


Name of Faculty	Dr. MACHA MADHU	
Designation	Assistant Professor	
Nature of Job/Appointment	Regular	
Date of Joining	20 - 09 - 2021	
E-mail	madhum_maths@cbit.ac.in	
Education Qualifications	Name of the Degree	Class
Ph. D	Doctor of Philosophy	Awarded
PG	M.Sc. (Mathematics)	First Class with Distinction
UG	B.Sc (MPCs)	First Class with Distinction
Work Experience		
Teaching	--	
Research	8 Years	
Industry	--	
Others	--	
Area of Specialization	Computational Fluid Dynamics	
Professional Memberships	-	
Responsibilities held at Institution Level	-	
Responsibilities held at Department Level	-	
Research Guidance	-	
Awards Received	<ol style="list-style-type: none"> 1. UGC Dr. D. S. Kothari Postdoctoral Fellowship (2017-2020) 2. CSIR-UGC Junior Research Fellowship (JRF), Mathematical Sciences, June 2011. 3. CSIR-UGC Junior Research Fellowship (JRF), Mathematical Sciences, December 2010. 4. Secured All India Rank 189 in GATE-2011. 	
Courses Handled at Under Graduate / Post Graduate Level.		
No. of Papers Published	National Journals – 00	International Journals – 30
	National Conference – 00	International Conference – 02
Projects Carried out	-	
Patents	-	
Technology Transfer	-	
Invited Speaker	-	
No. of Books / Chapter Published with details	-	
	WS/ Seminars/ Conferences/ STTPS/ FDPs Attended	
Details of Short-Term Training Programs/Faculty Development Programs/Seminars/Workshops /Other Trainings (Attended and/or Organized).	<ol style="list-style-type: none"> 1. Global Initiative of Academic Networks (GIAN) course on “Introduction to Mathematical Theory of Complex Fluids” during 17-22 November, 2017, Organized by Department Of Mathematics, NIT Kurukshetra. 	

Details of Journal Publications/
Conferences (National and
International)
International Journals from the year 2017

1. **M Madhu**, NS Shashi Kumar, BJ Gireesha, N Kishan (2021). “Second law analysis of MHD third-grade fluid flow through the microchannel”, *Pramana*, Vol: 95(1), pp. 1-10. (SCIE)
2. NS Shashikumar, K Thriveni, **M Madhu**, B Mahanthesh, BJ Gireesha and N Kishan (2021). “Entropy generation analysis of radiative Williamson fluid flow in an inclined microchannel with multiple slip and convective heating boundary effects”, *Journal of Process Mechanical Engineering*, DOI: 10.1177/09544089211049863. (SCI)
3. NS Shashikumar, **M Madhu**, S Sindhu, BJ Gireesha and N Kishan (2021). “Thermal analysis of MHD Williamson fluid flow through a microchannel”, *International Communications in Heat and Mass Transfer*, Vol: 127, DOI: 10.1016/j.icheatmasstransfer.2021.105582. (SCIE)
4. **M Madhu**, B Prabhakar (2021). “Darcy-Forchheimer Flow of MHD Powell-Eyring Nanoliquid over a Nonlinear Radially Stretching Disk with the Impact of Activation Energy”, *Discontinuity, Nonlinearity, and Complexity*, Vol: 10(4), pp.743-753. (SCOPUS)
5. **M Madhu**, NS Shashikumar, BJ Gireesha, N Kishan (2021). “Second Law Analysis of MHD Micropolar Fluid Flow through a Porous Microchannel with Multiple Slip and Convective Boundary Conditions”, *Defect and Diffusion Forum*, Vol:409, pp.123-141. (SCOPUS)
6. **M Madhu**, NS Shashikumar, BJ Gireesha, N Kishan (2021). “Thermal analysis of MHD Powell–Eyring fluid flow through a vertical microchannel”, *International Journal of Ambient Energy*, DOI:10.1080/01430750.2021.1910566. (SCOPUS)
7. V Meenakshi, N Kishan, **M Madhu** (2021). “MHD and Thermal Radiation Effects on Channel Flow of Nanofluid with Nanoparticles in Different Shapes”, *Journal of Applied Nonlinear Dynamics*, Vol: 10(2), pp.329-338. (SCOPUS)
8. **M Madhu**, B Mahanthesh, NS Shashikumar, SA Shehzad, SU Khan, BJ Gireesha (2020). “Performance of second law in Carreau fluid flow by an inclined microchannel with radiative heated convective condition”. *International Communications in Heat and Mass Transfer*, Vol: 117, 104761. (SCIE)
9. Surender Ontela, **M Madhu** (2020). “Non-Darcian Effects on Nanoliquid Flow Past a Stretching Sheet with Temperature Jump Condition and Thermal Radiation”, *Journal of Applied Nonlinear Dynamics*, Vol: 9(4), pp: 643-654. (SCOPUS)

