CURRICULAM VITAE

Dr. Sunil Kumar
Assistant Professor
Department of Mathematics
National Institute of Technology,
Jamshedpur, 831014, Jharkhand, India
Email.id- skiitbhu28@gmail.com
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Educational Qualifications

- **Bachelor of Science (B.Sc.) (Ist. Div)**
  C.S.J.M. University Kanpur (India) in **Mathematics** and Physics
- **Master of Science (M.Sc.) (Ist. Div)**
  C.S.J.M. University Kanpur (India) in **Mathematics**
- **Master of Philosophy (M.Phil.) (Ist. Div)**
  C.S.J.M. University Kanpur (India) in **Mathematics**
- **Ph.D. (Course-Work) – 2009 (Ist. Div)**
  CGPA **8.67** out of 10 in **Applied Mathematics**
- **Ph.D. - 2012**
  Indian Institute of Technology, Banaras Hindu University, Varanasi 221005

Thesis Title: "Numerical Solution of Generalized Abel Integral equation and Some Nonlinear Partial Differential Equations by Homotopy and operational Methods"

Personal details

- **Sex** **:-** Male
- **Date of Birth** **:-** 10/10/1982
- **Education** **:-** M.Sc., M.Phil., Ph.D. (IIT- BHU) **(2012)**
- **Marital Status** **:-** Unmarried

- **Nationality :-** Indian
- **Hobby :** Research and friendship
- **Language :** Hindi, English

Message

- **Help to Needy Peoples**

Vision

To contribute through dedication, hard work and sincerity towards the overall growth of the institute by employing my academic, technical and research knowledge.

Important Link

- Facebook Link **:-** http://www.facebook.com/skiitbhu
- Twitter Link **:-** https://twitter.com/skbhu_82/lists
- Orkut Link **:-** http://www.orkut.co.in/Main#Home
- Google Scholar **:-** http://scholar.google.co.in/citations?user=sRyN088AAAAJ&hl=en
- Academia.edu :- http://nitjsr.academia.edu/DrSunilKumar
- Skype ID **:- drsunil.kumar1**

Computers Skills

- Mathematical Software : Mathematica, Matlab.
- Typesetting Software : Latex, Microsoft Office.

Honors & Awards

- **UGC-JRF (Rajiv Gandhi National Fellowship):** From July 2008 to June 2010.

- **UGC-SRF (Rajiv Gandhi National Fellowship):** From July 2010 June 2011.
- **GATE- 2007** with All India rank 276th.

Course Taught

- Engineering Mathematics
- Advanced Engineering Mathematics
- Higher Engineering Mathematics
- Fractional Calculus

Research Involvement

- Mathematical Modelling
- Fractional Calculus
- Integral Equation
- Nonlinear Sciences
- Mathematical Physics
- Numerical Methods and Analytical Methods, **(Homotopy Analysis Method, Homotopy Analysis Transform Method, Homotopy Perturbation Method, Homotopy Perturbation Transform Method, Adomian Decomposition method, Laplace Decomposition Method, Galerkin Method, Fractional Order Legendre Function, Operational Matrix Method)**
- Analytical and Numerical Solutions of Nonlinear Problems Arising in Applied Sciences and Engineering.
- Numerical Analysis
- Wavelet Methods

Teaching Experience

- Assistant Professor in Dehradun Institute of Technology, Dehradun Uttarakhand, India from Aug. 1, 2011 to March 28, 2012.
- Assistant Professor in National Institute of Technology, Jamshedpur, 831014, Jharkhand India from April. 13, 2012 to till now.

Ph.D. Supervision

1. **Mr. Amit Kumar,** (July, 2013) **(In progress)**

Experiences

1. **Teaching Experiences- 2 Years**
2. **Research Experiences- 5 Years**

Contact address

1. **Official:**

   Dr. Sunil Kumar (Assistant Professor)

   Department of Mathematics, National Institute of Technology,

   Jamshedpur, 831014, Jharkhand, India

   Mob. No. +917870102516

2. **Residential:**

   Dr. Sunil Kumar (Assistant Professor)

