

Profile

Dr. G Janardhana Reddy

The President's Inspired Teacher (https://en.wikipedia.org/wiki/Inspired_Teacher)

*Associate Professor,
Department of Mathematics,
School of Physical Sciences,
Central University of Karnataka, Kalaburagi.*

Specializations: Finite Difference Methods, Numerical Methods, Semi-analytical Techniques, Computational Fluid Dynamics, Flow Visualization Techniques, Supercritical Fluids, Theory of Hydrodynamic Stability, Turbulent Flows and Mathematical Theory of Control.

Message: Save Water, Save Power, Plant Trees, Avoid using Plastic and Save Nature for next Generation.

Educational Background:

- Ph.D. (2009-2012) from NIT Warangal in the area of Computational Fluid Dynamics & the thesis title is "Transient couple stress fluid flow past a Vertical Cylinder". Supervisor: Dr. H. P. Rani
- M.Sc. (Applied Mathematics) (2004-2006) from NIT Warangal, Telangana.
- B.Sc. (Mathematics, Physics & Computer Science) (2001-2004) from St. Joseph's Degree College (Affiliated to Sri Krishnadevaraya University), Kurnool, Andhra Pradesh.

Work Experience:

- Working as an Associate Professor in the Dept. of Mathematics, Central University of Karnataka, Kalaburagi, Karnataka since December 15, 2022 to till date.
- Worked as an Assistant Professor in the Dept. of Mathematics, Central University of Karnataka, Kalaburagi, Karnataka during November 27, 2013 to December 14, 2022.

President's Inspired Teacher:

On 6th June 2015, I had been recognized as President's Inspired Teacher Award by the Former President of India, Shri Dr. Pranab Mukherjee. I stayed at Rashtrapati Bhavan, New Delhi for a week as part of the invited in-residence program for Inspired Teachers by the President.





Inspired Teachers In-Residence Program detailed Information, Photos and Videos are available in the President of India website (web links given below).

1. <http://presidentofindia.nic.in/cuinspiredteachers.htm>
2. https://en.wikipedia.org/wiki/Inspired_Teacher

RESEARCH PUBLICATIONS

Publications in International Journals during PhD at NIT Warangal (Only in SCI & SCOPUS):

- 1) H. P. Rani, **G Janardhana Reddy** and C.N. Kim (2011), Numerical Analysis of Couple Stress Fluid Past an Infinite Vertical Cylinder, *Engineering Applications of Computational Fluid Mechanics*, Vol.5(2), pp. 159-169. (SCI Journal, Scopus) (**Impact factor: 6.519**). <https://doi.org/10.1080/19942060.2011.11015360>.
- 2) H. P. Rani, **G Janardhana Reddy** and C.N. Kim (2013), The effect of the Couple Stress Parameter and Prandtl number on the Transient Natural Convection Flow over a Vertical Cylinder, Accepted for publication in *Acta Mechanica Sinica* (Springer Journal SCI, Scopus) (**Impact factor: 2.910**). <https://doi.org/10.1007/s10409-013-0079-1>
- 3) H. P. Rani and **G Janardhana Reddy** (2013), Heatline visualization for conjugate heat transfer of a couple stress fluid from a vertical slender hollow cylinder, Article in Press, , *International Communications in Heat and Mass transfer* (Elsevier Journal SCI, Scopus) (**Impact factor: 6.782**). <http://dx.doi.org/10.1016/j.icheatmasstransfer.2013.08.015>
- 4) H. P. Rani, **G Janardhana Reddy** and Chang Nyung Kim (2013), Transient analysis of diffusive chemical reactive species for couple stress fluid flow over a vertical cylinder, *Applied Mathematics and Mechanics (English Edition)*, Vol. 34(8), pp. 985-1000. (Springer Journal SCI, Scopus) (**Impact factor: 3.918**). <https://doi.org/10.1007/s10483-013-1722-6>
- 5) H. P. Rani and **G Janardhana Reddy** (2013), Soret and Dufour effects on transient double diffusive free convection of couple stress fluid past a vertical cylinder, *Journal of Applied Fluid Mechanics* Vol. 6, No. 4, pp. 545-554 (SCI Journal, Scopus) (**Impact factor: 1.152**).
- 6) H. P. Rani, **G Janardhana Reddy** and Chang Nyung Kim (2013), Conjugate Transient Free Convective Couple Stress Fluid Flow from a Vertical Slender Hollow Cylinder, *Progress in Computational Fluid Dynamics, An International Journal (PCFD)* <https://doi.org/10.1504/PCFD.2014.064553>. (SCI Journal, Scopus) (**Impact factor: 1.048**)).
- 7) H. P. Rani and **G Janardhana Reddy** (2013), Transient free convective conjugate heat transfer from a vertical slender hollow cylinder, *International Review of Mechanical Engineering (IREME)*, Vol. 7(1), 207-216. (Scopus).

