Research Publications in Refereed Journals (International)

1. Seismic wave reflection characteristics and wave-induced fluid flow in partially saturated porous media. **Scientific Reports**, Impact Factor: **3.8**. **Accepted**.
2. Stability and Multiple Solutions of Ternary Hybrid Nanofluid in a Darcy-Forchheimer Porous Medium Over a Stretching/Shrinking Surface. **Journal of Thermal Analysis and Calorimetry**, Impact Factor: **3**. **Accepted**.
3. Analysis of hybridized AA7072 and AA7075 alloys nanomaterials within MHD Darcy–Forchheimer flow through a moving thin needle. Kaswan, P., **Kumar, M.**, Kumari, M., Oztop H. F. **Thermal Advances**, 2025, 2, 100020.
4. Rayleigh-Type wave in thermo-poroelastic media with dual-phase-lag heat conduction. **Kumar, M.**, Lather P., Fu LY, Kumari N., Kaswan P., Nianqi L., Kumari M. **International Journal of Numerical Methods for Heat and Fluid Flow**, 2025, Impact Factor: **4**.
5. Stability Analysis of Dual Solutions for Nonlinear Radiative Magnetohydrodynamic Flow of Ag − T − iO2/H2O Hybrid Nanofluid over a Nonlinearly Shrinking Surface. Kaswan, P., **Kumar, M.**, Kumari, M., Mandal, G. **Thermal Advances**, 2024, 1, 100002.
6. Inhomogeneous wave propagation porothermoelastic medium with dual lag phase heat conduction. Kumari, M., Lather, P., Kumari, N., Kaswan, P., **Kumar, M**. **Journal of Porous Media**, 2024, Impact Factor: **2.5**.
7. Wave-induced fluid flow and reflection/transmission of seismic waves at a fluid/double-porosity thermoelastic medium interface. **Kumar, M.**, Singh, A., Kumari, N.,Ahmad, H., Askar, S., Kaswan, P., Kumari, M. **Physica Scripta**, 2024, 99(8), 085026, Impact Factor: **2.6**.
8. Entropy generation analysis of microrotating Casson's nanofluid with Darcy–Forchheimer porous media using a neural computing based on Levenberg–Marquardt algorithm. **Kumar, M.**, Kaswan, P., Kumari, M. **International Journal of Numerical Methods for Heat and Fluid Flow**, 2024, 34(6), pp. 2285–2320, Impact Factor: **4**.
9. Cattano Christov double diffusion model for third grade nanofluid flow over a stretching Riga plate with entropy generation analysis. **Kumar, M.**, Kaswan, P., Kumari, M., Ahmad, H., Askar, S. **Heliyon**, 2024, 10(10), e30188, Impact Factor: **3.4**.
10. Novel methods to determine the slowness and ray-velocity vectors in viscoelastic anisotropic media. Zhou, B., Liu, X., Wang, P., **Kumar, M. Geophysical Journal International**, 2024, 236(2), pp. 1053–1067, Impact Factor: **2.8**.
11. Vibrations in piezothermoelastic micro-/nanobeam with voids utilizing modified couple stress theory. Duhan, A., Sahrawat, R.K., Kumar, K., **Kumar, M. Mechanics of Advanced Materials and Structures**, 2024, Impact Factor: **3.6**.

12. Inhomogeneous Wave Propagation in Triple-Porosity Medium. **Kumar, M.**, Lal, M., Kumari, N., Kaswan, P., Kumari, M. **Journal of Vibration Engineering and Technologies**, 2024, Impact Factor: **2.1**.
13. Inhomogeneous waves propagation in double-porosity thermoelastic media. **Kumar, M.**, Bhagwan, J., Kaswan, P., Liu, X., Kumari, M.**International Journal of Numerical Methods for Heat and Fluid Flow**, 2023, 33(8), pp. 2927–2962, Impact Factor: **4**.
14. Rayleigh waves in nonlocal generalized thermoelastic media. **Kumar, M.**, Kaswan, P., Sarkar, N., Liu, X., Kumari, M. **International Journal of Numerical Methods for Heat and Fluid Flow**, 2023, 33(6), pp. 2049–2072, Impact Factor: **4**.
15. Analysis of a bioconvection flow of magnetocross nanofluid containing gyrotactic microorganisms with activation energy using an artificial neural network scheme. Kaswan, P., **Kumar, M.**, Kumari, M. **Results in Engineering**, 2023, 17, 101015, Impact Factor: **6**.
16. Reflection/transmission of plane waves at the interface of an ideal fluid and nonlocal piezothermoelastic medium. Gupta, V., Kumar, R., **Kumar, M.**, Pathania, V., Barak, M.S. **International Journal of Numerical Methods for Heat and Fluid Flow**, 2023, 33(2), pp. 912–937, Impact Factor: **4**.
17. Wave propagation at the welded interface of an elastic solid and unsaturated porothermoelastic solid. **Kumar, M.**, Liu, X., Kumari, M., Yadav, P. **International Journal of Numerical Methods for Heat and Fluid Flow**, 2022, 32(11), pp. 3526–3550, Impact Factor: **4**.
18. Numerical simulation of entropy generation analysis of MHD hybrid-nanofluid flow with nonlinear thermal radiation and melting heat transfer. **Kumar, M.**, Kaswan, P., Kumari, M. **Special Topics & Reviews in Porous Media: An International Journal**, 2022, 13(6), pp. 1-15, Impact Factor: **1.4**.
19. Reflection and transmission coefficients of spherical waves at an interface separating two dissimilar viscoelastic solids. Liu, X., Greenhalgh, S., **Kumar, M.**, Li, H., Liu, B., Liao, Q., Huang, X. **Geophysical Journal International**, 2022, 230(1), pp. 252–271, Impact Factor: **2.8**.
20. Reflection of inhomogeneous plane waves at the surface of an unsaturated porothermoelastic media. Kumari, M., Kaswan, P., **Kumar, M.**, Yadav, P. **European Physical Journal Plus**, 2022, 137(6), 729, Impact Factor: **2.8**.
21. Effect of various physical properties on the reflection coefficients of inhomogeneous waves at the stress-free surface of partially saturated soils induced by obliquely incident fast P-wave. Kumari, M., Barak, M.S., Singh, A., **Kumar, M. Journal of Ocean Engineering and Science**, 2022, 7(3), pp. 225–236, Impact Factor: **13**.
22. Inhomogeneous wave reflection from the surface of a partially saturated thermoelastic porous media. **Kumar, M.**, Liu, X., Kalkal, K.K., Dalal, V., Kumari, M. **International**

