



## Faculty Details proforma for DU Web-site

(PLEASE FILL THIS IN AND Email it to [websiteDU@du.ac.in](mailto:websiteDU@du.ac.in) and  
cc: [director@ducc.du.ac.in](mailto:director@ducc.du.ac.in))

Title	Dr.	First Name	Suruchi	Last Name	Singh	Photograph
Designation		Assistant Professor				
Address		12-BD, Gayathri Apt., Sec. 9, Rohini, New Delhi-110085				
Phone No	Office	011-27751317				
	Residence					
	Mobile	9818954418				
Email		ssuruchi2005@yahoo.co.in				
Web-Page						
<b>Educational Qualifications</b>						
Degree		Institution			Year	
B.A.(Hons.)Mathematics		Laxmi Bai College, University of Delhi			1995	
M.A. (Mathematics)		Ramjas College, University of Delhi			1997	
M. Phil.		Department of Mathematics, University of Delhi			1999	
Ph.D.		Department of Mathematics, University of Delhi			2012	
<b>Career Profile</b>						
Position held		Period		Nature of Work		University/Institution
Lecturer (Temporary)		30th Jul 1998- to -13th Dec 1999		Teaching & Research		Sri RamCollege of Commerce, D.U.
Assistant Professor (Permanent)		14th Dec 1999- to -Present Day		Teaching & Research		Aditi Mahavidyalaya, D.U.
<b>Administrative Assignments</b>						
Bursar						
<b>Areas of Interest / Specialization</b>						
Numerical Analysis/ Computational Methods for Differential Equations						
<b>Subjects Taught</b>						
Calculus, Differential Equations, Probability & Mathematical Statistics ,Numerical Analysis, Real Analysis, Co-ordinate Geometry, Algebra.						
<b>Research Guidance</b>						
Nil						
<b>Publications Profile</b>						

**List of Research Papers Published:**

- [1] R.K. MOHANTY and SURUCHI SINGH, "High Accuracy Numerov Type Discretization for the Solution of One Space Dimensional Non-Linear Wave Equation with Variable Coefficients", *Journal of Advanced Research in Scientific Computing*, Vol. 03, pp. 53-66 (2011).
- [2] R.K. MOHANTY and SURUCHI SINGH, "A New High Order Approximation for the Solution of Two-Space Dimensional Quasi-Linear Hyperbolic Equations", *Advances in Mathematical Physics*, Vol. 2011, Article ID 420608, 22 pages, doi:10.1155/2011/420608 (2011).
- [3] R.K. MOHANTY and SURUCHI SINGH, "High Order Variable Mesh Approximation for the Solution of 1D Quasi-Linear Hyperbolic Equations", *International Journal of Nonlinear Science*, Vol. 14(No.2), pp. 220-227 (2012).
- [4] SURUCHI SINGH, SWARN SINGH and R.K. MOHANTY, "High Accuracy Cubic Spline Approximation on a Geometric Mesh for the Solution of 1D Non-linear Wave Equations", *Journal of Mathematical and Computational Science*, Vol. 2, No.4, pp. 1126-1143 (2012).
- [5] R.K. MOHANTY, M.K.JAIN and SURUCHI SINGH, "A New Three- Level Implicit Cubic Spline Method for the Solution of 1D Quasi-Linear Hyperbolic Equations", *Computational Mathematics and Modeling*, Vol. 24(No.3), pp. 452-470 (2013).
- [6] SWARN SINGH, SURUCHI SINGH, and R.K. MOHANTY, "A New High Accuracy Off-Step Discretisation for the Solution of 2D Non-linear Triharmonic Equations", *East Asian Journal on Applied Mathematics*, Vol. 3(No. 3), pp. 228-246 (2013).
- [7] R.K. MOHANTY, SURUCHI SINGH and SWARN SINGH, "A New High Order Space Derivative Discretization for 3D Quasi-linear Hyperbolic Partial Differential Equations", *Applied Mathematics and Computation*, Vol. 232, pp. 529-541 (2014).
- [8] RAJNI ARORA, SURUCHI SINGH and SWARN SINGH, "Exponential B-spline Collocation for the Numerical Solution of One Space Dimensional Non-linear Wave Equation with Strong Stability Preserving Time Integration", *International Journal of Advance Research In Science and Technology*, Vol. 4, Issue 11, pp. 102-113, ISSN:2319-8354 (2015).
- [9] SWARN SINGH, SURUCHI SINGH and RAJNI ARORA, "New Highly Accurate Stable Schemes for the Solution of Telegraphic Equation with Neumann Boundary Conditions" Accepted for publication in the Journal "Neurallal Parallel and Scientific Computation"

**List of Books Published:**

- [1] Co-authored a book "Solid State Geometry" published by "Macmillan India Ltd." in January 2006.

**Conference Organization/ Presentations (in the last three years)**

*Nil*

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

*Nil*

**Awards and Distinctions**

- (a) Professor Ram Behari Medal for being the best candidate in M.A./ M.Sc. (Mathematics) Examination in Delhi University held in 1997.
- (b) Shrimati Sivakamma Radhakrishnan Medal for being the best women candidate in M.A. Examination in Delhi University held in 1997.
- (c) J.N. Mitra Memorial Medal for being the best candidate in M.A./M.Sc. Examination in Delhi University in Mathematics, Statistics, Physics (taken together) held in 1997.
- (d) Shri Ram Chandra Memorial Medal for being the best candidate in M.A./M.Sc. (All Subjects) Examination in Delhi University held in 1997.
- (e) Awarded Junior Research Fellowship in M.Phil. from U.G.C./C.S.I.R.
- (f) Selected for Raman Fellowship for Post- Doctoral Research at North Carolina State University, USA for 2015-2016.

<b>Association With Professional Bodies</b>
<p>[1] Life member of Indian Mathematical Society, INDIA  [2] Life member of Ramanujan Mathematical Society, INDIA</p>
<b>Other Activities</b>
<p>(a) Participated in the International Conference on “Function Spaces and Applications to Partial Differential Equations” organized by the Department of Mathematics, University of Delhi, Delhi at South Campus during December 15-19, 1997.</p> <p>(b) Participated in the conference on “Functional Analysis and its Applications” organized by the Department of Mathematics, University of Delhi, during January 22-25, 1999.</p> <p>(c) Participated and presented a paper entitled “High Accuracy Numerov Type Discretization for the Solution of One Space Dimensional Non-Linear Wave Equation with Variable Coefficients”, in the national seminar for research scholars held at Department of Mathematics, University of Delhi during March 24-25, 2012.</p> <p>(d) Participated in International Conference “The Legacy of Srinivasa Ramanujan” conducted by University of Delhi from December 17-22, 2012.</p> <p>(e) Participated in “Symposium on Computational Techniques and Mathematical Modeling” conducted by the Department of Mathematics, South Asian University from April 5-6, 2013.</p> <p>(f) Participated in the workshop on “Information Technology” conducted by C.P.D.H.E., University of Delhi from May 28-30, 2013.</p>

Signature of Faculty Member

- You are also requested to also give your complete resume as a DOC or PDF file to be attached as a link on your faculty page.