

About Faculty



Dr. Navjot Kaur

Assistant Professor,
Department of Mathematics
MCM DAV College For Women, Chandigarh -India.



nkaurkhinda@gmail.com



9780256293

Areas of Interest

Continuum Mechanics,
Wave Propagation in Elastic media,
Non-linear Dynamics,
Mathematical Epidemiology.

Educational Qualification				
Degree	Year	Dept/University	Percent	Medals/ Positions
Ph.D. in Mathematics	2014	Thapar University, Patiala	8.66 (CGPA)	
M.Sc.	2009	Punjabi university, Patiala	60	
B.Sc. Computer Applications	2006	Punjabi University, Patiala	55.22	

Professional Experience			
Designation	From	To	Organization
Assistant Professor	October 2022	Till date	MCM DAV Collage for Women, Sector-36 A, Chandigarh.
Post Doctoral Fellow (UGC)	November 2015	December 2021	Department of Mathematics, Panjab University, Sector-14, Chandigarh.
Research Associate	July 2015	October 2015	Department of Biological Sciences, Indian Institute of Science Education and Research, Mohali
Lecturer	April 2009	March 2010	Khalsa College, Patiala

Research Paper Publications				
Title	Journal	Refereed	Date and Year of Publication	Online Link
Modeling the spread of HIV in a stage structured population: Effect of awareness.	International Journal of Biomathematics	Yes	2012	https://www.worldscientific.com/doi/10.1142/S1793524511001829
Tuberculosis diagnosis and treatment: negotiating the solution and implementations.	International Journal of Current Research and Review	Yes	2013	https://ijcr.com/article_html.php?did=1476
The role of screening and treatment in the transmission	Journal of Biological Physics	Yes	2014	https://www.ncbi.nlm.nih.gov/pmc/articles/PMC40493

dynamics of HIV/AIDS and tuberculosis co-infection: a mathematical study.				75/
Mathematical Analysis of the Transmission Dynamics of HIV/AIDS: Role of Female Sex Workers.	Applied Mathematics & Information Sciences	Yes	2014	https://www.naturalspublishing.com/show.asp?JorID=1&pgid=3
HIV-TB Co-infection: A Simple Mathematical Model.	Journal of Advanced Research in Dynamical and Control Systems	Yes	2015	http://www.jardcs.org/bac-kissues/index.html
Modelling the Role of Awareness and Screening of Infectives in the Transmission Dynamics of HIV.	World Journal of Modelling and Simulation	Yes	2016	http://www.worldacademiconion.com/journal/1746-7233WJMS/wjmsvol12no02paper02.pdf
Role of sliding contact interface on torsional waves.	The Mathematics Student	Yes	2019	https://www.indianmathsociety.org.in/mathstudent-part-2-2019.pdf
Propagation of Rayleigh waves in layered elastic half-space with finite sliding contact.	Applied Mathematics & Information Sciences	Yes	2020	https://www.naturalspublishing.com/show.asp?JorID=1&pgid=3
Torsional waves in nonlocal elastic solid half-space with voids.	The Mathematics Student	Yes	2022	Accepted for Publication.

Research Paper Presented and Published in International Conferences

1. Navjot Kaur, Mini Ghosh, and S. S. Bhatia. "Modelling the Impact of Awareness and Screening on the Transmission Dynamics of Tuberculosis" in Conference proceedings of IMS - International Conference on Information and Mathematical Sciences, Baba Farid College of Management & Technology (BFCMT), Bathinda 24 October, 2013- 26 October, 2013. publishes by Elsevier.
2. Navjot Kaur, Mini Ghosh and S.S. Bhatia, "Modeling The Effect of Female SexWorkers on The Transmission Dynamics of HIV/AIDS", Proceedings of the National Conference on Mathematical Modeling, Simulation and Optimization (MMSO-2012), July 20, 2012 , Organized by School of Applied Sciences Chitkara University, Punjab, Electronic version, 34-38, 2012.
3. Navjot Kaur and Mini Ghosh, "Mathematical Modeling of HIV/TB Coinfection : Effect of treatment" Proceedings of International Conference on Challenges and Applications of Mathematics in Science and Technology.

Presented Research Papers in Conferences

1. 13th Chandigarh Science Congress, "Science and technology for new India", held at Panjab University, Chandigarh during March 13-15, 2019.
2. National conference, AIDSCON-8, organized by Chandigarh State AIDS Control Society, at International Hostel, Madhya Marg, Chandigarh-160015 during Feb 15-16, 2019.
3. Navjot Kaur and S K Tomar, "Exact secular equation of Rayleigh, waves in layered isotropic/anisotropic elastic half space with partial sliding contact", presented at International conference on recent advances in Mathematics and their applications (ICRAMTA-2016), University of Rajasthan, Jaipur, July 10-12, 2016.

