

Dr. Kamal Shah: Publications List

Publications in 2015

1. **Kamal Shah**, Hammad Khalil, Rahmat Ali Khan, Investigation of positive solution to a coupled system of impulsive boundary value problems for nonlinear fractional order differential equations, Chaos, Solitons and Fractals, 77 (2015) 240-246, **I.F=1.45**.
2. Hammad Khalil, Rahmat Ali Khan, **Kamal Shah**, Corrigendum to "Investigation of positive solution to a coupled system of impulsive boundary value problems for nonlinear fractional order differential equations" [Chaos, Solitons and Fractals Volume 77, August 2015, Pages 240-246], Chaos, Solitons and Fractals 78 (2015) 329-330. **I.F=1.45**.
3. **Kamal Shah**, Amjad Ali, Rahmat Ali Khan, Numerical solutions of Fractional Order System of Bagley-Torvik Equation Using Operational Matrices, Sindh University Research Journal (Science series.) 47 (4)(2015) 757-762, **ISI Indexed+HEC X Category**.
4. **Kamal Shah**, Rahmat Ali Khan, The Applications of Natural Transform to the Analytical Solutions of Some Fractional Order Ordinary Differential Equations, Sindh University Research Journal (Science series) 47 (4) (2015) 683-686, **ISI Indexed+HEC X Category**.
5. Rahmat Ali Khan and **Kamal Shah**, Existence and uniqueness of solutions to fractional order multi-point boundary value problems, Communications in Applied Analysis 19 (2015), 515-526.
6. **Kamal Shah** and Rahmat Ali Khan, Existence and uniqueness of positive solutions to a coupled system of nonlinear fractional order differential equations with anti periodic boundary conditions, Differential Equations & Applications (ELE -Math series), 7(2) (2015), 245-262.
7. **Kamal Shah**, Salman Zeb and Rahmat Ali Khan, Existence and uniqueness of solutions for fractional order m-point boundary value problems, Fractional Differential Calculus(ELE-Math series) 5(2) (2015), 171-181.
8. **Kamal Shah**, Muhammad Junaid, Nigar Ali, Extraction of Laplace, Sumudu, Fourier and Mellin Transform from the Natural Transform, Journal of Applied Environmental and Biological Sciences, 5(9) (2015) 1-10, **ISI Indexed**.
9. Fazal Haq, Noor Badshah, **Kamal Shah**, Muhammad Shahzad, Multigrid method for 2d convection diffusion equation based on fourth order compact scheme, Science International(Lahore) 27(6) (2015) 4975-4980, **ISI Indexed**.

10. **Kamal Shah** and Rahmat Ali Khan, Iterative scheme to a coupled system of highly nonlinear fractional order differential equations, Computational Methods for Differential Equations, 3(3) (2015) 163-176.

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11. **Kamal Shah**, Amjad Ali and Rahmat Ali Khan, Degree theory and existence of positive solutions to coupled systems of multi-point boundary value problems, Boundary Value Problems (2016) 2016:43, **I.F=0.81**.
12. **Kamal Shah**, Rahmat Ali Khan, Existence and Uniqueness Results to a Coupled System of Fractional Order Boundary Value Problems by Topological Degree Theory, Numerical Functional Analysis and Optimization, (2016) 37(7), 887–899, **I.F=0.65**.
13. **Kamal Shah** and Rahmat Ali Khan, Multiple positive solutions to a coupled systems of nonlinear fractional differential equations, Springer Plus (2016) 5:1–20, **I.F=0.98**.
14. Muhammad Shoaib, Muhammad Sarwar, **Kamal Shah**, Poom Kumam, Fixed point results and its applications to the systems of non-linear integral and differential equations of arbitrary order, J. Nonlinear Sci. Appl. (2016) 9, 4949–4962, **I.F=1.17**.
15. **Kamal Shah**, Hammad Khalil, Rahmat Ali Khan, Analytical Solutions of Fractional Order Diffusion Equations by Natural Transform Method, Iranian Journal of Science and Technology (Trans Sci:A), (2016), 42(3) , 1479–1490, **I.F=0.218**.
16. **Kamal Shah** and Rahmat Ali Khan, Iterative scheme for a coupled system of fractional-order differential equations with three-point boundary conditions, Mathematical Methods in the Applied Sciences 2018; **41**(3): 1047-1053 , **I.F=1.01**.
17. Fazal Haq, **Kamal Shah**, Ghausurrahman, Muhammad Shahzad, Existence and Uniqueness of Positive Solution to Boundary Value Problem of Fractional Differential Equations, Sindh Univ. Res. Jour. (Sci. Ser.) (2016) 48 (2), 449-454, **ISI Indexed +X category of HEC**.
18. **Kamal Shah**, Rahmat Ali Khan, Study of Solution to a Toppled System of Fractional Differential Equations with Integral Boundary Conditions, Int. J. Appl. Comput. Math. (2016), 2016 19 pages, DOI 10.1007/s40819-0160243- y.
19. **Kamal Shah**, Amjad Ali and Rahmat Ali Khan, Existence Of Positive Solutions To A Coupled System Of Nonlinear Fractional Order Differential Equations With m-point boundary conditions, (2016), 8(3) 1–11, **ISI Indexed** .

