CURRICULUM VITAE



Dr. PATIL MALLIKARJUN B.

M.Sc., M.Phil., Ph.D.

Professor Department of studies and Research in

Mathematics

Tumkur University, Tumkur

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Objective: To attain a responsible & challenging position in the field of Teaching and Research in Mathematics.

Education:

- Ph.D. in Mathematics, Gulbarga University, Kalaburgi, 2007. Thesis Title: "Convective flow and heat transfer through channels with heat generation or heat absorption"
- M. Phil. in Mathematics, Gulbarga University, Kalaburgi , 2003. Title: "Convective Magnetohydrodynamic flow and heat transfer in a vertical channel".
- 3. M. Sc. in Mathematics, Gulbarga University, Kalaburgi, 1995.
- B.Sc. from Sharanabasaveshwar College of Science, Gulbarga University, Kalaburgi, 1993.

Positions Held:

- 1. Registrar (I/C) of Tumkur University, Tumkur from 24-10-2018 to 07-12-2018.
- 2. Syndicate member of Tumkur University, Tumkur from 16-04-2018 to 15-04-2019.
- 3. Academic Council member from 08-04-2017 to 07-04-2019.

- Dean of Science and Technology of Tumkur University, Tumkur from 08-04-2017 to till 07-04-2019
- 5. Finance Committee member
- 6. Director: College development council from May 2022 onwards to till date.
- Governing Council member of various colleges affiliated to Tumkur University, Tumkur.
- 8. Member of board of examination of Kuvempu University, Shimoga.
- 9. Member of board of examination of Karnataka University, Dharwad.
- 10. Member of board of examination of Bangalore University, Bangalore.
- 11. Member of board of examination of Davanagere University.
- 12. Chairman, Dept of Studies and Research in Mathematics, Tumkur University, Tumkur.
- 13. Chairman, BOS in Computer Science, Tumkur University, Tumkur.
- 14. Chairman, BOS UG, Tumkur University, Tumkur.
- 15. Special Officer to Exam Section, Tumkur University, Tumkur from 23-05-2014 to 29-04-2015.

Work Experience:

- 1. Worked as a **Lecturer** in Mathematics, M. B. E. Society's College of Engineering Ambajogai, Dt. Beed, Maharashtra, from September 1995 to June 2006.
- 2. Worked as a **Senior Lecturer** in Mathematics, M. B. E. Society's College of Engineering Ambajogai, Dt. Beed, Maharashtra, from July 2006 to July 2007.
- 3. Worked as a **Assistant Professor** in Mathematics at East Point College of Engineering and Technology, Bangalore from July 2007 to March 2008.
- 4. Worked as a **Professor** in Mathematics at Sambhram Institute of Technology, Bangalore from March 2008 to July 2011.
- Worked as an Associate Professor in the department of studies and research Mathematics at Tumkur University, Tumkur from 3rd August 2011 to 2nd August 2014.
- 6. Worked as **Chairman and Dean, Faculty of Science and Technology** in the department of studies and research Mathematics at Tumkur University, Tumkur.
- 7. Presently working as a **Professor in** the department of studies and research Mathematics at Tumkur University, Tumkur.

Computer Skills

- 1. Operating System : MS DOS, Windows 98, Windows XP
- 2. Programming Languages : Fortran, C, C++
- 3. Software Tools : MS Office, Origin, Mathematica, MATLAB

Invited Talks:

- "Applications of Differential Equations", National conference held at Department of Mathematics, University College of Science, Tumkur University held on 21st March 2012.
- "Mixed convection of couple stress permeable fluid in a vertical channel in the presence of heat generation or heat absorption", International conference on Emerging Trends in Mathematical Sciences held on 25th and 26th July 2014 at Department of Mathematics Vijayanagara Sri Krishnadevaraya University, Bellary.
- "Effect of thermal radiation on fully developed mixed convection flow in a vertical channel with viscous dissipation", National conference on Recent Advances in Applied Mathematics held on 11th and 12th September 2014 at Department of Mathematics, Gulbarga University, Gulbarga.
- 4. "Analytical solution of fully developed combined free and forced convection through a vertical channel with heat generation/Absorption and first order chemical reaction", International conference on Advancements and Innovations in Engineering, Technology and Management held on 28th and 29th December 2017 at Joginpally B. R. Engineering College, Hyderabad.
- "Numerical studies of mixed convection flow through a vertical channel with heat source/sink and first order chemical reaction", National Conference on Analysis and its Applications held on 9th and 10th March 2018 at Karnataka University, Dharwad.
- "Magneto convection flow and heat transfer through a vertical channel along with source or sink and radiation effect", International conference held on 18th and 19th August 2019 in Himachal Pradesh.
- 7. "Numerical Study of Mixed convective flow of a couple stress fluid in a vertical channel with first order chemical reaction and heat generation /