   Flat No. 530, Sahara Garden City,

   Aadityapur, Jamshedpur, Jharkhand,

   India

   Mob. No. +917870102516

Editorial Board Member in International Journals

1. **Editorial board member of "Studies in Nonlinear Sciences" (http://idosi.org/sns/board.htm)**

2. **Editorial board member of "Communication in Numerical Analysis" (http://www.ispacs.com/cna/)**
3. **Editorial board member of "International Journal of Engineering and Sciences" (http://ijens.org/index.htm)**
4. **Editorial board member of "Journal of Basic and Applied Sciences" (http://www.lifescienceglobal.com/ independent-journals/journal-of-basic-and-applied-sciences/editorial-board)**
5. **Editorial board member of "International Journal of Mathematical Engineering and Sciences" (https://sites. google.com/site/ijmesjournal/Editorial-Team)**
6. **Editorial board member of "Journal of Basic and Applied Scientific Research" (http://www.textroad.com/ Editorial board-JBASR.html)**
7. **Editorial board member of "International Journal of Applied Computational Science and Mathematics" (http://www.ripublication.com/editorial_board_of_ijacsm.htm)**
8. **Editorial board member of "International Journal of Scientific and Engineering research" (http://www.ijser.org/editorial-board_page2.aspx)**
9. **Editorial board member of "International Journal of Mathematical Engineering and Sciences" (http://www.ijmes.com/index.php?pGt=5)**
10. **Editorial board member of "American Journal of Numerical Analysis" (http://nitjsr.ac.in/new/faculty/index.php?id=108005)**
11. **Editorial board member of "International Journal of Modern Mathematical Sciences" (http://modernscientificpress.com/Journals/IJMMS.aspx)**
12. **Editorial board member of "World Research Journal of Engineering and Technology" (http://www.bioinfopublication.org/journal.php?opt=azjou&jouid=BPJ0000061&detail=editorial#)**
13. **Editorial board member of "International Journal of Modern Applied Physics" (http://modernscientificpress.com/Journals/IJMEP.aspx)**
14. **Editorial board member of "International Journal of Engineering and Advanced Technology" (http://www.ijeat.org/editors.php)**
15. **Editorial board member of "International Journal of Advance in Applied Mathematics and Mechanics" (http://www.ijaamm.com/editorial-board.html)**

16. **Editorial board member of "International Journal of Advanced Mathematics" (http://www.acascipub.com/Open%20Journal%20of%20Mathematics%20and%20Physical%20Science/Editorial%20Board.php)**
17. **Editorial board member of "International Journal of Advanced Mathematics" (http://www.acascipub.com/International%20Journal%20of%20Advanced%20Mathematics/Editorial%20Board.php)**
18. **Editorial board member of "International Journal of Advanced Mechanics" (http://www.acascipub.com/International%20Journal%20of%20Advanced%20Mechanics/Editorial%20Board.php)**
19. **Editorial board member of "International Journal of Advanced Physics Research" (http://www.acascipub.com/International%20Journal%20of%20Advanced%20Physics%20Research/Editorial%20Board.php)**
20. **Editorial board member of "International Journal of Advanced Mathematics and Physics" (http://www.acascipub.com/International%20Journal%20of%20Advanced%20Mathematics%20and%20Physics/Editorial%20Board.php)**
21. **Editorial board member of "Asian Journal of Current Engineering & Maths" (http://innovativejournal.in/index.php/ajcem/pages/view/Editorial%20Board)**
22. **Editorial board member of " Fractional Calculus and Applications Group" (http://fcag-egypt.com/fcag_permanent_members.asp)**
23. **Editorial board member of " International Journal of Applied Mathematical Sciences (JAMS)" (http://www.ripublication.com/editorial_board_of_jams.htm)**
24. **Editorial board member of " SOP Transactions on Applied Mathematics" (http://www.scipublish.com/journals/AM/editorials)**
25. **Editorial board member of " International Journal of Soft Computing and Engineering" (http://www.ijsce.org/editors.php)**
26. **Editorial board member of " Frontiers of Mathematics and Its Applications" (http://www.sciknow.org/journals/show/id/fmia)**
27. **Editorial board member of " Journal of Global Research in Mathematical Archives" (http://jgrma.info/index.php/jgrma/pages/view/editorial)**
28. **Editorial board member of " International Journal of Mathematics and Its Applications" (http://ijmaa.weebly.com/editorial-board.html)**

