

CURRICULAM VITAE

Dr. Sunil Kumar

Assistant Professor

Department of Mathematics
National Institute of Technology,
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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

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Jamshedpur, 831014, Jharkhand, India

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2. **Residential:**

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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_ajesm.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-applied-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>)

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 Letter (**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 Egyptian 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. Yildirim, M. Khan, M.A. Gondal, and I. Hussain, A Fractional Model of Impurity Concentration and Its Approximate solution, *World Applied Sciences Journal*, 13 (12), 2455-2462, (2011) (Dubai)..
- [12] **Sunil Kumar**, Yasir Khan, Ahmet Yildirim, 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).
- [13] Yasir Khan, Naeem Faraz, **Sunil Kumar**, Ahmet Yildirim, A coupling Method of homotopy method and Laplace transform for fractional models, *U.P.B. Sci. Bull., Series A Appl. Math. Phys*, 74 (1), 57-68 (2012) (Romania) (IF: 0.30).
- [14] 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).
- [15] 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).

- [16] **Sunil Kumar**, Ahmet Yildirim, Yasir Khan, 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).
- [17] Z. Pınar, A. Yildirim, **Sunil Kumar**, A. Heidar, Syed Tauseef Mohyud-Din, Variational Iteration Method for Bi-fractional Black-Merton-Scholes Model, *International Journal of Pure and Applied Mathematics*, (Accepted) 2012.
- [18] **Sunil Kumar**, H. Kocak, Ahmet Yildirim, A fractional model of gas dynamics equation by using Laplace transform, *Zeitschrift fur Naturforschung*, 67a, 389 – 396 (2012) (Germany) (IF: 0.929) (SCI).
- [19] **Sunil Kumar**, Ahmet Yildirim, Y. Khan, W. Leilei, A fractional model of diffusion equation by using Laplace transform, *Science Irantica*, 19 (4), 1117–1123 (2012) (Elsevier) (Iran) (IF: 0.30).
- [20] L. Wei, X. Zhang, **Sunil Kumar**, Numerical study based on an implicit fully discrete 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).
- [21] L. Wei, Yinnian He, Ahmet Yildirim, **Sunil Kumar**, Numerical study based on an implicit fully discrete 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).
- [22] **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).

- [23] **Sunil Kumar**, A new mathematical modelling for nonlinear wave in hyperelastic rod and its approximate solution, *Walailak Journal of Sciences and Technology*, (2012) (Accepted) (Thailand) (IF: 0.1086).
- [24] 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/
- [25] 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).
- [26] 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).
- [27] 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).
- [28] 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).
- [29] **Sunil Kumar**, Naeem Faraz, Khosro Sayevand, A fractional model of Bloch equation in Nuclear magnetic Resonance and its approximate solution, *Walailak Journal of Sciences and Technology*, (2013) (Article in press) (Thailand) (IF: 0.1086).
- [30] **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)

- [31] 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).
- [32] Jagdev Singh, Devendra Kumar, **Sunil Kumar**, A new reliable algorithm for solving discontinuity problem in nanotechnology, *Science Iranica*, 20(3) pp. 1059–1062 (2013) (Elsevier) (IF: 0.30).
- [33] 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).
- [34] 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).
- [35] **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).
- [36] 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).
- [37] **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).
- [38] **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).

- [39] **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).
- [40] Mohsen Alipour , Dumitru Baleanu, Kobra Karimi, **Sunil Kumar**, Variational Iteration Method for Generalized Pantograph Equation with Convergence Analysis, *Discontinuity, Nonlinearity, and Complexity*, (Accepted), (2013).
- [41] **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).
- [42] **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).
- [43] **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).
- [44] 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).
- [45] Rajnesh Kumar, **Sunil Kumar**, A new fractional modelling on Susceptible-Infected-Recovered equations with constant vaccination rate, *Nonlinear Engineering- Modelling and Application*, (Accepted) (2014)
- [46] **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).

- [47] Jagdev Singh, Devendra Kumar, **Sunil Kumar**, A fractional model of nonlinear shock wave equation arising gases, **Nonlinear Engineering- Modelling and Application**, (Accepted) (2014)
- [48] **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).
- [49] 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)
- [50] 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)
- [51] **Sunil Kumar** et. al., A new fractional analytical approach for treatment of system of physical models by using Laplace Transform, *Science Iranica*, (Accepted) (2014).
- [52] **Sunil Kumar**, Devendra Kumar, Jagdev Singh, A. Singh, Analytical Solution of Abel Integral Equation Arising in Astrophysics via Laplace Transform, (Accepted), (2014), (Elsevier).
- [53] 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).
- [54] M.M. Rashidi, A. Hosseini, I. Pop, **S. 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).

Communicated papers in International Journals

- [55] **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**).
- [56] **Sunil Kumar** et. al., On the numerical solution of nonlinear systems of algebraic equations by power series, (**Under Review**), (2013).
- [57] **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).
- [58] **Sunil Kumar** et. al., A numerical scheme for solving differential equations with space- and time-fractional coordinates derivatives, (**Under Review**), (2013).
- [59] **Sunil Kumar** et. al., Exponential Chebyshev functions for solving BVPs in semi-infinite domains, (**Under Review**), (2013), (**Elsevier**).
- [60] **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**).
- [61] **Sunil Kumar** et. al., Numerical Computation of Nonlinear Fractional Zakharov-Kuznetsov Equation arising in Ion- Acoustic Wave, (**Under Review**), (2013).
- [62] **Sunil Kumar** et. al., New fractional homotopy analysis transform method for solving the physical model, (**Under Review**), (2013).
- [63] **Sunil Kumar** et. al., Efficiency of new homotopy analysis transform method for fractional wave equation, (**Under Review**), (2013), (**Elsevier**).
- [64] **Sunil Kumar** et. al., Inversion of Abel Integral equation, (**Under Review**), (2013), (**Elsevier**).

- [65] **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).
- [66] **Sunil Kumar et. al.**, Analytical expression for concentration and sensitivity of a thin film semiconductor gas sensor, (Under Review), (2013), (Elsevier).
- [67] **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).
- [68] **Sunil Kumar et. al.**, Numerical Computation of Klein-Gordon equations arising in quantum field theory, (Under Review), (2013), (Elsevier).
- [69] **Sunil Kumar et. al.**, A new fractional model of Navier-Stokes equation arising in unsteady flow of a viscous fluid, (Under Review), (2013), (Elsevier).
- [70] **Sunil Kumar et. al.**, New comparatives study for Black Scholes equation arising in European pricing, (Under Review), (2013), (Elsevier).
- [71] **Sunil Kumar et al.**, Solving transport equation via Haar function method (Under Review)
- [72] **Sunil Kumar et al.**, Numerical solution of nonlinear fractional differential equations based on fractional order Legendre functions collocation method (Under Review)
- [73] **Sunil Kumar et al.**, Bessel Functions Associated with Saigo-Maeda Fractional Derivative Operators (Under review)
- [74] **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
- [75] **Sunil Kumar et al.**, Numerical solution of Black-Scholes equation using Bernstein multi-scaling functions (Under Review), (2014), (Elsevier).

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

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**) **SCI**
- (5)- Mathematical and Computer Modelling (**Elsevier**) **SCI**
- (6)- Science Irantica (**Elsevier**)
- (7)- Zeitschrift fur Naturforschung A, **SCI**

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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)