Miranda House
UNIVERSITY OF DELHI

Name: **Dr. Anita Kumari Rao**

Department: **Mathematics**

Current Designation: **Assistant Professor(Guest)**

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Academic Qualifications (reverse chronological order):

1. CSIR-NET-JRF, 2015, AIR-16.
2. M.Sc.(Mathematics), Banasthali University
3. B.Sc.(Mathematics), Banasthali University

Research Degree(s) (reverse chronological order):

Ph.D. in Graph Theory from South Asian University, July 2015 — March 2021

Field of Specialization under the Subject/Discipline:

Signed graphs and their spectral properties

Teaching at Miranda House since: 29th January 2022

List of Publications (reverse chronological order):

(Articles in referred/peer-reviewed/UGC Care journals/ Books/Book Chapters)

1. Deepa Sinha and Anita Kumari Rao, "Co-Maximal signed graphs of commutative rings", Turkish Journal of Mathematics, 42(2018):1203-1220.
2. Deepa Sinha, Anita Kumari Rao and Ayushi Dhama, "Spectral analysis of t-path signed graphs", Linear and Multilinear Algebra, (2018):1563-5139, doi.org/10.1080/03081087.2018.1472737.
3. Deepa Sinha, Anita Kumari Rao, "Embedding of signed regular graphs", Notes on Number Theory and Discrete Mathematics, 24.3(2018):131-141.
4. Deepa Sinha and Anita Kumari Rao, "A note on co-maximal graphs of commutative rings", AKCE International Journal of Graphs and Combinatorics, 15(2018):112-114.
5. Deepa Sinha, Anita Kumari Rao and Pravin Garg, "Embedding of (i, j)-Regular Signed Graphs in (i + k, j + l)-Regular Signed Graphs", Proc. of International Workshop on Computational

Intelligence(12-13 December 2016), Dhaka,
Bangladesh. IEEE Xplore, 2016, 215-217

6. Deepa Sinha and Anita Kumari Rao, “On Co-maximal meet signed graphs of commutative rings”, Proc. of International Conference on Current Trends in Graph Theory and Computation(17-19 September 2016), SAU New Delhi. Electronic Notes in Discrete Mathematics, 63(2017), 497-502.
7. Deepa Sinha and Anita Kumari Rao, "Embedding of sign-regular signed graphs and its spectral analysis", Linear and Multilinear Algebra,DOI: 10.1080/03081087.2020.1765954.
8. Deepa Sinha and Anita Kumari Rao, "Co-maximal graphs, its planarity and domination number", Journal of interconnection networks, 20(2)(2020).
9. Deepa Sinha and Anita Kumari Rao, " On some properties of co-maximal graphs of commutative rings", National Academy Science latter, 2021.

Seminars/Workshops/Conferences attended (reverse chronological order):

1. Presented the paper "Signed graphs: Emabedding and spectra" in ICGLA, September 2020.
2. Presented the paper " spectral analysis of Absorption Cayley graphs" in ICRTMAGPN- July 2020.
3. Presented the paper " Domination Number of Co-Maximal Graphs of Commutative Rings" in International conference on Frontiers of Science and Technology, organized by KIET Group of Institutions(2018).
4. Participated in the Instructional school for teachers on "Algebraic Graph Theory" organised by National Center for Mathematics(November 2018).
5. Participated in National workshop on introduction to algorithms with special emphasis to graph algorithms organised by ADMA(2018).
6. Volunteered in International conference on current trends in Graph theory and computation, organized by South Asian University (2016).
7. Presented the paper "on signed Co-maximal Graphs of Commutative Rings" in International conference on current trends in Graph theory and computation, organized by South Asian University (2016).
8. Participated in Pre-Conference workshop on the Recent Advances in Signed Graphs and their Applications, organised by ADMA(2016).
9. Presented the paper "Embedding of (i,j)-regular signed graph in (i+1,j+1)-regular signed graph" in ICDM-2016.