Publications as independent researcher after joining CUK (Only in SCI & SCOPUS):

- 8) H. P. Rani, **G Janardhana Reddy**, C.N. Kim and Y. Rameswar (2015), Transient Couple Stress Fluid past a Vertical Cylinder with Bejan's Heat and Mass Flow Visualization for Steady-State. *ASME Transactions Journal of Heat Transfer*, 137 (3), 032501 (**Impact factor 2.021**) (SCI Journal, Scopus). [doi: 10.1115/1.4029085](https://doi.org/10.1115/1.4029085)
- 9) **G Janardhana Reddy**, B Kethireddy, M Kumar, MM Hoque (2017), A molecular dynamics study on transient non-Newtonian MHD Casson fluid flow dispersion over a radiative vertical cylinder with entropy heat generation (**Impact factor: 6.633**). *Journal of Molecular Liquids* (SCI Journal, Scopus) 252, 245-262. <https://doi.org/10.1016/j.molliq.2017.12.077>
- 10) **G Janardhana Reddy**, B Kethireddy, JC Umavathi and MA Sheremet (2017). Heat flow visualization for unsteady Casson fluid past a vertical slender hollow cylinder, *Thermal Science and Engineering Progress* (SCI Journal, Scopus) 5, 172-181. <https://doi.org/10.1016/j.tsep.2017.11.010> (**Impact factor 4.56**)
- 11) **G Janardhana Reddy**, B Kethireddy and H.P. Rani (2017). Bejan's Heat Flow Visualization for Unsteady Micropolar Fluid Past a Vertical Slender Hollow Cylinder with Large Grashof Number, *International Journal of Applied and Computational Mathematics* (Springer) 4 (1), 39. <https://doi.org/10.1007/s40819-017-0468-4> (**Scopus**)
- 12) **G Janardhana Reddy**, A Hiremath and M Kumar (2017). Computational modeling of unsteady third-grade fluid flow over a vertical cylinder: A study of heat transfer visualization (**Impact factor 4.565**), *Results in Physics* (SCI Journal) 8, 671-682. <https://doi.org/10.1016/j.rinp.2017.12.054>
- 13) **G Janardhana Reddy**, H. Basha and N.S.V. Narayanan (2018). Heat flow visualization of a chemical compound isobutane (C₄H₁₀) past a vertical cylinder in the subcritical, near-critical and supercritical regions, *Journal of Molecular Liquids* (SCI Journal, Scopus) (**Impact factor: 6.633**) <https://doi.org/10.1016/j.molliq.2018.02.103>
- 14) **G Janardhana Reddy**, M. Kumar, J.C. Umavathi and M.A. Sheremet (2017). Transient Entropy Analysis for the Flow of a Second Grade Fluid Over a Vertical Cylinder, *Canadian Journal of Physics* (SCI Journal, Scopus) (**Impact factor: 1.358**) <https://doi.org/10.1139/cjp-2017-0672>.
- 15) **G Janardhana Reddy**, H. Basha and N.S.V. Narayanan (2017). A numerical investigation of transient natural convective heat transfer to isobutane in the supercritical region (**Impact factor: 6.633**), *Journal of Molecular Liquids* (SCI Journal, Scopus) 250, 131-149. <https://doi.org/10.1016/j.molliq.2017.11.074>
- 16) **G Janardhana Reddy**, M. Kumar, B. Kethireddy and A. J. Chamkha (2017). Colloidal study of unsteady magnetohydrodynamic couple stress fluid flow over an isothermal vertical flat plate with entropy heat generation (**Impact factor: 6.633**), *Journal of Molecular Liquids* (SCI Journal, Scopus), 252, 169-179. <https://doi.org/10.1016/j.molliq.2017.12.106>
- 17) J. C. Umavathi, M. A. Sheremet, O. Ojjela and **G Janardhana Reddy** (2017). The onset of double-diffusive convection in a nanofluid saturated porous layer: Cross-diffusion effects, *European Journal of Mechanics-B/Fluids* (SCI Journal, Scopus) (**Impact factor 2.598**), 65, 70-87. <https://doi.org/10.1016/j.euromechflu.2017.01.017>
- 18) **G Janardhana Reddy**, H. Basha and N.S.V. Narayanan (2018). Transient Natural Convection Heat Transfer to CO₂ in the Supercritical Region, *ASME Transactions Journal of Heat Transfer* (SCI Journal, Scopus) (**Impact factor 2.021**), 140(9):092502-092502-10. HT-17-1448. doi: 10.1115/1.4039905
- 19) **G Janardhana Reddy**, Bhaskerreddy Kethireddy and O Anwar Beg (2018). Flow visualization using heat lines for unsteady radiative hydromagnetic micropolar convection from a vertical slender hollow cylinder, *International Journal of Mechanical Sciences* (SCI Journal, Scopus) (**Impact factor 6.772**), Volume 140, Pages 493-505 <https://doi.org/10.1016/j.ijmecsci.2018.03.014>.
- 20) Mahesh Kumar, **G. Janardhana Reddy** and Nemat Dalir (2018). Transient entropy analysis of the magnetohydrodynamics flow of a Jeffrey fluid past an isothermal vertical flat plate (**Impact factor: 2.699**), *Pramana-Journal of Physics* (SCI Journal, Scopus) (2018) 91:60, <https://doi.org/10.1007/s12043-018-1628-8>.
- 21) **G. Janardhana Reddy**, Mahesh Kumar and O. Anwar Beg (2018). Effect of temperature dependent viscosity on entropy generation in transient viscoelastic polymeric fluid flow from an isothermal vertical plate (**Impact factor 3.778**), *Physica A* (SCI Journal, Scopus) 510 (2018) 426-445, <https://doi.org/10.1016/j.physa.2018.06.065>.

