



**DESHBANDHU COLLEGE**  
(UNIVERSITY OF DELHI)  
KALKAJI, NEW DELHI - 110019

Title	Dr.	First Name	Shipra	Last Name	Chauhan	Photograph
Designation		Assistant Professor				
Address		WZ-51, Shastri Nagar, Delhi-110052				
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Residence						
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Web-Page		<a href="https://sites.google.com/db.du.ac.in/shiprachauhan/home?authuser=1">https://sites.google.com/db.du.ac.in/shiprachauhan/home?authuser=1</a>				
<b>Educational Qualifications</b>						
Degree		Institution			Year	
Ph.D. in Celestial Mechanics		Department of Mathematics, University of Delhi, Delhi			2017-22	
M.Phil. in Mathematical Programming		Department of Mathematics, University of Delhi, Delhi			2014-17	
M.A. Mathematics		Hansraj College, University of Delhi, Delhi			2010-12	
B.A.(H ) Mathematics		Satyawati Co-ed College, University of Delhi, Delhi			2007-10	
12 <sup>th</sup>		Victoria Girls Senior Secondary School, Delhi			2006-07	
<b>Career Profile</b>						
<ol style="list-style-type: none"> <li><b>March 25, 2019- Till now:</b> Assistant Professor (Ad-Hoc): Deshbandhu College, University of Delhi, Delhi.</li> <li><b>January 07, 2019- March 24, 2019:</b> Assistant Professor (Ad-Hoc): Shaheed Rajguru College of Applied Sciences for Women, University of Delhi, Delhi.</li> <li><b>January 12, 2018- January 06, 2019:</b> Assistant Professor (Ad-Hoc): Shyama Prasad Mukherjee College for Women, University of Delhi, Delhi.</li> <li><b>January 18, 2017- April 18, 2017:</b> Assistant Professor (Guest Faculty): Bhagwan Parshuram Institute of Technology.</li> </ol>						
<b>Administrative Assignments</b>						
<ul style="list-style-type: none"> <li>Member, IQAC Deshbandhu College</li> <li>Member, Website Committee, Department of Mathematics, Deshbandhu College</li> <li>Member, NAAC SSR Committee, Deshbandhu College</li> </ul>						

Areas of Interest/Specialization			
<ol style="list-style-type: none"> <li>Celestial Mechanics</li> <li>Mathematical Programming</li> </ol>			
Subjects Taught			
Number Theory (B.Sc. (H) Mathematics, Semester-6)	Linear Programming and Theory of Games (B.Sc. (H) Mathematics, Semester-6)	Multivariate Analysis Practicals (B.Sc. (H) Mathematics, Semester-3)	Complex Analysis Practicals (B.Sc. (H) Mathematics, Semester-6)
Calculus Practicals (B.Sc. (H) Mathematics, Semester-1)	Calculus (GE-1, Semester-6)	Linear Algebra (GE-2, Semester-2)	Differential Equations including Practicals (GE-3, Semester-3)
Numerical Methods including Practicals (GE-4, Semester-4)	Computer Algebra Systems and Statistical Software (B.A.(P))		
Research Guidance			
<ol style="list-style-type: none"> <li>Supervision of awarded Doctoral Thesis- Nil</li> <li>Supervision of Doctoral Thesis, under progress- Nil</li> <li>Supervision of awarded M.Phil. dissertations - Nil</li> <li>Supervision of M.Phil. dissertations, under progress- Nil</li> </ol>			
Publications Profile			
<p>❖ <b><u>Research papers published in Academic Journals other than Refereed/Peer Reviewed Journals:</u></b></p> <ol style="list-style-type: none"> <li>Bhavneet Kaur, <b>Shipra Chauhan</b> and Rajiv Aggarwal, Modified Robe's problem with perturbations in the Coriolis and centrifugal forces, <i>Few Body Systems</i>, <b>63</b>(1) (2022).</li> <li>Bhavneet Kaur, <b>Shipra Chauhan</b> and Dinesh Kumar, Outcomes of aspheric primaries in Robe's circular restricted three-body problem, <i>Applications and Applied Mathematics: An International Journal</i>, <b>16</b>(1): 463--480, (2021).</li> <li>Bhavneet Kaur, <b>Shipra Chauhan</b> and Dinesh Kumar, On sensitivity of the stability of equilibrium points with respect to the perturbations, <i>Journal of Astrophysics and Astronomy</i>, <b>42</b>(1): 4, (2021).</li> <li>Bhavneet Kaur, Sumit Kumar, <b>Shipra Chauhan</b> and Dinesh Kumar, Stability analysis of circular Robe's R3BP with finite straight segment and viscosity, <i>Applications and Applied Mathematics: An International Journal</i>, <b>15</b>(2): 1072--1090, (2020).</li> <li>Bhavneet Kaur, Dinesh Kumar and <b>Shipra Chauhan</b>, A study of small perturbations in the Coriolis and centrifugal forces in RR3BP with finite straight segment. <i>Applications and Applied Mathematics: An International Journal</i>, <b>15</b>(1): 77--93 (2020).</li> <li>Bhavneet Kaur, Dinesh Kumar and <b>Shipra Chauhan</b>, Effect of perturbations in the Coriolis and centrifugal forces in the Robe-finite straight segment model with arbitrary density parameter, <i>Astronomical Notes</i>, 341: 32--43 (2020).</li> <li>Dinesh Kumar, Bhavneet Kaur, <b>Shipra Chauhan</b> and Vinay Kumar, Robe's restricted three-body problem when one of the primaries is a finite straight segment. <i>International Journal of Non-Linear Mechanics</i>, <b>109</b>: 182-188 (2019).</li> <li><b>Shipra Chauhan</b>, Dinesh Kumar and Bhavneet Kaur, Restricted three-body problem under the effect of Albedo when smaller primary is a finite straight segment. <i>Applications and Applied Mathematics: An International Journal</i>, <b>13</b>(2): 1200-1215 (2018).</li> </ol>			

