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

Title	Dr.	First Name	Neelesh	Last Name	Kumar	Photograph
Designation	Assistant Professor					
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Educational Qualifications

Degree	Institution	Year
Ph.D. (Mathematics)	South Asian University, New Delhi	2018
M.Phil. (Mathematics)	University of Delhi	2012
M.Sc. (Mathematics)	Banaras Hindu University, Varanasi	2010
B.Sc. (Mathematics)	Bundelkhand University, Jhansi	2008

Career Profile

➢ Jan. 2023—Present ----Assistant Professor in Dyal Singh College, University of Delhi, New Delhi

➢ Nov. 2020 – Dec. 2022--Assistant Professor in Sri Venkateswara College, University of Delhi, New Delhi

➢ Dec. 2017– Oct. 2020 --Postdoctoral Fellow in Sir CV Raman Research Institute, SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu.

Administrative Assignments (From 1st July 2017 onwards)

➢ **Co-coordinator** of **Criterion VI Governance and Management IQAC**, Sri Venkateswara College, University of Delhi, 2022.

➢ Member of **Monitoring Committee for COVID protocol** , Sri Venkateswara College, University of Delhi, Feb 2022.

➢ Member of **NAAC Activities team** of BA(P), Sri Venkateswara College, University of Delhi, 2021-22.

➢ Member of the **Examination Committee** of the Department of Mathematics, Sri Venkateswara College, University of Delhi in 2022.

➢ Member of the **Magazine Committee** of the Department of Mathematics, Sri Venkateswara College, University of Delhi in 2021.

Areas of Interest / Specialization
● Numerical Analysis, Numerical methods for Partial Differential Equations

Subjects Taught
➢ Differential Equations, Probability and Statistics.
➢ C++ Programming, Statistical Software R, Mathematica.
➢ Elementary Real Analysis, Algebra, Linear Algebra, Calculus.
➢ Analytical Geometry, Vedic Mathematics-I.

Research Guidance
Guided 9 students of B.Sc (H) Mathematics, Semester- II in SRIVIPRA research project (SVP-2137) of Sri Venkateswara College, University of Delhi during 03-07-2021 to 31-08-2021.

Publications Profile (From 1st July 2017 onwards)
● **Neelesh Kumar*** and Ritesh Kumar Dubey**, "**A new development of a sixth order accurate compact scheme for the Helmholtz equation", **Journal of Applied Mathematics and Computing, 62** (2021), 637-662**.**
● **Neelesh Kumar*, "**A new high order accurate finite difference method on Quasi-variable meshes for the numerical solution of three dimensional Poisson equation", **Differential Equations and Dynamical Systems**, (2019) 1–14.
● Jha, Navnit, **Neelesh Kumar**, "A fourth-order accurate quasi-variable mesh compact finite-difference scheme for two-space dimensional convection-diffusion problems", **Advances in Difference Equations** (2017) 2017:64.
● Jha, Navnit, **Neelesh Kumar**, "On the Convergence of Compact Arithmetic Averaging Scheme for Semi-linear 2d-elliptic Equations and Estimates of Partial Derivatives", International Journal of Nonlinear Science, 23(1) (2017) 33-45**.**.

Conference Organization/ Presentations (From 1st July 2017 onwards)
➢ Presented a paper on "**A fourth-order quasi-variable meshes compact finite-difference scheme for two-space dimensions convection-diffusion problems**", in an International Conference on Mathematics & Applications, Ramjas College, University of Delhi, Delhi, India, 2017.
➢ Presented a paper on "**Third order non-uniform mesh compact finite difference method adopted for two-dimensional elliptic equations**", in an International Conference on Recent Advances in PDEs: Theory, Computations and Applications, IIT Bombay, India, 2017.

➢ Presented a paper on "**A New High Order Accurate, Finite Difference Method on Quasi-variable Meshes for the Numerical Solution of Three Dimensional Poisson equation**", in an International Conference on Nonlinear Differential Equations-Theory, Modeling and Computations, Research Institute, SRM Institute of science and Technology, Tamil Nadu, 2017.

Research Projects (Major Grants/Research Collaboration)

NA

Awards and Distinctions

Outstanding award in an international competition SCUDEM VI 2021 organized by SIMIODE.

Association With Professional Bodies

NA

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

WORKSHOPS/ SEMINARS/ FDP/ FIP/ ORIENTATION PROGRAM ATTENDED

- Workshop on "Vedic Mathematics" organized by Value Addition Courses Committee (University of Delhi) in collaboration with Kirori Mal College from April 11- April 13, 2023

- One Week Online Faculty Development Programme on "Significance of Vedic Mathematics in Modern Era" organized by Aryabhatta College and Mahatma Hansraj Faculty Development Centre, Hansraj College on December 5-10, 2022.

- Workshop on "Vedic Mathematics-I" organized by Value Addition Courses Committee (University of Delhi) in collaboration with Mahatma Hansraj Faculty Development Centre, Hansraj College on October 19 , 2022.

- One day National Workshop on "Vedic Mathematics" organized by the Department of Mathematics, P.G.D.A.V. College (M), University of Delhi on August 30, 2022.

- Faculty Development Program on Recent Trends & Challenges in Intelligent System and Machine (RTCISM) organized by Amity School of Engineering and Technology(ASET), Amity University, Patna , from 25th July to 29th July 2022.

- Faculty Development Programme on emerging technologies: AZ 900:Microsoft Azure Fundamentals Association of Indian Universities in collaboration with Microsoft, from 17th to 19th Feb 2022.

- Online Teacher's Enrichment Workshop "on Differential Equations and Its Applications" TEW-DEA, Deshbandhu College, University of Delhi, in collaboration with the National Centre for Mathematics (A Joint center of TIFR and IIT Bombay) 2021.

- International Online Workshop on "Advanced Topics in Mathematics, Center For Applied Mathematics", Dr. SPM IIIT-Naya Raipur, October 8-12, 2021.

- Online Workshop on "Programming Essentials for Mathematics using Python" Department of Mathematics, CHRIST (Deemed to be University), Bangalore, 2020.

- Advanced Workshop on Hyperbolic conservation laws, Research Institute, SRM Institute of science and Technology, Tamil Nadu, 2017.

- International Conference on Nonlinear Differential Equations-Theory, Modeling and Computations, Research Institute, SRM Institute of science and Technology, Tamil Nadu, 2017.

- International Conference on Recent Advances in PDEs: Theory, Computations and Applications, IIT Bombay, India, 2017.

- International Conference on Mathematics & Applications, Ramjas College, University of Delhi, Delhi, India, 2017.

Participation in other activities:

- Participation as a coach and judge in SCUDEM VI 2021 and SCUDEM VII 2022 event (SCUDEM - SIMIODE Challenge Using Differential Equations Modeling)

- Chaired a session in the Second International Workshop on "Advanced Topics in Mathematics-2021", organized by the Centre for Applied Mathematics, International Institute of Information Technology Naya Raipur, during October 08 - 12, 2021.

- Reviewer for various journals e.g. Journal MethodX, Elsevier, Differential equations and dynamical systems and other journals.

Neelesh Kumar
Signature of Faculty Member