

Faculty Profile

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About me: Dr. Vanitha A. Assistant Professor, Department of Mathematics

Dr. Vanitha A. is an Assistant Professor in the Department of Mathematics at The National Institute of Engineering, Mysuru. She completed her Ph.D. in Mathematics from the University of Mysore under the guidance of Prof. Chandrashekar Adiga, with research focused on q-series and q-continued fractions, specializing in Number Theory and Special Functions. She secured First Rank in M.Sc. Mathematics and was awarded four gold medals and multiple academic prizes for her outstanding performance. Dr. Vanitha is a recipient of the prestigious INSPIRE Fellowship awarded by the Government of India for doctoral research. Her research contributions include several publications in reputed international journals indexed in Scopus and Web of Science, including the Journal of Number Theory and The Ramanujan Journal. She has presented research papers at national and international conferences and actively contributes to the advancement of mathematical research. She recognized as a Research Supervisor/Co-Research Supervisor at Visvesvaraya Technological University. Her research interests include Ramanujan's continued fractions, modular relations, Eisenstein series identities, modular forms and partition theory.

Qualification:

B.Sc (Mysore Univ.), M.Sc (Mysore Univ.), Ph.D. (Mysore Univ.)

Courses Taught:

Fourier series and transforms

Calculus

Numerical methods

Linear Algebra

Publications:

Journal Publication:

- Some modular relations for the Rogers-Ramanujan type functions of order fifteen and its applications to partitions, Palestine J. Math, 3(2), 204-217, 2014
- New modular relations for the Rogers-Ramanujan type functions of order fifteen, Notes Number Thy. Dis. Math., 20(1), 36-48, 2014
- On a continued fraction of order twelve and new Eisenstein series identities, J. Number Thy, 145, 554-571, 2014

- On some modular relations and 2- and 4-dissections of Ramanujan's continued fraction of order six, Indian J. Math 57(2), 199-216, 2015
- On the series expansion of the Ramanujan's continued fraction of order six, Proc. Jangjeon Math. Soc, 57(2), 199-216, 2015
- On the expansion of Ramanujan's continued fraction of order sixteen, Tamusi Oxford J. Inf. Math. Sci., 31(1), 81-99, 2017
- Modular relationships for the Rogers-Ramanujan-Slater type functions of order eighteen with application to partitions, INTEGERS, A103, 2024
- On a Ramanujan's continued fraction of order sixteen and new Eisenstein series identities, INTEGERS, A16, 2025
- New parity results for the 17-regular partition function, Ramanujan J. , 67, Article No. 98, 2025
- On certain new modular relations for Ramanujan's continued fraction of sixteen order, J. Classical Anal, 26(1), 115-130, 2025
- New Eisenstein series identities for the Ramanujan-Gollnitz-Gordon continued fraction and combinatorial partition identities, Moroccan J. Algebra Geometry Appl., 4(2), 198-206, 2025

Conference Proceedings:

Papers Presented in Conference

a) National

Sl.No	Details of Conferences	Title of the Paper Presented	Hyper link	Dates (From - To)		Sponsoring Agency
1	National Conference on Advances in Geometry, Analysis and Fluid Mechanics (NCAGAF – 2014)	On a continued fraction of order twelve and new Eisenstein series identities		26 th August 2014	27 th August 2014	
2	National Conference on Graph Theory and Allied Topics at Department of Studies in Mathematics, University of Mysore, Mysuru.	Modular relationships for the Rogers-Ramanujan-Slater type functions of order fourteen with applications to partitions		23 rd October 2024	24 th October 2024	

b) International

Sl.No	Details of Conferences	Title of the Paper Presented	Hyper link	Dates (From - To)		Sponsoring Agency
1	International Conference of Jangjeon Mathematical Society, South Korea	New modular relations for the Rogers-Ramanujan type functions of order fifteen		1 st August 2013	4 th August 2013	
2	International Conference on Advances in Mathematical Sciences and Applications,	On the series expansion of the Ramanujan's continued fraction of order six		22nd December 2014	23 rd December 2014	
3	International Conference of Jangjeon Mathematical society on Number Theory, Special Functions and its Applications	On the series expansion of Ramanujan's continued fraction of order sixteen		8th August 2016	10 th August 2016	
4	International Conference on Advances in Applied Mathematics	On a Ramanujan's continued fraction of order sixteen and new Eisenstein series identities		10 th January 2024	11 th January 2024	
5	International Conference on Mathematical Challenges and Novel Applications	New Eisenstein series identities for the Ramanujan-Gollnitz-Gordon continued fraction and combinatorial partition identities		21 st March 2024	22 nd March 2024	
6	International Conference on Recent Advance in Mathematics and Data Science	Modular relations for the Rogers-Ramanujan-Slater type functions of order eighteen with applications to partitions		27 st June 2024	28 th June 2024	

Other achievements:**Assignments / Deputation to Outside Institutions / Universities:**

Sl.No.	Nature of Assignment	Institution / University where Assignment taken	Dates (From - To)		Sponsoring Agency
1	BOE Chairperson	St. Philomena's College, Mysuru	2022	2024	

Honours / Awards / Distinction received

Sl.No.	Details of Honours / Awards / Distinction received	Conferring Agency	Date of Award
1	Prof. K. S. Iyengar Gold Medal Award	University of Mysore	11-4-2012
2	Prof. N. Rudraiah Felicitation Committee Gold Medal Award	University of Mysore	11-4-2012
3	The Sridhar Kumar Gold Medal Award	University of Mysore	11-4-2012
4	Sri. Alhaje B. N. Nayeemulla Khan Endowment Gold Medal Award	University of Mysore	11-4-2012
5	Prof. K. VenkatachalaIyengar Endowment Cash Prize Award	University of Mysore	11-4-2012
6	Han's (South Korea) Cash Prize Award	University of Mysore	11-4-2012
7	Prof. M. T. Narayan Iyengar Memorial Cash Prize Award	University of Mysore	11-4-2012
8	Award of INSPIRE Fellowship No. DST/INSPIRE Fellowship/2012/122	DST, INSPIRE Fellowship, New Delhi	06-02-2012

Number of Candidates Awarded M.Sc., (By Research) & Ph.D. Degree under your Guidance

Sl.No.	Name of the Candidate with Registered Number	Title of the Thesis	Degree Awarded	Date of Award	University
1.	SHIVANI B. MMA21473	Modular relations for the Rogers-Ramanujan type functions of order fourteen with applications to partitions	M. Sc.	2023	University of Mysore
2.	MADIHA KHANUM MMA21458	Modular relations for the Rogers-Ramanujan type functions of order eighteen with applications to partitions	M. Sc.	2023	University of Mysore
3.	VIBHA M. M. MMA22468	Self-similarity property of 17- and 37-regular partition functions	M. Sc.	2024	University of Mysore

15. Number of Candidates Presently working for M.Sc., (By Research) & Ph.D. Degree under your Guidance

Sl.No.	Name of the Candidate with USN	Degree for which Registered	Title of the Thesis	Commencement Year	Probable date of Submission
1.	Vibha M. M. 4NI25PMA01	Ph. D.	Arithmetic properties of restricted and unrestricted partitions	31-12-2025	2029