29. **Editorial board member of " International Journal of Physics" (http://www.iaeme.com/ijp.asp)**
30. **Guest Editor for special issue of "Walailak Journal of Science and Technology (WJST) (http://wjst.wu.ac.th/index.php/wjst) ".**
31. **Editorial board member of "Walailak Journal of Science and Technology" (WJST) (http://wjst.wu.ac.th/index.php/wjst) ".**
32. **Editorial board member of "International Journal Engineering Sciences and Mathematics" (http://www.ijmra.us/editor_ijesm.php)**
33. **Editorial board member of "Advances Research in Engineering Sciences" (http://www.aresjournal.org/index.php?id=13)**
34. **Editorial board member of "Journal of Engineering, Computers and Applied Sciences" (http://borjournals.com/Editorial_board.html)**
35. **Editorial board member of " Application and Applied Mathematics: An International Journal" (http://www.pvamu.edu/mathematics/applications-and-appliled-mathematics-an-international-journal/board-of-editors/)**
36. **Editorial board member of " International Journal of Advanced Research-Journal of Mathematics" (http://www.ijoar.org/editorial-board.html)**
37. **Editorial board member of " Global Journal Press" (http://www.gt-press.org/team.html)**
38. **Editorial board member of " SOP Transactions on Statistics and Analysis" (http://www.scipublish.com/journals/STSA/editorials)**
39. **Editorial board member of "SOP Transactions on Applied Physics" (http://www.scipublish.com/journals/APHY/editorials)**

Member of the International Association of Engineers

IAENG membership number is: **127024**

Professional Service as Reviewer in reputed International Journals

1. **Reviewer** of American journal of Computational Mathematics **(Scientific Research).**
2. **Reviewer** of Mathematical Methods in Applied Sciences **(Wiley).**
3. **Reviewer** of International Journal of Nonlinear Sciences and Numerical Simulation
4. **Reviewer** of Computer and Mathematics with Application **(Elsevier)**
5. **Reviewer** of Scientific Research and Essays
6. **Reviewer** of World Applied Sciences Journal
7. **Reviewer** of International journal of Nonlinear Sciences
8. **Reviewer** of Mathematical and Computer Modelling **(Elsevier)**
9. **Reviewer** of International Journal of Computer Mathematics **(Taylor and Francis)**
10. **Reviewer** of International Journal of Computational Methods
11. **Reviewer** of Applied Mathematics and Information Science Journal
12. **Reviewer** of Zeitschrift für Naturforschung
13. **Reviewer** of Indian Journal of Science and Technology
14. **Reviewer** of Applied Mathematics Latter **(Elsevier)**
15. **Reviewer** of Applicable Analysis **(Taylor and Francis)**
16. **Reviewer** of Walailak Journal of Science and Technology
17. **Reviewer** of International Journal of Numerical Methods for Heat and Fluid Flow
18. **Reviewer** of Biomedical Research
19. **Reviewer** of Science Journal Publication
20. **Reviewer** of Applied Mathematics Computation **(Elsevier)**
21. **Reviewer** of Application and Applied Mathematics: An International Journal
22. **Reviewer** of The European Physical
23. **Reviewer** of Applied Mathematical Modelling **(Elsevier)**
24. **Reviewer** of Communication Numerical Analysis
25. **Reviewer** of Mathematical Modelling and Analysis
26. **Reviewer** of Ocean Engineering **(Elsevier)**
27. **Reviewer** of Differential equation and Dynamical Systems **(Springer)**
28. **Reviewer** of Iranian Journal of Fuzzy system
29. **Reviewer** of International journal of Physical Sciences
30. **Reviewer** of International journal of Nonlinear Science
31. **Reviewer** of International journal of Applied Mathematics Computation
32. **Reviewer** of Advances in Applied Mathematics and Mechanics
33. **Reviewer** of QScience Connect