- 22) **G. Janardhana Reddy**, Bhaskerreddy Kethireddy, Mahesh Kumar, H. P. Rani and Rama Subba Reddy Gorla (2018), Effect of Prandtl Number for Casson Fluid Flow Over a Vertical Cylinder: Heatline Approach. *International Journal of Applied and Computational Mathematics* (Springer), <https://doi.org/10.1007/s40819-018-0516-8>. (Scopus)
- 23) **G Janardhana Reddy**, Hussain Basha, NS Venkata Narayanan (2018), Finite difference analysis of unsteady natural convection properties of carbon dioxide in the supercritical region using the Redlich-Kwong equation of state, *Journal of Physics and Chemistry of Solids* (Elsevier Journal SCI, Scopus) (Impact factor 4.383), Volume 122, Pages 284-301 <https://doi.org/10.1016/j.jpics.2018.06.029>
- 24) **G Janardhana Reddy**, Ashwini Hiremath, Hussain Basha and NS Venkata Narayanan (2018), Transient Flow and Heat Transfer Characteristics of non-Newtonian Supercritical Third-Grade Fluid (CO₂) past a Vertical Cylinder, *International Journal of Chemical Reactor Engineering* (SCI Journal, Scopus) (Impact factor: 1.636), Volume 16, Issue 8, DOI: <https://doi.org/10.1515/ijcre-2017-0232>
- 25) Hussain Basha, **G Janardhana Reddy** and M Gnaneswara Reddy (2018), Chemically reactive species of time-dependent natural convection couple stress fluid flow past an isothermal vertical flat plate, *Canadian Journal of Physics* (SCI Journal, Scopus) (Impact factor: 1.358), <https://doi.org/10.1139/cjp-2018-0169>.
- 26) Mahesh Kumar, **G Janardhana Reddy**, NN Kumar and OA Beg (2018), Application of differential transform method to unsteady free convective heat transfer of a couple stress fluid over a stretching sheet, *Heat Transfer (Scopus)*(<https://doi.org/10.1002/htj.21396>).
- 27) **G. Janardhana Reddy**, Bhaskerreddy Kethireddy, Mahesh Kumar and O. Anwar Beg (2018), Transient analysis of Casson fluid thermo-convection from a vertical cylinder embedded in a porous medium: Entropy generation and thermal energy transfer visualization, *Journal of Central South University*, (<https://doi.org/10.1007/s11771-019-4091-x>), (SCI Journal, Scopus) (Impact factor 2.392).
- 28) Ragoju Ravi, C. Kanchana, **G Janardhana Reddy** and Hussain Basha (2018), Study of Soret and Dufour effects and secondary instabilities on Rayleigh-Benard convection in a couple stress fluid, *The European Physical Journal Plus*, (SCI Journal, Scopus), (Impact factor 3.758) (<https://doi.org/10.1140/epjp/i2018-12321-6>).
- 29) Ashwini Hiremath and **G. Janardhana Reddy** (2018), Transient Analysis of Third-Grade Fluid Flow Past a Vertical Cylinder Embedded in a Porous Medium, Book: Numerical Heat Transfer and Fluid Flow, Chapter No:11, Chapter DOI.: 10.1007/978-981-13-1903-7_11, *Lecture Notes in Mechanical Engineering (Scopus)*.
- 30) **G Janardhana Reddy**, Mahesh Kumar and H. P. Rani (2019), Study of entropy generation in transient hydromagnetic flow of couple stress fluid due to heat and mass transfer from a radiative vertical cylinder, *Pramana – Journal of Physics* (2019) 93: 103. <https://doi.org/10.1007/s12043-019-1861-9>, (SCI Journal, Scopus), (Impact factor: 2.699)
- 31) Ashwini Hiremath, **G Janardhana Reddy** and O Anwar Bég (2019), Transient analysis of third-grade viscoelastic nanofluid flow external to a heated cylinder with buoyancy effects, *Arabian Journal for Science and Engineering*, 44: 7875. <https://doi.org/10.1007/s13369-019-03933-4>, (SCI Journal, Scopus), (Impact factor: 2.807).
- 32) Ashwini Hiremath, **G Janardhana Reddy**, Mahesh Kumar and O Anwar Bég (2019), Unsteady free convective heat transfer in third-grade fluid flow from an isothermal vertical plate: A thermodynamic analysis, *International Journal of Modern Physics B*, <https://doi.org/10.1142/S0217979219500607>, (SCI Journal, Scopus), (Impact factor: 1.404).
- 33) Mahesh Kumar, **G Janardhana Reddy** and OA Beg (2019), Bejan flow visualization of free convection in a Jeffrey fluid from a semi-infinite vertical cylinder: influence of Deborah and Prandtl numbers, *Journal of Thermal Analysis and Calorimetry: An International Forum for Thermal Studies*, <https://doi.org/10.1007/s10973-019-08099-7>, (SCI Journal, Scopus), (Impact factor: 4.755).
- 34) Mahesh Kumar, **G Janardhana Reddy**, N Naresh Kumar and O Anwar Bég (2019), Computational study of unsteady couple stress magnetic nanofluid flow from a stretching sheet with Ohmic dissipation, *Proceedings of the Institution of Mechanical Engineers, Part N: Journal of Nanomaterials, Nanoengineering and Nanosystems*, <https://doi.org/10.1177/2397791419843730>,(Scopus Journal), (Impact factor: 0.210).
- 35) Hussain Basha, **G Janardhana Reddy**, NS Venkata Narayanan and O Anwar Bég (2019), Supercritical heat transfer characteristics of couple stress convection flow from a vertical cylinder using an equation of state approach, *Journal of Molecular Liquids*, Volume 277, Pages 434-452, (SCI Journal), (Impact factor: 6.633).

