Name: Dr. Harpreet Kaur
Department of Mathematics
Educational Qualification: Msc., Ph.D
Experience: 2 Years, 4 months

Educational

Ph.D. Wavelet Analysis and its Applications in Differential Equations, Sant Longowal Institute of Engineering & Technology (Established by Govt. of India), (2015)

Experience

Assistant Professor, I.K. Gujral Punjab Technical University, Jalandhar (Aug 24, 2016 to Till date)
Assistant Professor, Lovely Professional University, Phagwara(01-08-2014 to 23-08-2016 Teaching and Research)

Publications:

[1]. Harpreet Kaur, R.C. Mittal and Vinod Mishra, Haar Wavelet Approximate Solutions for the Generalized Lane Emden Equations Arising in Astrophysics, *Computer Physics Communications*, 184(2013), 2269-2277. (I.F. 3.635, citations=16)
[2]. Harpreet Kaur, R.C. Mittal and Vinod Mishra, Haar Wavelet Solutions of Nonlinear Oscillator Equations, *Applied Mathematical Mod*elling, 38(2014),4958-4971.

(I.F. 2.291, citations=3)

[3]. Harpreet Kaur, R.C. Mittal and Vinod Mishra, A Collocation Approach with Haar Wavelets to Solve Volterra Population Model for Population Growth of a Species, *Mathematical Sciences International Research Journal*, 2(2013), 676-680.

[4]. R.C. Mittal, Harpreet Kaur and Vinod Mishra, Haar Wavelet based Numerical Investigation of Coupled Viscous Burgers' Equation, *International Journal of Computer Mathematics*,(2015). (I.F. 0.577, citations=2)

[5]. Harpreet Kaur, R.C. Mittal and Vinod Mishra, Haar Wavelet Time Discretization Scheme for Solving Partial Differential Equations, *International Journal of Pure and Applied Mathematics*,108(2016),63-79. (I.F. 0.635, H-index=21)

[6]. Harpreet Kaur, R.C. Mittal and Vinod Mishra, Numerical Solution of a Laminar Viscous Flow Boundary Layer Equation Using Uniform Haar Wavelet Quasi-linearization Method, *Proceedings of Conference, World Academy of Sciences, Engineering and Technology, ICMCSSE-2013, Zurich(Switzerland*), 79(2013),1410-1415. (citation=1)

[7]. Harpreet Kaur, R.C. Mittal and Vinod Mishra, Haar Wavelet Quasilinearization Approach for Solving Nonlinear Boundary Value Problems, *American Journal of Computational Mathematics*, 1(2011), 176-182. (I.F. 0.58, h-index=5, citations=9)

[8]. Harpreet Kaur, R.C. Mittal and Vinod Mishra, Haar Wavelet Quasi-linearization Approach for Solving Lane Emden Equations, *International Journal of Mathematics and Computer Applications Research*, 2(2012),47-60. (I.F. 4.1736, citations=2)

[9]. Vinod Mishra, Harpreet Kaur and R.C. Mittal, Haar Wavelet Algorithm for Solving Certain Differential, Integral and Integro-Differential Equations, *International Journal of Applied Mathematics and Mechanics*, 8(2012),69-82. (citations=8)

[10]. Harpreet Kaur, Vinod Mishra and R.C. Mittal, Haar Wavelet Algorithm for Linear and Nonlinear Stiff Differential Equations, *Proceedings of Conference on Advanced Mathematics and its Applications*, D.A.V. College, Bathinda (Pb.) Feb.25-26, 2011, 140-144.

[11]. Vinod Mishra and Harpreet Kaur, Haar Wavelet Approach for Solving Nonlinear Differential and Integral Equations, *Neural, Parallel and Scientific Computations*, 22(2014), 421-430.

Presented Papers in National and International Conferences

[1]. Harpreet Kaur and Vinod Mishra, Application of Haar Wavelet in Solving Ordinary Differential Equations, National Conference on Nonlinear Analysis and Applications, HNB Garhwal University, June 5-7, 2010.

[2]. Harpreet Kaur and Vinod Mishra, Numerical and Wavelet Based Solutions of Integro-Differential Equations, International Congress of Mathematicians on Satellite Conference on Mathematics in Science and Technology, Delhi, Aug. 15-17, 2010.

[3]. Harpreet Kaur, Vinod Mishra and R.C. Mittal, Haar Wavelet Solution of Singular BVP's, 14th Punjab Science Congress, Sant Longowal Institute of Engineering and Technology, Longowal, Feb. 07-09, 2011.

[4]. Harpreet Kaur, R.C. Mittal and Vinod Mishra, Numerical Solution of Nonlinear Singular Emden Fowler equation using Haar Wavelet Method, Recent Trends in Mathematical Analysis held at SLIET, Longowal, Dec.16-17, 2011.

[5]. Harpreet Kaur, Vinod Mishra and R.C. Mittal, Haar Wavelet Algorithm for Linear and Nonlinear Stiff Differential Equations, Conference on Advanced Mathematics and its Applications, D.A.V. College, Bathinda(Pb.) Feb.25-26, 2011.

[6]. Harpreet Kaur, R.C. Mittal and Vinod Mishra, Numerical Solution of a Laminar Viscous Flow Boundary Layer Equation using Uniform Haar Wavelet Quasi-linearization Method, International Conference on Mathematical, Computational and Statistical Sciences and Engineering, *Zurich(Switzerland)*, WASET, July 30-31, 2013.

[7]. Harpreet Kaur, R.C. Mittal and Vinod Mishra, A Collocation Approach with Haar Wavelets to Solve Volterra Population Model for Population Growth of a Species, International Congress of Mathematicians, Cochin Kerala Aug 9-10, 2013.

[8]. Harpreet Kaur, Wavelet based Semi-Discretization Scheme for Solving Generalized Fitzhugh-Nagumo Equation with Time Dependent Coefficients, Exploring Basic Applied Sciences, LPU Jalandhar Nov 14-15, 2014.

Workshop/School Attended

[1]. Workshop on Wavelets and Inverse Ill-posed Problems held at Delhi, Aug. 15-17, 2010.

[2]. National Workshop on Mathematica held at Chitkara University, Solan, 25-28th July, 2011.

Achievements:

- SLIET Fellowship for Ph.D. from 18th August 2009 to 18th August 2011 as a JRF.
- SLIET Fellowship for Ph.D. from 18th August 2011 to 18th August 2013 as a SRF.
- DST Travel Grant for attending ICMCSSE-2013, Zurich(Switzerland).
- CSIR Travel Grant for attending ICMCSSE-2013, Zurich(Switzerland).