

2025–26

**1. Nanoscience and Technology: An International Journal**

Impact Factor: 1.30 (ESCI, Q4)

Begell House Publishing

- Ankita Dubey, B. Vasu, Rama Subba Reddy Gorla, Bég O.A., and V. R. Prasad, Numerical Simulation of Unsteady Herschel–Bulkley Blood Flow Containing Magnetic Nanoparticles in a Stenotic Artery with a Saccular Aneurysm: Applications in Nano-Drug Delivery, *Nanoscience and Technology: An International Journal*, Vol. 17(1), pp. 45–64, (2026). Published:30/01/2026; doi: <https://doi.org/10.1615/NanoSciTechnolIntJ.2025055899>

**2. International Communications in Heat and Mass Transfer**

Impact Factor: 6.2 (SCIE, Q1)

Elsevier (ScienceDirect)

- Gobinda Debnath and B. Vasu, FEM Simulation of Dual-Phase Irradiance for Laser-Induced Hyperthermia in Skin Tumors: A Multi-Site GNP Injection Approach, *International Communications in Heat and Mass Transfer*, Volume 172, Part 4, 110507, (2026). Published:10/01/2026; doi: <https://doi.org/10.1016/j.icheatmasstransfer.2026.110507>

**3. Cancer Nanotechnology**

Impact Factor: 5.8 (SCIE, Q1)

BMC (Springer Nature)

- Gobinda Debnath, B. Vasu and Rama Subba Reddy Gorla, Current state-of-the-art in multi-scale modeling in nano-cancer drug delivery: Role of AI and machine learning, *Cancer Nanotechnology*, Volume 16, Article 45, (2025). Published: 16 October 2025; doi: <https://doi.org/10.1186/s12645-025-00326-1>

**4. BME Frontiers**

Impact Factor: 9.1 (ESCI, Q1)

AAAS / Science Partner Journal

- Gobinda Debnath, B. Vasu and Rama Subba Reddy Gorla, Finite Element Simulation of Interstitial-Lymphatic Fluid Flow and Nanodrug Transport in a Solid Tumor: An Intratumoral Injection Approach, *BME Frontiers*, Vol. 6, Article 0119, (2025). Published: 15 April 2025; doi: <https://doi.org/10.34133/bmef.0119>

2024–25

**5. Archives of Pharmacology and Therapeutics**

(Q4)

Scientific Archives

- Gobinda Debnath, B. Vasu, Rama Subba Reddy Gorla, O. Anwar Bég, and Tasveer A. Bég, Integrating Mathematical Models in Clinical Oncology: Enhancing Therapeutic Strategies, *Archives of Pharmacology and Therapeutics*, Vol. 7(1), pp. 1–27, (2025). Published: 19 February 2025; doi: <https://doi.org/10.33696/Pharmacol.7.060>

**6. Archives of Pharmacology and Therapeutics**

(Q4)

Scientific Archives

- B. Vasu, Ankita Dubey, Rama Subba Reddy Gorla, Mustaque H. Borbora, and Shabih-ul-Hasan, Dual-Rheological Model and Finite Element Simulation of Hemodynamics through a Multiple Stenotic Artery with Nanodrug-Eluting Stent, *Archives of Pharmacology and Therapeutics*, Vol. 7(1), pp. 35–51, (2025); doi: <https://doi.org/10.33696/Pharmacol.7.062>

**7. Numerical Analysis and Applications**

Impact Factor: 0.5 (ESCI, Q4)

Pleiades Publishing (Springer)

- Gobinda Debnath and B. Vasu, Quotient-Difference Algorithm and Code for Cubic Polynomials with Computational Implementation, *Numerical Analysis and Applications*, Vol. 18, pp. 44–58, (2025). Published: 18 March 2025; doi: <https://doi.org/10.1134/S1995423924600093>

**8. Part N: Journal of Nanomaterials, Nanoengineering and Nanosystems**

Impact Factor: 4.2 (ESCI, Q3)

SAGE Publications

- Ankita Dubey, Buddakkagari Vasu, Rama Subba Reddy Gorla, Mustaque H. Borbora, and Ali J. Chamkha, Magnetohydrodynamic Mixed Convection of Nanofluid Flow in a Split Lid Driven Cavity Using Finite Element Method, *Proceedings of the Institution of Mechanical Engineers, Part N: Journal of Nanomaterials, Nanoengineering and Nanosystems*, OnlineFirst, pp. 1–19, (2024). Published: 1 November 2024; doi: <https://doi.org/10.1177/23977914241286355>

## 2023–24

### 9. Part N: Journal of Nanomaterials, Nanoengineering and Nanosystems Impact Factor: 4.2 (ESCI, Q3) SAGE Publications

- B. Vasu, M. Hussain Borbora, O. A. Bég, Rama Subba Reddy Gorla, J. Tripathi, and M. Burby, Triple Diffusive Free Magneto-Convection of Electro-Conductive Nanofluid from a Vertical Stretching Sheet, Proceedings of the Institution of Mechanical Engineers, Part N: Journal of Nanomaterials, Nanoengineering and Nanosystems, pp. 1–25, (2024). Published: 28 February 2024; doi: <https://doi.org/10.1177/23977914241231999>

## 2022–23

### 10. Journal of Nanofluids Impact Factor: 2.7 (ESCI, Q2) American Scientific Publishers

- Mustaque Hussain Borbora, B. Vasu, and Ali J. Chamkha, A Review Study of Numerical Simulation of Lid-Driven Cavity Flow with Nanofluids, Journal of Nanofluids, Volume 12, Number 3, pp. 589–604, (2023). Published: April 2023; doi: <https://doi.org/10.1166/jon.2023.1930>

