## Curriculum Vitae

Dr. Mukesh Grover M.Sc, M.Phil, Ph.D Assistant Professor Department of Applied Mathematics Maharaja Ranjit Singh Punjab Technical University, Bathinda-151001



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**Position and Department:** Assistant Professor, Department of Applied Mathematics, GZS Campus College of Engineering and Technology Maharaja Ranjit Singh Punjab Technical University, Bathinda.

**Teaching experience**: 12 years which includes teaching of UG classes and P.G classes at GZSCCET, Bathinda.

**Publications:** 22 publications in the International Journals and National /International Conferences and three books (Two national levels and one international level).

**Areas of interest**: Numerical Analysis and Fractional Calculus for finding the solutions of higher order differential and integral equations.

**Membership:** Membership of various prestigious bodies ISTE (Indian Society for Technical Education), IAENG (International Association of Engineers), many more.

## **Research Publications**

1. International Journal of Computational Mathematics and Numerical Simulation, "*A New Approach to Evaluate 12th Order Boundary Value Problems with HPM*" Vol. 4, No. 1, January-June 2011, pp. 99-112, a Serial's Publications, ISSN: 0973-581X

 International Journal of Operations Research and Optimization, "New Numerical Methods for Solving Non-linear Equations and Calculate Estimate Error" January-June 2011, Volume 2, No. 1, pp-91-98, ISSN-(Print) 0975-3737, (Online) 2231-4741 3. International Journal on Computer Science and Engineering, "Comparison of Optimal Homotopy Asymptotic Method with Homotopy Perturbation Method of Twelfth Order Boundary Value Problems", ISSN: 0975-3397, Vol. 3 No. 7 July 2011(Chennai)

4. International Journal of Scientific & Engineering Research, "*Comparison of Variational Iteration Decomposition Method with Optimal Homotopy Asymptotic of Higher Order Boundary Value Problems*", Volume 2, Issue 9, September-2011, ISSN 2229-5518 (France)

5. International Journal of Advances in Science and Technology, "*A New Technique to Solve Higher Order Integral Differential Equations with Variational Iterative Method*", Volume 3, No.3, 2011, ISSN -2229 5216(Bangalore)

6. Fusion International Journal of Interdisciplinary Approaches, *"A New Approach to Evaluate Fredholm and Volterra Integral Equations with Homotopy Analysis Method"*, Volume. -2, Sep –2011, ISSN: 2231-2005.

7. International Journal of Applied Engineering Research and Technology, "A New Approach to Evaluate Second Kind of Volterra Integral Equation with Homotopy Perturbation Method and Variational Iteration Method", ISSN: 2250-3498, Vol-1, Dec-2011

8. International Journal of Modern Mathematical Sciences, *"Solving Numerical Solution of Nonlinear Fredholm Integral Equation of the second kind with Quadrature Methods"*, ISSN: 2166-286X, 2012, 1(2), pp.44-52, Florida, USA.

9. International Journal of the Physical Sciences, "*New Variational iteration decomposition method for solving twelfth order boundary value problems*", Vol.7 (1), pp.81-88, Jan-2012, ISSN: 1992-1950.

10. International Journal Of Computer Sciences," *A New Technique to Solve Higher Order Ordinary Differential equations.*" New York, USA 2012, ISSN 0975-8887.

11. International proceeding, *Research Methodologies In Operation Management*, Proceedings of EDULEARN11 Conference. Barcelona, Spain, ISBN: 978-84-615-0441-1, Vol:1, pp. 005763-005768.

12. National proceeding, A New Technique to Solve Higher Order Ordinary Differential

equations, Conference on Recent Trends in Mathematics and Computing, Vol:2, RTMC No. 8

13. National proceeding, Numerical Solution with Ordinary Differential Equation and using MATLAB, Conference National proceedings published under ISBN No. 978-93-81361-07-8, Vol:21, pp. 22-27.

14. National proceeding, An Application of MATLAB in Runge - Kutta Methods of Higher order with Ordinary Differential Equation, Conference National proceedings published under ISBN No. 978-81-920674-0-7(Advanced Mathematics and its Applications), Vol: 1, pp.188-193.(Chaired a Session & "INVITED TALK")

15. International Journal of Elixir Applied Mathematics, "Comparison in between differential transformation method and variation of parameter method for higher order boundary value problem", Elixir Appl. Math. 65A (2013) 20009-20015,65-A,20009-20015.

16. International Journal of Elixir Applied Mathematics, "A new approach to evaluate higher order differential equations by differential transformation method and homotopy perturbation method using boundary value problems", Elixir Appl. Math. 55A (2013) 13351-13355.

17. International Journal of Science Technology & Engineering "Numerical Solution of Linear Ordinary Differential Equations of Higher Order by Differential Transformation Method" | Volume 3 | Issue 06 | December 2016 ISSN (online): 2349-784X.

18. International Journal of Computer & Mathematical Sciences IJCMS "A New Technique to Inculcate the Particular Solution of Fractional Order  $\alpha$  { or or } Differential Equations  $D^{\alpha}$ ,  $D^{2\alpha}$ ,  $D^{3\alpha}$  With Boundary Conditions", ISSN 2347 – 8527 Volume 6, Issue 5 May 2017.

19. International Journal of Advanced Research in Computer Science and Software Engineering, "Estimate the Solution of Fractional Differential Equations with Transcendental Functions", Volume 7, Issue 5, May 2017 ISSN: 2277 128X.

20. International Journal Global Journal of Pure and Applied Mathematics, "Numerical Approach to Differential Equations of Fractional order Bratu-type Equations by Differential Transform Method", ISSN 0973-1768 Volume 13, Number 9 (2017), pp. 5813-5826.

21. International journal of research and analytical reviews, "The Numerical Solution of Homotopy Analysis Method and Two-dimensional Differential Transform Method for Nonlinear Partial Differential Equation" ISSN 2348-1269 Volume 5, Number 4 (2018), pp. 708-713.

22. International journal of Pure and Applied Mathematics, Evaluate approximate solutions of nonlinear Volterra-Fredholm Integral equations with modified Laplace Adomian decomposition method which is based on Modified Newton Raphson method, ISSN 1314-3395, Volume 119, Number 14 (2018), pp. 109-115.

S.No.	Name of Institution	Period of Job	Position
1.	GZSCCET MRSPTU, Bathinda	Aug 2006- Till date	Assistant Professor

## PERSONAL DETAILS

Name	Dr. Mukesh Grover	
Father's Name	Sh. Sat paul Grover	
Mother's Name	Smt. Darshana Rani	
Permanent Address	#20827-B, Ajit Road, Street No: 23-B, Near	
	Ghore wala Road, Bathinda Punjab	
Date of Birth	January 09,1982	
Nationality	Indian	
Languages Known	English ,Hindi, Punjabi	

PLACE : Bathinda

## Dr. Mukesh Grover