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Employment History

- 2022 – **Assistant Professor** JIS University, Agarpara, West Bengal.
- 2016 – 2021 **Teaching Assistant.** Department of Pure Mathematics, University of Calcutta.

Research Publications



Journal Articles

- 1 **Subarsha Banerjee.** (2023a). On structural & spectral properties of reduced power graph of finite groups. *Asian-European Journal of Mathematics*, **ESCI, Scopus, Quartile-Q3**, 16(09), 2350170. [doi:10.1142/S179355712350170X](https://doi.org/10.1142/S179355712350170X)
- 2 **Subarsha Banerjee.** (2023b). Distance energy change of complete split graph due to edge deletion. *Discrete Mathematics, Algorithms and Applications*, **ESCI, Scopus, Quartile-Q3**, 2350033. [doi:10.1142/S1793830923500337](https://doi.org/10.1142/S1793830923500337)
- 3 **Subarsha Banerjee.** (2022a). Spectra and topological indices of comaximal graph of \mathbb{Z}_n . *Results in Mathematics*, **SCI, Scopus, Quartile-Q1**, 77(3), 1–23. [doi:10.1007/s00025-022-01649-w](https://doi.org/10.1007/s00025-022-01649-w)
- 4 **Subarsha Banerjee.** (2022b). Perfect codes and universal adjacency spectra of commuting graphs of finite groups. *Journal of Algebra and Its Applications*, **SCI, Scopus, Quartile-Q2**, 2350097. [doi:10.1142/S0219498823500974](https://doi.org/10.1142/S0219498823500974)
- 5 **Subarsha Banerjee.** (2021a). Distance Laplacian spectra of various graph operations and its application to graphs on algebraic structures. *Journal of Algebra and its Applications*, **SCI, Scopus, Quartile-Q2**, 2350022. [doi:10.1142/S0219498823500226](https://doi.org/10.1142/S0219498823500226)
- 6 **Subarsha Banerjee.** (2022c). Laplacian spectrum of comaximal graph of the ring \mathbb{Z}_n . *Special Matrices*, **SCI, Scopus, Quartile-Q2**, 10(1), 285–298. [doi:10.1515/spma-2022-0163](https://doi.org/10.1515/spma-2022-0163)
- 7 **Subarsha Banerjee, & Adhikari, A.** (2023). On spectra of power graphs of finite cyclic & dihedral groups. *Rocky Mountain Journal of Mathematics (In press)*, **SCI, Scopus, Quartile-Q2**, 53(2), 341–356. [doi:10.1216/rmj.2023.53.341](https://doi.org/10.1216/rmj.2023.53.341)
- 8 **Subarsha Banerjee, & Adhikari, A.** (2020). Signless Laplacian spectrum of power graphs of finite cyclic groups. *AKCE International Journal of Graphs and Combinatorics*, **SCI, Scopus, Quartile-Q3**, 17(1), 356–366. [doi:10.1016/j.akcej.2019.03.009](https://doi.org/10.1016/j.akcej.2019.03.009)
- 9 **Subarsha Banerjee.** (2023c). The adjacency spectrum & metric dimension of an induced subgraph of comaximal graph of \mathbb{Z}_n . *Discrete Mathematics, Algorithms and Applications*, **ESCI, Scopus**, 15(03), 2250093. [doi:10.1142/S1793830922500938](https://doi.org/10.1142/S1793830922500938)


