Title	**Dr.**	First Name	**SULEKHA**	Last Name	**RANI**	Photograph
Designation		ASSISTANT PROFESSOR				
Address		Department of Mathematics Indraprastha College for Women, 31, Sham Nath Marg, Civil Lines, New Delhi-110054				
Phone No (Office)						
Residence		Vill- Mehermati Meena, Post- Dabathwa, Distt. Meerut, (UP)				
Mobile						
Email		sulekha@ip.du.ac.in				
Webpage Orcid ID Vidwan ID Research Gate ID Google Scholar ID		0009-0001-7132-4294 473413 Sulekha.math@gmail.com sulekha@ip.du.ac.in				

Educational Qualifications		
Degree	Institution	Year
Ph. D.	Shobhit University, Meerut	2012
M. Phil. (Mathematics)	Shobhit University, Meerut	2008
M.Sc. (Mathematics)	C.C.S. University, Meerut	2007
B.Sc. (CSE)	R.D.V.V., Jabalpur (M.P.)	2005

Career Profile
Assistant Professor (Permanent), Department of Mathematics, IP College for Women, New Delhi, September 2023 to present
Assistant Professor (on Ad-Hoc), Department of Mathematics, IP College for Women, New Delhi, July 2019- Sept 2023.

Assistant Professor, Department of Mathematics, SRM Institute of Science & Technology, 1 October, 2012 - July 24, 2019.	
Administrative Assignments	Year
Workload Co-convener	Present
Quiz Society	June 2023-Till Date
NSS Committee Member	January 2024-till date
Web Portal Committee Member	December 2022-December 2023
Advisor: Academic Society Committee	August 2020- April 2023
Outreach Program Committee Member	August 2019- March 2021
Areas of Interest / Specialization	
Engineering Mathematics, Differential Equations, Operation Research, Reliability Engineering & Theory, Probability and Statistics	
Subjects Taught	
Engineering Mathematics, Differential Equations, Operation Research, Numerical Methods, Probability and Statistics, Calculus, Mathematical Language- Mathematica.	
Research Guidance and Examination	
Co-supervision of Ph D thesis	
NA	
Supervision of Post Graduate Dissertation	
NA	
Examination of Ph. D, M. Phil, and Post Graduate Dissertations	
NA	
Publications Profile	
Book	
NA	
Book Chapter	
NA	
Research Articles	

Mentioned in APA format
Rani. S., Agarwal. P. and Solanki, R (2021): A Software Reliability Growth Model considering Testing Coverage Subject to Field Environment. Published in International Journal of Mathematics in Operations Research, Vol. 18, No. 2, pp. 145-153.
P. Agarwal, S. Rani and S. Bansal (2019): A SRGM using Time Dependent Delay Effect in Fault detection and Removal Phenomenon. Published in International Journal of Innovative Technology and Exploring Engineering (IJITEE), Vol. 8, No. 7C2, pp. 1-5.
M. Jain and Rani, S. (2014): Transient Analysis of Hardware and Software Systems with Warm Standbys and Switching Failures. Published in International Journal of Mathematics in Operations Research, Vol. 6, pp. 1-28.
M. Jain and Rani, S. (2013): Availability Analysis for Repairable System with Warm Standby, Switching Failure and Reboot Delay. Published in International Journal of Mathematics in Operations Research, Vol. 5, pp. 19-39.
M. Jain and Rani, S. (2011): Availability Analysis of Imperfect Fault Coverage System with Reboot and Common Cause Failure. Published in Proceeding International Conference on Advances in Modeling, Optimization and Computing (AMOC-2011), ISBN 81-86224-71-2, pp. 433-442.
M. Jain and Rani, S. (2011): Availability of Hardware - Software System with Standbys, Switching Failure and Reboot Delay. Published in Journal, Mathematics Today, Vol. 27, pp. 100-116.
Jain, M. and Rani, S. (2010): **Reliability Modeling of Software Fault Tolerance in A Clustered Architecture.** Published in International Journal of Information and Computer Science (IJICS), Vol. No. 13, No. 2, December, 2010.
Jain, M., Agrawal, S. C. and Rani, S. (2010): Availability Analysis of Embedded Computer system with two types of Failure and Common Cause Failure. Published in Journal of International Academy of Physical Sciences. Vol. 14, No. 4, pp. 439-448.
Jain, M., Agrawal, S. C. and Rani, S. (2010): Reliability Modeling of Hardware and Software Interactions. Published in Journal, Mathematics Today, Vol. 26, pp. 46-57.
Jain, M., Agrawal, S. C. and Rani, S. (2010): Reliability Analysis of Distributed Software and Hardware System. Published in International Journal of Information and Computer Science (IJICS), Vol. 13, No. 3, pp. 1-11.
Book Reviews

