DEPARTMENT OF MATHEMATICS
DYAL SINGH COLLEGE, UNIVERSITY OF DELHI
FACULTY DETAIL

Title	Dr.	First Name	Akanksha	Last Name	Verma	Photograph
Designation		**Assistant Professor**				
Address		**144/9, T4, Mohan Bhawan, Gaushala Marg, Kishangarh, New Delhi-110070.**				
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Residence						
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Email		**Akankshaverma.maths@dsc.du.ac.in**				
Web-Page		**http://dsc.du.ac.in/faculty/**				

Educational Qualifications		
Degree	Institution	Year
High School	**Bal Vidya Mandir Inter College, Kanpur**	**2007**
Intermediate	**Bal Vidya Mandir Inter College, Kanpur**	**2009**
Graduation (B.Sc.)	**Chhatrapati Shahu Ji Maharaj University, Kanpur**	**2012**
Post-graduation (M.Sc.)	**Indian Institute of Technology Roorkee, Roorkee**	**2014**
PhD	**Motilal Nehru National Institute of Technology Allahabad, Prayagraj**	**2022**

Career Profile

I am an assistant professor in Department of Mathematics, Dyal Singh College, University of Delhi. My research area is numerical solutions of the differential equations and find the error bound of such solutions.

Administrative Assignments (From 1st July 2017 onwards)

NA

Areas of Interest / Specialization

Artificial Neural Networks, Numerical Analysis, Differential Equations, Fractional Differential Equations, (Singular Initial/Boundary Value Problems).

Subjects Taught

Differential Equations, Discrete Mathematics, Partial Differential Equations and Transform, Mathematical Foundation of Computer Science.

Research Guidance

NA

Publications Profile (From 1st July 2017 onwards)

1. P. Verma, S. Tiwari and **A. Verma,** *Theoretical and Numerical Analysis of Fractional Order Mathematical Model on Recent COVID-19 Model Using Singular Kernel*, Proceedings of the National Academy of Sciences, India, Section A: Physical Sciences, 2022. https://doi.org/10.1007/s40010-022-00805-9

2. **A. Verma** and M. Kumar, *Multilayer Perceptron Artificial Neural Network Approach to Solve Sixth-Order Two-Point Boundary Value Problems*, In: Singh, J., Anastassiou, G.A., Baleanu, D., Cattani, C., Kumar, D. (eds) Advances in Mathematical Modelling, Applied Analysis and Computation. Lecture Notes in Networks and Systems, vol 415. Springer, Singapore, 2022. https://doi.org/10.1007/978-981-19-0179-9_5

3. **A. Verma** and M. Kumar, *Numerical Solution of Third-Order Emden-Fowler type equations using artificial neural network technique*, The European Physical Journal Plus, 2020, Vol. 135, No. 751, pp. 1-14 DOI: https://doi.org/10.1140/epjp/s13360-020-00780-3.

4. **A. Verma** and M. Kumar, *Numerical Solution of Bagley-Torvik Equations Using Legendre Artificial Neural Network Method*, Evolutionary Intelligence, 2020. DOI: https://doi.org/10.1007/s12065-020-00481-x.

5. **A. Verma** and M. Kumar, *Multilayer Perceptron Artificial Neural Network: A Review*, Multilayer Perceptron Theory and Application, 2020. Nova Science Publishers, New York, ISBN: 978-1-53617-364-2.

6. **A. Verma** and M. Kumar, *Numerical Solution of Lane-Emden type Equations Using Multilayer Perceptron Neural Network Method*. International Journal of Applied and Computational Mathematics, 2019, Vol. 5, No. 141, pp. 1-14. DOI: https://doi.org/10.1007/s40819-019-0728-6.

7. S. Srivastava, **A. Verma** and M. Kumar, *An Elliptic Interface Problem: A Review*, Applied Mathematics & information sciences Letters, 2019, Vol. 7, No. 3, pp. 51-59. 10.18576/amisl/070301.

Conference Organization/ Presentations (From 1st July 2017 onwards)

1. **A. Verma** and M. Kumar: *Numerical Solution of Lane-Emden type Equations Using Multilayer Perceptron Neural Network Method*, International Conference on Differential Equations and Control Problems- Modeling, Analysis and Computations, Indian Institute of Technology Mandi, Mandi, India in July, 2019.

2. **A. Verma** and M. Kumar: *Numerical Solution of Bagley-Torvik Equations Using Legendre Artificial Neural Network Method*, International Conference on Computational Mathematics and its Application, Indian Institute of Technology Indore, Indore, India in November, 2019.

3. **A. Verma** and M. Kumar: *Numerical Solution of Third-Order Emden-Fowler type equations using artificial neural network technique*, 3*rd* International Conference on Mathematical Modeling, Applied Analysis and Computation, JECRC University, Jaipur, India in August, 2020.

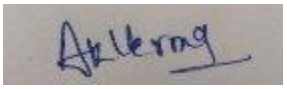
4. **A. Verma** and M. Kumar: *Multi-layer Perceptron Artificial Neural Network Approach for Solving Sixth-Order Two-Point Boundary*, Advances in Differential Equations and Numerical Analysis, Indian Institute of Technology Guwahati, Guwahati, India in October, 2020.

Research Projects (Major Grants/Research Collaboration) (From 1st July 2017 onwards)

Awards and Distinctions (From 1st July 2017 onwards)

Association With Professional Bodies

Other Activities like MOOCs/ Patents etc. (From 1st July 2017 onwards)



Signature of Faculty Member