absorption",National Symosium on Pure and Applied Mathematics held on 10th and 11th December 2019 at Rani Chennamma University, Belagavi.

- "Combined free and forced convective flow in an inclined porous channel with first order chemical reaction and heat generation / absorption", International Conference on Mathematics and its Application (ICMA- 2020) held on 28th and 29th February 2020 at Bangalore University.
- 9. "On Mixed Convection flow and heat transfer of micropolar fluid in a vertical channel with source or sink and thermal radiation effect", National Conference in industrial application of mathematics and its development held on 13th and 14th March 2020 at Kuvempu University, Shivmogga.

Research Articles Published in National and International Journals

Publications:

- J. C. Umavathi, Patil Mallikarjun B. and I. Pop, "On laminar mixed convection flow in a vertical porous stratum with asymmetric wall heating conditions", International journal of transport phenomenon, Volume 8, No. 2, 2006.
- Patil Mallikarjun B., "Mixed convection in a vertical channel in the presence of heat generation or heat absorption", Proceedings of the National Conference on RecentTrends in Fluid Mechanics, Organized by Tumkur University on 16th May 2012.
- 3. **Patil Mallikarjun B.,** "Fully developed mixed convection flow and heat transfer of immiscible fluids in a vertical channel with symmetric and asymmetric wall heating conditions", International journal of Mathematics trends and technology, Volume 3, No. 2, 2012, 91-102.
- Patil Mallikarjun B., "Convective magnetohydrodynamic flow and heat transfer in a vertical channel", International journal of Mathematical Archives, Volume 4, No. 4, 2013, 249-261.
- J. C.Umavathi, Patil Mallikarjun B. and Narashimha Murthy S., "On laminar magnetoconvection flow in a vertical channel in the presence of heat generation or heat absorption", International Journal of Heat Transfer, ASME, Volume 135, No. 4, 2013, 042503-1 to 042503-8.

- Patil Mallikarjun B., "Flow and Heat Transfer of Micropolar Fluid in a Vertical Channel with Heat generation or Heat Absorption" International journal of Mathematical Education, Volume 3, No. 1, 2013, 1-13.
- Patil Mallikarjun B., "Convective Flow and Heat Transfer through a Vertical Channel with Symmetric and Asymmetric Wall Heating Conditions and Radiation Effect ", International journal of Engineering Trends and Technology, Volume 8, No. 10, 2014, 555-563.
- Patil Mallikarjun B., "Viscoelastic Fluid Flow in Porous Medium Over a Stretching Sheet with Suction/Injection" International journal of Applied Mathematical Analysis and Applications, Volume 9, No. 1, 2014, 55-63.
- Patil Mallikarjun B., "Mixed Convection of Couple Stress Fluid in a Vertical Channel in the Presence of Heat Generation or Heat Absorption", International journal of Applied Computational Science and Mathematics, Volume 5, No. 2, 2015, 149-164.
- Patil Mallikarjun B., "Mixed Convection of Couple Stress Permeable Fluid in a Vertical Channel in the Presence of Heat Generation or Heat Absorption" Elixir International journal of Applied Maths, Volume 85, 2015, 34239-34253.
- 11. **Patil Mallikarjun B. and Chandrali Baishya,** "Mixed Convection Flow and Heat Transfer of Micropolar Fluid in a Vertical Channel with Symmetric and Asymmetric Wall Heating Conditions", International journal of Engineering research and Applications, Volume 6, No. 1, 2016, 7-18.
- K. V. Prasad, Patil Mallikarjun B. and H. Vaidya, "Mixed Convective Fully Developed Flow in a Vertical Channel in the Presence of Thermal radiation and Viscous Dissipation ", International journal of Applied Mechanics and Engineering, Volume 22, No. 1, 2017, 123-144.
- Patil Mallikarjun B and R Vasudeva Murthy., "Finite Element Analysis of Fully Developed Mixed Convection through a Vertical Channel in the presence of heat Generation/Absorption with fist Order Chemical Reaction. ISSN: 1662-907, vol.388, pp 394-406.
- 14. **Patil Mallikarjun B and U. S. Mahabaleshwar.,** "Thermal Radiation Effects on Fully Developed Laminar Mixed Convection Flow in a Vertical Porous Stratum