❖ **Participation as Paper/Poster Presenter:**

1. October 26-28, 2021: **“Robe’s restricted three-body problem when the less massive primary is not spherical”**, in the twenty seventh International Conference of IAPS (online) on "Recent Advances in Mathematics and Computational Optimizations (RAMCO) ", organised by School of Computational and Integrative Sciences, Jawaharlal Nehru University, Delhi.
2. October 18-22, 2021: **“Perturbed Robe’s restricted three-body problem with arbitrary density parameter”**, in the "Multi-scale (time and mass) dynamics of space objects", organised by International Astronomical Union IAU Symposium 364.
3. December 18-20, 2020: **“Robe’s restricted three-body problem when the less massive primary is not spherical”**, in the twenty sixth International Conference on "Differential Equations and Mathematical Modelling (IC-ADE-MM-2020) (Online)", organised by School of Computational and Integrative Sciences, Jawaharlal Nehru University, Delhi.
4. October 17-18, 2020: **“Outcomes of aspheric primaries in the Robe’s circular restricted-three body problem”** in the first National Conference on "Applications of Mathematical Tools in social Sciences and Sciences (Online)", organised by Zakir Husain College, University of Delhi, Delhi.
5. January 17-19, 2019: **“A study of Perturbed Photogravitational Restricted Three-Body Problem under the Effect of Albedo”** in the International Conference on Physics Society and Technology-2019 (ICPST-2019), organized by the Department of Physics and IQAC, Deshbandhu College, University of Delhi, Delhi.
6. June 01-03, 2018: **“Restricted Three-Body Problem under the effect of Albedo when smaller primary is a Finite Straight Segment”** in the Annual Conference, Ramanujan Mathematical Society, organized by the Department of Mathematics, University of Delhi, Delhi.

❖ **FDP Attended:**

1. One-Week Online Interdisciplinary Faculty Development Programme on **“Graph Theory and its Applications”**, organized by Deshbandhu College, University of Delhi in collaboration with Mahatma Hansraj Faculty Development Centre Hansraj College, University of Delhi under the aegis of Pandit Madan Mohan Malviya National Mission on Teachers and Training (PMMMNMTT): September 15- 21, 2021.
2. National Centre for Mathematics (A joint centre of TIFR and IIT Bombay), Teacher's Enrichment Workshop on **"Differential Equations and its Applications"**, organized by the Department of Mathematics, Deshbandhu College, University of Delhi, Delhi, March 15-28, 2021.
3. Two weeks Faculty Development Programme on **"Managing online classes and co-creating MOOCs:2.0"** organized by Teaching Learning Centre, Ramanujan College, University of Delhi, May 18-June 03, 2020.
4. Interdisciplinary Faculty Development Programme on **"Effective Teaching and Learning Practice"**, organized by Shyama Prasad Mukherjee College for Women, University of Delhi, Delhi, Sep 22--26, 2018.
5. National Centre for Mathematics (A joint centre of TIFR and IIT Bombay), Teacher's Enrichment Workshop on **"Differential Equations, Mathematical Modelling and analysis"**, organized by the Department of Mathematics, Deshbandhu College, University of Delhi, Delhi, July 24--29, 2018.
6. Faculty Development Programme on **“Computer Algebra System and LaTeX”** organized by Department of Mathematics, Shyam Lal College, University of Delhi, Delhi, Feb 16--17, 2017.