- 36) Hussain Basha, **G Janardhana Reddy** and NS Venkata Narayanan (2019), A numerical study of natural convection properties of supercritical water (H₂O) using Redlich–Kwong equation of state, *Sādhanā*, 44: 37. <https://doi.org/10.1007/s12046-018-1035-3>, (SCI Journal, Scopus), (**Impact factor: 1.214**).
- 37) Hussain Basha, N. N. Kumar and **G Janardhana Reddy** (2019), Effect of Prandtl number on leading edge accretion and ablation: A numerical study of unsteady boundary layer flow over a flat plate, *Heat Transfer - Asian Research*, <https://doi.org/10.1002/htj.21519> (Scopus).
- 38) Hussain Basha, **G Janardhana Reddy**, Annapoorna Killead, Vinaya Pujari, N Naresh Kumar (2019), Numerical modelling of second-grade fluid flow past a stretching sheet, *Heat Transfer—Asian Research*, <https://doi.org/10.1002/htj.21448>, (Scopus).
- 39) Hussain Basha, **G Janardhana Reddy**, NS Venkata Narayanan, Mikhail A Sheremet (2020), Analysis of supercritical free convection in Newtonian and couple stress fluids through EOS approach, *International Journal of Heat and Mass Transfer*, 152, pp. 119542, (SCI Journal, Scopus), (**Impact factor: 5.431**).
- 40) Hussain Basha, **G Janardhana Reddy**, NS Venkata Narayanan (2020), Thermodynamic analysis of natural convection supercritical water flow past a stretching sheet using an equation of state approach, *Canadian Journal of Physics*, <http://dx.doi.org/10.1139/cjp-2019-0384>, (SCI Journal, Scopus), (**Impact factor: 1.358**).
- 41) Hussain Basha, N. Naresh Kumar, **G Janardhana Reddy** and Sreenivasulu Ballem (2021), Thermal analysis of buoyancy-motivated Casson fluid flow with time-independent chemical reaction under Lorentz forces, *Heat Transfer*, <https://doi.org/10.1002/htj.22229>, (**Scopus**).
- 42) Mahesh Kumar, **G Janardhana Reddy** and Ragoju Ravi (2020), Transient analysis of viscoelastic fluid past a semi-infinite vertical cylinder with respect to the Deborah and Hartmann numbers, *Journal of Thermal analysis and Calorimetry*, <https://doi.org/10.1007/s10973-019-08285-7>, (SCI Journal, Scopus), (**Impact factor: 4.755**).
- 43) Suresha S P, Hussain Basha, **G Janardhana Reddy** and Mikhail A Sheremet (2021), Magnetized dissipative Soret effect on chemically reactive Maxwell fluid over a stretching sheet with joule heating, *Coatings*, <https://doi.org/10.3390/coatings11050528>, (SCI Journal, Scopus), (**Impact factor: 3.236**).
- 44) Suresha S P, Hussain Basha and **G Janardhana Reddy** (2021), Magnetized couple stress fluid flow past a vertical cylinder under thermal radiation and viscous dissipation effects, *Nonlinear Engineering*, <https://doi.org/10.1515/nleng-2021-0027> (**Scopus**).
- 45) Ashwini Hiremath, Hussain Basha, Bhaskerreddy Kethireddy, **G Janardhana Reddy** and N S Venkata Narayanan (2019), The effect of thermal expansion coefficient on unsteady non-Newtonian supercritical Casson fluid flow past a vertical cylinder, *Pramana - Journal of Physics*, <https://doi.org/10.1007/s12043-019-1770-y>, (SCI Journal, Scopus), (**Impact factor: 2.699**).
- 46) Hussain Basha, **G. Janardhana Reddy**, N. S. Venkata Narayanan (2019), Heat transfer characteristics of Nitrogen in supercritical region using Redlich-Kwong equation of state, *International Journal of Chemical Reactor Engineering*, <https://doi.org/10.1515/ijcre-2018-0279>, (SCI Journal, Scopus), (**Impact factor: 1.636**).
- 47) Hussain Basha and **G Janardhana Reddy**, Unsteady boundary layer flow of magneto-hydrodynamic couple stress fluid over a vertical plate with chemical reaction, *Lecture Notes in Mechanical Engineering*, https://doi.org/10.1007/978-981-13-1903-7_22, (**Scopus**).
- 48) **G Janardhana Reddy**, Bhaskarreddy, Mahesh Kumar, H P Rani (2019), Entropy generation for transient Casson fluid past a vertical cylinder with Bejan's flow visualization, *International Journal for Computational Methods in Engineering Science and Mechanics*, <https://doi.org/10.1080/15502287.2019.1569173>, (**Scopus**).
- 49) Ashwini Hiremath, **G. Janardhana Reddy** and O. Anwar Béğ (2019), Computational unsteady flow analysis for third-grade fluid from an isothermal vertical cylinder through a Darcian porous medium, *Heat Transfer*, <https://doi.org/10.1002/htj.21511>, (**Scopus**).
- 50) Mahesh Kumar, **G. Janardhana Reddy**, G. Ravi Kiran, M. A. Mohammed Aslam and O. Anwar Béğ, (2019), Computation of entropy generation in dissipative transient natural convective viscoelastic flow, *Heat Transfer*, <https://doi.org/10.1002/htj.21421>, (**Scopus**).
- 51) **G. Janardhana Reddy**, Ashwini Hiremath, Mahesh Kumar, O. Anwar Béğ and Ali Kadir (2022), Unsteady magnetohydrodynamic couple stress fluid flow from a shrinking porous sheet: Variational iteration method study, *Heat Transfer*, <https://doi.org/10.1002/htj.22397> (**Scopus**).
- 52) Suman Shekhar, Ravi Ragoju, **Gudala Janardhana Reddy**, and Mikhail A. Sheremet, The Coriolis Effect on Thermal Convection in a Rotating Sparsely Packed Porous Layer in Presence of Cross-

