ZAKIR HUSAIN DELHI COLLEGE
(University of Delhi)

Faculty Details

(Please Fill the form and Email it to website@zh.du.ac.in)

Title	**First Name** **Mohd.**	**Last Name** **Arif**	**Photograph**
Designation	**Professor**		
Address	**F-82 First floor, Abul Fazal Enclave I, Jamia Nagar, New Delhi-110 025. India**		
Phone Number	**Office**		
	Residence		
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Educational Qualification

Degree	**Institution**	**Year**
Ph.D.	Jamia Millia Islamia, New Delhi-25	1993
Post Doctoral fellowship	N.B.H.M. Dept. of Atomic Energy Bombay	Nov1993
M.Sc. (Maths)	Rohilkhand University Bareilly U.P.	1988
B.Sc.	Rohilkhand University Bareilly U.P.	1986

Career Profile

1. Teaching in the Department of Mathematics, Zakir Husain Delhi College, Delhi University, JLN Marg, New Delhi 110 002.
   From 13 September 1995 to 30 April 1996 as a Lecturer on Adhoc basis.

   From 16 July 1996 to 12 September 1999 as Lecturer.

   From 13 September 1999 to 13 September 2004 as Senior Lecturer

   From 14 September 2004 to 2018 as Associate Professor.

From July 2018 as Professor

Administrative Assignments

(i) Teacher in charge during year, 2010-2011, 2015-2016.

(ii) Coordinator union advisory board during year, 2007-2009.

(iii) Convener of time table committee during year, 2013-2016.

(iv) Convener of Academic supervisory committee during year, 2016-2018.

(v) Convener of staff requirement committee during year 2018 onward.

(vi) Co-coordinator IQAC from November 2021 to June 2022.

Areas of Interest / Specialization

Space Dynamics

Subjects Taught

Undergraduate:

Real Analysis, Analytical Geometry of two dimensions and three dimensions, Coordinate Geometry of two dimensions and three dimensions, Calculus, Differential Equations. Complex Analysis. Metric spaces.

Research Guidance

One student of Ph.D. under supervision (awarded). Two students of Ph.D. under supervision

Publications Profile

1. Bhatnagar. K.B, Z. A. Taqvi, **Mohd Arif**. (1993) Motion of a charged particle in the field of two dipoles with their carrier stars. Indian J. pure appl. Math., 24(7&8): 489-502. ISSN: 0019-5588. UGC J No. 20865. Indexed in SCI.

2. Bhatnagar. K. B, **Mohd Arif**. (1994) Motion of two charged particles in the field of two dipoles with their carrier stars. Indian J. pure appl. Math., 25(8): 907-924. ISSN: 0019- 5588. UGC J No. 20865. Indexed in SCI.

3. Z. A. Taqvi, **Mohd Arif**. (1995) Collinear equilibria of the (2+2) body problem when the primaries are oblate spheroids with magnetic field Indian J. pure appl. Math., 26(11): 1119 1124.ISSN: 0019-5588. UGC J No. 20865. Indexed in SCI.

4. **Mohd Arif**. , Ravi kumar Sagar (2016). Syncronization of a planner magnetic binaries problem when the primaries are oblate spheroid. International journal of pure and applied mathematics

Volume 107 No. 2, 317-330 ISSN: 1311-8080. abstracted and indexed in Scopus. UGC J No 23425.

5. **Mohd Arif**. (2016). Existence and Stability of the Equilibrium Points the Photogravitational. Magnetic Binaries Problem When the Both Primaries are Oblate Spheriods. International journal of Computational Engineering Research, (IJCER) Volume 6, Issue 01, pp. 1-9, ISSN(e). 2250-3005. UGC J No 47631**.**

6. **Mohd Arif**. (2016). Complete synchronization of a planner magnetic binaries problem when bigger primary is Oblate Spheriod and smaller primary is ellipsoid International journal of mathematical Archive (IJMA) ISSN 2229-5046 7(8), 45-52. UGC J No 47756**.**

7. **Mohd Arif**. (2017). Chaos synchronization of the photogravitational magnetic binaries problem via nonlinear control International journal of mathematical. Archive (IJMA) 8(7), 19-24**,** ISSN 2229-5046 UGC J No 47756**.**

8. **Mohd. Arif**. (2017) Existence of equilibrium points in the magnetic binary problem with variable mass Journal of Math and Computational Science. Jmcs. J. Math. Comput. Sci. 7, No.6, 1090-1099 ISSN: 1927-5307. UGC J No 48795.

9.**Mohd. Arif.** (2017) Motion around the equilibrium points in the planar magnetic- binaries problem. International Journal of Computational Engineering research. Volume, 07, issue 9, 41-46. ISSN: 2250-3005. UGC J No 47631**.**

10**. Mohd. Arif (2017)** Synchronization of the photogravitational magnetic binary problem with variable mass. International Journal of Engineering Research and Applications (IJERA). Vol. 7, Issue 10, (Part -4), pp.63-70. ISSN 2248-9622. UGC J No 47088.