10. NS Shashikumar, **M Madhu**, BJ Gireesha and N Kishan (2020). “Finite element analysis of micropolar nanofluid flow through an inclined microchannel with thermal radiation”. *Multidiscipline Modeling in Materials and Structure*, Vol: 166, pp: 521-1538. (SCOPUS)
11. SA Shehzad, **M Madhu**, NS Shashikumar, BJ Gireesha and B Mahanthesh (2020). “Thermal and entropy generation of non-Newtonian magneto-Carreau fluid flow in microchannel”. *Journal of Thermal Analysis and Calorimetry*, Vol: 143, pp. 2717–2727. (SCIE)
12. G Sowmya, BJ Gireesha, and **M. Madhu**, (2020). “Analysis of a fully wetted moving fin with temperature-dependent internal heat generation using the finite element method”. *Heat Transfer*, Vol: 49(4), pp. 1939-1954. (SCOPUS)
13. **M Madhu**, NS Shashikumar, BJ Gireesha and N Kishan (2019). “Second law analysis of Powell–Eyring fluid flow through an inclined microchannel with thermal radiation”. *Physica Scripta*, Vol: 94(12), 125205. (SCIE)
14. **M Madhu**, NS Shashikumar, B Mahanthesh, BJ Gireesha and N Kishan (2019). “Heat transfer and entropy generation analysis of non-Newtonian flu flow through vertical microchannel with convective boundary condition”. *Applied Mathematics and Mechanics*, Vol: 40(9), pp. 1285-1300. (SCIE)
15. BJ Gireesha, G Sowmya and **M Madhu** (2019). “Temperature distribution analysis in a fully wet moving radial porous fin by finite element method”, *International Journal of Numerical Methods for Heat & Fluid Flow*, DOI: 10.1108/HFF-12-2018-0744. (SCIE)
16. BJ Gireesha, CT Srinivasa, NS Shashikumar, **M Madhu**, JK Singh and B Mahanthesh (2019). “Entropy generation and heat transport analysis of Casson fluid flow with viscous and Joule heating in an inclined porous microchannel”. *Journal of Process Mechanical Engineering*, Vol: 233(5), pp. 1173-1184. (SCI)
17. SA Shehzad, B Mahanthesh, BJ Gireesha, NS Shashikumar and **M Madhu** (2019). “Brinkman-Forchheimer slip flow subject to exponential space and thermal-dependent heat source in a microchannel utilizing SWCNT and MWCNT nanoliquids”. *Heat Transfer—Asian Research*, Vol: 48(5), pp. 1688-1708. (SCOPUS)
18. C. S. Reddy, N Kishan and **M Madhu** (2018). “Finite element analysis of Eyring–Powell nano fluid over an exponential stretching sheet”. *International Journal of Applied and Computational Mathematics*, Vol:4(1), pp. 1-13. (SCOPUS)
19. **M Madhu**, N Kishan and A.J. Chamkha (2017). “Unsteady flow of a Maxwell nanofluid over a stretching surface in the presence of magnetohydrodynamic and thermal radiation effects”. *Propulsion and Power research*, Vol: 6(1), pp. 31-40. (SCOPUS)

20. **M Madhu**, C. S. Reddy and N Kishan (2017). "Magnetohydrodynamic flow and heat transfer to Sisko nanofluid over a wedge". *International Journal of Fluid Mechanics Research*, Vol: 44(1). (SCOPUS)
21. **M Madhu** and N Kishan (2017). "MHD flow and heat transfer of Casson nanofluid over a wedge". *Mechanics & Industry*, Vol: 18(2), pp. 210. (SCIE)