- Diffusion, *Coatings*, 2022, 12(1), 23; <https://doi.org/10.3390/coatings12010023>. (SCI Journal, Scopus), (**Impact factor: 3.236**).
- 53) Ashwini Hiremath, **G. Janardhana Reddy**, O. Anwar Bég and Harish Holla (2022), Numerical investigation on transient third-grade magnetized nanofluid flow and radiative convection heat transfer from a stationary/moving cylinder: Nanomaterial and nanoparticle shape effects, *Waves in Random and Complex Media*, <https://doi.org/10.1080/17455030.2021.2024300> .(SCI Journal, Scopus), (**Impact factor: 4.051**).
- 54) Hussain Basha, Sreenivasulu Ballem, **G. Janardhana Reddy**, Harish Holla and Mikhail A Sheremet (2022), Buoyancy-motivated dissipative free convection flow of Walters-B fluid along a stretching sheet under the Soret effect and Lorentz force influence, *Heat Transfer*, (**Scopus**) <https://doi.org/10.1002/htj.22461>
- 55) Vijayakumar S Muni, Kallu Vetty Muhammed Rafeek, **Gudala Janardhana Reddy** and Raju K George (2022), On the Selection of Leaders for the Controllability of Multi-agent Networks, *Bulletin of the Iranian Mathematical Society*, (SCI Journal, Scopus), <https://doi.org/10.1007/s41980-022-00683-2> (**Impact factor: 0.776**).
- 56) Bhaskerreddy Kethireddy, **G. Janardhana Reddy** and Hussain Basha (2022), Bejan’s thermal and mass flow visualization in micropolar fluid, *Waves in Random and Complex Media*, DOI: [10.1080/17455030.2022.2088887](https://doi.org/10.1080/17455030.2022.2088887). (SCI Journal, Scopus), (**Impact factor: 4.051**).
- 57) A Hiremath, **G J Reddy**, H Basha, N S V Narayanan, O A Beg (2022), Magnetized supercritical third-grade nanofluid flow from a vertical cylinder using a Crank-Nicolson implicit scheme, *Waves in Random and Complex Media*, DOI: [10.1080/17455030.2022.2103207](https://doi.org/10.1080/17455030.2022.2103207). (SCI Journal, Scopus), (**Impact factor: 4.051**).
- 58) K V M Rafeek, **G J Reddy**, R Ragoju, G S K Reddy, M A Sheremet (2022), Impact of Throughflow and Coriolis Force on the onset of Double-Diffusive convection with internal heat source, *Coatings*, DOI: [10.3390/coatings12081096](https://doi.org/10.3390/coatings12081096). (SCI Journal, Scopus), (**Impact factor: 3.236**).
- 59) Rafeek KV Muhammed, Hussain Basha, **G Janardhana Reddy** (2022), Usha Shankar, O Anwar Bég (2022), Influence of variable thermal conductivity and dissipation on magnetic Carreau fluid flow along a micro-cantilever sensor in a squeezing regime, *Waves in Random and Complex Media*, DOI: [10.1080/17455030.2022.2139013](https://doi.org/10.1080/17455030.2022.2139013). (SCI Journal, Scopus), (**Impact factor: 4.051**).
- 60) A R Deepika, K Govardhan, M Rafiuddin, **G Janardhana Reddy** and Hussain Basha (2022), Radiative thermal and solutal stratification effects on magnetized dissipative second grade nanofluid flow over an exponentially stretching sheet, *Discontinuity, Nonlinearity, and Complexity* (Accepted) (**Scopus**).
- 61) Ravi Ragoju, Shekar Suman, Reddy G Shiva kumar and **G Janardhana Reddy** (2022), The study of internal heat and variable gravity field on the onset of convection in a sparsely packed porous medium, *Part E: Journal of Process Mechanical Engineering* (Accepted) (SCI Journal, Scopus). (**Impact factor: 1.822**).
- 62) Rafeek M.K.V, **G Janardhana Reddy**, A.Matta, O.A. Beg (2022), Effect of viscous dissipation and internal heat source on mono-diffusive thermo convective stability in a horizontal porous medium layer, *Special Topics and Reviews in porous medium* (Accepted). (**Scopus**).
- 63) Rafeek M.K.V, **G Janardhana Reddy**, A.Matta, O.A. Beg (2022), Computation of internal heat source, viscous dissipation and mass flow effects on mono-diffusive thermo convective stability in a horizontal porous medium, *Discontinuity, Nonlinearity, and Complexity* (Accepted). (**Scopus**).
- 64) Suresha S P and **G Janardhana Reddy** (2022), Theoretical analysis of unsteady buoyant turbulent heat and mass transport from a vertical plate using LRN k-ε model, *Waves in Random and Complex Media* (Accepted). (SCI Journal, Scopus), (**Impact factor: 4.051**).
- 65) Suresha S P and **G Janardhana Reddy** (2022), Natural Convective Turbulent Heat Flow Visualization around a Vertical Plate using Low Reynolds Number k-ε Model, *Waves in Random and Complex Media* (Accepted). (SCI Journal, Scopus), (**Impact factor: 4.051**).

Training Courses, Faculty Development Programme attended:

1. Inspired Teachers In-Residence Programme, Rashtrapati Bhavan, New Delhi, June 6-12, 2015.
2. STTP on Mathematical Modelling and Numerical Techniques, 17-21st Jan. 2011 organised by Department of Mathematics, NITW. (One week)
3. “Prof. S. Minakshi Sundaram Memorial Society and One-day seminar on Challenges in Current Mathematics Research” conducted at NIT Warangal on Oct. 22, 2010.
4. “Engineering Mathematics with Mathematica” Conducted by Wolfram Research on Feb 14th 2013.

