




## RITIKA GULATI CV- 2024

Title	Ms.	First Name	Ritika	Last Name	Gulati	Photograph
Designation		Assistant Professor				<p>Photo</p> 
Address		Department of Mathematics, Indraprastha College for Women, University of Delhi, 31, Sham Nath Marg, Civil Lines, Delhi -110054				
Phone No (Office)		011-23954085				
Residence						
Mobile		7838528395				
Email		ritikagulati@ip.du.ac.in				
Webpage						
Orcid ID		0009-0004-2916-8330				
Vidwan ID		473723				
Research Gate ID		<a href="https://www.researchgate.net/profile/Ritika-Gulati">https://www.researchgate.net/profile/Ritika-Gulati</a>				
Google Scholar ID		<a href="https://scholar.google.com/citations?user=PnRDY28AAAAJ&amp;hl=en&amp;authuser=1">https://scholar.google.com/citations?user=PnRDY28AAAAJ&amp;hl=en&amp;authuser=1</a>				
Educational Qualifications						
Degree		Institution			Year	
Ph.D. Mathematics		K.R. Mangalam University, Gurugram			Pursuing (2022 onwards)	
M.Sc. Mathematics		IIT Delhi (CGPA: 8.2)			2015	
B.Sc. (H) Mathematics		Hansraj College, University of Delhi (90.14 %)			2013	
Career Profile						
More than 7 years of teaching experience:						
Assistant Professor (Permanent), Department of Mathematics, Indraprastha College for Women, University of Delhi					September 2023 – Present,	

Assistant Professor (Ad-hoc), Department of Mathematics, Indraprastha College for Women, University of Delhi	January 2018- September 2023  July 2015-May 2016
Assistant Professor (Ad-hoc), Department of Mathematics, ARSD College, University of Delhi	Aug 2017–Nov 2017
Assistant Professor (Ad-hoc), Department of Mathematics, Sri Venkateswara College, University of Delhi	Jan 2017-May 2017
<b>Administrative Assignments</b>	<b>Year</b>
<b>VAC Coordinator</b>	Oct 2023-June 2023
<b>Placement Cell Representative</b>	July 2023-Present
<b>Mathematics Department Academic Society (TRIJYA) advisor</b> Organised various events including talks, society fest, paper presentation competition, cultural events, research lecture series	2021 – 2023
<b>Placement Cell Representative</b> Conducted interviews for the post of core team members, resume writing workshops, mock interviews, Excel workshops and various management-related work during company visits	2018 – 2023
<b>Science Society Advisor</b> Organized monthly quizzes, workshops, various science day events; conducted core team interviews	2020 – 2022
<b>NAAC:</b> Actively contributed in departmental techno-managerial activities in formulation of reports for NAAC peer team visit; member of refreshment committee during the visit	2022
Examiner of various papers at university level	2022,2023,2024
<b>Areas of Interest / Specialization</b>	
Algebra and Cryptography	
<b>Subjects Taught</b>	
<b>B. Sc. (H) Mathematics:</b>	

<p>Linear algebra Algebra Ring Theory Group theory II Computer algebra systems and related software (SEC)</p> <p><b>General Elective Course:</b> Linear algebra Numerical methods</p>	<p>Cryptography Ring theory II Multivariate calculus Mathematical Finance</p> <p><b>B. A. Program:</b> Analytic geometry and applied algebra Algebra</p>
Research Guidance and Examination	
<b>Co-supervision of Ph D thesis</b>	
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<b>Supervision of Post Graduate Dissertation</b>	
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<b>Examination of Ph. D, M. Phil, and Post Graduate Dissertations</b>	
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Publications Profile	
<b>Book</b>	
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<b>Book Chapter</b>	
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<b>Research Articles</b>	
Mentioned in APA format	
R. Gulati and Y.K. Rajoria, "Tensor decomposition of Hadamard matrices", Cryptography and Communications, 2024. (SCI) – Under Review	
R. Gulati and Y.K. Rajoria, "An error detecting code based on two quasigroups", Applicable algebra in Engineering, Communication and Computing, 2024. (SCI) – Under Review	

<b>Book Reviews</b>	
<b>Editorial Roles</b>	
<b>Study Materials</b>	
<b>Articles in Newspapers and Magazines</b>	
<b>Conference and Workshop</b>	<b>Dates</b>
<b>Paper Presentation in Conference</b>	
<b>Session Chair in Conference</b>	
<b>Participation in Workshop</b>	
Participated in National Level Workshop on <b>“CRYPTOGRAPHY: A RECENT TRENDS IN MATHEMATICS”</b> organized by the Department of Mathematics, Ram Lal Anand College	November 9,2022
<b>Organization</b>	
<b>Research Projects</b>	
<p>1. One-year research project on the topic <b>“Minimum Spanning Trees”</b> (Graph Theory) Under the supervision of Dr. B.S. Panda, <i>Department of Mathematics, IIT Delhi</i>  Analysed algorithms to determine all possible minimum spanning trees of a weighted connected graph; prepared a technical report on the study  Developed C++ and MATLAB codes to execute the programs based on it (2014-2015)</p>	

<p>2. Two-months research project on the topic “Field Theory and its Applications”, organized by Indian Academy of Sciences, Bengaluru under the supervision of Dr. Rupam Barman, <i>Department of Mathematics, IIT Delhi</i></p> <p>Explored the area of construction of finite fields and various methods to determine the irreducibility of polynomials over extension field and studied about Separable polynomials, Field Homomorphism’s and their properties and about Finite separable extensions and basics of Fundamental Theorem of Galois Theory (May-July 2015)</p>
<p><b>Awards and Distinctions</b></p>
<p>AIR 41 in UGC NET exam for Assistant Professor in Mathematics (Dec 2014)  AIR 103 in GATE Mathematics, organized by IIT Kanpur (2015)  AIR 56 in IIT JAM Mathematics, organized by IIT Delhi (2013)</p>
<p><b>Association with Professional Bodies</b></p>
<p><b>Membership of societies</b></p>
<p>Life Member of Cryptology Research Society of India (CRSI) with membership ID: L/1110</p>
<p><b>Membership of committees/ boards</b></p>
<p><b>Other Academic Activities</b></p>
<p>Completed 4 week Faculty Induction/ Orientation Programme.  Delivered special lecture on the topic of “Cryptography and its applications” during the research lecture series, held at Indraprastha College for Women, 2022  Participated in Computational Optimization Workshop held at Sri Venkateswara College, Feb 2016  Participated in National Level Workshop on Cryptography in November 2022  Worked with NGO (It’s your Earth), 2012-2014.</p>

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