4. Navjot Kaur, S.S. Bhatia and Mini Ghosh, Modelling the Impact of Awareness and Screening on the Transmission Dynamics of Tuberculosis, IMS-2013, 443-446.
5. Navjot Kaur, S.S. Bhatia and Mini Ghosh: "Modelling and analysis of the transmission dynamics of infectious diseases: Effect of awareness and treatment", presented at International Conference Models in Population Dynamics and Ecology Osnabrück University, Germany 26–29 August 2013.
6. Navjot Kaur, Mini Ghosh and S.S. Bhatia, "Modeling The Effect of Female Sex-Workers on The Transmission Dynamics of HIV/AIDS", presented at National Conference on Mathematical Modeling, Simulation and Optimization (MMSO-2012) held on 20 July, 2012, organized by School of Applied Sciences Chitkara University, Punjab.
7. Navjot Kaur, Mini Ghosh, S.S. Bhatia, "Modelling the effect of women in sex sector on the spread of HIV epidemic" presented at 14th Punjab Science Congress held on February 7-9, 2011 at SLIET Longowal (India).
8. Navjot Kaur, Mini Ghosh, "Conference on Modeling Infectious Diseases" held at IMSC Chennai during September 13- 22, 2010.
9. Navjot Kaur, Mini Ghosh, "Modeling the spread of HIV in Stage Structured Population: Effect of awareness" presented at International Congress of Mathematicians (ICM 2010) held on 19-27 August, 2010 at Hyderabad.
10. Navjot Kaur, Mini Ghosh, "Mathematical Modeling of HIV/TB Coinfection : Effect of treatment" presented at International Conference on Challenges and Applications of Mathematics in Science and Technology (CAMIST) held on 11-13 January, 2010 at NIT Rourkela (India).

Others

Foreign Travel Grant(s)

- Travel Grant from Department of Science and Technology to present a research paper in, "The 2017 International Conference on Continuum Mechanics (COME 2017)", Heraklion, Crete, Greece (2017).
- Travel Grant from Department of Science and Technology to present a research paper in, "Models in Population Dynamics and Ecology 2013 (MPDE'13), Osnabruck University, Germany (2013).

Project Offered

- Selected for the student project work at CSIR CMMACS (Centre for Mathematical Modelling and Computer Simulation), Bangalore in 2013 and 2012.

Workshops Attended

- NCM Workshop on "Continuum Mechanics: Principles and Applications" held at Panjab University during Nov 19-24, 2018.
- "Critical Reading and Effective Writing: The Tools for Research", held at Panjab University, Chandigarh during Nov 12-13, 2018.
- "Advanced Level Workshop on Differential Equations in Ecology and Epidemiology", held at IIT Roorkee during 10th - 14th Oct. 2012.
- "Stability & Bifurcation Analysis and Pattern Formation in Mathematical Ecology and Epidemiology", held at IIT Kanpur during February 25 - March 02, 2011.
- "Workshop on Research Methodology " held at Thapar University, Patiala on November 27, 2010.
- "2nd Workshop and Conference on Modeling Infectious Diseases" held at IMSC Chennai during September 13- 22, 2010.

Faculty Development Program

- Attended and participated in AICTE recognized Short term Course on "Induction training programme on communication skills through ICT" held at Rayat-Bahra group of institutions, Patiala, from February 17 - 21, 2014.

Webinars Attended

- VACCINE AND DRUG DEVELOPMENT AGAINST COVID-19 Organized by Department of Biotechnology, School of Life Sciences Mizoram University (A Central University), Aizawl – 796004.

- “MATHEMATICAL MODELING OF INFECTIOUS DISEASES: ITS RELEVANCE IN TIME OF COVID” and “BINARY RECURRENCE SEQUENCES AND ITS ARITHMETIC” organized by Department of Mathematics and Computer Science, Mizoram University.

Webinars Organized

- Organized a webinar under PUMATHS club on July 31, 2020. Topic: Article writing in LaTeX. Speaker : Dr. Sachin Kumar, Assistant professor, Department of Mathematics and Statistics, School of Basic and Applied Sciences, Central university of Punjab, Bathinda.

Professional Memberships

- Member of the Indian Science Congress Association,
- Member of Indian Society of Industrial and Applied Mathematics,
- Member of Chandigarh Vigyan Parishad,
- Member of Biomathematical Society of India.