5. "Faculty Development Programme on Teaching Methods" by GITAM University, Hyderabad on June 27-28, 2013.
6. STTP on Mathematical Modelling and Numerical Techniques in Engineering and Science, 9-13 October 2018 organized by Department of Mathematics, NITW. (One week)

Papers presented in Conferences:

1. G. Janardhana Reddy (2010), "Finite difference analysis of couple stress fluid past an infinite vertical cylinder", International congress of Mathematicians (ICM) 2010, Aug. 19-27, Department of Mathematics, University of Hyderabad, Hyderabad, India.
2. G. Janardhana Reddy, (2010), "Hydrodynamic stability of free convection from an inclined elliptic cylinder in couple stress fluid", International congress of Mathematicians (ICM) 2010, Aug. 19-27, Department of Mathematics, University of Hyderabad, Hyderabad, India.
3. G. Janardhana Reddy (2011) "Analysis of heatlines and masslines for transient natural convection-radiation interaction on hydromagnetic flow of a couple stress fluid past a vertical cylinder", Dec. 27-30th, 2011, 21st National and 10th **ISHMT-ASME** Heat and Mass Transfer Conference, organized by IIT Madras.
4. G. Janardhana Reddy, Radiation and mass transfer effects on unsteady MHD flow of couple stress fluid past an infinite vertical cylinder, 55th Congress of the Indian society of theoretical and applied mechanics (**ISTAM**) proceedings, National Institute of Technology, Hamirpur, Dec. 18-21, 2010, India.
5. G. Janardhana Reddy, H. P. Rani, Finite difference analysis of couple stress fluid past an infinite vertical cylinder with chemical reaction effects, XIX Congress and National Conference on Mathematical aspects of cryptography and Network Security (APSMS) JITS, Karimnagar Nov. 12-14, 2010, India.
6. G. Janardhana Reddy, Boundary layer flow of a couple stress fluid past an infinite vertical cylinder, 5th National conference on Applicable Mathematics in wave mechanics and vibrations, Kakatiya University March 13-15, 2010, Warangal, India.
7. G. Janardhana Reddy, Finite difference analysis of couple stress fluid flow past a vertical cylinder with heat and mass transfer, Conference on new vistas in computational fluid dynamics in engineering, NIT Warangal, Jan 27-29, 2012.
8. G. Janardhana Reddy, Bhaskerreddy Kethireddy and H. P. Rani, Bejan's Flow Visualization for Conjugate Heat Transfer From a Vertical Cylinder, *59th Congress of ISTAM* (<http://istam.iitkgp.ac.in>) organized by IIT Kharagpur, Dec16-20 2014.
9. G. Janardhana Reddy, Time-dependent Casson fluid flow over a vertical slender cylinder with Bejan's flow visualization, NCAND conference -2016, December 21-22, 2016, NIT Warangal.
10. G. Janardhana Reddy, Entropy heat generation analysis of transient Casson fluid flow over a vertical slender cylinder with Bejan's flow visualization, NCAND conference -2016, December 21-22, 2016, NIT Warangal.
11. G. Janardhana Reddy, Transient analysis of Jeffrey fluid past a semi-infinite vertical cylinder with respect to the Deborah and Prandtl numbers, MMSE-2018 (National Conference), March 27-28, 2018.
12. G. Janardhana Reddy, Heat and mass transfer flow visualization of micropolar fluid past a semi-infinite vertical cylinder, International Conference on Numerical Heat Transfer and Fluid Flow, NIT Warangal, 17-19 January 2020.

Participation in Workshops:

1. National Workshop on "Advanced Computational Applications using ANSYS FLUENT" on Jan. 7, 2011 conducted at NIT Warangal.
2. "First Indo-US Joint NSF Workshop on Energy-Water Sustainability" on Dec 27, 2011, Indian Institute of Technology Madras.
3. Science Academies Lecture Workshop On "Current Trends in Nanoscience and Technology" 23rd - 24th December 2011 (SALWCTNST-2011) in National Institute of Technology Warangal.
4. A Two-Day National Workshop on "Advanced Medical Applications using MIMICS Software", organized by Department of Mechanical Engineering, NITW, Oct. 8-9 2010.

5. National Workshop on “Computational methods with Splines” on March 20-21,2009 conducted at NIT Warangal.

Guest/Invited Lectures:

