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Chayanika-Boruah-2

Dr. Chayanika Boruah

Assistant Professor, Department of Mathematics, The Assam Royal Global University

Education

2018 - Rajiv Gandhi University
Ph.D., Thesis Title: "Contribution to Ramanujan's Continued Fractions, Partition Theory and Related Topics."

2014, Tezpur University
M.Sc in Mathematics

2012, Cotton College, under Gauhati University
B.Sc in Mathematics

Experience

October 2022 - till now: *Assistant Professor*, **Department of Mathematics, The Assam Royal Global University**

July 2018 - September 2022: *Assistant Professor*, **Department of Mathematics, University of Science and Technology Meghalaya**
Duration: 4 years

Publications

- C. Boruah, N. Saikia: Some congruences modulo 2 and 5 for bipartition with 5-core, Arab Journal of Mathematical Sciences Vol. 23 (2017), pp. 124-132.
- C. Boruah, N. Saikia: Congruences of l-regular partition triples for $l \in \{2, 3, 4, 5\}$, Acta Mathematica Vietnamica Vol. 42(3) (2017), pp. 551-561.
- C. Boruah, N. Saikia: Congruences for l-regular overpartition for $l \in \{5, 6, 8\}$, Indian Journal of Pure and Applied Mathematics Vol. 48(2) (2017), pp. 295-308.
- C. Boruah, N. Saikia: Some new explicit values of Ramanujan-Selberg continued fraction, Afrika Mathematika 28(7-8) (2017), pp. 1131-1141.
- C. Boruah, N. Saikia: Arithmetic properties of partitions 5 and 7 tuples with odd parts distinct, Palestine Journal of Mathematics Vol. 7(1) (2018), pp. 141-150.
- C. Boruah, N. Saikia: Results on a special case of a general continued fraction of Ramanujan, Annali dell' Università di Ferrara.Vol 64 (2018), pp 165-183.
- C. Boruah, N. Saikia: New theta function identities for a continued fraction of Ramanujan and their applications, Afrika Mathematika (2020), DOI 10.1007/s13370-020-00823-z.
- C. Boruah, N. Saikia: General congruences modulo 5 and 7 for colour partition, The Journal of Analysis (2021), DOI : 10.1007 / s41478 - 020-00287-1

Book Chapter

- A review on l-regular partition function, Advances in Mathematical Sciences (A collection of Survey Research Articles) Empyreal Publishing House. ISBN: 978-81-942475-9-3.
- Review on t-core partition function, Recent Trends in Mathematical Sciences Lambert Academic Publication. ISBN: 978-620-0-32416-0.

Administrative Experiences

Member of NAAC Steering Committee of The Assam Royal Global University
Since Jan 2023 - till date

NAAC Coordinator, Department of Mathematics, UTSM
From Dec 2018 - Dec 2019

Member, Robe Distribution Committee, of Convocation 2022, USTM
Sept 2022

Conferences Attended

- Poster presented entitled "Some congruences on a restricted bipartition function" in the Regional Workshop on Research and Opportunities, February 19-20, 2016. Department of Mathematics, IIT Guwahati, Assam, India.
- Paper presented entitled "Congruences for k dots bracelet partition function $B_k(n)$" in the National Conference on Advances in Mathematical Sciences, December 22-23, 2016. Department of Mathematics, Gauhati University, Guwahati, Assam, India.
- Paper presented entitled "Some congruence properties of l-regular partition triples" in the National Seminar on Mathematical Modelling on Applied Sciences, NSMMAS-2017, March 14, 2017. Department of Mathematics, Dibrugarh University, Dibrugarh, Assam, India.
- Paper presented entitled "Theta function Identities for the continued fraction $H(q)$ and their applications" in the National Seminar on Advances in Mathematical Sciences, December 22, 2018. Department of Mathematics, Gauhati University, Guwahati, Assam, India.

Workshops Attended

- Participated Online Short Term Course On "Mathematical Modelling and Numerical Simulation (MMNS 2023)" held during July 24-28, 2023 organized by the Department of Mathematics, Dr. B. R Ambedkar National Institute of Technology Jalandhar, Punjab, India.
- One Day Memorial Lectures on Industrial and Financial Mathematics in Memory of Great Indian Mathematician Srinivasa Ramanujan, November 10, 2014, organized by the Department of Mathematics, Rajiv Gandhi University, Arunachal Pradesh.
- UGC Sponsored National Level Workshop on New Trends in Mathematics and Its Application, June 13-14, 2015, organized by Silapathar Science College, Dhemaji, Assam.
- Annual Foundation School (AFS-1), funded by National Centre for Higher Mathematics, December 1-29, 2015, organized by Department of Mathematical Sciences, Tezpur University, Tezpur, Assam.
- North- East Summer Workshop in Analysis and Probability (NE-SWAP 2016), May 31-June 4, 2016, organized by Department of Mathematics, Rajiv Gandhi University, Arunachal Pradesh in collaboration with ISI, Bangalore.
- Global Initiative of Academic Networks (GIAN) course on Influence of Ramanujan in Number Theory (Course No. 154016K01), July 25 - August 06, 2016, Department of Mathematics, Tezpur University, Assam.

Teachers Training Programme/ FDP Attended

- Successfully completed Online Faculty Induction Programme (FIP) during 1-30 August 2024 organized by Teaching Learning Centre, Tezpur University under the aegis of PMMMNMTT scheme of Ministry of Education, Govt of India.
- Attented faculty development Programme on "Scientific Language" organized by Department of Mathematics, School of Basic Sciences, The Assam Kaziranga University, Jorhat, Assam, India from 26th April- 2nd May, 2023.
- Participated in Teacher's Enrichment Course in Undergraduate Mathematics Curriculum, January 07- 12, 2019, organized by CET and Department of Mathematics, Indian Institute of Technology Guwahati, Assam.

Membership / Fellowship of Learned Bodies / Societies

- Member of Indian Mathematical Society (IMS) since June 2023 (Member ID: L/2023/092)
- Life Member of Assam Academy of Mathematics (AAM), since June 2022, (Enrollment Number: 223152).
- Life Member of Asam Sahitya Sabha.

Research Area of Interest

- Number Theory (Ramanujan Mathematics)
- Partition Theory
- Continued Fractions

Languages

- Assamese
- English
- Hindi

Other Information

- Author of "Gonitogyor Bornomoy Jiban", a collection of articles. ISBN: 978-81-960695-9-9
- Author of "Canvasot Eti Xopun", a collection of essays and poems.