### 11. Microvascular Research Impact Factor: 2.9 (SCIE, Q1) Elsevier

- Jayati Tripathi, B. Vasu, O. Anwar Bég, B. Reddy Mounika, and Rama Subba Reddy Gorla, Corrigendum to "Numerical Simulation of the Transport of Nanoparticles as Drug Carriers in Hydromagnetic Blood Flow through a Diseased Artery with Vessel Wall Permeability and Rheological Effects", Microvascular Research, Vol. 142, Article 104376, (2022). Published: July 2022; doi: <https://doi.org/10.1016/j.mvr.2022.104376>

## 2021–22

### 12. Arabian Journal for Science and Engineering Impact Factor: 3.1 (SCIE, Q1) Springer

- Atul Kumar Ray, B. Vasu, P. V. S. N. Murthy, O. Anwar Bég, R. S. R. Gorla, and B. Kumar, Convective Flow of Non-Homogeneous Fluid Conveying Nano-Sized Particles with Non-Fourier Thermal Relaxation: Application in Polymer Coating, Arabian Journal for Science and Engineering, Vol. 47, pp. 6559–6576, (2022). Published: January 12, 2022; doi: <https://doi.org/10.1007/s13369-021-06467-w>

### 13. Microvascular Research Impact Factor: 2.9 (SCIE, Q1) Elsevier

- Jayati Tripathi, B. Vasu, O. Anwar Bég, B. Reddy Mounika, and Rama Subba Reddy Gorla, Numerical Simulation of the Transport of Nanoparticles as Drug Carriers in Hydromagnetic Blood Flow through a Diseased Artery with Vessel Wall Permeability and Rheological Effects, Microvascular Research, Vol. 139, Article 104241, (2022). Published: September 08, 2021; doi: <https://doi.org/10.1016/j.mvr.2021.104241>

### 14. Computers in Biology and Medicine Impact Factor: 6.698 (SCIE, Q1) Elsevier

- Jayati Tripathi, B. Vasu, O. Anwar Bég, Rama Subba Reddy Gorla, and P. K. Kameswaran, Computational Simulation of Rheological Blood Flow Containing Hybrid Nanoparticles in an Inclined Catheterized Artery with Stenotic, Aneurysmal and Slip Effects, Computers in Biology and Medicine, Vol. 139, Article 105009, (2021). Published: November 02, 2021; doi: <https://doi.org/10.1016/j.compbiomed.2021.105009>

### 15. Microvascular Research Impact Factor: 2.9 (SCIE, Q1) Elsevier

- Ankita Dubey, B. Vasu, O. Anwar Bég, and Rama S. R. Gorla, Finite Element Computation of Magneto-Hemodynamic Flow and Heat Transfer in a Bifurcated Artery with Saccular Aneurysm using the Carreau-Yasuda Bio-rheological Model, Microvascular Research, Vol. 138, Article 104221, (2021). Published: July 13, 2021; doi: <https://doi.org/10.1016/j.mvr.2021.104221>

### 16. Part H: Journal of Engineering in Medicine Impact Factor: 1.8 (SCI, Q2) SAGE

- Jayati Tripathi, B. Vasu, O. Anwar Bég, and Rama Gorla, Unsteady Hybrid Nanoparticle-Mediated Magneto-Hemodynamics and Heat Transfer Through an Overlapped Stenotic Artery: Biomedical Drug Delivery Simulation, Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, Vol. 235(10), pp. 1175–1196, (2021). Published: June 21, 2021; doi: <https://doi.org/10.1177/09544119211026095>

## 17. Journal of Nanofluids

Impact Factor: 2.7 (ESCI, Q2)

American Scientific Publishers

- Jayati Tripathi, B. Vasu, Rama S. R. Gorla, Ali J. Chamkha, P. V. S. N. Murthy, and O. Anwar Bég, Blood Flow Mediated Hybrid Nanoparticles in Human Arterial System: Recent Research, Development and Applications, *Journal of Nanofluids*, Vol. 10, pp. 1–30, (2021). Published: July 2021; doi: <https://doi.org/10.1166/jon.2021.1769>

## 2020–21

## 18. Computers in Biology and Medicine

Impact Factor: 6.698 (SCIE, Q1)

Elsevier

- Jayati Tripathi, B. Vasu, and O. Anwar Bég, Computational Simulations of Hybrid Mediated Nano-Hemodynamics (Ag–Au/Blood) through an Irregular Symmetric Stenosis, *Computers in Biology and Medicine*, Vol. 130, Article 104213, (2021). Published: January 19, 2021; doi: <https://doi.org/10.1016/j.compbiomed.2021.104213>

## 19. Computers in Biology and Medicine

Impact Factor: 6.698 (SCIE, Q1)

Elsevier

- B. Vasu, Ankita Dubey, O. Anwar Bég, and Rama Subba Reddy Gorla, Micropolar Pulsatile Blood Flow Conveying Nanoparticles in a Stenotic Tapered Artery: Non-Newtonian Pharmacodynamic Simulation, *Computers in Biology and Medicine*, Vol. 126, Article 104025, (2020). Published: October 02, 2020; doi: <https://doi.org/10.1016/j.compbiomed.2020.104025>

## 20. Chemical and Biochemical Engineering Quarterly

Impact Factor: 1.677 (SCIE, Q3)

Faculty of Chemical Engineering and Technology, University of Zagreb

- O. A. Bég, B. Vasu, A. K. Ray, T. A. Beg, A. Kadir, H. J. Leonard, and R. S. Gorla, Homotopy Simulation of Dissipative Micropolar Flow and Heat Transfer from a Two-Dimensional Body with Heat Sink Effect: Applications in Polymer Coating, *Chemical and Biochemical Engineering Quarterly*, Vol. 34(4), pp. 257–275, (2020). Published: October 02, 2020; doi: <https://doi.org/10.15255/CABEQ.2020.1849>

## 21. International Journal of Applied Electromagnetics and Mechanics

Impact Factor: 0.684 (SCIE, Q4)