1. Delivered two invited lectures on Limit of Real and Complex Valued Functions, Interpolation in “Special Lecture Series on Mathematical Science” Organized by Gulbarga University, Kalaburagi, Dec 31 2015.
2. Delivered Invited Talk on “Introduction to Matlab Programming, Simulink and Signal Processing Tool Box” in the one-week workshop on “Matlab for Engineering Applications” organized by Sree Chaitanya College of Engineering, Affiliated to JNTU University, Dec 5 2015.
3. Delivered Invited Talk on “Use of Computers and Softwares” in Research Methodology workshop organized by Central University of Karnataka, Kalaburagi, November 17 2015.
4. Participated as Invited Speaker and delivered two invited lectures on Limit of Real and Complex Valued Functions at Bangalore University (UGC Sponsored Refresher Course), Feb 15 2014.
5. Delivered lectures on Tecplot 360 CFD Software at IIT Bhuvanewar.
6. Delivered guest lecture on MATLAB BASICS in the two-day National work shop on “Applications of Matlab in Electrical Engineering” conducted by Sree Chaitanya college of Engineering, Karimnagar, Affiliated to JNTU University, March 10-12, 2013.
7. Delivered guest lecture on MATLAB BASICS & SIMULINK in the two-day National work shop on “Applications of Matlab in Power systems” conducted by Sree Chaitanya Institute of Technological Sciences, Karimnagar, Affiliated to JNTU University, April 7-8, 2013.
8. Delivered Series of Lectures in the Workshop on Numerical Methods using Matlab, 14th Feb - 15th Feb 2016, SR Engineering College, Warangal.
9. Delivered Series of Lectures in the National Workshop on Basic Matlab Programming and Simulink, May 6-8, 2015, CUK.
10. Delivered Invited Talks on FDM, MATLAB & MATHEMATICA in One Week Work Shop on Advanced Numerical Modeling Techniques for Mechanical Engineering, VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING & TECHNOLOGY, HYDERABAD, 27th - 31st March 2017.
11. Delivered Series of Lectures on overview of Matlab, Mathematica and Latex Softwares in the workshop Exposure to Scientific Software & Tools for research in Physical Sciences, Navodaya Institute of Technology, Raichur, Karnataka, 1st & 2nd-October 2016.
12. Delivered Invited Talk on Brief introduction to latex software in National Workshop on Innovative Research Techniques, CUK, Nov 25-26, 2016.
13. Delivered Invited Talk on A Brief Note on Differential Transform Method in National Conference on Advances in Computational Fluid Dynamics, Acharya Nagarjuna University, Ongole, 12-04-2019.
14. Delivered Invited Talk in popular Maths lectures as a part of National Mathematics Day, SRTM University, Maharashtra, Nanded on 16-01-2019.
15. Delivered Invited Talk on Life and Works of Srinivasa Ramanujan, Sharanbasava University, Kalaburagi on 16-02-2019.
16. Delivered an Invited Talk on “Life and works of Srinivasa Ramanujan” organized by District Science Centre, Kalaburagi, 22, Dec 2019.
17. Attended as a resource person and delivered series of lectures on “Matlab Basics and Programming” organized by Govt. Degree College, Kalaburagi, 28, Nov 2019.
18. Delivered an Invited Talk on “Programming tools for Researchers Python, Matlab, Mathematica, Minitab, R” organized by Reva University, Bangalore, 20-01-2021.
19. Delivered an Invited Talk on “Text/Document preparation Tools-Latex, word” organized by Reva University, Bangalore, 21-01-2021.
20. Delivered an invited talk on “Introduction to Computational Software” in National Webinar on “Recent advances in Artificial Neural Networks & Computational Techniques in Engineering and Humanities” on July 31, 2021, Organized by Gitam University, Visakhapatnam.
21. Delivered an invited talk on “Learning of Computational Software using E-resources during Covid Pandemic Time” in International Conference on “Recent Trends in Mathematics and ITS Applications” on 2-3 December, 2021, Organized by Gitam University, Bangalore.

22. Attended as a Chief Guest and Delivered the Keynote address on “Life and Works of Srinivasa Ramanujan” in Sharnbasveshwar College of Science, Kalaburagi on the eve of National Mathematics Day. Date: 30-12-2021.
23. Delivered Invited Talk on "Linear Stability Analysis: Flow through Porous Media" in the two-day National Conference (Recent Developments in Tribology and Applications) @ Sharanbasva University, Kalaburagi. Dates: March 9-10, 2022.
24. Delivered Invited Talk on "Controllability and Observability of Multi-agent Networks" in the Short Term Course on Mathematical Modeling and Recent Computational Techniques Organized by Department of Mathematics, Sreenidhi Institute of Science and Technology, Hyderabad in association with NIT Warangal. Dates: 17th -21st October, 2022.

Social Activities:

- Attended as a Chief Guest for “Teachers Day Celebrations” and Inspired the Engineering Students in Shetty Institute of Technology, Kalaburagi, Sep 5, 2015.
- Attended as a Chief Guest for “Mathematics Week Celebrations” and Inspired the students in Swami Narayanan Gurukul International School, Kalaburagi, June 2015.
- Actively Participated in Swatch Bharat Abhiyan organized by the Schools of Sciences and Engineering, Central University of Karnataka, Kalaburagi, October 15 2015.
- Attended as a Chief Guest for “National Mathematics Day” and Inspired the students in Doddappa Appa Pre-University Science College, Kalaburagi, Dec 22 2017.

STTP/Conference/Workshops/Events Organized at CUK:

- Organized (as Convener) a three day National Level Workshop on Basic Matlab Programming and Simulink at the Central University of Karnataka, Kalaburagi, May 6-8, 2015. (Total Participants: 76)
- Organized (as Convener) a two day National Level Workshop on Innovative Research Techniques at the Central University of Karnataka, Kalaburagi, November 25-26, 2016. (Total Participants: 123)
- Organized (as Coordinator) the event “National Mathematics Day 2015” at the Central University of Karnataka, Kalaburagi, December 15 2015.
- Organized (as Coordinator) the event “International Mathematics PI Day 2017” at the Central University of Karnataka, Kalaburagi, March 17 2016.
- Organized (as Coordinator) the event “National Mathematics Day 2018” at the Central University of Karnataka, Kalaburagi, December 19 2018.
- Organized (as Convener) a three day National Level Workshop on Current Research in Mathematical Sciences on the occasion of Inauguration of Computing Laboratory at the Central University of Karnataka, Kalaburagi, March 28-30, 2019. (Total Participants: 78)
- Organized (as Coordinator) the event “National Mathematics Day 2019” at the Central University of Karnataka, Kalaburagi, December 11 2019.
- Organized (as Coordinator) the event “National Mathematics Day 2019” at the Central University of Karnataka, Kalaburagi, December 11 2019.

Merits/ Honors:

- Inspired Teacher Award recognition by the Former President of India, Shri Pranab Mukherjee on June 6th 2015.
- Received merit scholarship prize during my M.Sc level at NIT Warangal.
- Received college topper prize during at my B.Sc level.
- Achieved 90.50% of marks in B.Sc level.
- Achieved 8.90 CGPA in M.Sc. level.
- All India Gate Rank 219 with 91.63%.
- Received JRF & SRF fellowship from MHRD during Research Period in NIT Warangal.