by using Differential Transform Method" Book Chapter No.14 Advances in Rheology Research , page no 409-431, 2017, nova science publishers New York.

- Patil Mallikarjun B, Vinay kumar P N, U. S. Mahabaleshwar, M.M.Nezhad and G. Lorenzini., "Casson Liquid Flow due to Porous Sretching Sheet with Suction/Injection", ISSN:1662-9507,vol-388, pp 420-432.
- 16. Shreedevi K, Rama Rao Y, Patil Mallikarjun B ,"Effect of First Order Chemical Reaction on Fully Developed Natural Convection of Micropolar Fluid in a Vertical Channel", ISSN:10765131.
- Patil Mallikarjun B, R Vasudeva Murthy, "Analytical Solution of Fully Developed Combined Free and Forced Convection through a Vertical Channel with Heat generation/Absorption and First order Chemical Reaction", JETIR, ISSN: 23495162, vol-5, August 2018.
- Patil Mallikarjun B. and Kavitha L., "Mixed convection flow and heat transfer of micropolar fluid in a vertical channel with source or sink and thermal radiation effect", International Journal of Scientific Research and Review, Volume 7, Issue 9, 2018.
- Patil Mallikarjun B. and Kavitha L., "Magneto convection flow and heat transfer through a vertical channel along with source or sink and radiation effect", Global Journal of Engineering Science and Researches, ISSN 2348 – 8034, April 2019.
- 20. **Patil Mallikarjun B., Shobha K.C.,** "Mixed convection flow in vertical porous channel filled with nanofluids with heat source or sink by using Adomian Decomposition Method", Asian Journal of Mathematics and Computer Research.(2021).
- Patil Mallikarjun B., Manthesha, "Magneto hydrodynamic free convective flow analysis in a vertical porous microchannel with generation/absorption", JETIR(2021)
- 22. Umadevi K. B., Patil Mallikarjun B., Mahadev M. Biradar," Mixed convection flow of viscous fluid in vertical channel filled with porous stratum in presence of first order chemical reactions with an effect of thermal conductivity and variable viscosity ", International Research Journal of Engineering and technology (2021).

- 23. Umadevi K. B., Patil Mallikarjun B., "Effects of thermal radiation and suction/injection on magnetohydradynamic boundary layer flow of a micropolar fluid past a wedge embedded in a porous stratum ", Palestine Journal of Mathematics(2021).
- 24. Shobha K. C., Mahadev M. Biradar, Patil Mallikarjun B, "Mixed Convective flow with variable viscocity and variable thermal conductivity in a channel in presence of first order chemical reaction with heat generation or absorption ", Journal of applied Mathematics and computational Mechanics(2021)
- 25. Shobha K. C., Patil Mallikarjun B, "Fully developed mixed convection in a vertical channel filled with nanofluids with heat source or sink ", Palestine Journal of Mathematics (2021).
- 26. Shobha K. C., Patil Mallikarjun B., " Irreversibility analysis of micropolar nanofluid flow in a vertical channel with impact of inclined magnetic field and heat source or sink ", Heat Transfer, Wiley(2021)
- 27. **Manthesha, Patil Mallikarjun B.,** "Entropy Generation analysis for the mixed convection of third grade fluid along an inclined microchannel with variable fluid properties", Design Engineering(2021)
- 28. **Manthesha, Patil Mallikarjun B.,** "Magnetohydranamic mixed convective flow in a vertical porous microchannel with heat generation/absorption", Palestine Journal of Mathematics (2021).
- 29. Manthesha, Patil Mallikarjun B, Kavitha L, Shobha K.C., "Mixed Convection of Williamson Fluid along an Inclined Porous Microchannel with Chemical Reaction by taking Non-constant Thermal Conductivity : An Entropy Analysis", Indian Journal of Science And Technology, (2021).
- Umadevi K.B , Patil Mallikarjun B., "An MHD Laminar Boundary layer Eyring Powell Fluid Flow due to a wedge for constant Wall Heat Flux", Nova Science Publishers, (2022).
- 31. Shobha K.C., Patil Mallikarjun B., "Effect of Nonlinear Thermal Radiation on Flow of Williamson Nanofluid in a Vertical Porous Channel with Heat Source or Sink by using Adomian Decomposition Method ", American Scientific Publishers,(2022).
- 32. Manthesha, B. J. Gireesha, Patil Mallikarjun B., "Scrutinization of Thermodynamic second law for the steady flow of couple stress nanofluid in an