- 10 **Subarsha Banerjee.** (2022d). The spectrum and metric dimension of Indu–Bala product of graphs. *Discrete Mathematics, Algorithms and Applications*, **ESCI, Scopus**, 14(08), 2250037. [doi:10.1142/S1793830922500379](https://doi.org/10.1142/S1793830922500379)
- 11 **Subarsha Banerjee.** (2021b). The metric dimension & distance spectrum of non-commuting graph of dihedral group. *Discrete Mathematics, Algorithms and Applications*, **ESCI, Scopus**, 13(06), 2150082. [doi:10.1142/S1793830921500828](https://doi.org/10.1142/S1793830921500828)
- 12 **Subarsha Banerjee.** (2021c). Laplacian spectra of coprime graph of finite cyclic and dihedral groups. *Discrete Mathematics, Algorithms and Applications*, **ESCI, Scopus**, 13(03), 2150020. [doi:10.1142/S1793830921500208](https://doi.org/10.1142/S1793830921500208)
- 13 **Subarsha Banerjee, & Adhikari, A.** (2021). On spectra and spectral radius of signless Laplacian of power graphs of some finite groups. *Asian-European Journal of Mathematics*, **ESCI, Scopus**, 14(06), 2150090. [doi:10.1142/S179355712150090X](https://doi.org/10.1142/S179355712150090X)
- 14 **Subarsha Banerjee, & Adhikari, A.** (2022). Prime coprime graph of a finite group. *Novi Sad Journal of Mathematics*, **ESCI, Scopus**, 52(01). [doi:10.30755/NSJOM.11151](https://doi.org/10.30755/NSJOM.11151)
- 15 Jamsheena, P., Chithra, A., & **Banerjee, Subarsha.** (2024). Adjacency spectrum and wiener index of essential ideal graph of a finite commutative ring. *Journal of Algebra Combinatorics Discrete Structures and Applications*, **ESCI, Scopus**.
- 16 **Subarsha Banerjee.** (2024). The Szeged index of power graph of finite groups (in press). *TWMS Journal of Applied and Engineering Mathematics*, **ESCI, Scopus, Quartile-Q3**.
- 17 **Banerjee, Subarsha.** (2024). Signless Laplacian spectrum of power graph of certain finite non-commutative groups (in press). *International Journal of Mathematics and Computer in Engineering*, **Scopus**.
- 18 **Banerjee, Subarsha, & Ganguly, S.** (2024). On Laplacian and distance Laplacian spectra of generalized fan graph and a new graph class (in press). *International Journal of Mathematics and Computer in Engineering*, **Scopus**, 4(01). [doi:10.2478/ijmce-2026-0001](https://doi.org/10.2478/ijmce-2026-0001)
- 19 **Banerjee, Subarsha, & Agarwal, A.** (2024). The Szeged index & energy of commuting graph of certain finite non-commutative groups. *Advances in Analysis and Applied Mathematics*, 1(2), 101–112. [doi:10.62298/advmath.13](https://doi.org/10.62298/advmath.13)
- 20 **Banerjee, Subarsha.** (2025). On structural properties and adjacency spectrum of coprime graph of integers. *Asian-European Journal of Mathematics*, **ESCI, Scopus**, In press. [doi:10.1142/S179355712550069X](https://doi.org/10.1142/S179355712550069X)

Awards and Achievements

Awards

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|------|---|
| 2024 |  Post Doctoral Research Fellowship, Awarded by Banarus Hindu University (BHU),
Raja Jwala Prasad Postdoctoral Fellowship. |
| 2015 |  Research Award in Mathematics, National Board for Higher Mathematics. |




Awards and Achievements (continued)

- 2009  **Certificate of Merit for Outstanding Academic Performance**, Central Board of Secondary Education.



Achievements

- 2018  **Junior Research Fellowship, Awarded by Council of Scientific and Industrial Research (CSIR)**,
All India Rank: 092 in *Mathematical Sciences*.
- 2016  **Junior Research Fellowship, Awarded by Council of Scientific and Industrial Research (CSIR)**,
All India Rank: 113/0600 in *Mathematical Sciences*,
Applied in the **GENERAL-UR** category and qualified under the **UR** category.
-  **Graduate Aptitude Test in Engineering (GATE)**,
All India Rank: 390/6305 in *Mathematics*.
- 2015  **Research Eligibility Test (RET)**,
Department of Pure Mathematics, University of Calcutta.
- 2009  **West Bengal Joint Entrance Examination (WBJEE)**.

Teaching Experience

-  Graduate level courses covering Mathematics:
Real Analysis, Linear Algebra, Graph Theory, Matrix Theory, Abstract Algebra, Functional Analysis, Topology.
-  Undergraduate level courses covering Mathematics:
Real Analysis, Linear Algebra, Abstract Algebra, Metric Spaces.
-  Graduate level courses covering Computer Science:
SAGE, C++, L^AT_EX,

Administrative Responsibilities

-  **Member** NAAC, JIS University
-  **Member** Library Committee, JIS University.

Personal Details

- Date of Birth  15th April, 1991.

Personal Details (continued)

Nationality	Indian.
Gender	Male.
Languages	Fully Proficient in <i>English, Hindi, Bengali</i> .
Interests	Academic research, teaching, cricket and carrom.

Additional Activities

- **Co-organized** 5-Day Faculty Development Programme : FDP ON Innovation in Recent Trends in Computing : 28.11.2022 – 02.12.2022.
- **Resource Person** Delivered a talk in *National Workshop on Research Methodology* : 05.12.2022 – 09.12.2022.
- **Reviewed** academic papers for the following peer-reviewed journals: *AKCE International Journal of Graphs and Combinatorics, Results in Mathematics, Acta Mathematica Sinica (English Series), Asian European Journal of Mathematics, and European Journal of Pure and Applied Mathematics*.
- **Co-organized** National Board for Higher Mathematics MSc. and Ph.D. scholarship examination whose duties involved invigilation and correcting answer sheets of students.
- **Presented** a paper titled "*Bounds on the signless Laplacian spectral radius of power graphs of finite cyclic groups*" in Recent Advances in Mathematics and its Applications (RAMA), 2020.
- **Co-organizer** of the conference *Recent Advances in Mathematics and its Applications (RAMA)*, 2016 – 2019.
- **National Service Scheme:** Teaching underprivileged students of rural areas, 2010 – 2012.

References

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