



**Dr. C. Sowmiya**

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**EXPERIENCE**

Worked as an Assistant Professor in Department of Mathematics at Adhiyaman Arts and Science College for Women, Uthangarai from June 2018 to November 2020.

## PUBLICATIONS

- Sowmiya, C., and B. Rushi kumar: MHD Maxwell nanofluid flow over a stretching cylinder in porous media with Microorganisms and activation energy, journal of magnetism and magnetic materials, 582(2023), Doi.org/10.1016/j.jmmm.2023.171032, (I.F.: 2.7)
- Sowmiya, C., and B. Rushi kumar: Mathematical modeling of viscoelastic fluid flow across a nonlinear stretching surface in porous media with varying magnetic field, International Journal of Modern Physics B (2023), Doi.org/10.1142/s021797922450348x 2450348, (I.F.: 2.3).
- Sowmiya, C., and B. Rushi kumar: MHD mixed convection flow in a permeable vertical plate with buoyancy and Dufour effects. Journal of Porous Media 25(11), doi: 10.1615/jpormedia.2022044034, (2022), (I.F.: 2.3).
- Sowmiya, C., and B. Rushi kumar: Hydromagnetic Casson fluid flow across an inclined vertical surface in porous channel with buoyancy and thermo-diffusion effects. Special topics & reviews In porous media: an internationalJournal,15(6):77-92 (2024) (I.F.: 1.1).
- Sowmiya, C., B. Rushi kumar, O. Anwar beg, and Sireetorn kuharat: modelling and analysis of MHD free convective thermo-solutal transport in casson fluid flow with radiative heat flux. Journal of Thermal Analysis and Calorimetry. <https://doi.org/10.1007/s10973-024-13115-6>.(I.F.: 4.75).
- Sowmiya, C., and B. Rushi kumar: Effects of radiation and chemical reaction on MHD mixed convection flow over a permeable vertical plate, nonlinear dynamics and applications: proceedings of the ICNDA 2022. Cham: springer, International publishing, 2022(351-365), doi.org/10.1007/978-3-030-99792-2-30.
- Sowmiya, C., S. Priyanka, C. Glorireena, A. Poomagal and P.Thiruselvi: Heat flow of rod controlled by delay Difference operator, international journal of emerging technologies and innovative research, issn:2349-5162, vol.7(4),1286-1290, april-2020, :<http://www.jetir.org/papers/jetir2004173.pdf>.
- Xavier, G. Britto Antony, S. John borg, sS Jaraldpushparaj, and C. Sowmiya: Discrete heat flow of rod controlled by fibonacci partial delay difference operator. International journal of mathematics and its applications, 6(1),(2018): 29-32. (I.F.:4.9).

## CONFERENCES/WEBINAR/WORKSHOPS

- Workshop: Attended a workshop on “Numerical computation Techniques for solving boundary layer Problem HAM and BVP4C” organized by Department of Mathematics and Statistics, Manipal University on August 27, 2021.
- Participated in a 5-Day International workshop on Applicable Mathematics for Science and Engineering – Recent Advances (AMSE - 2023) held at VIT-AP University, Andhra Pradesh, India during 16 - 20 February, 2023.
- STC-Short Term Course: Attended a five day short term training program in “Computational Software MATLAB and MATHEMATICA” organized by Sardar Vallabhbhai National Institute of Technology, Surat, from 17-May-2021 to 21-May-2021.
- Presented a paper titled “Effects of Thermophoresis and Brownian Motion on MHD Williamson Nanofluid flow in Porous Media over a Stretching Cylinder”, 68th ISTAM-2023 held at NIT Warangal during 7-9th December 2023.
- Presented a paper titled “Mathematical Modelling of Viscoelastic Fluid Flow across a Non-linear Stretching Surface in Porous Media with Varying Magnetic Field”, in iMPLEMATHATION’23 held at Vellore Institute of Technology, Vellore, during 08-12 May 2023.
- Presented a paper titled “International Conference on Recent Development in Mathematics” organized by Canadian University, Dubai, from 24-August-2022 to 26-August-2022.
- Presented a paper titled “International Conference on Non-linear Dynamics and Applications” Organized by Department of Mathematics, Sikkim manipal Institute of Technology, Sikkim from 9-11, March 2022.
- Presented paper in 8th “International Conference on Mathematics and Computing(ICMC-2022)” organized by VIT, Vellore, from 6-January-2022 to 8-January-2022.
- Presented a Paper on “Discrete Heat Flow Of Long Rod Controlled By Fibonacci Delay Heat Difference Operator” on 2018 in Sacred Heart College, Tirupattur.
- Presented a Paper on “Higher Order Partial Fibonacci q-Difference Operators in Discrete Heat Equations” on 2018 in Thiruvalluvar University of Arts and Science, Tirupattur.
- **Research Awards**
- Raman Research Award(2022, 2023& 2024) from VIT.
- **Life Member**
- 1. Life member of the Indian Mathematical Society(IMS)
- 2. Life member of the Ramanujan Mathematical Society(RMS)