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21. **Kamal Shah**, Hammad Khalil and Rahmat Ali Khan, Upper and Lower Solutions to a Coupled System of Nonlinear Fractional Differential Equations, Progress in Fractional Differential equations and Applications (2016) , 2(1), 110.
22. Nigar Ali, **Kamal Shah** and Rahmat Ali Khan, Existence of Positive Solution to a Class of Fractional Differential Equations with three point boundary Conditions, Math. Sci. Lett. (2016) 5(3),291-296.
23. Amjad Ali,**Kamal Shah** and Rahmat Ali Khan, Existence of positive solution to a class of boundary value problems of fractional differential equations, Computational Methods for Differential Equations, (2016) 4(1), 19 – 29.

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25. Amjad Ali, **Kamal Shah**, Rahmat Ali Khan, Existence of solution to a coupled system of hybrid fractional differential equations, Bulletin of Mathematical Analysis and Applications, 9 (1) (2017) 9-18 [ISI Indexed](#) .
26. Amjad Ali1, Bessem Samet, **Kamal Shah** and Rahmat Ali Khan, Existence and stability of solution to a toppled systems of differential equations of noninteger order, Boundary Value Problems (2017) 2017:16 [I.F=0.801](#)
27. Fazal Haq, **Kamal Shah**, Ghaus-UR-Rahman, Muhammad Shahzad, Numerical analysis of fractional order model of HIV-1 infection of CD4+ Tcells, Computational Methods for Differential Equations, 5(1) (2017) 1-11.
28. Fazal Haq, **Kamal Shah**, Muhammad Shahzad, Ghaus Ur Rahma, Coupled system of non-local boundary value problems of nonlinear fractional order differential equations, Journal of Mathematical Analysis 8 (2) (2017)51-63 [ISI Indexed](#) .
29. Fazal Haq, **Kamal Shah**, Ghaus ur Rahman , Muhammad Shahzad, Numerical solution of fractional order smoking model via Laplace Adomian decomposition method, Alexandria Engineering Journal, 57(2), (2018): 10611069 [ISI -Indexed](#)
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- by Laplace Adomian decomposition method, Punjab University Journal of Mathematics 49(2)(2017) 13-22 [HEC X -Category](#)
32. Fazal Haqa, **Kamal Shah**, Ghaus-UR-Rahman, Muhammad Shahzad, Existence results for a coupled systems of Chandrasekhar quadratic integral equations, Communication in Nonlinear Analysis 3 (2017) 15-22
 33. Amjad Ali, **Kamal Shah**, Rahmat Ali Khan, Numerical treatment for traveling wave solutions of fractional Whitham-Broer-Kaup equations, Alexandria Engineering Journal , 57(3), (2018): 1991-1998 [ISI Indexed](#)
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 35. **Kamal Shah** and Samia Bushnaq, Investigating at least one solution to a systems of multi-points boundary value problems, Matriks Sains Matematik(MSMK) 1(1) (2017) 16-20
 36. Samina, **Kamal Shah** and Rahmat Ali Khan, Study of nonlocal boundary value problems of non-integer order hybrid differential equations, Matriks Sains Matematik(MSMK) 1(1) (2017) 21-24
 37. Poom Kumam, Amjad Ali, **Kamal Shah**, Rahmat Ali Khan, Existence results and Hyers-Ulam stability to a class of nonlinear arbitrary order differential equations, Journal of Nonlinear Science and Applications 10 (2017) 2986-2997, [I.F=1.34](#)
 38. Zeeshan Ali, Akbar Zada, **Kamal Shah**, Existence and stability analysis of three point boundary value problem, International Journal of Applied and Computational Mathematics 3(1) (2017): 651-664.
 39. **Kamal Shah**, Samia Bushnaq, Numerical treatment of fractional endemic disease model via Laplace Adomian decomposition method, Journal of Science and Arts, 2(39) (2017)257-268, [ISI Indexed](#)
