CURRICULAM VITAE

Dr. Sunil Kumar
Assistant Professor
Department of Mathematics
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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

- Complex Analysis
- Linear Algebra
- Numerical Technique
- Statistical Technique
- Differential Equation

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)**

Editor in Chief of International Journal

- **Update soon**

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

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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. **International Journal of Applied Mathematical Sciences (JAMS) (http://www.ripublication.com/editorial_board_of_jams.htm)**
24. **International Journal of Applied Mathematical Sciences (JAMS) (http://www.ripublication.com/editorial_board_of_jams.htm)**

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

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 modells, ***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).**

[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. Yıldırım, **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 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).**

[21] L. Wei, Yinnian He**,** Ahmet Yildirim, **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).**

[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 hyperlastic 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).**

[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).**

[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).**

[29] **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).**

[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 Irantica,*** 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).

[37] **Sunil Kumar**, Devendra Kumar, Jagdev Singh, Saurabh Singh, New Homotopy Analysis Transform Algorithm to Solve Volterra Integral Equation**,** ***Ain Sham Engineering Journal, (***2013) (Article in press) **(Elsevier) (Egypt).**

[38] **Sunil Kumar,** Numerical Computation of Time-Fractional 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***, (Accepted), (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**, S. Abbasbandy, Travelling-Wave Solution 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,*** (Accepted), (2013), (**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, (Accepted),** (2013) **(IF: 0.778).**

[45] **Sunil Kumar**, Rajnesh 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,** (**Accepted**) (2014).

[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)**

Communicated papers in International Journals

[50] **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).**

[51] **Sunil Kumar** et. al., Parametric Analysis of Entropy Generation in Off-Centered Stagnation Flow towards a Rotating Disc with the Keller-Box Method solution **(Under Review),** (2013), **(Elsevier).**

[52] **Sunil Kumar** et. al., Bernstein Operational Matrix Approach for Integro-Differential Equation Arising in Control theory and Astronomy **(Under Review),** (2013).

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

[54] **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).

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

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

[57] **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).**

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

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

[60] **Sunil Kumar** et. al., Travelling Wave Solution of Integral Equation Arising in Astrophysics via Laplace Transform, **(Under Review),** (2013), **(Elsevier).**

[61] **Sunil Kumar** et. al., A new fractional analytical approach for treatment of system of physical models by using Laplace Transform **(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.,** A new fractional model of Navier-Stokes equation arising in unsteady flow of a viscous fluid, (Under Review), **(2013)**, (Elsevier).

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

My favorite Journals

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

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

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

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

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

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

(7)- Zeitschrift fur Naturforschung A

My some national collaborators

(1) **Prof. Om P. Singh (Supervisor),** Department of Applied Mathematics, Indian Institute of Technology, Banaras Hindu University, Varanasi, India.

(2) **Prof. S. Das,** Department of Applied Mathematics, Indian Institute of Technology, Banaras Hindu University, Varanasi, India.

(3) **Dr. M. P. Tripathi,** Udai Pratap Autonomous College, Varanasi, 221002, India.

(4) **Dr. D. Kumar,** Department of Mathematics, Jagan Nath Gupta Institute of Engineering and Technology, Jaipur 302022, Rajasthan, India

(5) **Dr. J. Singh,** Department of Mathematics, JaganNath University, Village-Rampura, Tehsil-Chaksu, Jaipur 303 901, Rajasthan, India

(6) **Dr. S. Kapoor,** Department of Mathematics, Division of Applied Sciences THDC Institute of Hydropower Engineering and Technology, B.Puram, Tehri, India

(7) **Dr. S. Gupta,** Jagan Nath Gupta Institute of Engineering and Technology, Jaipur-302022, India.

(8) **Dr. U. S. Mahabaleshwar,** Government First Grade College for Women Hassan- 573 201, Karnataka, india

(9) **Dr. S. Jha,** Department of Mathematics, National Institute of Technology, Jamshedpur, Jharkhand, India

(10) **Dr. R. Kumar,** Faculty of Mathematical and Statistical Science, Shri Ramswaroop Memorial University Lucknow Deva Road, Lucknow, Uttar Pradesh -225003, India

(11) **Dr. R. Lakshmanan,** Department of Mathematics, The Madura College, Madurai-625011, Tamil Nadu, India

My some International collaborators

(1) **Prof. K. Vajravelu,** Department of Mathematics, University of Central Florida, Orlando, Florida 32816, USA.

(2) **Prof. H. Kocak,** Department of Mathematical Sciences, University of Bath, Bath BA, United Kingdom.

(3) **Prof. S. Abbasbandy,** Department of Mathematics, Imam Khomeini International University, Ghazvin**,** 34149-16818, Iran

(4) **Prof. S. Kazem,** Department of Mathematics, Imam Khomeini International University, Ghazvin 34149-16818, Iran

(5) **Prof. E. Shivanian,** Department of Mathematics, Imam Khomeini International University, Ghazvin, 34149, Iran

(6) **Dr. A. Yildirm,** Department of Applied Mathematics, Faculty of Science, Ege University, Bornova, Izmir, Turkey.

(7) **Prof. W. Zhang,** Taizhou Institute of Science and Technology, (NUST), Taizhou, Jiangsu 225300, China

(8) **Prof. J. Zhou,** Nonlinear Scientific Research Center, Faculty of Science, Jiangsu University, Zhenjiang, Jiangsu 212013, China

(9) **Dr. N. Faraj,** Modern Textile Institute, Donghua University, 1882, Yan Xilu Road, Shanghai 200051, China

(10) **Dr. Y. Khan,** Department of Mathematics, Zhejiang University, Hangzhou 310027, China

(11) **Dr. A. S. Hendy,** Department of Mathematics, Faculty of Science, Benha University, Benha, Egypt

(12) **Prof. M. M. Rashidi,** Department of Mechanical Engineering, Bu-Ali Sina University, P.O. Box 65175-4161 Hamedan, Iran

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, **S. 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

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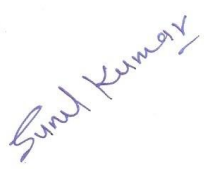
Declaration

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)