Journal of Numerical Methods for Heat and Fluid Flow, 2022, 32(6), pp. 1911–1943, Impact Factor: **4**.

23. Horizontal and vertical motion at the surface of partially saturated soils layer sandwiched between water and elastic solid. Kumari, M., Singh, A., Barak, M.S., **Kumar, M**. **Waves in Random and Complex Media**, 2022.
24. Reflection of inhomogeneous waves at the surface of a cracked porous solid with penny-shaped inclusions. Kumari, M., **Kumar, M. Waves in Random and Complex Media**, 2022, 32(4), pp. 1992–2013
25. Wave-induced flow of pore fluid in a cracked porous solid containing penny-shaped inclusions. Kumari, M., Virender, **Kumar, M**. **Petroleum Science**, 2021, 18(5), pp. 1390–1408, Impact Factor: **6**.
26. Reflection and refraction of elastic waves at the interface of an elastic solid and partially saturated soils. **Kumar, M.**, Singh, A., Kumari, M., Barak, M.S. **Acta Mechanica**, 2021, 232(1), pp. 33–55, Impact Factor: **2.3**.
27. Wave propagation characteristics at the welded interface of double-porosity solid and double-porosity dual-permeability materials. Kumari, M., **Kumar, M.**, Barak, M.S. **Waves in Random and Complex Media**, 2021, 31(6), pp. 1682–1707
28. Horizontal and vertical motion at the surface of swelling poroelastic layer sandwiched between water and elastic solid. **Kumar, M.**, Kumari, M. **Ocean Engineering**, 2020, 210, 107551, Impact Factor: **4.6**.
29. Inhomogeneous wave propagation in partially saturated soils. Barak, M.S., **Kumar, M.**, Kumari, M., Singh, A. **Wave Motion**, 2020, 93, 102470, Impact Factor: **2.1**.
30. Reflection and refraction of plane waves at the boundary of an elastic solid and double-porosity dual-permeability materials. **Kumar, M.**, Barak, M.S., Kumari, M. **Petroleum Science**, 2019, 16(2), pp. 298–317, Impact Factor: **6**.
31. Reflection of plane seismic waves at the surface of double-porosity dual-permeability materials. **Kumar, M**., Kumari, M., Barak, M.S. **Petroleum Science**, 2018, 15(3), pp. 521–537, Impact Factor: **6**.
32. Reflection of inhomogeneouswaves at the surface of a dissipative poroelastic media. Kumari, M., Barak, M.S., **Kumar, M**. **Journal of Porous Media**, 2018, 21(11), pp. 1025–1040, Impact Factor: **2.5**.
33. Effect of local fluid flow on the propagation of plane waves at an interface of water/double-porosity solid with underlying uniform elastic solid. Barak, M.S., Kumari, M., **Kumar, M**. **Ocean Engineering**, 2018, 147, pp. 195–205, Impact Factor: **4.6**.
34. Seismic reflection and transmission coefficients of a single layer sandwiched between two dissimilar poroelastic solids. Kumari, M., Barak, M.S., **Kumar, M**. **Petroleum Science**, 2017, 14(4), pp. 676–693, Impact Factor: **6**.

35. Effect of hydrological properties on the energy shares of reflected waves at the surface of a partially saturated porous solid. Barak, M.S., Kumari, M., **Kumar, M. AIMS Geosciences**, 2017, 3(1),PP. 67-90, Impact Factor: **0.9**.
36. Reflection and refraction of waves at the boundary of a non- viscous porous solid saturated with single fluid and a porous solid saturated with two immiscible fluids. **Kumar, M.**, Saini, R. **Latin American Journal of Solids and Structures**, 2016, 13(7), pp. 1299–1324, Impact Factor: **1.4**.
37. Reflection of attenuated waves at the surface of a fractured porous solid saturated with two immiscible viscous fluids. **Kumar, M**., Kumari, M. **Latin American Journal of Solids and Structures**, 2014, 11(7), pp. 1206–1237, Impact Factor: **1.4**.
38. Reflection and transmission of attenuated waves at the boundary between two dissimilar poroelastic solids saturated with two immiscible viscous fluids. **Kumar, M.**, Sharma, M.D. **Geophysical Prospecting**, 2013, 61(5), pp. 1035–1055, Impact Factor: **1.8**.
39. Reflection and refraction of attenuated waves at boundary of elastic solid and porous solid saturated with two immiscible viscous fluids. **Kumar, M**., Saini, R. **Applied Mathematics and Mechanics (English Edition)**, 2012, 33(6), pp. 797–816, Impact Factor: **4.5**.
40. Reflection of attenuated waves at the surface of a porous solid saturated with two immiscible viscous fluids. Sharma, M.D., **Kumar, M**. **Geophysical Journal International**, 2011, 184(1), pp. 371–384, Impact Factor: **2.8**.