 40. Muhammad Iqbal, Yongjin Li, **Kamal Shah**, and Rahmat Ali Khan, Application of topological degree method for solutions of coupled systems of multi-points boundary value problems of fractional order hybrid differential equations, Complexity 2017 (2017) 9 pages, [I.F=4.621](#)
 41. Sajjad Ali, Samia Bushnaq, **Kamal Shah**, Muhammad Arif, Numerical treatment of fractional order Cauchy reaction diffusion equations, Chaos, Solitons and Fractals 103 (2017) 578-587, [I.F=1.45](#)
 42. **Kamal Shah**, Hammad Khalil and Rahmat Ali Khan, A generalized scheme based on shifted Jacobi polynomials for numerical simulation of coupled systems of multi-term fractional-order partial differential equations, London Mathematical Society (Journal of Computational Mathematics). 20(1), (2017) 11-29, [I.F=0.45](#)
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46. Yongjin Li, Fazal Haq, **Kamal Shah**, Muhammad Shahzad, Ghaus ur Rahman, Numerical analysis of fractional order Pine wilt disease model with bilinear incident rate, Journal of Mathematics and Computer Science 17 (2017) 420-428, [ISI Indexed](#)
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48. Yongjin Li, **Kamal Shah** and Rahmat Ali Khan, Iterative technique for coupled integral boundary value problem of non-integer order differential equations, Advances in Difference Equations (2017) 2017:251, [I.F=0.333](#)
49. Fazal Haq, **Kamal Shah**, Ghaus ur Rahman, Muhammad Shahzad, HyersUlam stability to a class of fractional differential equations with boundary conditions, International Journal of Applied and Computational Mathematics, 3(1) (2017): 1135-1147.
50. Arshad Ali, Faranak Rabiei, **Kamal Shah**, On Ulam's type stability for a class of impulsive fractional differential equations with nonlinear integral boundary conditions, Journal of Nonlinear Science and Applications, 10 (2017) 4760-4775, [I.F=1.34](#)
51. Yongjin Li and **Kamal Shah**, Numerical solutions of coupled systems of fractional order partial differential equations , Advances in Mathematical Physics, (2017), Article ID 1535826, 14 pages, [I.F=0.710](#).
52. Hammad Khalil, **Kamal Shah** and Rahmat Ali Khan, Approximate solution of boundary value problems using shifted Legendre polynomials, Applied and Computational Mathematics 16(3), 2017, 1-15, [I.F=0.75](#).
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54. Nigar Ali, Bi Bi Fatima, **Kamal Shah**, Rahmat Ali Khan, Hyers- Ulam stability of a class of nonlocal boundary value problem having triple solutions, International Journal of Applied and Computational Mathematics, (2018) 4:29.
55. Sajjad Ali Khan, **Kamal Shah***, Rahmat Ali Khan, On coupled system of nonlinear hybrid differential equation with arbitrary order, Matrics Sains Matematik(MSMK), 1(2) (2017) 11-16.
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57. Tahir Khan, **Kamal Shah***, Amir Khan, Rahmat Ali Khan, Solution of fractional order heat equation via triple Laplace transform in two dimensions, *Mathematical Methods in the Applied Sciences*, 41(2) (2017) 818–825 ,DOI: 10.1002/mma.4646. **IF= 1.01**
58. Samia Bushnaq, Wajid Hussain, **Kamal Shah**, On nonlinear implicit fractional differential equations without compactness, *Journal of Nonlinear Science and Applications*, 10 (2017), 5528-5539, **IF= 1.34.**
59. Arshad Khan , Muhammad Junaid , Ilyas Khan , Farhad Ali , **Kamal Shah** ,Dolat Khan, Application of homotopy analysis natural transform method to the solution of nonlinear partial differential equations, *Sci.Int.(Lahore)*,29(1) (2017): 297-303 **ISI Indexed**