inclined microchannel by varying thermal conductivity", Heat Transfer, Wiley(2022).

Presented/Attended:

- J. C. Umavathi and Patil Mallikarjun B., presented entitled "Convective magnetohydrodynamic flow and heat transfer in a vertical channel", state level seminar on Recent advances in Mathematics and effective teaching at U. G. level at yogeshwari mahavidyalay, Ambajogai from December 5th to 7th 2002.
- J. C. Umavathi and Patil Mallikarjun B, presented entitled "Mixed convection in a vertical channel in the presence of heat generation or heat absorption", International Conference on Advances in Applied Mathematics, held on 24th to 26th February 2005, Department of Mathematics, Gulbarga University, Gulbarga.
- 3. J. C. Umavathi and Patil Mallikarjun B, presented entitled "Mixed convection flow and heat transfer of micropolar fluid in a vertical channel with symmetric and asymmetric wall heating conditions", National conference on Applied Mathematics held on 7th and 8th February 2006, Department of Mathematics, Gulbarga University, Gulbarga.
- J. C. Umavathi and Patil Mallikarjun B, "On laminar magnetoconvection flow in a vertical channel in the presence of heat generation or heat absorption", National conference on Applied Mathematics held on 23rd and 24th May 2007. Department of Applied Mathematics, Maharashtra Academy of Engineering, Alandi, Pune.
- J. C. Umavathi and Patil Mallikarjun B, "On laminar couple stress fluid flow in at vertical channel in the presence of heat generation or heat absorption", National conference on Frontiers' in Fluid Mechanics held on 22nd and 23rd February 2011.
- Department of Mathematics Gulbarga University, Gulbarga.Attended the National workshop on computational Vedic mathematics held during May 3rd and 4th, 2002 at East West institute of technology, Banglore.
- Patil Mallikarjun B. attended the one day workshop on Teaching methodologies organized by ISTE chapter M. B. E. Society's college of engineering, Ambajogai on 15th March, 2005.

- Patil Mallikarjun B. attended the Two week workshop on computational Fluid Dynamics organized by B. M. S. College of Engineering Bangalore, during Jan. 09 to 23 2008.
- Patil Mallikarjun B. attended the One day National workshop on Nano Technology held on Febraury 22nd, 2008 at East Point college of Eng. and Technology, Bangalore.
- Patil Mallikarjun B. attended the one day workshop on Computational Fluid Dynamics and its Applications held on September 17th, 2011 at Shridevi Institute of Engineering and Technology, Tumkur.
- Patil Mallikarjun B. attended the Three days National Conference on Vedanta: A Holistic Approach held on December 26, 27 and 28th, 2011 organized by Vedanta Bharathi and Tumkur University, Tumkur.
- 12. Patil Mallikarjun B. attended the Two days Karnataka Science and Technology 4th Conference on Science and Technologies New Features and Opportunities held on January 28th and 29th, 2012 organized by Karnataka Science and Technology Academy and Mangalore University, Mangalore.
- 13. Shobha K.C. and Patil Mallikarjun B, presented a paper entitled "Mixed Convective Flow of Viscous Fluid with Variable Viscosity and Thermal Conductivity in a Vertical Channel in the presence of First Order Chemical Reaction with Heat Generation / absorption" in the International Conference on Mathematics and its Applications held on 28th and 29th Feb 2020, organised by the Department of Mathematics, Bangalore University, Bengaluru.
- 14. Shobha K.C. and Patil Mallikarjun B, presented a paper entitled "Effects of Nanofluids on Fully Developed Mixed Convection in a Vertical Channel with Heat Source or Sink" in the National Conference on Industrial Applications of Mathematics and its Developments held on 13th and 14th Mar 2020, organised by the Department of Mathematics, Kuvempu University, Shimoga.
- 15. Shobha K.C. and Patil Mallikarjun B, presented a paper entitled "On MHD Mixed Convection Flow in a Vertical Channel Filled with Nanofluids With Heat Source or Sink" in the international conference on Present Scenario of Mathematical Sciences held on 12th and 13th Sept 2020 organized by Department of Mathematics, Karnataka University's Karnataka Arts College, Dharwad, India.