34. **Reviewer** of International Journal of Modern Mathematical Sciences

35. Reviewer of Journal of Egypatian Mathematical Society **(Elsevier)**

36. Reviewer of Information Sciences Letters

37. Reviewer of International journal of Mathematical Archive

38. Reviewer of International Journal of Advanced Physics Research

39. Reviewer of British Journal of Mathematics & Computer Science

40. Reviewer of Nonlinear Engineering-Modelling and Application

41. **Reviewer of** Far East Journal of Applied Mathematics

42. Reviewer of Journal of Modern Mathematics Frontier (JMMF)

43. Reviewer of Geomechanics and Engineering, An International Journal

Published Papers/accepted in International Journal

[1] **Sunil Kumar** and Om P. Singh, Numerical Inversion of the Abel Integral Equation using Homotopy Perturbation Method, ***Zeitschrift fur Naturforschung,*** 65a, 677-682 (2010) **(Germany) (IF: 0.929) (SCI).**

[2] **Sunil Kumar**, Om P. Singh, Sandeep Dixit, Homotopy Perturbation Method for Solving System of Generalized Abel's Integral Equations, ***Applications and Applied Mathematics: An International Journal***, 5(10), 2009– 2024 (2011) **(USA).**

[3] S. Dixit, Om P. Singh, **Sunil Kumar,** An analytic algorithm for solving system of Fractional Differential equations, ***Journal of Modern Methods in Numerical Methods,*** 1(1), 12-26 (2010) **(Egypt).**

[4] S. Das, **Sunil Kumar**, Om P. Singh**,** Solutions of Nonlinear Second Order Multi-point Boundary Value Problems by Homotopy Perturbation Method, ***Applications and Applied Mathematics: An International Journal,*** 5, 1592-1600 (2010) **(USA).**

[5] **Sunil Kumar,** Om P. Singh, Sandeep Dixit, Solution of Generalized Abel Integral Equation by Homotopy Perturbation Method, ***Applied Mathematical Sciences***, (5), 5, 223-232 (2011) **(Bulgaria).**

[6] **Sunil Kumar**, Om P. Singh, Sandeep Dixit, Generalized Abel Inversion Using Homotopy Perturbation Method, ***Applied Mathematics,*** 2, 254-257 (2011) **(USA).**

[7] S. Dixit, Rajesh K. Pandey, **Sunil Kumar,** Om P. Singh, Solution of Generalized Abel Integral equation by using Almost Bernstein Operational Matrix, ***American Journal of Computational Methods,*** 1, 226-234 (2011) **(USA).**

[8] M. Khan, M. A. Gondal, **Sunil Kumar,** A Novel Homotopy Transform Method Algorithm for Linear and nonlinear System of Partial Differential Equations, ***World Applied Sciences Journal***, 12(12), 2352-2357(2011) **(Dubai).**

[9] M. Khan, M. A. Gondal, **Sunil Kumar,** A new analytical approach to solve exponential stretching sheet problem in fluid mechanics by variational iterative Pade method, ***The Journal of Mathematics and Computer Sciences***, 3(2) 135-144 (2011) **(Poland).**

[10] K. Vishal, **Sunil Kumar**, S. Das, Application of Homotopy Analysis method for fractional Swift Hohenberg equation- Revisited, ***Applied Mathematical Modelling***, 36 (8), 3630–3637(2012) **(Elsevier) (USA) (IF: 1.709) (USA).**

[11] **Sunil Kumar,** A Mathematical Modelling arising in the Chemical Systems and its Approximate Numerical solution, ***Asia Pacific Journal of Chemical Engineering***, 7 (6), 835-840, (2012) **(Taiwan) (Wiley) (IF: 0.797).**

[12] Naeem Faraz, **Sunil Kumar,** A coupling Method of homotopy method and Laplace transform for fractional modells, ***U.P.B. Sci. Bull., Series A Appl. Math. Phys,*** 74 (1), 57-68 (2012) **(Romania) (IF: 0.30).**

[13] M. Khan, M. A. Gondal, **Sunil Kumar,** A new analytical solution procedure for nonlinear integral equations, ***Mathematical and Computer Modelling***, 55(7), 1892-1897 (2012) **(Elsevier) (USA) (IF: 1.420) (SCI).**

[14] Sandeep Dixit, Om P. Singh, **Sunil Kumar,** A stable numerical inversion of Generalized Abel Integral Equation, ***Applied Numerical Mathematics,*** 62(5), 567-579 (2012) **(Elsevier) (USA) (IF: 1.152) (SCI).**