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61. Fazal Haq, **Kamal Shah**, Ghaus ur Rahman, Yongjin Li and Muhammad Shahzad, Computational Analysis of Complex Population Dynamical Model with Arbitrary Order, *Complexity Volume 2018*, Article ID 8918541 , 8 pages. **IF=4.615**
62. Atta Ullah, **Kamal Shah**, Numerical analysis of Lane Emden-Fowler equations, *J. Taibah University for Science*, 12(2), 180-185 **ISI Indexed.**
63. Samia Bushnaq, Sajjad Ali Khan, **Kamal Shah** and Gul Zaman, Mathematical analysis of HIV/AIDS infection model with Caputo-Fabrizio fractional derivative, *Cogent Mathematics & Statistics* (2018), 5: 1432521. **ISI Indexed.**
64. Samia Bushnaq, Sajjad Ali Khan, **Kamal Shah** and Gul Zaman, Existence theory of HIV-1 infection model by using arbitrary order derivative of without singular kernel type, *Journal of Mathematical Analysis*, 10 (9) (2018) , Pages 1-13. **ISI Indexed**
65. Muhammad Ikhlaiq Chohan, Sajjad Ali, **Kamal Shah**, Muhammad Arif, On approximate solutions of fractional order partial differential equations, *Thermal Science Journal, Special Issue* (2018), 10 pages. **IF=1.02**
66. Samia Bushnaq, Sajjad Ali, **Kamal Shah**, Muhammad Arif, Exact solution to nonlinear biological population model with fractional order, *Thermal Science Journal, Special Issue* (2018), 10 pages. **IF=1.02**
67. Sajjad Ali, **Kamal Shah**, Yongjin Li, Muhammad Arif, Optimum solutions of space fractional order diffusion equation, *Thermal Science Journal, Special Issue* (2017), 10 pages. **IF=1.02**
68. Wiyada Kumam, Mian Bahadur Zada, **Kamal Shah**, Rahmat Ali Khan, Investigating a coupled hybrid system of nonlinear fractional differential equations, *Discrete Dynamics in Nature and Society*, 2018, (2018), 12 pages, **IF=0.714**
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- differential equation, Complexity Volume 2018, Article ID 6423974 , 15 pages.
IF=4.615 .
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 72. **Kamal Shah**, Salman Zeb and Rahmat Ali Khan, Multiplicity Results of Multi-Point Boundary Value Problem of Nonlinear Fractional Differential Equations, Appl. Math. Inf. Sci. 12(4)(2018), 1-8 .
 73. Ghaus ur Rahman, **Kamal Shah**, Fazal Haq, Naved Ahmad, Host Vector Dynamics of Pine Wilt Disease Model with Convex Incidence Rate, Chaos, Solitons and Fractals 113 (2018) 31–39. **IF=1.45**
 74. Mian Bahadur Zada, **Kamal Shah**, Rahmat Ali Khan, Existence Theory to a Coupled System of Higher Order Fractional Hybrid Differential Equations by Topological Degree Theory, International Journal of Applied and Computational Mathematics, (2018) 4:102.
 75. S. Harikrishnan, **Kamal Shah**, Dumitru Baleanu and K. Kanagarajan, Note on the solution of random differential equations via-Hilfer fractional derivative, Advances in Difference Equations (2018) 2018:224. **IF=1.15**
 76. Muhammad Shoaib, **Kamal Shah**, Rahmat Ali Khan, Existence and uniqueness of solutions for coupled system of fractional differential equation by means of topological degree method, Journal Nonlinear Analysis and Application, 2 (2018) 124-135.
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 78. **Kamal Shah**, D. Vivek and K. Kanagarajan, Dynamics and stability of Ψ fractional pantograph equations with boundary conditions, Bol. Soc. Paran. Mat. 22(2) (2018), 1–13. **ISI Indexed**
 79. D. Vivek, **Kamal Shah** and K. Kanagarajan, Existence theory and continuation analysis of nonlinear pantograph equations via Hilfer-Hadamard fractional derivative, Dynamics of Continuous, Discrete and Impulsive Systems Series A: Mathematical Analysis. 25 (2018) 397-417.
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84. Sajjad Ali, **Kamal Shah**, Fahd Jarad, On stable iterative solutions for a class of boundary value problem of nonlinear fractional order differential equations, Mathematical Methods in the Applied Sciences, 42(3), (2019): 969-981 **IF=1.08**
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86. **Kamal Shah**, Nonlocal boundary value problems for nonlinear toppled systems of fractional differential equations, Hacettepe Journal of Mathematics & Statistics, DOI : 10.15672/HJMS.xx **IF=0.45**
87. **Kamal Shah** and JingRhong Wang, A numerical scheme based on nondiscretization of data for boundary value problems of fractional order differential equations, RACSAM, 2018 (2018): 1-18. **IF=1.074**
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90. Samina, Ibrar Ullah, Rahmat Ali Khan and **Kamal Shah**, On using topological degree theory to investigate a coupled system of non-linear hybrid differential equations, Computational Methods for Differential Equations, 7(2), (2019), 224-234. **ESI- Indexed.**
91. Atta Ullah, **Kamal Shah**, Using a hybrid technique for analytical solution of coupled system of two-dimensional Burger's equations, Results in Nonlinear Analysis 1(3), (2018) 107-115.
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93. Arshad Ali, **Kamal Shah**, Dumitru Baleanu, Ulam stability results to a class of nonlinear implicit boundary value problems of impulsive fractional differential equations, Advances in Difference Equations. (2019) **2019:5 IF=1.15**
94. Samina, **Kamal Shah**, Rahmat Ali Khan and Dumitru Baleanu, Study of implicit type coupled system of non-integer order differential equations with