- 16. **Shobha K.C. and Patil Mallikarjun B,** presented a paper entitled "Fully developed mixed convection in a Vertical channel filled with nanofluids with Heat source or sink" in the ICRTACM held on 4th and 5th Dec 2020 organized by Department of Mathematics, Reva University, Bengaluru, India.
- 17. Shobha K.C. and Patil Mallikarjun B, presented a paper entitled "Effect of nonlinear thermal radiation on Flow of williamson nanofluid in a vertical porous channel with heat source or sink by using adomian decomposition method" in the National conference on Recent Trends in Mathematical Modeling and its Applications held on 23rd to 27th Aug 2021 organized by Department of Mathematics, The ICFAI University Tripura, India.
- 18. Shobha K.C. and Patil Mallikarjun B, presented a paper entitled "Mixed convection of Jeffrey nanofluid in a vertical porous channel with the significance of Hall and Ion slip effect, suction/injection and variable thermal conductivity" in the 2nd ICRTACM held on 8th and 9th Oct 2021 organized by Department of Mathematics, Reva University, Bengaluru, India.
- 19. Shobha K.C. and Patil Mallikarjun B, presented a paper entitled "Heat transfer and entropy analysis in MHD Carreau nanofluid flow with exponential heat source and temperature dependent thermal conductivity" in the 2nd International Conference of International Academy of Physical Sciences on "Fluid Mechanics and its Industrial Applications" held on 26th to 28th Oct 2021 organized by Department of Mathematics, Kuvempu University, Shimoga, India.
- 20. Shobha K.C. and Patil Mallikarjun B, presented a paper entitled "Significance of activation energy in Eyring-Powell nanofluid flow exposed to inclined magnetic field : Entropy Analysis" in the 48th National conference on "Fluid Mechanics and fluid power (FMFP 2021)" held on 27th to 29th December 2021 organized by BITS PILANI, Pilani campus, Rajasthan, India.
- 21. Umadevi K.B. and Patil Mallikarjun B, presented a paper entitled "Thermal Radiation Effect on Laminar Mixed Convective Flow in a Vertical Porous Stratum with Source or Sink" in International Conference on Mathematics and its Applications held on 28th and 29th February 2020 at Bangalore University, Bengaluru.

