Faculty Name	**Dr. R. Valarmathi**	
Academic Designation	**Assistant Professor**	
Educational Qualification	**Ph.D Mathematics**	
Experience in Teaching & Industry	2.5 & 0	
Date of Joining	**04.12.2026**	
Official Email ID	**Valarmathi-maths@dsatm.edu.in**	
Employee ID	**180904**	

Educational Details

- **Ph.D. (Mathematics)** – Vellore Institute of Technology (Deemed to be University), Vellore – November 2023 – A Grade (Course Work)
- **M.Sc. (Mathematics)** – Arignar Anna College of Arts and Science, Krishnagiri – Periyar University – April 2018 – 68%
- **B.Sc. (Mathematics)** – Gonzaga College of Arts and Science for Women, Krishnagiri – Periyar University – April 2015 – 69%

Professional Experience

1. Post Doctoral Fellow – Vignan's Foundation for Science, Technology & Research (27-11-2023 to 26-11-2024)
2. Assistant Professor – Vignan's Foundation for Science, Technology & Research (27-11-2024 to 19-07-2025)
3. Assistant Professor – CMR Institute of Technology, Bengaluru (01-09-2025 to 11-12-2025)

Publications

1. Valarmathi, R., Thangaraj, C., El-Nabulsi, R. A., & Anukool, W.
   Fractal Laplacian approach to quantum wave localization.
   Modern Physics Letters A, 2650047.
2. El-Nabulsi, R. A., Anukool, W., Valarmathi, R., & Thangaraj, C.
   Extended Spin-Orbit Modeling of Unstable Discrete Fractional Hamiltonian Systems: Numerical Investigation of Chaotic Orbits for Mercury, Mars, Triton, and Sedna-like Trans-Neptunian Objects.
   Advances in Space Research.
3. Anukool, W., El-Nabulsi, R. A., Valarmathi, R., & Thangaraj, C.
   Acceleration-dependent Hamiltonian for the zeros of the Riemann zeta function: Spectral properties and self-adjoint realizations of the new operator.
   Modern Physics Letters A, 41(01), 2550219.
4. El-Nabulsi, R. A., Anukool, W., Thangaraj, C., & Valarmathi, R.
   Stability and chaos in nonstandard Hamiltonian planetary dynamics.
   Chaos, Solitons & Fractals, 202, 117410.
5. El-Nabulsi, R. A., Thangaraj, C., Valarmathi, R., & Anukool, W.
   Chaotic dynamics and fractal analysis of nonstandard Hamiltonian systems.
   Chaos, Solitons & Fractals, 200, 116974.
6. Valarmathi, R., Thangaraj, C., Easwaramoorthy, D., Selmi, B., Jebali, H., et al.
   Multifractal analysis in age-based classification for COVID-19 patients' CT-scan images with different noise levels.
   Fluctuation and Noise Letters, 23(05), 2440055.
7. Valarmathi, R., & Gowrisankar, A.
   Variable order fractional calculus on α-fractal functions.
   The Journal of Analysis, 31(4), 2799–2815.
8. Valarmathi, R., & Gowrisankar, A.
   On the variable order fractional calculus of fractal interpolation functions.
   Fractional Calculus and Applied Analysis, 26(3), 1273–1293.
9. Raja, V., & Gowrisankar, A.
   On the variable order fractional calculus characterization for the hidden variable fractal interpolation function.
   Fractal and Fractional, 7(1), 34.

10. Priyanka, T. M. C., Valarmathi, R., Bingi, K., & Gowrisankar, A. *On Approximation Properties of Fractional Integral for A-Fractal Function*. Mathematical Problems in Engineering, 2022(1), 6409656.
11. Thangaraj, C., Valarmathi, R., Easwaramoorthy, D., Kumar, D. R., & Chamola, B. P. *Generation of Fractal Attractor for Controlled Metric Based Dynamical Systems*. Contemporary Mathematics, 5, 6165–6188.

International Conferences:

1. Presented a paper titled **"The Weyl–Marchaud Fractional Derivative Through Non-Affine Fractal Interpolation Function"** at the International Conference on Recent Developments in Mathematics (ICRDM 2022) organized by the Department of Mathematics, Faculty of Engineering, Applied Science and Technology, Canadian University Dubai in conjunction with the Department of Mathematical Sciences, United Arab Emirates University, from 24th to 26th August 2022.
2. Presented a paper titled **"The Riemann–Liouville Fractional Integral Through Non-Affine Fractal Interpolation Function"** at the 3rd International Conference on Mathematical Modeling, Analysis, and Computing organized by the Department of Mathematics, Thiruvalluvar University, from 14th–16th September 2022.
3. Presented a paper titled **"Rössler Attractor via Fractal Function"** at the International Conference on Mathematical Modeling organized by the Department of Mathematics, Bharathiyar University, from 27th–28th January 2023.
4. Presented a paper titled **"Integration Method Over Non-Affine Fractal Interpolation Function"** at the 4th International Conference on Mathematical Techniques and Applications organized by the Department of Mathematics, SRM Institute of Science and Technology, from 22nd–24th March 2023.

National Conferences:

Conference Attended

- 4 International Conferences attended and presented research papers.

Awards

Academic Activity

Faculty Development Activity/Workshops

- Attended a Workshop on
  "2nd Workshop on Fractal Geometry and Related Fields 2024"
  organized by the Department of Applied Science, Indian Institute of Information Technology Allahabad, from April 05–07, 2024.
- Attended a Workshop on
  "Unlocking Research Funding: A Guide to Planning and Writing Research Proposals"
  organized by Poornima University on February 08, 2025.
- Attended an Orientation Programme on
  "NEP 2020 Orientation & Sensitization Programme under Malaviya Mission Teaching Training Programme (MM-TTP) of UGC"
  organized by Indian Institute of Information Technology Design and Manufacturing Kancheepuram, under University Grants Commission, from February 03–13, 2025.
- Attended a Webinar on
  "The Evolution of Optical Fiber Communication: Unlocking Innovation & Growth"
  organized by the Department of Electronics & Computer Engineering, Maharshi Parshuram College of Engineering, on February 06, 2025.

- Completed a Faculty Development Programme (FDP) on **"Innovations in Machine Learning, AI, Data Science and Modelling"** organized by Electronics and ICT Academy IIT Roorkee in association with Vignan's Foundation for Science Technology & Research, from 16th December 2024 – 23rd December 2024.
- Completed a One-week FDP on **"Artificial Intelligence and Its Applications in Multidisciplinary"** organized by the School of Technology, The Apollo University, from 10th March 2025 – 15th March 2025.

Contact Details

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