[15] **Sunil Kumar,** H. Jafari, K. Sayevand, L. Wei, A Analytical Solution of Black- Scholes Option Pricing Equation by using Laplace transform**, *Journal of fractional calculus and Applications,*** 2(8), 1-9 (2012) **(Egypt).**

[16] **Sunil Kumar,** H. Kocak, A fractional model of gas dynamics equation by using Laplace transform**, *Zeitschrift fur Naturforschung***, 67a, 389 – 396 (2012) **(Germany) (IF: 0.929) (SCI).**

[17] **Sunil Kumar,** W. Leilei, A fractional model of diffusion equation by using Laplace transform, ***Science Irantica,*** 19 (4), 1117–1123 (2012) **(Elsevier) (Iran) (IF: 0.30).**

[18] L. Wei, X. Zhang**, Sunil Kumar,** Numerical study based on an implicit fully discreate local discontinuous Galerkin method for time fractional coupled Schrodinger system, ***Computer and Mathematics with application,*** 64 (8), 2603-2615 (2012) **(USA) (Elsevier) (IF: 2.069) (SCI).**

[19] L. Wei, Yinnian He**, Sunil Kumar,** Numerical study based on an implicit fully discreate local discontinuous Galerkin method for time fractional KdV- Burgers-Kuramoto equation, ***JAMM Journal of Applied Mathematics and Mechanics***, 93 (1), 14-28 (2013) (Wiley) (**IF: 0.948).**

[20] **Sunil Kumar,** M. P. Tripathi, Om P. Singh, A fractional model of Harry Dym equation and its approximate solution, ***Ain Shams Engineering Journal,*** 4,111–115 (2013). **(Elsevier) (Egypt).**

[21] **Sunil Kumar,** A new mathematical modelling for nonlinear wave in hyperlastic rod and its approximate solution, ***Walailak Journal of Sciences and Technology***, (2012) (Accepted) (**Thailand**) (**IF: 0.1086).**

[22] Wenbin Zhang, Jiangbo Zhou, **Sunil Kumar,** Symmetry Reduction, Exact Solutions, and Conservation Laws of the ZK-BBM Equation, ***ISRN Mathematical Physics***, doi:10.5402/2012/

[23] S. Kazem, S. Abbasbandy, **Sunil Kumar**, Fractional-order Legendre functions for solving fractional-order differential equations, ***Applied Mathematical Modelling***, 37 (7), 5498–5510 (2013) **(Elsevier) (USA) (IF: 1.709) (SCI).**

[24] Jiangbo Zhou, Lixin Tian, Wenbin Zhang, **Sunil Kumar**, Peakon–antipeakon interaction in the Dullin–Gottwald–Holm equation, ***Physics Letters*** *A*, 377, 1233–1238 (2013) **(Elsevier) (IF: 1.766) (SCI).**

[25] Devendra Kumar, Jagdev Singh, **Sunil Kumar**, Analytic and approximate solutions of space and time fractional telegraph equation via Laplace transform, ***Walailak Journal of Sciences and Technology,*** (2013) **(Article in press)** (**Thailand**) (**IF: 0.1086).**

[26] Jianping Zhao, Bo Tang, **Sunil Kumar** and Yan Ren Hou, The extended fractional sub-equation method for nonlinear fractional differential equations, ***Mathematical Problems in Engineering***, (Accepted) (2012) Volume 2012, Article ID 924956, 12 pages, doi:10.1155/2012/924956 (**IF: 1.383) (SCI).**

[27] **Sunil Kumar**, Naeem Faraz, Khosro Sayevand, A fractional model of Bloch equation in Nuclear magnetic Resonence and its approximate solution, ***Walailak Journal of Sciences and Technology,*** (2013) **(Article in press)** (**Thailand**) (**IF: 0.1086).**

[28] **Sunil Kumar,** Devendra Kumar, U. S. Mahabaleswar, A new adjustment of Laplace transform for fractional Bloch equation in NMR flow, ***Application and Applied Mathematics: An International Journal (AAM)*** **(Article in press) (USA)** (2013)

