

Curriculum Vitae

Mridini Mahadev Gawas

Assistant Professor,

Mathematics Discipline

School of Physical and Applied Sciences

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EDUCATION

Ph.D. "Lie Symmetries and Discontinuity Wave Propagation for Certain Hyperbolic Systems of Partial Differential Equations." BITS Pilani K.K.Birla Goa Campus

Supervisor: Professor Manoj Kumar Pandey

PUBLICATIONS

1. Sweta Govekar, P. K. Pradhan and Manoj Pandey, Evolution of Contact and Discontinuity Waves in Two Phase Drift Flux Model, Int. J. Appl. Comput. Math., doi.org/10.1007/s40819-020-00883-6.
2. Dia Zeidan, Sweta Govekar and Manoj Pandey, Discontinuity wave interactions in generalized magnetogas dynamics, Acta Astronautica, 180, 2021, 110-114.
3. Dia Zeidan, Manoj Pandey and Sweta Govekar, Interaction of shock and discontinuity waves at the stellar surfaces, Physics of Fluids, 34, 066111, 2022.
4. S Govekar, MA Gawas, H Patil, "An integrative approach for secure data sharing in vehicular edge computing using Blockchain" Peer-to-Peer Networking and Applications, 1-19, 2021.
5. S Govekar, MA Gawas, " Energy Efficient QoS Aware Decentralized Blockchain Framework for Fog Computing".
6. S Govekar, MA Gawas, "State-of-Art and Open Issues of Cross-Layer Design and QOS Routing in ternet of Vehicles", Wireless Personal Communications 116(2): 1-37, (2021)

PAPER PRESENTED at CONFERENCES

1. 23-24 November 2018. — Sweta Govekar and Manoj Pandey, Interaction of weak discontinuity with characteristic shock in generalized magnetogasdynamic equations, International Conference on Mathematical Computer Engineering - 2018 (ICMCE-2018) at Vellore Institute of Technology, Chennai, India
2. 6-8 January 2023, Mridini Gawas, Symmetries and Optimal System of two-dimensional Shallow Water Equations, 9th International Conference on Mathematics and Computing at BITS Goa.
3. 13-15 December 2018, Evolution of Weak Discontinuity in Generalised Magnetogasdynamic Equations, International Conference on Applications of Fluid Dynamics (ICAFD) at VIT Vellore.

INVITED TALKS:

1. “Mathematical Definitions of Infinity and How to Measure it”, Govt. Higher Secondary Khandola, Dec 22
2. “Mathematical Modelling and Differential Equations”, GVM’s College of Education, Ponda Goa. Jan. 24
3. “Mathematical Modelling and Differential Equations”, GVM’s College of Commerce and economics, Ponda Goa. Jan. 24
4. “Vedic Mathematics”, Govt. High School, Fatarpa. Feb 24
5. “Tricks in Vedic Mathematics”, Vidya Vikas Academy, Margao. Feb 24
6. “Linear Algebra : Unleashing it’s power in Computer Science”, BCA Students, GVM’s College of Commerce and economics, Ponda Goa. Feb. 24

WORKSHOPS/ SEMINARS/CONFERENCES ATTENDED:

1. “Research Grant Writing Workshop”, Goa State Higher Education Council, 8th September 2023
2. FDP on “ Experiential Learning, Creative Thinking and Hands-on Pedagogy” by DHE, 16th-20th January 2023
3. “International workshop on Optimization Algorithms, Graph theory and Geometrical flows in Modern Computing” at VIT Chennai 23-24 Nov 2018.
4. National level conference in “Knot theory and related topics” Dhempe college of Arts and Science, 23-24th February 2018.

5. One day workshop on “Advanced Programming techniques in MATLAB at BITS Goa, 24/07/2015.
6. Three days workshop on “Latex for Beginners” by RSN college of Arts and science Farmagudi, 6-8 Nov 2017.
7. Advanced level workshop on “Variational Analysis and Optimization”, IIT Gandhinagar, 208 March 2015.
8. Advanced level training program on Differential Equations: theory , computations and Applications, at BITS Goa, 25th May – 14th June, 2015.
9. MTA Regional Conference Goa 2024 organized by MTA(I) , SCERT and DHE on 27th and 28th January 2024 at SCERT Building, Porvorim Goa.
10. 4- Week Faculty Induction Programme organized by Teaching Learning Centre Ramanujan College, University of Delhi from 22nd October - 20th November 2023 and obtained A+ grade.
11. FDP on NEP Orientation and Sensitization 05th Feb to 13th Feb 2024 organized by University of Hyderabad.
12. Two-Day Workshop on “Innovating, Designing, Modelling, Characterization and Simulation of Materials and Bio-Molecule using in silico Solution Suite, ASAP , Goa University on Jan. 18th and 19th.

WORKSHOP/ SEMINAR CONDUCTED :

1. Conducted Two Day Workshop on Differential Equations and Mathematical Modelling in Dec 2023.

WORK EXPERIENCE : 10 years of teaching experience at UG level and one and half years at PG level.

TEACHING INTEREST

I have a keen teaching interest in fundamental mathematical topics, such as Ordinary and Partial Differential Equations, Linear Algebra. These subjects are crucial in mathematics and find diverse applications across various fields. Teaching these subjects presents challenges and rewards, as it involves guiding students in cultivating problem-solving abilities and grasping fundamental mathematical concepts essential across various fields of study.

ONGOING SPONSORED PROJECTS.

1. GSRF Start Up research grant of 5 lakh for 2 yrs, Jan 2024 - Jan 2026.

OTHERS:

1. Ph.D. Research Guide of Goa University in Mathematics
2. Member on Career Counselling Cell, Goa University.

3. Conduct NET SET Coaching Classes for MSc. Students at Goa University.
4. Recorded 43 modules in English and 43 modules in regional language(Konkani) under the Project DISHTAVO by DHE Goa.
5. Presently guiding 7 M.Sc. students for Dissertation at Goa university.