

Faculty Profile

Name : Dr. Bhuvan E Nalige
Designation : Assistant Professor
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About me: I am currently working as an Assistant Professor in the Department of Mathematics at The National Institute of Engineering, Mysuru. I obtained my Ph.D. in Mathematics from the University of Mysore under the guidance of Dr. K. R. Vasuki. Previously, I served as an Assistant Professor at Nitte Meenakshi Institute of Technology, Bengaluru, and as a Lecturer at The National Institute of Engineering, Mysuru.

My research expertise is in Number Theory, particularly in q-series, Eisenstein series, modular equations, special functions, and Ramanujan-type identities. My doctoral research focused on Eisenstein series identities and incomplete elliptic integrals associated with Ramanujan's work. I have published research papers in reputed international journals including Journal of Mathematical Analysis and Applications, Mathematical Notes, Indian Journal of Pure and Applied Mathematics, and International Journal of Number Theory. I continue to work on problems related to q-series, modular equations, and Ramanujan's mathematics.

Qualification:

Ph.D. : Ramanujan's Type Eisenstein Series & Elliptic Integrals, 2018, University of Mysore

M.Phil. : Mathematics, 2012, University of Mysore

M.Sc. : Mathematics, 2011, Christ University

B.Sc. : Mathematics, 2009, University of Mysore

Courses Taught:

UG:

1. Linear Algebra
2. Calculus
3. Probability and Statistics
4. Number theory
5. Cryptography
6. Numerical analysis
7. Complex analysis

PG:

1. Linear Algebra
2. Calculus
3. Probability and Statistics

Journal Publication:

P. Nagendra 1, **E. N. Bhuvan 2**, and P. Divyananda 1 (2024): “On the Derivatives of Eta Quotients of Level Eighteen” *Mathematical Notes*, Volume 116, Pages 322-327, (2024)

Thippesha Anusha and **Eshwar Nalige Bhuvan**: On Ramanujan’s Eisenstein Series Identities, *Publications de l’Institut Mathématique, Nouvelle série*, tome 111(125) (2022), od 69 76

E. N. Bhuvan: On Ramanujan’s Incomplete Elliptic Integral Identities, *Indian Journal of Pure and Applied Mathematics*, **51**(4): 1737-1751, December 2020

Anusha T and **E. N. Bhuvan**: Level 28 Analogues of Ramanujan’s Type Series for $1/\pi$, *Indian Journal of Mathematics*, 62(1), 59-79, 2020

E. N. Bhuvan: On Somos’s Identities of Level Twenty One and Its Partition Interpretations, *Matematicki Vesnik*, 72(1) 1-5, 2020

T. Anusha ^{a 1}, **E.N. Bhuvan** ^a, S. Cooper ^b, K.R. Vasuki ^a: Elliptic Integrals and Ramanujan-Type Series for $1/\pi$ Associated with $\Gamma_0(N)$, *Journal of Mathematical Analysis and Applications*, 472(2), 1551–1570, 2019

K. R. Vasuki and **E. N. Bhuvan**: Cases for ϕ also? A Question Raised by Ramanujan, *International Journal of Number Theory*, 15(1), 183–188, 2019

E N BHUVAN and K R VASUKI: On a Ramanujan’s Eisenstein Series Identity of Level Fifteen, *Proceedings of the Mathematical Sciences*, 129(9), 1–18, 2019

K. R. Vasuki, **E. N. Bhuvan** and T. Anusha: Revisit to Ramanujan’s Modular Equations of Degree 21, *Indian Journal of Pure and Applied Mathematics*, 50(4), 1097–1105, 2019

E. N. Bhuvan: On Some Eisenstein Series Identities Associated with Borwein’s Cubic Theta Functions, *Indian Journal of Pure and Applied Mathematics*, 49(4), 698–703, 2018

K. R. Vasuki, R. G. Veerasha* and **E. N. Bhuvan**: Ramanujan’s Eisenstein Series of Level 3 and 6, Its Application, *South East Asian Journal of Mathematics and Mathematical Sciences*, 14, 01-18, 2018

E. N. Bhuvan & B. V. Dhananjayamurthy: Eisenstein Series Identity of Level Three, *Anusandhana : Journal of Science, Engineering and Management*, 6(2)

Other achievements:

- 10+ research publications in SCI/Scopus indexed journals
- Ph.D. supervision: 1 student (ongoing)
- Presented research papers in conferences and workshops
- Participated in academic training programs and research schools