Life Membership/Fellowship of accredited bodies:

- International Association of Mathematical Physics (IAMP)
- Indian Society for Heat and Mass Transfer (ISHMT)

- Andhra Pradesh Society of Mathematical Sciences (APSMS)
- Indian Society of Theoretical and Applied Mechanics (ISTAM)

PhD. Supervision: (4 completed, 4 On going)

- Dr. Bhaskerreddy Kethireddy (**PhD Degree Awarded, Viva-Voce: 20-09-2018**)
- Dr. Mahesh Kumar (**DST-INSPIRE Fellowship Award**) (**PhD Degree Awarded, Viva-Voce: 06-09-2019**)
- Dr. Hussain Basha (**Maulana Azad UGC Fellowship Award**) (**PhD Degree Awarded, Viva-Voce: 16-08-2019**)
- Mrs. Ashwini Hiremath (**DST-INSPIRE Fellowship Award**) (**PhD Degree Awarded, Viva-Voce: 11-01-2022**)
- Mr. Suresha S P (July 2019 – Till date) (**CSIR-UJC JRF Fellowship**)
- Mr. Muhummed Rafeek K V (August 2019 – Till date) (**DST-INSPIRE Fellowship Award**)
- Ms. Athira V S (Dec 2020 – Till date) (**Through CUCET Entrance**)
- Mr. Aadithyaan (Feb 2022-Till date) (**Through GATE Qualification**)

Professional Administrative Responsibilities:

- Coordinator (similar to Head (i/c)), Department of Mathematics, Central University of Karnataka, Kalaburagi, November 27 2013 – March 17 2021.
- Established the Computing Laboratory and Computational Fluid Dynamics Lab in the Department of Mathematics, CUK with the support of CUK Administration and Faculty.
- Board of Studies Chairman & Convener, Department of Mathematics, Central University of Karnataka, Kalaburagi, April 2015 – July 2021.
- Convener, Examination Discipline Committee, CUK, 03-12-2018 –Till date.
- Convener, Gowns and Robbing Committee, 3rd Convocation, July 13 2018.
- Convener, Inspired Teachers Network, Central University of Karnataka, Kalaburagi, November 23 2015 – Till date.
- Member, Accreditation committee (NAAC), Department of Mathematics, Central University of Karnataka, Kalaburagi, July 2014 – March 17 2021.
- Member, MOOCS Committee, Department of Mathematics, Central University of Karnataka, Kalaburagi, 10th July 2015 – March 17 2021.
- Member, Credit Marks for Academic Electives, CBSE, Central University of Karnataka, Kalaburagi, 8th July 2015 - - March 17 2021.
- Member, Reception & Protocol Committee, Invitation Committee, Robing and Gown Committee, Certificate Committee, 2nd Convocation, Dec 22 2015.
- Member, Purchasing of Electronics, Computers and Softwares, Central University of Karnataka, Kalaburagi, 2014.
- Member, LPC Committee, Department of Mathematics, Central University of Karnataka, Kalaburagi, 2015.
- Member, LPC Committee, Department of Chemistry, Central University of Karnataka, Kalaburagi, 2015.
- Prepared the setting of Question Papers of M.Sc., PhD Mathematics, RAT, UG for CUK Entrance Tests for the years 2014 & 2015.
- Prepared the Prospectus of Department of Mathematics, Central University of Karnataka, Kalaburagi for the years 2014-2021.
- Prepared the Annual Report of Department of Mathematics, Central University of Karnataka, Kalaburagi for the years 2014-2021.
- External Member, Board of Studies, Government College (Autonomous), PG Dept. of Mathematics, CUK, 15-02-2018 to Till-date.
- External Member, Board of Studies, Government College (Autonomous), PG Dept. of Mathematics, CUK, 15-02-2018 to Till-date.

- External Member, Board of Studies (UG) in Mathematics, Sharanbasava University, Kalaburagi, 2018-Till date.
- External Member, Board of Studies for various Depts. (B.Sc., Physics, Chemistry, Engineering) in CUK.
- Member, School Board of Physical Sciences in CUK since from 2016 to October 2021.
- Member, CASR Committee of School of Physical Sciences in CUK since from 2016 to March 2021.

Competence in computer application:

- C, C++, Oracle, HTML, Mathematica, TECPLOT 360, Matlab, ANSYS-Fluent, Fortran, Origin, Maple, Python, Latex, Mendley

Research Grants:

Principal Investigator	National/International funding	Grants Received	Funding Agency	Project Title	Remarks
Dr. G. Janardhana Reddy	National	UGC-BSR (Rs.6 Lakh)	UGC'S FRPS	Bejan's heat and mass flow visualization for transient micropolar fluid flow past a vertical slender hollow circular cylinder	Completed (2016-2019)

Mentor & Supervisor for the following student's DST Inspire Research Award

Students Name	National / International funding	Fellowship Grants	Funding Agency	Research Topic	Remarks
Mahesh Kumar	National	DST Inspire (~15 Lakhs)	DST, Government of India	Unsteady free convective flow from vertical bodies: Viscoelastic and couple stress fluids	Completed (2016-2019)
Ashwini Hiremath	National	DST-Inspire (~15 Lakhs)	DST, Government of India	Transient flow analysis of non-Newtonian fluids past different geometries	Completed (2017-2022)
Md. Rafeek K V	National	DST-Inspire (~15 Lakhs)	DST, Government of India	Linear and nonlinear stability analysis: Flow through porous media	Ongoing (2019-2024)

PERSONAL INFORMATION:

Gender: Male
 Category: Unreserved
 Marital Status: Married with 2 children
 Present Address: Associate Professor,
 Department of Mathematics,
 School of Physical Sciences,
 Central University of Karnataka, Kalaburagi.

Permanent Address: S/O G. Kambi Reddy,
 Kunukuntla (Post), Owk (Mandal),
 Nandyal (Dist),
 Andhra Pradesh.
 Pin: 518122

Email-id: janardhanreddy.nitw@gmail.com; gjr@cuk.ac.in
 Ph. No: +919491472461

