M.V.D.N.S.MADHAVI

Designation : Assistant Professor (Selection Grade)

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Contact at : S & H II, 202, Department of Mathematics

Velagapudi Ramakrishna Siddhartha school of

Engineering, Kanuru, Vijayawada, Andhra Pradesh

520007

Education

Ph. D (Fluid-Dynamics**)**

2020, Krishna University, Machilipatnam

M.Phil. (Mathematics)

2004, Madhurai Kamaraj University

M.Sc (Applicable Mathematics)

1993, Sri Padmavathi Mahila University, Tirupathi

B.Sc (M.P.C)

1991, Nagarjuna University, Guntur

Experience

Period	Designation	Institution / Organization	Key Responsibilities
October 2025-Till Date	Assistant Professor (Selection Grade)	Velagapudi Ramakrishna Siddhartha School of Engineering	syllabus framing, Ph.D. guidance, Research Publications, Academic Leadership, NBA/NAAC Coordination.
2008-September-2025	Assistant Professor	Velagapudi Ramakrishna Siddhartha School of Engineering	syllabus framing, Ph.D. guidance, Research Publications, Academic Leadership, NBA/NAAC Coordination.
1996 - 2008	Lecturer	Sri Durga Malleswara Siddhartha Mahila Kalasala, Vijayawada	NSS Coordinator, Member – Timetable Committee, Member - NAAC Committee

Research Interests

Broad Area of Research:

Fluid Dynam*ics* (Convection in Porous Media)

Honors&Awards

Top 1% in Developing soft skills& Personality

Courses Taught

S.No	Course Name	Level (UG/PG)
1	Matrices and Differential Calculus	UG
2	Laplace Transforms and Integral Calculus	UG
3	Complex Analysis and Numerical Methods	UG
4	Operations Research	UG
5	Real analysis	UG
6	Modern Algebra	UG
7	Optimization Techniques	UG
8	Probability and Statistics	UG

Research Profile

Publications

The recent publications and research contributions can be viewed from the following URLs

Google Scholar	https://scholar.google.com/citations?user=Xde19c0AAAAJ&hl=en
Research Gate	https://www.researchgate.net/scientific-contributions/2080590375_MVDNS_Madhavi
Scopus	https://www.scopus.com/authid/detail.uri?authorId=59260245900
Sciencedirect	https://www.sciencedirect.com/journal/advanced-powder-technology/vol/27/issue/2
ISSUU	https://issuu.com/invention.journals/docs/d027019027_dfc3d84a701f1b
Springer	https://link.springer.com/chapter/10.1007/978-981-13-1903-7_29
Sciencedirect	https://www.sciencedirect.com/science/article/pii/S2214785319313185
Springer	https://link.springer.com/article/10.1007/s12046-015-0373-7
ORCID	https://orcid.org/0000-0003-2183-914X

Recognized Research Supervisor

01.	Mathematics	Siddhartha Academy of Higher Education Deemed to be University

Funded Research Projects

S.No.	Type	Title	Status	Funding Agency	Amount (INR)	Duration
01	Funded	A Study on Mixed Convective Heat Transfer from a Vertical Plate Embedded in a Saturated Porous Medium with Melting Effect	Completed	SERO, UGC	2,30,000	2 Years

Administrative Roles

S.No.	Role	Institution	Duration	Responsibilities
1	Assistant warden	SAHE	2025	Regular monitoring of hostel premises
2	Member	SAHE	2024-Present	Central Administrative Procedures for SAHE
3	Member	SAHE	2024-Present	Admission Procedure Manual for SAHE
4	Member Coordinator	VRSEC	2018 – 2021	NAAC Criterion II
5	Member Coordinator	VRSEC		NBA Criterion VIII
6	Convener	VRSEC	2020-2024	Women Welfare Committee
7	Chairperson	SAHE	2025 – Present	Women Welfare Committee
8	Coordinator	SAHE	2025 – Present	Women Empowerment Club
9	Member Coordinator	VRSEC	2022 – Present	NPTEL Courses (S & H)
9	Convener	SAHE	2025 – Present	Canteen Committee
10	Member	SAHE	2025 – Present	Library Committee

Certifications/MOOC Courses Completed

S.No.	Title	Platform	Duration	Year
1	Mathematical Foundation for Machine Learning	NPTEL	12 Weeks	2025
2	Essential Mathematics for Machine Learning	NPTEL	12 Weeks	2024
3	Numerical Methods For Engineers	NPTEL	12 Weeks	2023
4	Multivariable calculus	NPTEL	12 Weeks	2023
5	Emotional Intelligence	NPTEL	12 Weeks	2021
6	Effective Engineering Teaching In Practice	NPTEL	8 Weeks	2020
7	Developing Soft Skills and Personality	NPTEL	12 Weeks	2018
8	Educational Leadership	NPTEL	12 Weeks	2018
9	Convective Heat Transfer	NPTEL	12 Weeks	2018
10	Outcome Based Pedagogic Principles for Effective Teaching	NPTEL	4 Weeks	2018
11	Vector Calculus for Engineers	Course Era	4 Weeks	2020
12	Mathematics for Machine Learning	Course Era	4 Weeks	2020
13	Operation Research1 models and applications	Course Era	1 Week (10 Hours)	2022

Patents

S.No	Title	Status	Application No.	Year
1	A Method for Exploring the synergy between Machine Learning and Graph Theory for Advanced Mathematical Applications	Published	202541067126	2025
2	Real-Time Optimization Algorithms for MHD computational Models	Published	202541062144	2025
3	Advanced Numerical Methods for Solving Magneto hydrodynamic (MHD) Equations in Complex Geometries (2nd Claimant)	Published	202441069199	2024
4	System and Method for Numerical simulation of Magnetohydrodynamic (MHD) phenomena using analytical models(1st claimant)	Published	202441054735	2024

5	Magneto flow Shield: A System for Controlling Jeffrey Fluid Flow with Magneto Hydrodynamic and Porous Media Interactions (2nd claimant)	Published	202441021453	2024
6	System and Method for Optimal Control of Magneto Hydrodynamics Fluid Flows using Mathematical Modelling (1st claimant)	Published	202341053540	2023
7	An Analytical approach for solving Fractional Differential Equations with Non- Homogeneous Boundary value issues (1st claimant)	Published	202341022909	2023
8	System and Method to Predict Product TM Freshness Status and Manage its Delivery (3rd claimant)	Published	202041026062	2020

Ph.D

Guiding	01

Professional Development Activities - Participations

Faculty Development and Training Programmes (at least 5 Days)	50
International / National Level Seminars	19
International / National Level Conferences	15
Workshops	16
Instructor Led / Self-Paced Courses	9/ 2
Webinars	8

Professional Bodies Membership Details

L/970	Indian society of Theoretical and Applied Mechanics

(M. V. D. N. S. Madhavi)

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