### ❖ Seminars/ Workshops/ Conferences Attended:

1. March 15-28, 2021: **National Centre for Mathematics (A joint centre of TIFR and IIT Bombay), Teacher's Enrichment Workshop on "Differential Equations and its Applications"**, organized by the Department of Mathematics, Deshbandhu College, University of Delhi, Delhi.
2. December 18-20, 2020: **Twenty sixth International Conference on "Differential Equations and Mathematical Modelling (IC-ADE-MM-2020) (Online)"**, organised by the School of Computational and Integrative Sciences, Jawaharlal Nehru University, Delhi.
3. October 17-18, 2020: **First National Conference on "Applications of Mathematical Tools in social Sciences and Sciences (Online)"**, organised by the Zakir Husain College, University of Delhi, Delhi.
4. Feb 22--23, 2020: **International Conference on Human Rights: National and International Issues and Challenges** organized by Shaikshik Foundation in association with Deshbandhu College, University of Delhi and Dr. Ambedkar International Centre, New Delhi.
5. Feb 23--24, 2019: **International Conference on Bhartiya Women Past, Present and Future**, organized by Shaikshik Foundation in association with Deshbandhu College, University of Delhi, Delhi.
6. Jan 17--19, 2019: **International Conference on Physics, Society and Technology-2019 (ICPST-2019)**, organized by Deshbandhu College, University of Delhi, Delhi.
7. Dec 28, 2018: **National Research Scholars' Seminar**, organized by the Department of Mathematics, University of Delhi, Delhi.
8. July 24--29, 2018 **National Centre for Mathematics (A joint centre of TIFR and IIT Bombay), Teacher's Enrichment Workshop on "Differential Equations, Mathematical Modelling and analysis"**, *Department of Mathematics, Deshbandhu College, University of Delhi, Delhi.*
9. June 01--03, 2018 **The Annual Conference, Ramanujan Mathematical Society**, *Department of Mathematics, University of Delhi, Delhi.*
10. Sep 07--08, 2017 **National Conference on Advances in Applied Mathematics and Statistics**, *Department of Mathematics, Mata Sundri College for women, University of Delhi, Delhi.*
11. May 01--02, 2017 **Research Scholar Seminar and Annual Conference of the Society of Mathematical Sciences**, *Department of Mathematics, University of Delhi, Delhi.*
12. Feb 16--17, 2017 **Faculty Development Programme on Computer Algebra System and LaTeX**, *Department of Mathematics, Shyam Lal College, University of Delhi, Delhi.*
13. Oct 24--28, 2016 **Training Course on Introduction to MATLAB**, *Delhi University Computer Centre, University of Delhi, Delhi.*
14. Oct 07--08, 2016 **Workshop on LaTeX and HTML**, *Department of Mathematics, Janki Devi Memorial College, University of Delhi, Delhi.*
15. Jan 30--31, 2016 **International Conference on Recent Advances in Optimization Theory and Applications**, *Department of Mathematics, University of Delhi, Delhi.*
16. Jan 20--21, 2016 **Mini Symposium on Complementarity and Game-Theoretic Models**, *Indian Statistical Institute of Delhi, Delhi.*

#### Research Projects (Major Grants/Research Collaboration)

Nil

#### Awards and Distinctions

- UGC JRF, December 2016 under the CSIR fellowship scheme.

#### Association With Professional Bodies

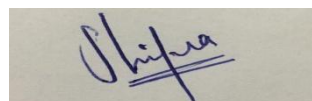
- *Editing- Nil*
- *Reviewing- Nil*
- *Advisory- Nil*
- *Committees and Boards- Nil*
- *Memberships- Nil*

- *Office Bearer- Nil*

#### Other Activities

Volunteer in the Annual Conference, Ramanujan Mathematical Society, organized by the Department of Mathematics, University of Delhi, Delhi.

Updated on: May 9, 2022



Signature of Faculty Member