

## Curriculum Vitae - Dr. Manisha Sinha

### Education:

Degree	Subjects	Colg/Univ.	Board/Institute	Year	Class
<b>B.Sc.</b>	Mathematics, Physics, Chemistry	K.S. Saket P.G. College, Ayodhya, U.P., India	Dr. Ram Manohar Lohia Avadh University, Faizabad, Uttar Pradesh, India	2006	First
<b>M.Sc.</b>	Mathematics and Statistics	Dr. Ram Manohar Lohia Avadh University, Faizabad, Uttar Pradesh, India	Dr. Ram Manohar Lohia Avadh University, Faizabad, Uttar Pradesh, India	2008	First
<b>PhD</b>	Computational Finance	Indian Institute of Technology Delhi, New Delhi, India	Indian Institute of Technology Delhi, New Delhi, India	2017	---

**Teaching Experience:** I have worked as Teaching Assistant(TA) in department of Mathematics, IIT Delhi for 4.5 years from August 2009 to December 2013 while pursuing my PhD. There I have taught the subject, cleared the doubts and helped the students in solving their tutorial sheets as well as course book exercise problems, conducted quizzes and corrected exam answer sheets. I have been TA to the students of the courses like BTech, MTech, MSc and Preparatory courses. I have done the invigilation duties during minor, major and other exams for 7 years. Following are the courses for which I have been TA:

- MAL517 Differential Equations
- MAL110 Mathematics I
- MAL124 Introduction to Algebra and Matrix Analysis
- MAL524 Numerical Analysis
- MAL518 Methods of Applied Mathematics
- MAL001 Preparatory Course
- MAL230 Numerical Methods and Computation

### Research Publications and Working Papers:

S N	Title of the Paper	Authors	Name of the Journal	Publication details (Vol., pp., Year, DOI)	Impact Factor	N o. of C i t a t i	Publisher
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1	Numerical solution of generalized Black-Scholes model	S Chandra Sekhara Rao, Manisha	Applied Mathematics and Computation (International)	321, 401-421, 2018, <a href="https://doi.org/10.1016/j.amc.2017.10.004">https://doi.org/10.1016/j.amc.2017.10.004</a>	4.364	10	Elsevier
2	High-order numerical method for generalized Black-Scholes model	S Chandra Sekhara Rao, Manisha	Procedia Computer Science (International)	80, 1765-1776, 2016, <a href="https://doi.org/10.1016/j.procs.2016.05.441">https://doi.org/10.1016/j.procs.2016.05.441</a>	0.88353	5	Elsevier
3	A Computational Technique for Asian Option Pricing Model	Manisha, S. Chandra Sekhara Rao	Computational Science - ICCS 2019, Lecture Notes in Computer Science (International)	11538, 326-339, 2019, <a href="https://doi.org/10.1007/978-3-030-22744-9_26">https://doi.org/10.1007/978-3-030-22744-9_26</a>	0.969	0	Springer International Publishing

1) Research Publications in national and international journals						
Sr. No.	Faculty Name	National / International	Title of paper alongwith name of Author/Co-authors	Name of the Journal	Impact Factor, if any	Details of Vol. and Issue etc. of Journal with date
1	Dr. Manisha Sinha	International	Numerical solution of generalized Black-Scholes model, with Prof. S. Chandra Sekhara Rao, Dept. of Mathematics, IIT Delhi	Applied Mathematics and Computation	4.364	321:401- 421, 2018
2	Dr. Manisha Sinha	International	High-order numerical method for	Procedia Computer Science	0.884	80:1765-1776, 2016

			generalized Black-Scholes model, with Prof. S. Chandra Sekhara Rao, Dept. of Mathematics, IIT Delhi			
3	Dr. Manisha Sinha	International	A Computational Technique for Asian Option Pricing Model, with Prof. S. Chandra Sekhara Rao, Dept. of Mathematics, IIT Delhi	Computational Science - ICCS 2019, Lecture Notes in Computer Science	0.969	11538:326-339, 2019

1) Conferences / Seminars / Workshops attended by Faculty Members

Sr. No.	Faculty Name	Type	Name of Faculty Member	Name of the Conference	Theme	Venue
1	Dr. Manisha Sinha	International	Dr. Manisha Sinha(attended)	Workshop on Financial Engineering	Financial Engineering	IIT Delhi, New Delhi
2	Dr. Manisha Sinha	International	Dr. Manisha Sinha(attended)	International Workshop on Advances in Computational Partial Differential Equation	Partial Differential Equation	BITS-Pilani, GOA Campus, Goa
3	Dr. Manisha Sinha	International	Dr. Manisha Sinha(attended)	International Workshop on Adaptive Finite Element Methods	Partial Differential Equation	IIST Trivandrum, Trivandrum
4	Dr. Manisha Sinha	National	Dr. Manisha Sinha(attended)	National Programme on Differential Equations: Theory,	Partial Differential Equation	IIT Delhi, New Delhi

				Computation and Applications		
5	Dr. Manisha Sinha	International	Dr. Manisha Sinha(attended)	Workshop on Mathematical Finance (WMF 2012)	Financial Engineering	IIT Guwahati, Guwahati
6	Dr. Manisha Sinha	International	Dr. Manisha Sinha(attended)	Computational Techniques and Mathematical Modeling	Partial Differential Equation	Department of Mathematics, South Asian University, New Delhi
7	Dr. Manisha Sinha	International	Dr. Manisha Sinha(attended)	Orthogonal Spline Collocation Methods (OSCM) for Partial Differential Equations	Partial Differential Equation	Department of Mathematics, South Asian University, New Delhi
8	Dr. Manisha Sinha	International	Dr. Manisha Sinha(paper presented)	Recent Advances in Theoretical and Computational Partial Differential Equations with Applications	Partial Differential Equation	Panjab University, Chandigarh

### Awards/Scholarships

- GATE (Graduate Aptitude Test in Engineering) 2009, Score 505, Percentile 97.36, All India Rank 67
- National Board for Higher Mathematics (NBHM) Ph.D. Scholarship, 2009, Department of Atomic Energy (DAE), Government of India.
- NET (National Eligibility Test) (JRF (Junior Research Fellowship) and Lectureship), UGC- CSIR, June 2009

- NET (National Eligibility Test) (Lectureship), UGC-CSIR, December 2008