Dr. Nisha Sharma

Designation: Assistant Professor
Department: Mathematics

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Areas of Interest

- **Numerical Analysis**
- **Finite Element Analysis**
- **Nonlinear PDE's**
- **Mixed FEM**

Educational details

Degree	Year	University	Percentage	Medals/ Positions
Ph.D .	August, 2016	Panjab University, Chandigarh		
UGC JRF	2007			
M.Sc. (Maths Honours)	2007	Dept. of Mathematics, Panjab University, Chandigarh	79.1	Distinction
B.Sc. (Maths Honours)	2005	Dept. of Mathematics, Panjab University, Chandigarh	72.7	Second Position

Research Publications

Title	Journal	Refereed	Date and Year of Publication	Online Link
A priori error estimates of expanded mixed FEM for Kirchhoff type parabolic equation.	**Numer. Algorithms**	SCI	**2019 (online)**	https://link.springer.com/article/10.1007%2Fs11075-019-00673-2

Expanded Mixed FE method with lowest order RT elements for nonlinear and nonlocal parabolic problems.	**Adv. Comput. Math.,**	**SCI**	**2018**	https://link.springer.com/article/10.1007/s10444-018-9596-6
Finite element galerkin approximations to a class of nonlinear and nonlocal parabolic problems,	**Numer. Methods Partial Differential Equations**	**SCI**	**2016**	https://onlinelibrary.wiley.com/doi/abs/10.1002/num.22048
Finite element method for a nonlinear parabolic integro-differential equation in higher spatial dimensions	**Appl. Math. Model.,**	**SCI**	**2015**	https://www.sciencedirect.com/science/article/abs/pii/S0307904X15001262
Unconditionally stable numerical method for a nonlinear integro-differential equation	**Comp. Math. Appl.**	**SCI**	**2014**	https://www.sciencedirect.com/science/article/pii/S0898122113006226
Miscellaneous				
RESEARCH GRANTS/ SCHOLARSHIP:				

- Pt. Hans Raj Gupta Scholarship in B.Sc. first year.
- Availed the purse grant (J.R.F. and S.R.F.) funded by the Department of Science and Technology (D.S.T.) - India, b.h.``Manpower" project during July 2010 to September 2013.
- Availed the NPDE-TCA project internship during Feb. 2014 to May 2014.

RESEARCH EXPERIENCE
- Research Fellow (J.R.F. and S.R.F) at the Department of Mathematics, Panjab University, Chandigarh (July 2010 to September 2013).

TEACHING EXPERIENCE
- **(July 2017 to Present)** M.C.M. D.A.V. College for Women, Sector 36, Chandigarh, Assistant Professor.
- (July 2015 – March 2016 and July 2016 – April, 2017) M.C.M. D.A.V. College for Women, Sector 36, Chandigarh, Assistant Professor (Contractual).
- (January 2015 - April 2015) University Institute of Chemical Engineering and Technology, Panjab University, Chandigarh, Guest Lecturer.
- (July 2014 – November 2014), University Institute of Engineering and Technology (UIET), Panjab University, Chandigarh, Guest Lecturer.
- (August 2008 - May 2009 and July 2009 - June 2010), University Institute of Engineering and Technology (UIET), Panjab University, Chandigarh, Assistant Professor (Contractual).

INVITED TALK

- ``4th International Conference on Recent Developments in Theory, Computation & Application of Differential Equations," held at South Asian University, New Delhi during January 21-23, 2019.

PAPER PRESENTATION IN CONFERENCES
- "Recent Advances in PDEs: Theory, Computations and Applications (On the occasion of 60th birthday of Professor Amiya K. Pani)" held at IIT-Bombay during June 08 – 10, 2017.
- ``TCPDE" held at the Panjab University, Chandigarh, during December 05 - 09, 2016.
- ``International Conference on Current Trends in PDE's: Theory and Computations" held at the Department of Mathematics, South Asian University, New Delhi during December 28-30, 2015.
- ``IMSCT 2012-FIM XXI" held at the Department of Statistics, Panjab University, Chandigarh, during December 15 - 17, 2012.
- ``78th Annual Conference of The Indian Mathematical Society (IMS)" held at Banaras Hindu University, Varanasi, during January 22-25, 2013.
- ``Mathematical Modeling and Computational Techniques" organized by UIET and held at the Department of Mathematics, Panjab University, Chandigarh during September 27-28, 2013 .
- ``7th Chandigarh Science Congress - CHASCON 2013" held at the Department of Mathematics, Panjab University, Chandigarh during March 1-3, 2013.

WORKSHOP / SYMPOSIUM PARTICIPATION

- ``Advances in Computational Partial Differential Equations" held at the Department of Mathematics, Birla Institute of Technology and Science, (BITS) Pilani - K. K. Birla Goa Campus during February 07-23, 2011
- ``Adaptive Finite Element Methods" held at the Department of Mathematics, Indian Institute of

Space Science and Technology, Thiruvananthapuram during March 16-25, 2012.
- ``Orthogonal Spline Collocation Methods for PDEs**"** held at the department of Mathematcis, South Asian University, New Delhi during March 21-24, 2014.
- Advanced Level Training Program on Differential Equations under NPDE: ``Theory, Computation and Applications**"** held at IISER – Thiruvananthapuram during May 26 - June 13, 2014.
- ``Annual Foundation School – I" held at the Department of Mathematics, Panjab University, Chandigarh, during December 02-29, 2010.
- ``Discrete Mathematics and Discretization Methods" held at Department of Mathematics, South Asian University, New Delhi during October 25 - 26, 2013.
- ``Symposium in Mathematics" held at the Department of Mathematics, Panjab University, Chandigarh, on February 07- 08, 2012.
- ``From the Indus Valley to Srinivasa Ramanujan: A history of Indian Mathematics" held on Feb. 19, 2014 at UICET, Panjab University, Chandigarh.
- ``Colloquium in Mathematics" held at the Department of Mathematics, Panjab University, Chandigarh, on February 22- 23, 2013.

COMPUTER SKILLS

MATLAB, LaTeX, MS – Office