IOS Press

- O. A. Bég, Tasveer A. Bég, M. Ferdows, B. Vasu, Ali Kadir, H. J. Leonard, and S. Kuharat, Unsteady Nonlinear Magnetohydrodynamic Micropolar Transport Phenomena with Hall and Ion-Slip Current Effects: Numerical Study, *International Journal of Applied Electromagnetics and Mechanics*, Vol. 65, pp. 371–403, (2021). Published: August 03, 2020; doi: <https://doi.org/10.3233/JAE-201508>

## 22. Nanoscience and Technology: An International Journal

Impact Factor: 1.30 (ESCI, Q4)

Begell House

- Jayati Tripathi, B. Vasu, Ankita Dubey, Rama S. R. Gorla, P. V. S. N. Murthy, O. Anwar Bég, V. R. Prasad, and P. Saikrishnan, A Review on Recent Advancements in the Hemodynamics of Nano-Drug Delivery Systems, *Nanoscience and Technology: An International Journal*, Vol. 11(1), pp. 73–98, (2020). Published: September 21, 2020; doi: <https://doi.org/10.1615/NanoSciTechnolIntJ.2020033448>

## 23. Arabian Journal for Science and Engineering

Impact Factor: 3.1 (SCIE, Q1)

Springer

- S. Kuharat, O. Anwar Bég, A. Kadir, and B. Vasu, Computation of Metallic Nanofluid Natural Convection in a Two-Dimensional Solar Enclosure with Radiative Heat Transfer, Aspect Ratio and Volume Fraction Effects, *Arabian Journal for Science and Engineering*, Vol. 45, pp. 9075–9093, (2020). Published: 2020; doi: <https://doi.org/10.1007/s13369-020-04678-1>

## 24. International Journal of Applied Mechanics and Engineering

Impact Factor: 0.50 (Scopus, Q4)

Sciencedo

- B. Vasu, R. S. R. Gorla, P. V. S. N. Murthy, V. R. Prasad, O. Anwar Bég, and S. Siddiqua, MHD Free Convection-Radiation Interaction in a Porous Medium – Part II: Numerical Investigation, *International Journal of Applied Mechanics and Engineering*, Vol. 25, No. 2, pp. 157–175, (2020). Published: June 05, 2020; doi: <https://doi.org/10.2478/ijame-2020-0027>

**25. Part N: Journal of Nanomaterials, Nanoengineering and Nanosystems** Impact Factor: 4.2 (ESCI, Q3)  
SAGE

- B. Vasu, Atul Kumar Ray, and Rama S. R. Gorla, Free Convective Heat Transfer in Jeffrey Fluid with Suspended Nanoparticles and Cattaneo–Christov Heat Flux, *Proceedings of the Institution of Mechanical Engineers, Part N: Journal of Nanomaterials, Nanoengineering and Nanosystems*, Vol. 234, Issue 3–4, pp. 99–114, (2020). Published: May 04, 2020; doi: <https://doi.org/10.1177/2397791420912628>

**26. Nanoscience and Technology: An International Journal** Impact Factor: 1.3 (ESCI, Q4)  
Begell House

- S. Kuharat, O. Anwar Bég, Ali Kadir, B. Vasu, Tasveer A. Bég, and W. S. Jouri, Computation of Gold–Water Nanofluid Natural Convection in a Three-Dimensional Tilted Prismatic Solar Enclosure with Aspect Ratio and Volume Fraction Effects, *Nanoscience and Technology: An International Journal*, Vol. 11(2), pp. 141–167, (2020). Published: 2020; doi: <https://doi.org/10.1615/NanoSciTechnolIntJ.2020031257>

**2019–20**

**27. Computer Methods in Biomechanics and Biomedical Engineering** Impact Factor: 1.763 (SCIE, Q3)  
Taylor & Francis

- Ankita Dubey, B. Vasu, O. Anwar Bég, Rama S. R. Gorla, and Ali Kadir, Computational Fluid Dynamic Simulation of Two-Fluid Non-Newtonian Nano-Hemodynamics through a Diseased Artery with a Stenosis and Aneurysm, *Computer Methods in Biomechanics and Biomedical Engineering*, Vol. 23(8), pp. 345–371, (2020). Published: February 26, 2020; doi: <https://doi.org/10.1080/10255842.2020.1729755>

**28. Heat Transfer** Impact Factor: 2.8 (SCI, Q2)  
Wiley

- B. Vasu, Ankita Dubey, and O. Anwar Bég, Finite Element Analysis of Non-Newtonian Magneto-Hemodynamic Flow Conveying Nano-Particles through a Stenosed Coronary Artery, *Heat Transfer*, Vol. 49, pp. 33–66, (2020). Published: March 2020; doi: <https://doi.org/10.1002/htj.21598>

**29. International Journal of Applied Mechanics and Engineering** Impact Factor: 0.50 (Scopus, Q4)  
Sciencedirect

- B. Vasu, R. S. R. Gorla, P. V. S. N. Murthy, V. R. Prasad, O. Anwar Bég, and S. Siddiqua, MHD Free Convection-Radiation Interaction in a Porous Medium – Part I: Numerical Investigation, *International Journal of Applied Mechanics and Engineering*, Vol. 25, No. 1, pp. 198–218, (2020). Published: 2020; doi: <https://doi.org/10.2478/ijame-2020-0013>

**30. International Journal of Applied and Computational Mathematics** Impact Factor: 0.36 (Scopus, Q4)  
Springer

- Atul Kumar Ray, B. Vasu, P. V. S. N. Murthy, and R. S. R. Gorla, Non-Similar Solution of Eyring–Powell Fluid Flow and Heat Transfer with Convective Boundary Condition: Homotopy Analysis Method, *International Journal of Applied and Computational Mathematics*, Vol. 6(16), pp. 1–22, (2020). Published: 2020; doi: <https://doi.org/10.1007/s40819-019-0765-1>