11. **Mohd. Arif** (2017) Chaos control in the planner magnetic binary problem with variable mass. International journal of mathematical Archive (IJMA) 8(11), 29-35**,** ISSN 2229- 5046. UGC J No 47756.

12. **Mohd. Arif** (2018) Synchronization behavior of the magnetic binary problem with variable mass International journal of mathematical Archive (IJMA).9(2), 1-7, ISSN 2229-5046. UGC Jno 47756.

13. **Mohd. Arif** and Ravi kuma sagar, (2018) Synchronization Control of Two Identical Three Restricted Body Problems via Active Control New Trends in Mathematical Sciences (NTMSCI) NTMSCI 6, No. 3, 137-146. Mathematics ISSN: 2147-5520 MathSci. Net, Zentralblatt MATH. UGC J No 48657.

14**. Mohd. Arif** & Ravi kumar sagar, (2018) Study of the restricted three body problem when one primary is an uniform circular disk Applications and Applied Mathematics: An International Journal (AAM). ISSN:1932-946 Vol.13, Issue 1, pp.160–172 UGC J No 47348.

15. **Mohd Arif**. (2018) Chaos synchronization of planer magnetic binary problem via nonlinear control International Journal of Computational Engineering research. (IJCER),. ISSN: 2250-3005. vol. 08, no. 02 pp. 43-49. UGC J No. 47631.

16. **Mohd Arif**. (2018) Synchronization behavior of restricted three body problem when bigger primary is an uniform circular disc INTERNATIONAL JOURNAL OF LATEST TRENDS IN

ENGINEERING AND TECHNOLOG. ISSN: 2319-3778 Vol. (9) Issue (4), pp.122-127. UGC J No 63199**.**

17**. Mohd. Arif** (2018), complete synchronization of the photogravitational restricted three body problem when bigger primary is oblate spheroid and smaller primary is ellipsoid. International journal of mathematical Archive (IJMA) 9(4), 162-167. ISSN 2229-5046. UGC J No 47756.

18**. Mohd. Arif (2018),** Equilibrium points in the elliptical magnetic binary problem International Journal of Computational Engineering research. vol. 08, no. 05, pp. 31- 34. ISSN: 2250-3005. UGC J No 47631.

19.**Mohd. Arif** (2018), Non-uniform motion of the three body problem when the primaries are oblate spheroids IOSR Journal of Engineering ISSN2250-3021. Vol. 08, Issue 6 ||V (II) || PP 41-47. UGC J No 48995**.**

20. **Mohd. Arif (2019).** Photogravitational elliptical magnetic binary problem International Journal of Computational Engineering research vol. 09, issue 1 pp. 8- 12. ISSN: 2250-3005. UGC J No 47631**.**

21.**Mohd.Arif (2019).** Chaos synchronization between two identical restricted three body problem via active control and adaptive control methods. Journal of Mathematical and Computational Science Jmcs. J. Math. Comput. Sci 9 No.3, 288-302 ISSN: 1927-5307. UGC J No 48795.

22.**Mohd.Arif** (2020). Fuzzy Modeling and Chaos Control in the Photogravitational Magnetic Binaries Problem with Potential from a Belt. International Journal of System Dynamics Applications (IJSDA). Volume\ 9 Issue 3 July-September 26-38. ISSN: 2160-9772. UGC Listed.

23. Vinay Kumar, **Mohd. Arif**, M. Shahbaz Ullah. (2021) Capricious of basins attraction in photogravitational magnetic binary problem, New Astronomy 83 , 101475 . ISSN: 13841076 SCI.

24.**Mohd. Arif**,M. Shahbaz Ullah, Laxmi Kant. (2022) Photogravitational magnetic- binary problem with oblateness and belt of material points New Astronomy 97,101877 . ISSN: 13841076 SCI.

25.Poonam Jorwal, **Mohd. Arif**, Dharmendra Kumar. (2023) An enormous diversity of soliton solutions to the (2+1)-dimensional extended shallow water wave equation using three analytical methods International Journal of Modern Physics B ISSN: 0217- 9792. SCI (2024) 2450104 (27 pages). SCI.

26.**Mohd.Arif**, Laxmi Kant, and Jai Kumar (2024) Basins of Attraction in the Photogravitational Magnetic-Binary Problem with Oblateness and Dissipations. Proceedings of the 2nd International Conference on Nonlinear Dynamics and Applications (ICNDA 2024), Volume 2 ICNDA 2024, SPPHY 315, pp. 171–187.

BOOKS

1. Ayub Khan, **Mohd Arif**, Urvashi Arora. (2007) Calculus and geometry for physical and applied physical sciences. Book Age Publication ISBN: 81-89855-01-8.

2.**Mohd Arif**. (2009) A text book of calculus and geometry. Book Age Publication ISBN: 81- 89855-11-5.

3. **Mohd Arif**. (2012) Calculus. Narosa publication ISBN: 978-1-84265-771-3.

Conference Organization/ Presentations (in the last five years)
Research Projects (Major Grants/Research Collaboration)
Awards and Distinctions
Association With Professional Bodies
Other Activities