# Dr. Manisha Saini

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## **Education**

•	2016 - 2022	Ph.D. Mathematics
		Department of Mathematics, University of Delhi.
		Thesis title:
		The Growth of Solutions of Complex Differential
		Equations with Entire Coefficients
		Supervisor: Prof. Sanjay Kumar
		Department of Mathematics
		Deen Dayal Upadhyaya College
		University of Delhi, Delhi, India
•	2012 - 2015	M.Phil. Mathematics
		Department of Mathematics, University of Delhi.
		Thesis title:
		Nevanlinna Theory and Normal Families
		Supervisor: Prof. Sanjay Kumar
		Department of Mathematics
		Deen Dayal Upadhyaya College
		University of Delhi, Delhi, India
•	2010 - 2012	M. Sc. Mathematics
		Ramjas College, University of Delhi.
•	2007 - 2010	B. Sc.(Hons) Mathematics
		Ramjas College, University of Delhi.
•	2005 - 2007	Higher Secondary
		Haryana board of school education.
•	2003 - 2005	High School
		Haryana board of school education.

#### Academic achievements

- College topper, M. Sc. (Previous) Mathematics, 2011.
- Third rank in university, M. Sc. (Previous) Mathematics, 2011.
- College topper, M. Sc. (Final) Mathematics, 2012.
- JUNIOR RESEARCH FELLOWSHIP, UGC, India
- SENIOR RESEARCH FELLOWSHIP, UGC, India

#### <u>Research interest</u>

Function theory in one complex variable, Differential Equation.

#### **Publications**

- D. Kumar, S. Kumar and M. Saini: On solutions of second order complex differential equations, Bull. Cal. Math. Soc. 111, no. 4, 331-340 (2019).
- S. Kumar and M. Saini: On zeros and growth of solutions of second-order linear differential equation, Commun. Korean Math. Soc. 35, no. 1, 229-241 (2020), MR4060211, Zbl 07272986.
- S. Kumar and M. Saini: Order and hyper-order of solutions of second-order linear differential equations, Bull. Malays. Math. Sci. Soc. 44, no. 2, 1035-1056 (2021), MR4217100.
- D. Kumar and M. Saini: The growth of solutions of non-homogeneous linear differential equations, Kodai Math. J. 44, no. 3, 556-574 (2021).
- G. Pant and M. Saini: Infinite order solutions of second order linear differential equations, Communicated [arXiv: 2102.11748v1].
- S. Kumar, N. Mehra and M. Saini: Growth of Solutions of Second Order Linear Differential Equations, Communicated [arXiv: 2001.10729].
- G. Pant and M. Saini: Study of Solutions of Certain Kind of Non-Linear Differential Equations, Communicated [arXiv: 2202.04062].

#### Conferences/ Workshops/ Lecture series attended

- 2019
  - Mini Symposium in Mathematics, Department of Mathematics, Deen Dayal Upadhyaya College, University of Delhi, February 22-23, 2019.
  - Real Analysis: From Elementary to Advanced, Department of Mathematics, Ramanujan College, University of Delhi, October 25, 2019.
- 2018

- The 33<sup>rd</sup> Annual Conference of The Ramanujan Mathematical Society, Department of Mathematics, University of Delhi, June 1-3, 2018.
- Advanced Instructional School on Several Complex Variables, Indian Institute of Science, Bangalore, June 11-23, 2018.

• 2017

- Research Scholar Seminar & Annual Conference of the Society of Mathematical Sciences (Delhi), Department of Mathematics, University of Delhi, May 1-2, 2017.
- 2016
  - Complex Analysis: Geometric and Dynamical Aspects, CEMS, Department of Mathematics, Kumaun University, SSJ campus Almora, November 14 – 19, 2016.

• 2015

Workshop on Research Metrics, Research Council & Delhi University Library System, University of Delhi, February 26, 2015.

• 2013

- Workshop on Information Literacy & Competency, Delhi University Library System, University of Delhi, January 17, 2013.
- Matlab and Simulink Academic Tour 2013 of MathWorks, Cluster Innovation Centre, University of Delhi, September 23, 2013.

• 2012

 The Legacy of Srinivasa Ramanujan, Department of Mathematics, University of Delhi, December 17-22, 2012.

### **Teaching Experience**

- Assistant professor in Keshav Mahavidyalaya, University of Delhi.
  - February 2022 October 2022.
- Assistant professor in Daulatram College, University of Delhi.
  - July 2015 November 2016.
- Conducted tutorial classes for M.A./ M. Sc. Mathematics for
  - Advanced Complex Analysis for the academic year 2017-2018, 2018-2019 and 2019-2020.
  - Functional Analysis for the academic year 2018-2019.
  - Differential Geometry for the academic year 2020-2021.
- Conducted JAM classes at Department of Mathematics, Deen Dayal College, University of Delhi

- Differential Equations for the session 2018-2019.
- Differential Equations for the session 2019-2020.
- Differential Equations for the session 2020-2021.

#### **Paper Presentation**

- Presented a paper entitled "On zeros and growth of solutions of second-order linear differential equations" at National Research Scholars' Seminar held at Department of Mathematics, University of Delhi dated on December 28, 2018.
- Presented a paper entitled "Order and hyper-order of solutions of second-order linear differential equations" at Mini-Symposium in Mathematics held at Department of Mathematics, Deen Dayal Upadhyaya College dated on February 22-23, 2019.
- Presented a paper entitled "Non-existence of finite order solution of non-homogeneous linear differential equations" at Research Seminar in Mathematical Sciences held at Department of Mathematics, Deen Dayal Upadhyaya College dated on January 23, 2020.
- Presented a paper entitled "Order and hyper-order of solutions of second-order linear differential equations" at International Web-Conference on Complex Analysis and Differential Geometry: Revisiting held at Sidho-Kanho-Birsha University dated on June 29-30, 2020.
- Presented a paper entitled "Infinite order solutions of second-order linear differential equations" at National Conference on Pure & Applied Mathematics held at Department of Mathematics, NIT Manipur dated on March 6-7, 2021.