**31. Journal of Applied Mechanics and Technical Physics** Impact Factor: 0.8 (SCI, Q3)  
Springer

- B. Vasu, Rama S. R. Gorla, P. V. S. N. Murthy, and O. Anwar Bég, Entropy Analysis on Convective Film Flow of Power-Law Fluid with Nanoparticles along an Inclined Plate, *Journal of Applied Mechanics and Technical Physics*, Vol. 60, No. 5, pp. 827–841, (2019). Published: December 13, 2019; doi: <https://doi.org/10.1134/S0021894419050067>

**32. Journal of Computational & Applied Research in Mech. Eng.** Impact Factor: 0.34 (Scopus, Q3)  
JCARME

- Sreenivasulu Pandikunta, B. Vasu, Poornima Tamalapakula, and N. Bhaskar Reddy, Inclined Lorentzian Force Effect on Tangent Hyperbolic Radiative Slip Flow Imbedded Carbon Nanotubes: Lie Group Analysis, *Journal of Computational & Applied Research in Mechanical Engineering*, Vol. 10, Issue 1, pp. 85–99, (2020). Published: Summer and Autumn 2020; doi: <http://dx.doi.org/10.22061/jcarme.2018.4220.1508>

**33. World Journal of Engineering**

Impact Factor: 1.40 (ESCI, Q3)

Emerald Publishing

- Atul Kumar Ray and B. Vasu, Influence of Chemically Radiative Nanoparticles on Flow of Maxwell Electrically Conducting Fluid over a Convectively Heated Exponential Stretching Sheet, *World Journal of Engineering*, Vol. 16, No. 6, pp. 791–805, (2019). Published: December 02, 2019; doi: <https://doi.org/10.1108/WJE-04-2019-0100>

**34. Journal of Computational & Applied Research in Mech. Eng.**

Impact Factor: 0.34 (Scopus, Q3)

JCARME

- B. Vasu and Atul Kumar Ray, Novel Numerical Solution of Non-linear Heat Transfer of Nanofluid over a Porous Cylinder: Buongiorno–Forchheimer Model, *Journal of Computational & Applied Research in Mechanical Engineering*, (2019). Published: June 02, 2019; doi: <https://doi.org/10.22061/JCARME.2019.4320.1520>

**35. Inventions**

Impact Factor: 2.4 (ESCI, Q2)

MDPI

- Atul Kumar Ray, B. Vasu, O. Anwar Bég, Rama S. R. Gorla, and P. V. S. N. Murthy, Homotopy Semi-Numerical Modeling of Non-Newtonian Nanofluid Transport External to Multiple Geometries Using a Revised Buongiorno Model, *Inventions*, Vol. 4(4), Article 54, (2019). Published: 2019; doi: <https://doi.org/10.3390/inventions4040054>

**2018–19****36. International Journal of Numerical Methods for Heat & Fluid Flow**

Impact Factor: 5.3 (SCIE, Q1)

Emerald Publishing

- Atul Kumar Ray, B. Vasu, O. Anwar Bég, Rama S. R. Gorla, and P. V. S. N. Murthy, Magneto-Bioconvection Flow of a Casson Thin Film with Nanoparticles Over an Unsteady Stretching Sheet, *International Journal of Numerical Methods for Heat & Fluid Flow*, Vol. 29, No. 11, pp. 4277–4309, (2019). Published: November 04, 2019; doi: <https://doi.org/10.1108/HFF-02-2019-0158>

**37. World Journal of Engineering**

Impact Factor: 1.4 (ESCI, Q3)

Emerald Publishing

- B. Vasu, MHD Free Convection Flow of Power-Law Nanofluid Film along an Inclined Surface with Viscous Dissipation and Joule Heating, *World Journal of Engineering*, Vol. 16, No. 1, pp. 115–124, (2019). Published: 2019; doi: <https://doi.org/10.1108/WJE-04-2018-0146>

**38. International Journal of Numerical Methods for Heat & Fluid Flow**

Impact Factor: 5.3 (SCIE, Q1)

Emerald Publishing

- B. Vasu and Atul Kumar Ray, Numerical Study of Carreau Nanofluid Flow past Vertical Plate with the Cattaneo–Christov Heat Flux Model, *International Journal of Numerical Methods for Heat & Fluid Flow*, Vol. 29, Issue 2, pp. 702–723, (2019). Published: February 04, 2019; doi: <https://doi.org/10.1108/HFF-03-2018-0104>

**39. Journal of Thermophysics and Heat Transfer**

Impact Factor: 1.085 (SCIE, Q3)

American Institute of Aeronautics and Astronautics (AIAA)

- B. Vasu, Rama S. R. Gorla, P. V. S. N. Murthy, O. Anwar Bég, V. R. Prasad, and Ali Kadir, Unsteady Flow of a Nanofluid over a Sphere with Non-Linear Boussinesq Approximation, *Journal of Thermophysics and Heat Transfer*, Vol. 33, No. 2, pp. 343–355, (2019). Published: 2019; doi: <https://doi.org/10.2514/1.T5516>

**40. International Journal of Applied Mechanics and Engineering**

Impact Factor: 0.5 (Scopus, Q4)

Sciencedo

- B. Vasu, Atul Kumar Ray, and Rama Subba Reddy Gorla, Homotopy Simulation of Non-Newtonian Spriggs Fluid Flow over a Flat Plate with Oscillating Motion, *International Journal of Applied Mechanics and Engineering*, Vol. 24, No. 2, pp. 359–385, (2019). Published: 2019; doi: <https://doi.org/10.2478/ijame-2019-0023>

## **Upto 2017–18**

### **41. Journal of Heat And Mass Transfer**

Impact Factor: 2.01 (SCI, Q2)

ASME

- B. Vasu, Ch. Ram Reddy, P. V. S. N. Murthy, and Rama S. R. Gorla, Entropy Generation Analysis in Nonlinear Convection Flow of Thermally Stratified Fluid in Saturated Porous Medium with Convective Boundary Condition, *Journal of Heat Transfer*, Vol. 139(9), Article 091701 (10 pages), (2017). Published: 2017; doi: <https://doi.org/10.1115/1.4036332>