NA	
Editorial Roles	
NA	
Study Materials	
NA	
Articles in Newspapers and Magazines	
NA	
Conference and Workshop	Dates
Paper Presentation in Conference	
Performance Analysis of TEFs based SRG Modelling in Perfect and Imperfect Debugging Environment was presented in International Conference on Mathematical Sciences and Its Applications to Artificial Intelligence (ICMSAAI – 24) at the Department of Mathematics SRM University Delhi NCR, Sonipat, Haryana.	January 17-19, 2024
Reliability Prediction of K-out of N: G system with Imperfect Fault Coverage with Reboot and Switching Failure was presented in 2019 MTMI International Conference on 'Emerging Issues in Business, Technology and Applied Sciences' held at Ebene, Mauritius.	December 20-22, 2019.
Analysis of Availability with Warm Standbys, reboot, Imperfect Coverage with Switching failures was presented in 21st Annual Conference of Vijnana Parishad of India on Modeling, Optimization and Computing for Technological and Sustainable Development (MOCTSD-2019)" held at SRM IST, Modinagar.	April 26-28, 2019
Assessment of NHPP-Based Software Reliability Growth Model for N-version Programming with Testing-Effort and Imperfect Debugging was presented in 9th International Conference on 'Quality, Reliability, Infocom Technology & Business Operations (Trends and Future Directions)' held at University of Delhi.	December 27-29, 2018
Semi-Markov Modeling Approach for Availability Prediction of Imperfect Fault Coverage with Reboot and General Failure was presented in 2018 MTMI International Conference on 'Emerging Issues in Business, Technology and Applied Sciences' held at University of Maryland Eastern Shore, USA.	December 22-23, 2018.

सामान्य कारण विफलता के साथ सॉफ्टवेयर और हार्डवेयर सिस्टम के लिए अर्ध नवीकरण प्रक्रियाएं was presented in National Conference on 'Modeling, Optimization and Computing For Engineering Problems: Use Of Technical Hindi Terminology' held at IIT Roorkee, Roorkee.	Oct. 12-14, 2018
Software Reliability Growth Model with N-version Programming, Testing-Effort and Imperfect Debugging was presented in International Conference on 'Recent Trends in Operations Research and Statistics' held at IIT Roorkee, Roorkee.	December 28-30, 2017
Faculty Co-ordinator of the conference on Conference on Advance Techniques & Devices in Mathematics & Physical Science (An International Meet) held at SRM University, Modinagar.	January 23-25, 2015
Organizer in the National Workshop on National Workshop on Mathematical Analysis and Matlab (NWMAM), held at SRM University, NCR Campus, Modinagar.	October 25, 2013
Organizer in the National Workshop on National Workshop on Mathematical Analysis and Modelling (NWMAM), held at SRM University, NCR Campus, Modinagar.	April 05, 2013
Availability of Hardware - Software System with Standbys, Switching Failure and Reboot Delay was presented in National Conference on Mathematical Analysis and Modelling (MCMAM-2012), Modinagar.	March 30-31, 2012
Availability Analysis of Imperfect Fault Coverage System with Reboot and Common Cause Failure was presented in International Conference on 'Advances in Modeling, Optimization and Computing (AMOC-2011)' IIT Roorkee, Roorkee.	December 5-7, 2011
Availability Analysis of K-out-of-N: G system with Two Types of Failure and Common Cause Failure was presented in '11th International Conference of International Academy of Physical Sciences', Allahabad.	February 20-22, 2010
Reliability Analysis of Distributed Software and Hardware Systems was presented in Annual Conference of Vijnana Parishad of India & National Symposium, Guna.	December 4-6, 2009
Reliability Modeling of Hardware and Software Interactions was presented in '11th National Conference of Indian Society of Information Theory and Applications (ISITA)', Amritsar.	October 24-26, 2009
Reliability Modelling of Software Fault Tolerance in a Clustered Architecture was presented in 14th Annual Conference of Gwalior Academy of Mathematical Sciences (GAMS) And A Symposium on Computational Mathematics and its Application to Engineering, Management and Biology, Gwalior.	July 17-19, 2009

Session Chair in Conference	
International Conference on Mathematical Science and Its Applications to Artificial Intelligence at Department of Mathematics SRM University Delhi NCR, Sonipat, Haryana	January 17 -19 January, 2024.
Participation in Workshop	
Participated in International Workshop System Modelling and Artificial Intelligence (SMAI-2021) organized by Department of Mathematics & Statistics, School of Basic Science, Manipal University Jaipur, Rajasthan.	July 26-30 , 2021.
Participated in the Three Days International Workshop on Implementation of Machine Learning Algorithms by Python organized by A2Z Education Learning Hub.	June 21-23, 2022
Participated in One week Online National Workshop" Mathematical Modelling with Simulation in Applied Sciences" organized by Department of Mathematics, Central University of Haryana, Haryana.	May 22-26, 2023.
Participated in Workshop on Typesetting Indian Language using Latex, organized by Department of Mathematics, University of Delhi, Delhi.	March 21-23, 2024.
Organization	
Organizing Secretary of the conference on 21st Annual Conference of Vijnana Parishad of India on Modeling, Optimization and Computing for Technological and Sustainable Development (MOCTSD-2019) held at SRM IST, Modinagar.	April 26-28, 2019.
Faculty Co-ordinator of the conference on Conference on Advance Techniques & Devices in Mathematics & Physical Science (An International Meet)' held at SRM University, Modinagar.	January 23-25, 2015.
Organizer in the National Workshop on National Workshop on Mathematical Analysis and Matlab (NWMAM), held at SRM University, NCR Campus, Modinagar.	October 25, 2013
Organizer in the National Workshop on 'National Workshop on Mathematical Analysis and Modelling (NWMAM), held at SRM University, NCR Campus, Modinagar.	April 05, 2013
Research Projects	
NA	
Awards and Distinctions	

