Attended STTP on **Advances in Fluid Dynamics with emphasis to Non Newtonian fluid flows**, June 23–27, 2008 conducted by Department of Mathematics, NIT Warangal.
1. Attended STTP on **Scientific computing and modeling**, May 5–10, 2008 conducted by Department of Mathematics, NIT Warangal.

❖ Administrative Positions

- Member, Anti-Ragging Committee, since, 2010.

❖ Courses Taught both at UG and PG Level

- UG

Engineering Mathematics –I; Engineering Mathematics –II; Engineering Mathematics –III; Engineering Mathematics –IV; Calculus and Linear Algebra; Advanced Calculus and Numerical Methods; Transform calculus, Fourier series and Numerical Methods and Complex Analysis, Probability and Statistical Methods. Graph theory and combinatorics.

- **PG**

Advanced Mathematics for M. Tech. Electrical & Electronics, Mechanical and Computer Science Branches.