[29] Jagdev Singh, Devendra Kumar, **Sunil Kumar,** New treatment of fractional Fornberg-Whitham equation via Laplace transform, ***Ain Sham Engineering Journal***, 4, 557–562 (2013) **(Elsevier) (Egypt).**

[30] Jagdev Singh, Devendra Kumar, **Sunil Kumar,** A new reliable algorithm for solving discontinuity problem in nanotechnology, ***Science Irantica,*** 20(3) pp. 1059–1062 (2013) **(Elsevier) (IF: 0.30).**

[31] Wenbin Zhang, Jiangbo Zhou, **Sunil Kumar,** On the support of solutions to a two-dimensional nonlinear wave equation, ***Journal of Mathematics,*** Article ID 578094, 4 pages, (Hindawi Publishing Corporation).

[32] R. Pourgholi, A. Esfahani, **Sunil Kumar,** A numerical algorithm for solving an inverse semilinear wave problem, ***International Journal of Computing Science and Mathematics,*** (2013) (Article in press).

[33] **Sunil Kumar,** A Numerical Study for Solution of Time Fractional Nonlinear Shallow-Water Equation in Oceans, ***Zeitschrift fur Naturforschung*** **A,** 68 a, 1-7, (2013) **(Germany) (IF: 0.929) (SCI).**

[34] M. M. Khader, **Sunil Kumar,** S. Abbasbandy**,** New homotopy analysis transform method for solving the discontinued problems arising in nanotechnology, **Chinese Physics** B 22(11), (2013). **(IF: 1.63) (SCI).**

[35] **Sunil Kumar**, Devendra Kumar, Jagdev Singh, Saurabh Singh, New Homotopy Analysis Transform Algorithm to Solve Volterra Integral Equation**,** ***Ain Sham Engineering Journal, (***2013) DOI:org/10.1016/j.asej.2013.07.004. **(Elsevier) (Egypt).**

[36] **Sunil Kumar,** Numerical Computation of Time-Fractional Fokker–Planck Equation Arising in Solid State Physics and Circuit theory, ***Zeitschrift fur Naturforschung,*** 68a, 1-8 (2013) (2013) **(Germany) (IF: 0.929) (SCI).**

[37] **Sunil Kumar,** Devendra Kumar, Fractional Modelling for BBM-Burger Equation by Using New Homotopy Analysis Transform Method, ***Journal of the Association of Arab Universities for Basic and Applied Sciences***, DOI: org/10.1016/j.jaubas.2013.10.002, (2013), (**Elsevier) (Bahrain).**

[38] Mohsen Alipour , Dumitru Baleanu, Kobra Karimi, **Sunil Kumar,** Variational Iteration Method for Generalized Pantograph Equation with Convergence Analysis, ***Discontinuity, Nonlinearity, and Complexity,*** (Accepted), (2013).

[39] **Sunil Kumar**, A new fractional modelling arising in Engineering Sciences and its analytical approximate solution, ***Alexandria Engineering Journal,*** DOI:org/10.1016/j.aej.2013.09. 005, (2013) (**Elsevier) (Egypt).**

[40] **Sunil Kumar**, Deepak Kumar, S. Abbasbandy, M. M. Rashidi, Analytical Solution of fractional Navier-Stokes equation by using Modified Laplace Decomposition Method, ***Ain Sham Engineering Journal,*** (Accepted), (2013), (**Elsevier) (Egypt).**

[41] **Sunil Kumar**, A new analytical modelling for telegraph equation via Laplace transform, ***Applied Mathematical Modelling,*** DOI: 10.1016/j.apm.2013.11.035. (**Elsevier) (USA).**

[42] M. M. Khader, **Sunil Kumar**, An accurate numerical method for solving the linear fractional Klien-Gordon equation, **Mathematical Method in Applied Sciences, (**DOI: 10.1002/mma.3035**),** (2013) **(IF: 0.778) (SCI).**

[43] Rajnesh Kumar, **Sunil Kumar**, A new fractional modelling on Susceptible-Infected-Recovered equations with constant vaccination rate, **Nonlinear Engineering- Modelling and Application**, (**Accepted**) (2014)

[44] **Sunil Kumar,** An analytical algorithm for nonlinear fractional Fornberg-Whitham equation arising in wave breaking based on a new iterative method, ***Alexandria Engineering Journal,*** **Elsevier,** DOI:.org/10.1016/j.aej.2013.11.004 (2013).