### **42. Heat and Mass Transfer**

Impact Factor: 2.325 (SCI, Q2)

Springer

- B. Vasu, Rama S. R. Gorla, and P. V. S. N. Murthy, Thermophoresis on Boundary Layer Heat and Mass Transfer Flow of Walters–B Fluid past a Radiate Plate with Heat Sink/Source, *Heat and Mass Transfer*, Vol. 53, No. 5, pp. 1553–1570, (2017). Published: 2017; doi: <https://doi.org/10.1007/s00231-016-1917-z>

### **43. Journal of the Brazilian Society of Mech. Sciences and Eng.**

Impact Factor: 2.361 (SCI, Q2)

Springer

- O. Anwar Bég, V. R. Prasad, B. Vasu, and R. S. R. Gorla, Computational Modelling of Magnetohydrodynamic Convection from a Rotating Cone in Orthotropic Darcian Porous Media, *Journal of the Brazilian Society of Mechanical Sciences and Engineering*, Vol. 39(6), pp. 2035–2054, (2017). Published: 2017.

### **44. International Communications in Heat and Mass Transfer**

Impact Factor: 6.2 (SCI, Q1)

Elsevier

- Peri K. Kameswaran, B. Vasu, P. V. S. N. Murthy, and Rama S. R. Gorla, Mixed Convection from a Wavy Surface Embedded in a Thermally Stratified Nanofluid Saturated Porous Medium with Non-Linear Boussinesq Approximation, *International Communications in Heat and Mass Transfer*, Vol. 77, pp. 78–86, (2016). Published: 2016; doi: <https://doi.org/10.1016/j.icheatmasstransfer.2016.07.006>

### **45. Heat Mass Transfer Research Journal**

Impact Factor: –

CANSRG

- B. Vasu, Rama S. R. Gorla, V. R. Prasad, and O. Anwar Bég, Chemical Reaction on Heat and Mass Transfer Flow Past a Vertical Cylinder Embedded in Non-Darcy Porous Medium, *Heat Mass Transfer Research Journal*, Vol. 1, No. 1, pp. 1–24, (2017). Available: <http://www.cansrg.com/journals/hmtrj/2017/Vasu-et-al.pdf>

### **46. Thermal Energy and Power Engineering**

Impact Factor: –

Scientific Research Publishing (SCIRP)

- Rama S. R. Gorla, B. Vasu, and P. V. S. N. Murthy, Thermophoresis Particle Deposition in Transient Convective Mass Transfer and Viscoelastic Flow with Variable Thermal Conductivity and Soret/Dufour Effects, *Thermal Energy and Power Engineering*, Vol. 4(1), pp. 1–21, (2016). Published: July 2016.

### **47. Journal of Nanofluids**

Impact Factor: 2.7 (ESCI, Q2)

American Scientific Publishers

- Rama Subba Reddy Gorla and Buddakkagari Vasu, Unsteady Convective Heat Transfer to a Stretching Surface in a Non-Newtonian Nanofluid, *Journal of Nanofluids*, Vol. 5(4), pp. 581–594, (2016). Published: August 2016; doi: <https://doi.org/10.1166/jon.2016.1242>

### **48. Journal of Applied Mathematics and Physics**

Web of Science (Clarivate Analytics)

Scientific Research Publishing (SCIRP)

- Rama Subba Reddy Gorla, Buddakkagari Vasu, and Sadia Siddiq, Transient Combined Convective Heat Transfer over Stretching Surface in a Non-Newtonian Nanofluid using Buongiorno's Model, *Journal of Applied Mathematics and Physics*, Vol. 4(2), pp. 443–460, (2016). Published: February 2016; doi: <https://doi.org/10.4236/jamp.2016.42050>

### **49. International Journal of Applied and Computational Mathematics**

(Scopus, Q3)

Springer

- Vasu Buddakkagari and Manish Kumar, Transient Boundary Layer Laminar Free Convective Flow of a Nanofluid over a Vertical Cone/Plate, *International Journal of Applied and Computational Mathematics*, Vol. 1(3), pp. 427–448, (2015). Published: January 30, 2015; doi: <https://doi.org/10.1007/s40819-015-0027-9>

## **50. Journal of Advanced Biotechnology and Bioengineering**

Science Publications

- O. Anwar Bég, B. Vasu, T. Sochi, and V. R. Prasad, Keller Box and Smoothed Particle Hydrodynamic Numerical Simulation of Two-Phase Transport in Blood Purification Auto-Transfusion Dialysis Hybrid Device with Stokes and Darcy Number Effects, *Journal of Advanced Biotechnology and Bioengineering*, Vol. 1, No. 2, pp. 80–100, (2013). Published: December 2013; doi: <http://dx.doi.org/10.12970/2311-1755.2013.01.02.4>

## **51. Journal of Porous Media**

Impact Factor: 2.2 (SCI, Q2)

Begell House

- V. Ramachandra Prasad, B. Vasu, and O. Anwar Bég, Thermo-Diffusion and Diffusion-Thermo Effects on Free Convection Flow past a Horizontal Circular Cylinder in a Non-Darcy Porous Medium, *Journal of Porous Media*, Vol. 16(4), pp. 315–334, (2013). Published: April 2013.