NA

Association with Professional Bodies

Membership of societies

Vijnana Parishad of India

MathTech Thinking Foundation

Membership of committees/ boards

Life Membership of VPI (Vijnana Parishad of India) LMVPI/2018/254
Life Membership of MTTF (MathTech Thinking Foundation) MTTF11065682

Other Academic Activities

1. NPTEL Online Course – Introduction to R Software, 6 Aug.-28 Sept. 2018. (Eight Week Course).
2. Participated in Faulty Development Program on Application of MATLAB for Scientific & Engineering Computations, organized by Department of Mathematics, Faculty of Science & Humanities, SRM University Delhi-NC, Sonepat, Haryana, 18-23 November 2019.
3. Participated in One Week Faculty Development Program on LaTeX & Xfig organized by IQAC, A.N. College, Patna in association with Indian Institute of Technology-Bombay through Spoken Tutorial, Remote Learning, 11-17 May,2020
4. Attended a Programme on R-Programming" conducted by the Department of Management Studies, Dayananda Sagar College of Engineering, Bangalore, 25-26 June 2020.
5. Participated in One Week online Faculty Development Programme on Soft Computing Techniques and their Applications, organized by the Department of Mathematics of Jaypee Institute of Information Technology, Noida, 13-18 July 2020.
6. Participated in One Week Online Short-Term Training Program on Matlab-Statistics and Data Science organized by Department of Applied Science, Sagar Institute of Research & Technology, Bhopal, 27 july-1 August, 2020.
7. Participated in One week Faculty Development Programme E-Learning and Developing MOOCs for Teaching Process in Higher Education organized by Department of Statistics and Internal Quality Assurance, Hindu College, University of Delhi, Delhi, 14-20 December 2020.
8. Participated in One week Faculty Development Programme ICT-Based Learning and Developing MOOCs for Teaching Process in Higher Education organized by Ministry of Education, Pandit Madan Mohon Malviya National Mission on Teachers and Teaching Learning Centre, Ramanujan College, University of Delhi, Delhi, 29 December 2020-4 January 2021.
9. Participated and Completed AICTE Training and Learning Academy Online FDP on "Recent Development in Mathematical Sciences and Engineering" organized by Maharshi Dayanand University, Rohtak, 22-26 December 2021.
10. Participated in Six Days Online International Faculty Development Programme Role of Optimization in Computational Mathematics, Supply Chain Management & Engineering

organized by SRM Institute of Science and Technology, Delhi-NCR Campus, Ghaziabad. 23-28 May, 2022.

11. Participated in Five Days Online Faculty Development Programme Statistical Analysis & Machine Learning Using R Programming organized by Institute Research Committee, Symbiosis Centre for Management Studies, Noida, 27 31 March, 2023.
12. 10-Days National Online Faculty Development Program on *Creating an Inclusive Learning Environment"* organized by the Department of Physics, SRMIST, Delhi-NCR Campus, Ghaziabad, U.P. 24 July-3 Aug., 2023.
13. "Online Induction Training/ Orientation Programme for Faculty in Universities/Colleges/Institutions of Higher Education organized by Teaching Learning Centre, Ramanujan College, University of Delhi, 22 November-21 December 2023.
14. Participated One Day National Mathematics Day Symposium organized by School of Physical Sciences, Jawaharlal Nehru University, Delhi. 22 Dec. 2023.
15. Participated Short Term Course on Latex Programming organized by Department of Mathematics, NIT Jamshedpur, Jharkhand, 1-5 April, 2024.
16. Participated in one week Faculty Development Programme on 6th NEP Orientation & Sensitization Programme organized by Malaviya Mission Teacher Training Centre, Shri Ram College of Commerce (MMTTC, SRCC) under the Malaviya Mission Teacher Training Programme (MMTTP) of the Ministry of Education, Government of India, 19-28 June, 2024
17. Participated in Two Week Faculty Development Program on MATLAB for Engineers and Scientists: Bridging Theory and Application" organized by the ICFAI University, Jaipur and Moulay Ismail University MOROCCO & Math Tech Foundation, India, 18-31 July 2024.



Dr. Sulekha Rani