[45] Jagdev Singh, Devendra Kumar, **Sunil Kumar**, A fractional model of nonlinear shock wave equation arising gases, **Nonlinear Engineering- Modelling and Application**, (**Accepted**) (2014)

[46] **Sunil Kumar,** A New Efficient Algorithm to Solve Non-Linear Fractional Ito Coupled System and Its Approximate Solution, ***Walailak Journal of Sciences and Technology,*** (2013) **(Article in press)** (**Thailand**) (**IF: 0.1086).**

[47] Devendra Kumar, Jagdev Singh, **Sunil Kumar**, Numerical Computation of Nonlinear Fractional Zakharov- Kuznetsov Equation arising in Ion-Acoustic Wave, **Journal of the Egyptian Mathematical Society, Elsevier, (Accepted) (2014)**

[48] M. M. Rasshidi, L. Shamekhi, **Sunil Kumar**, Parametric Analysis of Entropy Generation in Off-Centered Stagnation Flow towards a Rotating Disc with the Keller-Box Method solution, **Nonlinear Engineering- Modelling and Application**, (**Accepted**) (2014)

[49] **Sunil Kumar** et. al., A new fractional analytical approach for treatment of system of physical models by using Laplace Transform, ***Science Irantica,*** (**Accepted**) (2014).

[50] **Sunil Kumar,** Devendra Kumar, Jagdev Singh, A. Singh, Analytical Solution of Abel Integral Equation Arising in Astrophysics via Laplace Transform, **(Accepted),** (2014), **(Elsevier).**

[51] Nagma Irfan, **Sunil Kumar,** S. Kapoor, Amit Kumar, Bernstein Operational Matrix Approach for Integro-Differential Equation Arising in Control theory and Astronomy **Nonlinear Engineering- Modelling and Application**, (**Accepted**) (2014)**.**

[52] M.M. Rashidi, A. Hosseini, I. Pop, **Sunil Kumar,** N. Freidoonimehr, Comparative Numerical Study of Single and Two Phase Models of Nanofluid Heat Transfer in a Wavy Channel, **Applied Mathematics and Mechanics** (English Edition) **(Accepted),** (2014) **(IF: 0.647) (SCI) (China).**

[53] Devendra Kumar, Jagdev Singh, **Sunil Kumar,** A new fractional model of Navier-Stokes equation arising in unsteady flow of a viscous fluid, Journal of the Association of Arab Universities for Basic and Applied Sciences, (Accepted) (Elsevier) (2014)

Communicated papers in International Journals

[54] **Sunil Kumar** et. al., Analytical expressions of population of Host, parasite and free living parasite: Modelling of Argulus foliaceus in trout fisheries, **(Under Review),** (2013), **(Elsevier).**

[55] **Sunil Kumar** et. al., On the numerical solution of nonlinear systems of algebraic equations by power series, **(Under Review),** (2013).

[56] **Sunil Kumar** et. al., A new formula for Adomian polynomials and the analysis of its truncated series solution for the fractional non-differentiable IVPs, **(Under Review),** (2013).

[57] **Sunil Kumar** et. al., A numerical scheme for solving differential equations with space- and time-fractional coordinates derivatives, **(Under Review),** (2013).

[58] **Sunil Kumar** et. al., Exponential Chebyshev functions for solving BVPs in semi-infinite domains, **(Under Review),** (2013), **(Elsevier).**

[59] **Sunil Kumar** et. al., A new approximate analytical technique for dual solutions of nonlinear differential equations arising in mixed convection heat transfer in a porous medium**, (Under Review),** (2013), **(Elsevier).**

[60] **Sunil Kumar** et. al., Numerical Computation of Nonlinear Fractional Zakharov-Kuznetsov Equation arising in Ion- Acoustic Wave, **(Under Review),** (2013).

[61] **Sunil Kumar** et. al., New fractional homotopy analysis transform method for solving the physical model, **(Under Review),** (2013).

