

Dr. RAJANI DONEPUDI



Designation : Assistant Professor
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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

2007, Madurai Kamaraj University, Madurai

M.Sc (Mathematics)

2005, Acharya Nagarjuna University, Guntur

B.Sc (Computers)

2003, Acharya Nagarjuna University, Guntur

Experience

Period	Designation	Institution / Organization	Key Responsibilities
11-03-2024 to till date	Assistant Professor	Velagapudi Ramakrishna School of Engineering, Siddhartha Academy of Higher Education, Deemed to be University	Conduction of Diagnostic Test, syllabus framing (M1, M2 & M3), Course Coordinator,
2008–2024		Velagapudi Ramakrishna Siddhartha Engg. College	Research publications and personalized guidance to both slow and advanced learners.
2006-2008	Lecturer	S.D.M. Siddhartha Mahila Kalasala	
2005-2006	Lecturer	Sri Krishna Junior and Degree College	

Research Interests

Broad Area of Research:

- Fluid Dynamics (with a focus on **Heat Transfer in Porous Medium**)

Honours and Awards

- NPTEL Topper (Top 1%) – Educational Leadership
- NPTEL Top 1% – Developing Soft Skills and Personality
- NPTEL Top 5% – NBA Accreditation and Teaching & Learning in Engineering (NATE)
- NPTEL Top 5%- Mathematical foundations for Machine learning

Courses Taught

S.No	Course Name	Level (UG/PG)
1	Linear Algebra, Series and Calculus	UG
2	Modern Algebra	UG
3	Differential Equations and Numerical Methods	UG
4	Numerical Analysis and Special Functions	UG
5	Real Analysis	UG
6	Complex Analysis and Transformations (Continuous and Discrete)	UG
7	Probability distributions 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?view_op=list_works&hl=en&user=tgCWUzoAAAAJ
Scopus	https://www.scopus.com/authid/detail.uri?authorId=57209536849
ORCID	https://orcid.org/0000-0002-7368-6192
Publons	https://publons.com/researcher/3697659/rajani-donepudi
Research Gate	https://www.researchgate.net/profile/D_Rajani
LinkedIn	https://www.linkedin.com/in/rajani-donepudi-4140a119b/

Recognized Research Supervisor

S.No.	Department	University
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Funded Research Projects

S.No.	Type	Title	Status	Funding Agency	Amount (INR)	Duration
1.	Funded	A Study on Heat Transfer in Porous Medium with Special Reference to Nanofluids	Completed	UGC-SERO	2,30000	2 Year

Administrative Roles

S.No.	Role	Institution	Duration	Responsibilities
1.	Member	SAHE	2024-Present	Central Administrative Procedures Manual for SAHE-Student Services
2.	Member	SAHE	2024-Present	Time Tables Committee
3.	Member	SAHE	2024-Present	Anti-Ragging Committee
4.	Member	SAHE	2024-Present	Equal Opportunity Cell
5.	Coordinator	SAHE	2024(I Sem)	First Year Time tables
6.	Coordinator	VRSEC	2023-24	First Year Time tables
7.	Member	VRSEC	2022(6 Months)	NBA-Criterion-VIII Institutional level
8.	Coordinator	VRSEC	2022-Present	Diagnostic Test
9.	Member	VRSEC	2021-24	IQAC -Preparation of reports
10.	Member	VRSEC	2020-24	Admission Committee
11.	Assistance	VRSEC	2020-21	Assist IQAC Coordinator in preparing NAAC related Reports
12.	Member	VRSEC	2018-21	NAAC-Criterion-II Institutional level
13.	Coordinator	VRSEC	2018-19(II Sem) 2015-18(I Sem)	First Year Time tables

Certifications/MOOC Courses Completed

S.No.	Title	Platform	Duration	Year
1.	Data Science: R Basics	edx	8 Weeks	2017
2.	Introduction to R Software	NPTEL	8 Weeks	2017
3.	Effective Engineering Teaching in Practice	NPTEL	8 Weeks	2017
4.	Educational Leadership	NPTEL	8 Weeks	2018
5.	Developing Soft Skills and Personality	NPTEL	8 Weeks	2018
6.	Accreditation and Outcome Based Learning	NPTEL	8 Weeks	2019
7.	Descriptive Statistics with R Software	NPTEL	8 Weeks	2019
8.	Vector Calculus for Engineers	Coursera	3 Weeks(30hrs)	2020
9.	Mathematics for Machine Learning	Coursera	2 Weeks(20hrs)	2020
10.	Python for Everybody	Coursera	2 Weeks(20hrs)	2020
11.	Python Basics	Coursera	3 Weeks(30hrs)	2020

12.	Introduction to Ordinary Differential Equations	Coursera	6 Weeks	2020
13.	Matrix Algebra for Engineers	Coursera	2 Weeks(20hrs)	2020
14.	Differential Equations for Engineers	Coursera	3 Weeks(30hrs)	2020
15.	Operations Research (1): Models and Applications	Coursera	1 Week	2022
16.	NBA Accreditation and Teaching and Learning in Engineering (NATE)	NPTEL	12 Weeks	2023
17.	Data Science for Engineers	NPTEL	8 Weeks	2023
18	Specialization (3 Courses): Linear Algebra from Elementary to Advanced	Courseera	1 month at 10 hrs a week	2025
19	Mathematical foundations for Machine learning	NPTEL	12 Weeks	2025

Consultancy/Industry Projects

Completed	-
On-going	-
Applied	-

Patents

S.No	Title	Status	Application No.	Year
1.	Mathematical Modeling Approaches for Optimal Control of MHD Fluid Flows	Published	202441054735	2025
2.	System and Method for Numerical Simulation of Magnetohydrodynamic (MHD) Phenomena Using Analytical Models	Published	202441054735	2024
3.	Advanced Numerical Methods for Solving Magnetohydrodynamic (MHD) Equations in Complex Geometries	Published	202441069199	2024
4.	MAGNETOFLOW SHIELD: A System for Controlling Jefferey Fluid Flow with Magnetohydrodynamic and Porous Media Interactions	Published	202441021453	2024
5.	System and Method for Optimal Control of Magneto hydrodynamics Fluid Flows using Mathematical Modelling	Published	202341053540	2023
6.	An Analytical approach for solving Fractional Differential Equations with Non-Homogeneous Boundary value issues	Published	202341022909	2023
7.	System and Method to Predict Product TM S Freshness status and Manage its delivery	Published	202041026062	2020

Invited Talks

No. of Invited Talks	-
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Professional Service/Reviewer

- Reviewer in Oriental Journal of Chemistry
- Reviewer in Boletim da Sociedade Paranaense de Matemática
- Board of Studies Member in Mathematics, Sri Vasavi Institute of Engineering and Technology, Nandamuru (2023-2025)

Professional Development Activities - Participations

Faculty Development and Training Programmes (at least 5 Days)	34
International / National Level Seminars	5/15
International / National Level Conferences	10/4
Workshops	16
Instructor Led / Self-Paced Courses	19
Webinars	15

Professional Bodies Membership Details

L/969	Indian Society of Theoretical and Applied Mechanics (ISTAM)
174735	International Association of Engineers

(Dr. D. RAJANI)

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