## **52. Journal of Mechanics in Medicine and Biology**

Impact Factor: 0.934 (SCI, Q4)

World Scientific

- O. Anwar Bég, B. Vasu, and V. R. Prasad, Numerical Study of Mixed Bioconvection in Porous Media Saturated with Nanofluid Containing Oxytactic Microorganisms, *Journal of Mechanics in Medicine and Biology*, Vol. 13, No. 4, Article 1350067 (25 pages), (2013). Published: August 2013; doi: <https://doi.org/10.1142/S021951941350067X>

## **53. Part E: Journal of Process Mechanical Engineering**

Impact Factor: 1.211 (SCI, Q2)

SAGE

- V. R. Prasad, A. Subba Rao, N. Bhaskar Reddy, B. Vasu, and O. Anwar Bég, Modelling Laminar Transport Phenomena in a Casson Rheological Fluid from a Horizontal Circular Cylinder with Partial Slip, *Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering*, Vol. 227(4), pp. 309–326, (2013). Published: November 2013; doi: <https://doi.org/10.1177/0954408912466350>

## **54. Journal of Thermodynamics**

Scopus

Hindawi

- B. Vasu, V. R. Prasad, and O. Anwar Bég, Thermo-Diffusion and Diffusion-Thermo Effects on MHD Free Convective Heat and Mass Transfer from a Sphere Embedded in a Non-Darcian Porous Medium, *Journal of Thermodynamics*, Volume 2012, Article ID 725142, 17 pages, (2012). Published: 2012; doi: <https://doi.org/10.1155/2012/725142>

## **55. Communications in Nonlinear Science and Numerical Simulation**

Impact Factor: 4.186 (SCI, Q1)

Elsevier

- V. R. Prasad, B. Vasu, O. Anwar Bég, and Rana D. Prashad, Thermal Radiation Effects on Magnetohydrodynamic Free Convection Heat and Mass Transfer from a Sphere in a Variable Porosity Regime, *Communications in Nonlinear Science and Numerical Simulation*, Vol. 17(2), pp. 654–671, (2012). Published: February 2012; doi: <https://doi.org/10.1016/j.cnsns.2011.04.033>

## **56. International Journal of Engineering Research and Applications**

UGC Approved Journal

IJERA

- C. Sudhakar, N. Bhaskar Reddy, B. Vasu, and V. Ramachandra Prasad, Thermophoresis Effect on Unsteady Free Convection Heat and Mass Transfer in a Walters–B Fluid Past a Semi Infinite Plate, *International Journal of Engineering Research and Applications (IJERA)*, Vol. 2, No. 5, pp. 2080–2095, (2012). Published: October 2012.

## **57. International Journal of Scientific & Engineering Research**

Impact Factor: 8.036

IJSER

- U. Rajeswara Rao, V. Ramachandra Prasad, G. Viswanath, and B. Vasu, Radiation Effects on Unsteady Free Convection Heat and Mass Transfer in a Walters–B Viscoelastic Flow Past an Impulsively Started Vertical Plate, *International Journal of Scientific & Engineering Research*, Vol. 3(8), pp. 720–728, (2012). Published: 2012.

## **58. Chemical Engineering Journal**

Impact Factor: 12.5 (SCI, Q1)

Elsevier

- V. R. Prasad, B. Vasu, O. Anwar Bég, and Rana D. Prashad, Thermo-Diffusion and Diffusion-Thermo Effects on MHD Free Convection Flow Past a Vertical Plate Embedded in a Non-Darcian Porous Medium, *Chemical Engineering Journal*, Vol. 173(2), pp. 598–606, (2011). Published: September 2011; doi: <https://doi.org/10.1016/j.cej.2011.08.009>

**59. Journal of Porous Media**

Impact Factor: 2.2 (SCI, Q2)

Begell House

- V. Ramachandra Prasad, B. Vasu, O. Anwar Bég, and D. Rana Prashad, Radiation Effects on Magnetohydrodynamic Heat and Mass Transfer from a Horizontal Cylinder in a Variable Porosity Regime, *Journal of Porous Media*, Vol. 15(3), pp. 261–281, (2012). Published: 2012; doi: <https://doi.org/10.1615/JPorMedia.v15.i3>

**60. Journal of Applied Fluid Mechanics**

Impact Factor: 1.7 (SCIE, Q3)

Journal of Applied Fluid Mechanics

- B. Vasu, V. Ramachandra Prasad, and N. Bhaskar Reddy, Radiation and Mass Transfer Effects on Transient Free Convection Flow of a Dissipative Fluid Past Semi-Infinite Vertical Plate with Uniform Heat and Mass Flux, *Journal of Applied Fluid Mechanics*, Vol. 4, No. 1, pp. 15–26, (2011). Published: March 2011.

**61. International Journal of Heat and Mass Transfer**

Impact Factor: 6.6 (SCI, Q1)

Elsevier

- O. Anwar Bég, V. Ramachandra Prasad, B. Vasu, N. Bhaskar Reddy, Q. Li, and R. Bhargava, Free Convection Heat and Mass Transfer from an Isothermal Sphere to a Micropolar Regime with Soret/Dufour Effects, *International Journal of Heat and Mass Transfer*, Vol. 54(1–3), pp. 9–18, (2011). Published: January 2011; doi: <https://doi.org/10.1016/j.ijheatmasstransfer.2010.10.005>

**62. Thermal Science**

Impact Factor: 1.431 (SCIE, Q4)

Vinča Institute of Nuclear Sciences

- V. R. Prasad, B. Vasu, O. Anwar Bég, and Rana D. Prashad, Unsteady Free Convection Heat and Mass Transfer in a Walters–B Viscoelastic Flow past a Semi-Infinite Vertical Plate: A Numerical Study, *Thermal Science*, Vol. 15, Suppl. 2, pp. S291–S305, (2011). Published: 2011; doi: <https://doi.org/10.2298/TSCI101102002P>

**63. Elixir Applied Mathematics**

Impact Factor: –

Elixir Publishers

- V. Ramachandra Prasad, B. Vasu, and O. Anwar Bég, Numerical Modeling of Transient Dissipative Radiation Free Convection Heat and Mass Transfer from a Non-Isothermal Cone with Variable Surface Conditions, *Elixir Applied Mathematics*, Vol. 41, pp. 5592–5603, (2011). Published: 2011.