- 22. Umadevi K.B. and Patil Mallikarjun B, presented a paper entitled "Magnetohydrodynamic boundary layer flow of a micropolar fluid past a wedge with suction or injection" in the International conference on present scenario on mathematical sciences held on 12th to 13th September 2020 organized by Department of Mathematics, Karnatak Arts College, Karnatak University, Dharwad.
- 23. Umadevi K.B. and Patil Mallikarjun B, presented a paper entitled "Effects of thermal radiation and suction/injection on magnetohydrodynamic boundary layer flow of a micropolar fluid past a wedge embedded in a porous stratum" in the International conference on Recent Trends in Applied and Computational Mathematics (ICRTACM-2020) held on 4th and 5th December 2020 organized by Department of Mathematics, School of Applied Sciences, Reva University, Bengaluru, Karnataka, India.
- 24. Umadevi K.B. and Patil Mallikarjun B, presented a paper entitled "An MHD laminar boundary-layer Eyring Powell fluid flow due to wedge for constant wall heat flux" in the National Conference on Recent Trends in Mathematical Modeling and its Applications (NCRTMMA-2021) held on 23rd to 27th August 2021 organized by Department of Mathematics, ICFAI Science School, The ICFAI university Tripura.
- 25. Umadevi K.B. and Patil Mallikarjun B, Presented a paper entitled "Arrhenius activation energy impact on laminar boundary layer flow of an MHD Eyring Powell through a wedge by convective boundary condition" in the 2nd International conference on Recent Trends in Applied and Computational Mathematics (ICRTACM-2021) held on 8th and 9th October 2021 organized by Department of Mathematics, School of Applied Sciences, Reva University, Bengaluru, Karnataka, India.
- 26. Umadevi K.B. and Patil Mallikarjun B, Presented a paper entitled "Entropy generation on magnetohydrodynamic laminar boundarylayer flow of Casson CNT based nanofluid across a wedge with viscous dissipation" in the 27th International Conference of International Academy of Physical Sciences on Fluid Mechanics and its Industrial Applications held on 26rd to 28th October 2021 organized by

Department of PG studies and Research in Mathematics, Kuvempu University, Shivamogga, Karnataka, India.

- 27. Umadevi K.B. and Patil Mallikarjun B, Presented a paper entitled" Impact Of An Inclined Magnetic Field On Non-Isothermal Vertical Surface Flow Of Micropolar Fluid Embedded In Porous Stratum", FLUID MECHANICS AND FLUID POWER (FMFP 2021) held during 27th-29th December at BITS Pilani, Pilani Campus, Rajasthan, India.
- 28. Manthesha and Patil Mallikarjun B, Presented a paper entitled "Second law analysis for the Mixed convection of Williamson fluid along an inclined porous microchannel with chemical reaction by taking variable thermal conductivity" in the "2nd International Conference on Recent Trends in Applied and Computational Mathematics", held on 8th -9th of october,2021. Organised by department of Mathematics, Reva University, Banglore.
- 29. Manthesha and Patil Mallikarjun B, Presented a paper entitled "Flow of magnetized Powell-Eyring fluid in micro channel exposed to non-linear radiation and constricted to slip regime by varying viscosity", in the "27th International Conference of International Academy of Physical Sciences on Fluid Mechanics and Its Industrial Applications", held on 26th 28th October 2021. Jointly organized by Department of P G studies and Research in Mathematics, Kuvempu University and International Academy of physical Sciences.
- 30. Manthesha and Patil Mallikarjun B, Presented a paper entitled "Effect of Chemical reaction on MHD Natural convective flow in a vertical micro channel with Porous medium" in the International Conference on Mathematics and its Applications – (ICMA-2020) held on 28th and 29th February 2020, organized by the Department of Mathematics, Bangalore University, Bengaluru. India.
- 31. Manthesha and Patil Mallikarjun B, presented a paper entitled "Thermal radiation effect on mixed convective flow and heat transfer through a vertical porous micro channel with first order chemical reaction" in the "International Conference on Present Scenario of Mathematical Sciences", held on 12-13th of November, 2020, organised by department of mathematics, Karnataka university's Karnataka Arts college, Dharwad, Karnataka. India.
- 32. Manthesha and Patil Mallikarjun B, presented a paper entitled "Magnetohydrodynamic Mixed Convective Flow in a Vertical Porous

Microchannel with Heat Generation/Absorption" in the "International Conference on Recent Trends in Applied and Computational Mathematics", held on 4th -5th of December, 2020. Organised by department of mathematics Reva University, Banglore. India.

33. **Manthesha and Patil Mallikarjun B,** presented a paper entitled "Second law analysis for the Mixed convection of Williamson fluid along an inclined porous microchannel with chemical reaction by taking variable thermal conductivity" in the "2nd International Conference on Recent Trends in Applied and Computational Mathematics", held on 8th -9th ofoctober,2021. Organised by department of Mathematics, Reva University, Banglore. India.

Declaration:

I hereby state that the information given above is true to the best of my knowledge and belief.

(Dr. Patil Mallikarjun B.)