[62] **Sunil Kumar** et. al., Efficiency of new homotopy analysis transform method for fractional wave equation, **(Under Review),** (2013), **(Elsevier).**

[63] **Sunil Kumar** et. al., Inversion of Abel Integral equation, **(Under Review),** (2013), **(Elsevier).**

[64] **Sunil Kumar et. al.,** Analytical Expressions of Population of Host, Parasite and Free living Parasite: Modelling of Argulus foliaceus in Trout Fisheries, (Under Review), **(2013)**, **(Elsevier).**

[65] **Sunil Kumar et. al.,** Analytical expression for concentration and sensitivity of a thin film semiconductor gas sensor, (Under Review), **(2013)**, **(Elsevier).**

[66] **Sunil Kumar et. al.,** Analytical expressions for the concentration of nitric oxide removal in the gas and biofilm phase in a biotrickling filter, (Under Review), **(2013)**, **(Elsevier).**

[67] **Sunil Kumar et. al.,** Numerical Computation of Klein-Gordon equations arising in quantum field theory, (Under Review), **(2013)**, (Elsevier).

[68] **Sunil Kumar et. al.,** New comparatives study for Black Scholes equation arising in European pricing, (Under Review), **(2013)**, (Elsevier).

[69] **Sunil Kumar et al.,** Solving transport equation via Haar function method (Under Review)

[70] **Sunil Kumar et al.,** Numerical solution of nonlinear fractional differential equations based on fractional order Legendre functions collocation method (Under Review)

[71] **Sunil Kumar et al.,** Bessel Functions Associated with Saigo-Maeda Fractional Derivative Operators (Under review)

[72] **Sunil Kumar et al.,** Parametric Analysis of a MHD Convective Slip Flow toward a Rotating Disk with Viscous Dissipation and Ohmic Heating by Keller-Box Method, (Under Review) 2014

[73] Sunil Kumar et al., Numerical solution of Black-Scholes equation using Bernstein multi-scaling functions (Under Review), **(2014)**, (Elsevier).

[74] Sunil Kumar et al., An operational matrix for solving the coupled fractional Whitham Broer Kaup equation (Under review)

[75] Sunil Kumar et al., A new analytical approximation for fractional Toda Lattice equation (Under Review) (2014)

[76] Sunil Kumar et al., A convergence study for fractional KdV equation by using new homotopy analysis method (Under Review) (Elsevier) (2014)

[77] Sunil Kumar et al., Reduced Differential transform method for multi-dimensional hyperbolic Telegraphic equations, (Under Review) (Elsevier) (2014)

[78] Sunil Kumar et al., Numerical solution of one-dimensional coupled Burgers' equation via an implicit logarithmic finite difference method(Under Review) (Elsevier) (2014)

My favorite Journals

(1)- Applied Mathematical Modelling **(Elsevier) SCI**

(2)- Applied Mathematics Computation **(Elsevier) SCI**

(*3***)-** Computers and Mathematics with Applications **(Elsevier) SCI**

(4)- Ain Sham Engineering Journal **(Elsevier)**

(5)- Mathematical and Computer Modelling **(Elsevier) SCI**

(6)- Science Irantica **(Elsevier)**

(7)- Zeitschrift fur Naturforschung A, **SCI**

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National Conference Paper

1. Rakesh Mohan, **Sunil Kumar,** R. N. Prajapati, An efficient algorithm to solve time fractional Biological problem, National Conference on Mathematical Modelling and Computer Simulation, Institute of Technology, Banaras Hindu University, Varanasi 2011.

2. S. Dixit, Om P. Singh, **Sunil Kumar**, A stable numerical inversion of generalized Abel integral equation, National Conference on Mathematical Modelling and Computer Simulation, Institute of Technology, Banaras Hindu University, Varanasi, 2011.

International conference paper

1. R. Bansal, S. Kapoor, S. Rawat, B.K Singh and **Sunil Kumar,** Role of diffusivity ratio in the linear stability analysis of double diffusive free convective flow in anisotropic porous media, Science and Engineering and National Conference

(SETNC), UniKL Malaysian France Institute , Kualalumpur (Malaysia), 3-4 July (2013)

References

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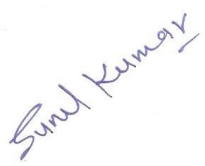
Declaration

I, hereby declare that all the statements made in this application are true and complete to the best of my knowledge and brief.



(Sunil Kumar)