Faculty Profile

Basic Information:



NAME	:	**Dr. M. UMA MAHESWAR**
DESIGNATION	:	**Assistant Professor & Officer In-Charge of School of Sciences**
DEPARTMENT	:	**MATHEMATICS**
DATE OF BIRTH	:	**01.05.1983**
DATE OF JOINING	:	**01.08.2013**
EMAIL ID	:	**umasvu8@gmail.com**

Academic Profile:

Qualification	Name of the Board/University	YEAR
Ph.D. (Fluid Dynamics)	Sri Venkateswara University, Tirupati.	2017
M.Phil. (Fluid Mechanics)	Sri Venkateswara University, Tirupati.	2014
M.Sc. (Applied Mathematics)	Sri Venkateswara University, Tirupati.	2007
B.Ed. (Mathematics)	Sri Venkateswara University, Tirupati.	2005
B.Sc. (M.P.CS.)	Sri Venkateswara University, Tirupati.	2003

Research Details:

1. Areas of Specialization :		Fluid Dynamics, Heat and Mass transfer.
2. No. of Publications :		26
3. Awards Received :		-
4. Research Guidance		
	No. of PhD Research Scholars:	02
	No. of MTech. Guided:	-
	No. of B.Tech. Guided:	-
5. Details of Professional Membership:		➢ Life member of Andhra Pradesh and Telangana Society of Mathematical Sciences (APTSMS)

6. Subjects Taught	1. Algebra and Calculus (Matrices, Partial Differentiation, Multiple integrals, Special functions) 2. Differential Equations and Vector Calculus (Differential Equations, Applications of Integration, Vector Differentiation, Vector integration) 3. Transform Techniques, Numerical methods and Complex variables (Laplace Transforms, Fourier Series, Fourier Transforms, Numerical Methods and Complex Analysis) 4. Probability & Statistics: (Probability, Random Variables, Probability Distributions, Sampling Distributions, Testing of Hypothesis) 5. Business Statistics: (Scope and applications of Statistics, Mathematical statistics, Index numbers, Time series) 6. Operations research: (Scope and applications of Operations research, Optimization, Transportation problems, Assignment problems, PERT & CPM. 7. Mathematical Statistics. 8. Aptitude and Reasoning skills.

Publication Details:

S.No.	Title	Publisher Name	Year
1	Combined Radiation and Ohmic Heating Effects on MHD Free Convective Visco-Elastic Fluid Flow Past a Porous Plate with Viscous Dissipation	*International Journal of Current Engineering and Technology,*	2013
2	Unsteady MHD free convective visco-elastic fluid flow bounded by an infinite inclined porous plate in the presence of heat source, viscous dissipation and Ohmic heating.	*International journal of Advanced Science and Technology*	2013
3	Analysis of MHD transient free convection flow of a Newtonian fluid past an infinite vertical porous plate.	*Frontiers in Heat and Mass Transfer (FHMT)*	2015
4	MHD convective heat and mass transfer flow of a Newtonian fluid past a vertical porous plate with chemical reaction, radiation absorption and thermal diffusion.	*International Journal of Engineering Research in Africa.*	2016
5	Effects of Time Dependent Variable Temperature and Concentration Boundary Layer on MHD Free Convection Flow Past a Vertical Porous Plate in the Presence of Thermal Radiation and Chemical Reaction,	*Int. J. Appl. Comput. Math.*	2016
6	Unsteady MHD Free Convective Double Diffusive Visco-Elastic Fluid Flow Past an Inclined Permeable Plate in the presence of viscous dissipation and heat absorption.	*Special topics and Reviews in Porous media.*	2016
7	Numerical study of Magneto-Convective and radiation absorption fluid flow past an exponentially accelerated vertical porous plate with variable temperature and concentration in the presence of Soret and Dufour effects.	*IOSR Journal of Mathematics,*	2016
8	Magneto-convective and radiation absorption fluid flow past an exponentially accelerated vertical porous plate with variable temperature and concentration.	*International Journal of Mathematics Trends and Technology (IJMTT).*	2016
9	Numerical investigation of MHD free convection flow of a non-Newtonian fluid past an impulsively started vertical plate in the presence of thermal diffusion and radiation absorption.	*Alexandria Eng. J.*	2016
10	Joule heating and thermal diffusion effects on MHD radiative and convective Casson fluid flow past an oscillating semi-infinite vertical porous plate.	*Frontiers in Heat and Mass Transfer (FHMT).*	2017
11	MHD double diffusive and chemically reactive fluid flow through a rotating porous plate.	*International Journal of Research*	2017
12	Unsteady MHD convective Casson fluid flow past a vertical porous plate in the presence of radiation and thermal diffusion.	*IJASRM*	2018
13	Magneto-convective and radiation absorption fluid flow with variable temperature and concentration in the presence of thermal diffusion.	*Journal for Research in Engineering Application & Management (IJREAM).*	2018
14	Effects of Chemical Reaction and Radiation on MHD Convective Casson Fluid Flow.	*International Journal of Engineering Research*	2019

15	Mathematical analysis of non-Newtonian fluid flow past an inclined plate.	*Special Topics & Reviews in Porous Media.*	2019
16	Buoyancy effects on chemically reactive magneto-nanofluid past a moving vertical plate.	*Bulletin of Pure and Applied Sciences.*	2019
17	Analytical study on MHD convective non- Newtonian fluid flow under the influence of diffusion-thermo and heat source effects.	*AIP Conference Proceedings*	2020
18	Analytical study of buoyancy effects on MHD visco-elastic fluid past an inclined plate.	*AIP Conference Proceedings*	2020
19	MHD double diffusive convective flow of heat generating fluid in the presence of Soret Effect.	*AIP Conference Proceedings*	2020
20	Unsteady MHD free convective flow of a radiating fluid past an inclined permeable plate in the presence of heat source.	*AIP Conference Proceedings*	2020
21	Thermophoresis effect on MHD flow of a micropolar fluid under variable heat flux	*Journal of Xidian University*	2020
22	Analysis of MHD nanofluid in a rotating system under the existence of heat absorption.	*Annals of the Faculty of Engineering Hunedoara.*	2021
23	Aspects of parabolic motion of MHD fluid flow past a vertical porous plate with cross diffusion effects.	*Heat Transfer,*	2022
24	Numerical study on the parabolic flow of MHD fluid past a vertical plate in a porous Medium.	*Heat Transfer,*	2022
25	MHD flow pattern in parabolic mode based on angle of inclination under cross-diffusion.	*Heat transfer*	2022
26	Explicit finite difference simulations for accelerating cross diffusion flow over a perpendicular shield with parabolic motion	*Journal of Indian Chemical Society*	2023
27	Case study of radiation absorptive and chemical reactive impacts on unsteady MHD natural convection flowing of Cu-Al2O3/H2O hybridized nanofluid	*Case Studies in Thermal Engineering*	2024

Patent Details:

Title of Patent	Submitted/Published/Awarded
Mathematical Model Generator for Physical systems using AI	Published