

Tahir Shamsher

Curriculum Vitae

Assistant Professor (contractual)
Department of Mathematics, Kupwara Campus
University of Kashmir, Srinagar, J&K.
Email: tahir.maths.uok@gmail.com, ts12@iitbbs.ac.in
Phone no: +919596182426, +919682655817.

ACADEMIC QUALIFICATIONS AND ACADEMIC ACHIEVEMENTS

Postdoctoral Fellow (PDF), Department of Mathematics, Indian Institute of Technology Bhubaneswar, Odisha, 2023-2025.
Postdoctoral Fellow (PDF), Department of Mathematics, Institute of Mathematics and Applications Bhubaneswar, Odisha, 2025-2026.
Ph.D. Mathematics, University of Kashmir, Srinagar, J&K, 2023.
M.Sc. Mathematics, University of Kashmir, J&K, 2016.
B.Sc. Mathematics, University of Kashmir, J&K, 2014.
Qualified CSIR-UGC Junior Research fellowship (JRF/SRF) June 2018 (AIR-63).
Qualified GATE 2018 (AIR-254).
Qualified JKSET 2018.
Qualified National Board for Higher Mathematics, Scholarship for Ph.D in Mathematics-2018.

RESEARCH AREA

Algebraic Graph Theory, Matrix Theory, Discrete Mathematics.

RESEARCH EXPERIENCE

January 2023- October 2023 - Assistant Professor (Contractual), Department of Mathematics, UOK, India.
January 2021 - December 2022, Senior Research Fellow (CSIR-JRF/SRF), Department of Mathematics, UOK, India.
January 2019 - December 2020, Junior Research Fellow (CSIR-JRF/SRF), Department of Mathematics, UOK, India.

COURSES TAUGHT

At IIT Bhubaneswar and IMA Bhubaneswar

Discrete Mathematics, Linear Algebra and Partial differential equation.

At University of Kashmir

Spectral Graph Theory and Matrix Theory.

JOURNAL PUBLICATIONS**Published/Accepted**

1. S. Barik and Tahir Shamsher, Sharp lower bounds for the Laplacian Estrada index of graphs, *Linear and Multilinear Algebra*, 73(5), 849–864, (2025).
<https://doi.org/10.1080/03081087.2024.2396132>
2. Tahir Shamsher, Unbalanced complete bipartite signed graphs $K_{m,n}^\sigma$ having m and n as Laplacian eigenvalues with maximum multiplicities, *Communications in Combinatorics and Optimization*, (2024).
<https://doi.org/10.22049/cco.2024.29897.2214>
3. S. Pirzada, Tahir Shamsher and Mushtaq A. Bhat, On the eigenvalues of signed complete bipartite graph, *Ars Mathematica Contemporanea*, 24(4), pp. Article #p8, (2024).
<https://doi.org/10.26493/1855-3974.3180.7ea>
4. Tahir Shamsher, S. Pirzada and Mushtaq A. Bhat, On adjacency and Laplacian cospectral switching nonisomorphic signed graphs, *Ars Mathematica Contemporanea*, 23(3), (2023).
<https://doi.org/10.26493/1855-3974.2902.f01>
5. Pirzada, Tahir Shamsher and Mushtaq A. Bhat, A note on the class of weighted graphs with strong anti-reciprocal eigenvalue property, *Linear and Multilinear Algebra*, 71(1), 1–4, (2023).
<https://doi.org/10.1080/03081087.2021.2014776>
6. Tahir Shamsher, The A_α eigenvalues of the generalized subdivision, *Discrete Mathematics, Algorithms and Applications*, (2024).
<https://doi.org/10.1142/S1793830925500296>
7. Tahir Shamsher and S. Pirzada, On spectra of signed neighborhood corona of two signed graphs, *The Ramanujan Journal of Mathematical Society*, 39(3), 253–263, (2024).
<https://doi.org/10.26493/1855-3974.3180.7ea>
8. Tahir Shamsher, S. Pirzada and Zoran Stanić, Net Laplacian spectra and net Laplacian controllability for the variants of corona of signed graphs, *Boletín de la Sociedad Matemática Mexicana*, 30(3), pp. Article 80, (2024).
<https://doi.org/10.1007/s40590-024-00655-y>
9. Tahir Shamsher and S. Pirzada, Eigenvalues of generalized subdivision graphs with applications to graph energy, *Discrete Mathematics, Algorithms and Applications*, 16(08), pp. Article 2350115, (2024).
<https://doi.org/10.1142/S179383092350115X>
10. Tahir Shamsher, S. Pirzada and Mushtaq A. Bhat, On the Estrada index in signed graphs, *Filomat*, 38(19), pp. Article 6851, (2024).
<https://doi.org/10.2298/FIL2419851S>
11. Tahir Shamsher, Mushtaq A. Bhat, S. Pirzada and Yilun Shang, Ordering of minimal energies in

unicyclic signed graphs, Revista de la Unión Matemática Argentina, 65(1), 119–133, (2023).
<https://doi.org/10.33044/revuma.2565>

12. S. Pirzada, Tahir Shamsheer and Z. Stanić, Spectra of subdivisions of signed graphs, signed graphs and related products, Revista de la Unión Matemática Argentina (2024).
<https://doi.org/10.33044/revuma.4483>

CONFERENCES AND WORKSHOPS

- Participated and presented a paper titled “*On eigenvalues of signed complete bipartite graphs*” in the two-Day national level conference on Analysis and Discrete Mathematics (October 17-18, 2022).
- Participated in the three-day International Web Conference on Signed Graphs and Allied Areas (ICSGAA-2020) organized by the Department of Mathematics, Central University of Kerala, Kasaragod, Kerala, India, during 07-09, December 2020.
- Participated and presented a paper titled “*A correct proof of the characterization of the class of weighted graphs with strong anti-reciprocal eigenvalue property*” in the 37th Annual National Conference of The Mathematical Society Banaras Hindu University on Modern Mathematics and its Applications (MMA-2022)”, 29-30 January 2022, at Department of Mathematics, Institute of Science, Banaras Hindu University, Varanasi.
- Participated in research promotion workshop on introduction to graph and geometric algorithms 18-20 may 2015 at university of Kashmir.

MY MENTORS

- Prof. S. Pirzada, Department of Mathematics, UOK, India.
- Prof. Sasmita Barik, Department of Mathematics, IIT, Bhubneswar, Odisha.
- Prof. S. K. Panda, Department of Mathematics, IIT, Delhi.
- Dr. Mushtaq Ahmad Bhat, Department of Mathematics, NIT, Srinagar, India.