anti-periodic boundary conditions, *Mathematical Methods in the Applied Sciences*, 42(6)(2019), 2033-2042. **IF=1.18**

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96. F. Jarad, S. Harikrishnan, **Kamal Shah** and K. Kanagarajan, existence and stability results to a class of fractional random implicit differential equations involving a generalized Hilfer fractional derivative, *Discrete and Continuous Dynamic, Series S*, 13(3), 2020:X-XX. **IF. 0.501**
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103. Samina, **Kamal Shah**, Rahmat Ali Khan, Stability theory to a coupled system of nonlinear fractional hybrid differential equations, *Indian Journal of Pure and Applied Mathematics*, (Accepted). **IF=0.278**
104. **Kamal Shah**, Hammad Khalil, Ahmet Yildirim, On a hybrid technique to handle analytical and approximate solutions of linear and nonlinear fractional order partial differential equations, *Applications and Applied Mathematics* (Accepted) **ISI Indexed**
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- 118. Kama Shah**, et. al., Semi-analytical study of pine wilt disease model with convex incident rate under Caputo-Fabrizio fractional order derivative, *Chaos, Solitons & Fractals*, 2020, **I.F: 3.064**
- 119. Vidushi Gupta** , Arshad Ali, **Kamal Shah**, Syed Abbas, On stability analysis of hybrid fractional boundary value problem, *Indian Journal of Pure and Applied Mathematics*, 2020. **I. F: 0.33**
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6. **Kamal Shah**, Thabet Abdeljawad, Hammad Khalil and Rahmat Ali Khan, Approximate Solutions of Some Boundary Value Problems by Using Operational Matrices of Bernstein Polynomials, DOI: <http://dx.doi.org/10.5772/intechopen.90302>