**64. International Journal of Applied Mathematics and Mechanics**

Impact Factor: –

IJAMM

- B. Vasu, V. R. Prasad, O. Anwar Bég, A. Aziz, and Rana D. Prashad, Numerical Analysis of Magnetohydrodynamic Nonlinear Convection Heat and Mass Transfer From a Sphere in a Non-Darcian Variable-Porosity Medium, *International Journal of Applied Mathematics and Mechanics*, Vol. 6(17), pp. 64–111, (2010). Available: <http://ijamm.bc.cityu.edu.hk/ijamm/outbox/Y2010V6N17P64C94910831.pdf>

**65. Journal of Applied Fluid Mechanics**

Impact Factor: 1.7 (SCIE, Q3)

Journal of Applied Fluid Mechanics

- V. R. Prasad, N. Bhaskar Reddy, R. Muthucumaraswamy, and B. Vasu, Finite Difference Analysis of Radiative Free Convection Flow past an Impulsively Started Vertical Plate with Variable Heat and Mass Flux, *Journal of Applied Fluid Mechanics*, Vol. 4, No. 1, pp. 59–68, (2011). Published: 2011.

**66. International Journal of Applied Mathematics and Mechanics**

Impact Factor: –

IJAMM

- V. R. Prasad, R. Muthucumaraswamy, and B. Vasu, Radiation and Mass Transfer Effects on Unsteady MHD Free Convection Flow past a Vertical Porous Plate Embedded in a Porous Medium: A Numerical Study, *International Journal of Applied Mathematics and Mechanics*, Vol. 6(19), pp. 1–21, (2010). Published: 2010. Available: <http://ijamm.bc.cityu.edu.hk/ijamm/outbox/Y2010V6N19P1C65502567.pdf>

**BOOKS PUBLICATION**

1. B. Vasu, C. Sudhakar and V Ramachandra Prasad, *Numerical Simulations of Thermophoresis in a Walters-B Fluid Flow*, Published by Lambert Academic Publishing, Germany, ISBN 978-620-2-06219-0, 27/10/2017.
2. V Ramachandra Prasad, B. Vasu and O. Anwar Beg, *Walters-B Viscoelastic Flow Past a Vertical Plate*, Published by Lambert Academic Publishing, Germany, ISBN 978-3-659-21838-5, 13/09/2012.

3. B. Vasu, V Ramachandra Prasad and O. Anwar Beg, *Thermo-Diffusion and Diffusion-Thermo Effects on Boundary Layer Flows*, Published by Lambert Academic Publishing, Germany, ISBN 978-3-8443-9745-1, 08/05/2011.

## BOOK CHAPTERS PUBLICATION

---

1. O. Anwar Bég, Theo Morand, Tasveer A. Bég, S. Kuharat, B. Vasu, Henry J. Leonard, Martin L. Burby, *CFD Modelling of Combustion and NOX Production in a Propulsion Duct with Aspect Ratio Effects*, Book: *Eco-Materials and Green Energy for a Sustainable Future*, 1st Ed., Chapter 9, Pages: 33, Oct 2024, CRC Press, ISBN: 9781003473749. <https://doi.org/10.1201/9781003473749-11>.
2. Atul Kumar Ray, B. Vasu, Amit Kumar, Dig Vijay Tanwar, Divya Chaturvedi, Minakshi Poonia, *Residual and Computational Time Analysis of the Boundary-Layer Flow*, Book: *Modeling and Simulation of Fluid Flow and Heat Transfer*, 1st Ed., Pages: 9, Jan 2024, CRC Press, ISBN: 9781032712079. <https://doi.org/10.1201/9781032712079>.
3. Sireetorn Kuharat, O. Anwar Bég, Henry J. Leonard, Ali Kadir, Walid S. Jouri, Tasveer A. Bég, B. Vasu, J.C. Umavathi, R.S.R. Gorla, *Finite Volume Numerical Analysis of Diamond and Zinc Nanoparticles Performance in a Water-Based Trapezium Direct Absorber Solar Collector with Buoyancy Effects*, Book: *Energy Conversion and Green Energy Storage*, 1st Edition, Pages: 24, 2022, CRC Press, ISBN: 9781003258209, 9/2022.
4. J. C. Umavathi, O. Anwar Bég, B. Vasu, and Rama S. R. Gorla, *Perturbation and MAPLE Quadrature Computation of Thermosolutal Dissipative Reactive Convective Flow in a Geothermal Duct with Robin Boundary Conditions*, In: P. Mahanta et al. (eds.), *Advances in Thermofluids and Renewable Energy*, Lecture Notes in Mechanical Engineering, Springer Nature Singapore Pte Ltd., 2022. [https://doi.org/10.1007/978-981-16-3497-0\\_1](https://doi.org/10.1007/978-981-16-3497-0_1).
5. Ankita Dubey and B. Vasu, *Finite Element Analysis of MHD Blood Flow in Stenosed Coronary Artery with the Suspension of Nanoparticles*, In: S. Manna et al. (eds.), *Mathematical Modelling and Scientific Computing with Applications*, Springer Proceedings in Mathematics & Statistics, Vol. 308, 1st Ed., pp. 219–239, 2020. eBook ISBN: 978-981-15-1338-1. DOI: <https://doi.org/10.1007/978-981-15-1338-1>.
6. Atul Kumar Ray and B. Vasu, *Hydrodynamics of Non-Newtonian Spriggs Fluid Flow Past an Impulsively Moving Plate*, In: Singh M., Kushvah B., Seth G., Prakash J. (eds.), *Applications of Fluid Dynamics*, Lecture Notes in Mechanical Engineering, Springer, Singapore, pp. 95–107, 2018. ISBN: 978-981-10-5328-3. DOI: [https://doi.org/10.1007/978-981-10-5329-0\\_7](https://doi.org/10.1007/978-981-10-5329-0_7).
7. Vasu Buddakkagari and Rama Subba Reddy Gorla, *Two-Phase Laminar Mixed Convection  $Al_2O_3$ –Water Nanofluid in Elliptic Duct*, In: *Nanoscale Flow*, pp. 101–120, CRC Press, 2018. ISBN: 9781482233803, Cat# K22969.

