



Miranda House

UNIVERSITY OF DELHI

Name: Dr. Monika Arora

Department: Mathematics

Current Designation: Associate Professor

Email id: monika.arora@mirandahouse.ac.in

Academic Qualifications (reverse chronological order): M.Phil (Mathematics), M.Sc. Maths, B.Sc. Mathematics

Research Degree(s) (reverse chronological order): Ph.D. Mathematics

Field of Specialization under the Subject/Discipline: Celestial Mechanics and Dynamical Astronomy

Total Teaching Experience: 16 years+

Teaching at Miranda House since: 13 years

List of Publications (reverse chronological order):

1. On the restricted four-body problem with the effect of small perturbations in the Coriolis and Centrifugal forces, *Astrophysics and Space Science*, 362(2017), 159: Md Sanam Suraj, Rajiv Aggarwal, Monika Arora.
2. Exploring the fractal basins of convergence in the restricted four-body problem with oblateness, *International Journal of Non-Linear Mechanics*, 102(2018), 62-71: Md Sanam Suraj, Amit Mittal, Monika Arora, Rajiv Aggarwal.
3. The basins of convergence in the planar restricted four-body problem with variable mass, *Applications and Applied Mathematics*, 13(2) 2018, 1230-1247: Amit Mittal, Monika Arora, Md Sanam Suraj and Rajiv Aggarwal.
4. On the photo-gravitational restricted four-body problem with variable mass, *Astrophysics and Space Science*(2018), 363:1-23: Amit Mittal, Rajiv Aggarwal, Md Sanam Suraj, Monika Arora (Articles in referred/peer-reviewed/UGC Care journals/ Books/Book Chapters)



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Educational Resource Material Developed (reverse chronological order):

Research Guidance (reverse chronological order):

Research Projects (reverse chronological order):

Membership Of Professional Bodies (reverse chronological order): Ramanujan
Mathematical Society

Administrative Responsibilities (reverse chronological order):

Invited talks/Session chair/Resource person (reverse chronological order):

Conferences Organised (reverse chronological order): Organized an International Faculty Development Programme in collaboration with the Mahatma Faculty Development Centre, Hansraj College from 27 September to 01 October 2021.

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

1. Certificate of participation in UGC sponsored, Orientation Programme OR-70, held at CCPDHE, University of Delhi, from 25 June 2012 to 21 July 2012,
2. Certificate of participation in “Refresher course in Mathematics/Operational Research/Computer Science”, held at CPDHE, University of Delhi, from 2 January 2013 to 22 January 2013,
3. Workshop on participation in “Workshop on Foundation Course”, held at CPDHE from 24 June to 26 June 2013,
4. Certificate of participation and paper presentation in “National Seminar on Recent Developments in Mathematics(UGC sponsored)”, organized by Kalindi college, University of Delhi, 12 January-13 January 2017,
5. Participated in Workshop on Algebra, “The journey from Integers to ring theory”, organized by department of Mathematics, Miranda House, 2 March-3 March 2017,
6. Certificate of participation and paper presentation in “International Conference on Recent Advances in Aerospace Engineering(ICRAEE)”, organized by department of Aerospace



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Engineering, Karunya University, Coimbatore, 03-04 March, 2017,

7. Certificate of participation in “National workshop on Mathematical Modelling and Computational Techniques using Mathematica”, organized by department of Mathematics Zakir Husain Delhi College, 30 March-31 March 2017,
8. Certificate of participation and paper presentation in “International conference on Mathematics & Applications”, organized by Ramjas College, University of Delhi, 26-28 April 2017,
9. Certificate of participation in the one day “National Workshop on Applications of Mathematica: A Scientific and Mathematical Tool”, organized by Guru Angad Dev Teaching Learning Centre of MHRD, SGTB Khalsa College, University of Delhi, on 9 March, 2018,
10. Certificate of participation in the One day Faculty Empowerment Workshop entitled “National Workshop on Latex-An ICT tool for Scientific Publishing”, organized by Guru Angad Dev Teaching Learning Centre of MHRD, SGTB Khalsa College, University of Delhi, on 26 March, 2018,
11. Certificate of participation in the “Teacher’s Enrichment workshop on Differential Equations, Mathematical Modelling & Analysis”, sponsored by National Centre for Mathematics(A joint centre of TIFR and IIT Bombay), from 24 July to 29 July, 2018

Synergy (work with other organizations outside the college): Conducted an International Faculty Development on Advanced Linear Algebra, in collaboration with Mahatma Hansraj Faculty Development Centre, Hansraj College from 27 September to 01 October 2021, as Convenor of the programme.