## PEER-REVIEWED PUBLICATIONS IN VARIOUS CONFERENCE PROCEEDINGS:

---

1. J.C. Umavathi, O. Anwar Bég, B. Vasu, Rama S. R. Gorla, *Perturbation and MAPLE Quadrature Computation of Thermo-Solutal Dissipative Reactive Convective Flow in a Geothermal Duct with Robin Boundary Conditions*, Proceedings of the International Conference on Recent Trends in Developments of Thermo-fluids and Renewable Energy, NIT Arunachal Pradesh, Yupia, India, November 26–28, 2020, Paper No. TFRE20/2.
2. Jayati Tripathi, B. Vasu, Ankita Dubey, Rama S. R. Gorla, P. V. S. N. Murthy, O. Anwar Bég and P. Saikrishnan, *Progress in Nano-Drug Delivery Systems and Computational Nano-Pharmacodynamics*, ICEMCI 2019, Jabalpur, India (Conference Proceedings).
3. Ankita Dubey, B. Vasu, R. S. R. Gorla, M. Jawid and O. Anwar Bég, *Biomagnetic Nano-Rheopharmacodynamic Transport in a Stenotic Artery: Targeted Drug Delivery Simulation*, IIER – 767th

International Conference on Recent Innovations in Engineering and Technology (ICRIET), Doha, Qatar, December 10–11, 2019.

4. Ashish Khare, B. Reddy Mounika and B. Vasu, *On Retrieval of Nearly Identical Video Clips with Query Frame*, International Conference on Automation, Computational & Technology Management (ICACTM-2019), pp. 116–121, IEEE, 2019. 978-1-5386-8010-0/19/\$31.00 ©2019 IEEE.
5. Ankita Dubey and B. Vasu, *Finite Element Analysis of MHD Blood Flow in Stenosed Coronary Artery with the Suspension of Nanoparticles*, Springer Nature Singapore Pte Ltd., International Conference on Mathematical Modelling and Scientific Computing (ICMMSC–2018), IIT Indore, July 19–21, 2018. URL: <http://icmmssc.iiti.ac.in/>
6. B. Vasu and Atul Kumar Ray, *Natural Convection of Carreau Nanofluid Flow from Vertical Flat Plate with Periodic Variation of Temperature and Concentration*, International Conference on Computational Methods for Thermal Problems, Issue 223309, 2018, pp. 177–180. 5th International Conference on Computational Methods for Thermal Problems (THERMACOMP 2018), Bengaluru, India, July 9–11, 2018, Code 223309.
7. B. Vasu and Atul Kumar Ray, *Mixed Convection Flow of Eyring-Powell Fluid along Vertical Stretching Surface with Convective Boundary Condition*, Proceedings of the International Conference on Numerical Heat Transfer and Fluid Flow, NIT Warangal, India, January 19–21, 2018. Paper ID: 172694.
8. B. Vasu, Shalini Singh and V. R. Prasad, *FVM Simulation of an Incompressible Flow in a Lid Driven Cavity Using SIMPLE Algorithm*, Paper ID: 106, Proceedings of the Indian Conference on Applied Mechanics (INCAM 2017), MNNIT Allahabad, July 5–7, 2017.
9. B. Vasu, Rama S. R. Gorla, P. V. S. N. Murthy and V. R. Prasad, *Free Convection Flow of Non-Newtonian Power-law Liquid Film with Nanoparticles along an Inclined Plate*, Paper ID: 525, Proceedings of the 20th Australasian Fluid Mechanics Conference, The University of Western Australia, Perth, Australia, December 5–8, 2016.
10. B. Vasu, Rama Subba Reddy Gorla and V. R. Prasad, *Effect of Thermophoresis on Transient Free Convection Boundary Layer Flow of a Walters-B Fluid*, International Conference on Recent Trends in Engineering Science and Management (ICRTESM-2015), Jawaharlal Nehru University (JNU Convention Center), New Delhi, March 15, 2015. *International Journal of Advance Research in Science and Engineering (IJARSE)*, Vol. 4, Special Issue (01), March 2015, pp. 103–112. ISSN: 2319-8354(E). UGC Approved Journal.
11. B. Vasu, P. V. S. N. Murthy and O. Anwar Bég, *Effects of Thermophoresis on the Transient Free Convection Heat and Mass Transfer in a Walters-B Viscoelastic Flow Past an Impulsively Started Vertical Plate*, Proceedings of the 58th ISTAM Congress 2013, Bengal Engineering and Science University, Kolkata, December 18–21, 2013. ISTAM-FM5S214.
12. B. Vasu, V. Ramachandra Prasad, N. Bhaskar Reddy and O. Anwar Bég, *Computational Analysis of Free Convection Heat and Mass Transfer from an Isothermal Horizontal Circular Cylinder to a Micropolar Regime with Soret/Dufour Effects*, Proceedings of the 37th National and 4th International Conference on Fluid Mechanics and Fluid Power, IIT Madras, December 16–18, 2010. FMFP10–HT–06.
13. O. A. Bég, R. S. R. Gorla, V. R. Prasad, B. Vasu and R. D. Prashad, *Computational Study of Mixed Thermal Convection Nanofluid Flow in a Porous Medium*, Proceedings of the 12th UK National Heat Transfer Conference, Vol. 30, Chemical Engineering Department, University of Leeds, England, UK, August 2011.
14. V. R. Prasad, B. Vasu, A. Subba Rao and O. Anwar Bég, *Numerical Study of Free Convective Heat and Mass Transfer in a Walters-B Viscoelastic Flow Past an Impulsively Started Vertical Plate with Variable Temperature and Concentration*, Proceedings of the 55th ISTAM Congress, NIT Hamirpur, pp. 29–41, 2010.