CURRICULUM VITAE

PERSONAL DATA

Name	Mohammed Mohsen Salem Babatin
Nationality	Saudia Arabia
Position	Professor
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EDUCATION

Year	Academic Degree	Institution
1990	Bachelor's degree	King Saud University
1994	Master's degree	Dundee University
2005	PHD degree	Dundee University

WORK EXPERIENCE

Period	Position	Address
06/08/1990	Teaching Assistant	King Abdulaziz Military Academic
22/06/2005-24/05/2009	Assistant Professor	King Abdulaziz Military Academic
14/06/2009-13/08/2018	Vice Dean of Science College for Educational and Student Affairs	Al Imam Mohammad Ibn Saud Islamic University
16/09/2010-13/08/2018	Vice Dean of Science College for Development and Quality	Al Imam Mohammad Ibn Saud Islamic University
12/09/2012-13/08/2018	Dean of Science College	Al Imam Mohammad Ibn Saud Islamic University
07/01/2013	Associate Professor	Al Imam Mohammad Ibn Saud Islamic University

26/09/2018	Full Professor	Al Imam Mohammad Ibn Saud Islamic University
08/07/2019-28/06/2020	Dean of Scientific Research	Al Imam Mohammad Ibn Saud Islamic University

RESEARCH INTERESTS

Numerical Analysis

PUBLICATIONS

LIST Of Publication In International Journal

1. **Babatin, Mohammed M**. and Zahran, Yousef H. (2009) 'Adaptive multi-resolution central-upwind schemes for systems of conservation laws', International Journal of Computational Fluid Dynamics, 23: 10, 723 - 735.

2. **Mohammed M. Babatin**, Madhat M. Said, Hend N. Hafez, Abdel-Rahman B. A. El-Gazzar, Novel anti-inflammatory and analgesic agents of 5-chromeno- pyrido[2,3-*d*]pyrimidine-4-yl derivatives and *S*-nucleosides analogous ., International Journal of Pharmaceutical Sciences Review and Research Volume 4, Issue 2, September 2010, 25-36 .

3. **M. M. Babatin**, A. B. A. El-Gazzar and L. Khezami**.**, Simple and efficient synthesis of novel glycosyl thiourea derivatives derived from Thiophene as potential antitumor agents., Journal Of Chemistry and Chemical Engineering (USA), Vol. (5) No. 38 , 2010.

3. A. Eid and **M. M. Babatin**, Thick Shell with Different Masses, Common. Theor. Phys. 56 (2011) 687–690 Vol. 56, No. 4, October 15, 2011.

5. A. Eid and **M. M. Babatin**, Dynamics of crossing cosmological shells, Eur. Phys. J. Plus (2011) 126: 71 DOI: 10.1140/epjp/i2011-11071-3.

6. **M. M. Babatin**, Shell dynamics in the presence of a central body, Theoretical Math. Physics, TMPh, 2011, V. 169, No. 3.

7. **M. M. Babatin,** Stability of Thin Shell Supported by Chaplygin Gas., Applied Mathematical Sciences, Vol. 6, 2012, no. 39, 1933 – 1943.

8. A. Eid and **M. M. Babatin**, Dynamics of a Radiating Thin Shell, Applied Mathematical Sciences, Vol. 6, 2012, no. 83, 4147 – 4154.

9. Yousef Hashem Zahran, **Mohammed M. Babatin**, Improved ninth order WENO scheme for hyperbolic conservation laws, Applied Mathematics and Computation 219 (2013) 8198–821.

10. M. M. Khader **and Mohammed M. Babatin,** On Approximate Solutions for Fractional Logistic Differential Equation**,** Math. Problems in Engineering, Volume 2013, Article ID 391901, 7 pages**.**

11. M. M. Khader **and Mohammed M. Babatin,** Numerical treatment for solving fractional SIRC model and influenza A**,** Comp. Appl. Math., 2013, DOI 10.1007/s40314-013-0079-6.

12. **Mohammed M. Babatin,** On the solutions of the heat, wave and Laplace equations with non classical Conditions, J. of Advances in Mathematics, 4(1), (2013), 366-373.

13. M. Khader, and **Mohammed M. Babatin,** Legendre Spectral Collocation method for Solving Fractional SIRC Model and Influenza A, Journal of Computational Analysis and Application, Vol. 17, Issue 2, 214-229, 2014.

14. A. Eid and **Mohammed M. Babatin**, Magnetic Field of Celestial Objects, Advanced Studies of Theoretical Phys. Vol.8, No. 4, 151-161, 2014.

15. Mohamed A. Khater, **Mohammed M. Babatin**, Ali M. Eid, Abdulaziz S. Alaamer, Development and optimization of laser-induced breakdown spectroscopy (LIBS) for quantification of *carbon* in steel within UV/visible region, American Journal of Physics and Applications 2014; 2(6): 113-117.

16. M. M. Khader and **Mohammed M. Babatin**, Numerical study of Fractional Logistic differential equation using implementation of Legendre wavelet approximation, Journal of Computational and Theoretical Nanoscience, Vol. 13, p.(1022-1026), 2016.

17. M. M. Khader, **Mohammed M. Babatin**, A. Eid and Ahmed M. Megahed, Numerical study for simulation the MHD flow and heat transfer due to a stretching sheet with variable thickness, variable thermal conductivity and thermal radiation, Applied Mathematics, 6, p.(2045-2056), 2015.

18. T. Z. Boulmezaoud, S. Mziou, B. Boudgedaa, **M. M. Babatin,** Inverted finite elements for degenerate and radial elliptic problems in unbounded domains. Japan J. Indust. Appl. Math., 6 February 2015, DOI 10.1007/s13160-015-0169-5.

19. M. M. Khader and **Mohammed M. Babatin**, Theoretical and numerical study for solving the fractional modeling dynamics of HIV and CD4+ T-cells during primary infection, Journal of Computational and Theoretical Nanoscience, 13(5), p.(3005–3012), 2016.

20. **Mohammed M. Babatin**, Implementation of Chebyshev pseudo-spectral method for obtaining the approximate solutions of delay differential equations in fractional-order, Journal of Computational and Theoretical Nanoscience, 13, p.(6563–6567), 2016.

21.**Mohammed M. Babatin**, Dynamics of thin shell in Vaidya-Reissner-Nordstrom space-time, Maejo International Journal of Science and Technology (Maejo Int. J. Sci. Technol.) 2017, 11(02), 158-163.

22. **Mohammed M. Babatin**, Stability of a Radiating Thin Shell in RN Space-Time, Applied Mathematical Sciences, Vol. 11, 2017, no. 43, 2131 – 2139.

23. Anjan Biswas, Yakup Yıldırım, Emrullah Yasar, **M. M. Babatin**, Conservation laws for Gerdjikov-Ivanov equation in nonlinear fiber optics and PCF, Optik, 148 (2017) 209–214.

24. Houria Triki , **M. M. Babatin**, Anjan Biswas, Chirped bright solitons for Chen–Lee–Liu equation in optical fibers and PCF, Optik 149 (2017) 300–303.

25. Houria Triki, Anjan Biswas, **MM Babatin**, Qin Zhou, Chirped dark solitons in optical metamaterials, Optik 158 (2017) 312–315.

26. J. Vega-Guzmana, **M.M. Babatin** and A. Biswas, Optical Soliton Perturbation in Nonlinear Directional Couplers, ACTA PHYSICA POLONICA A, 133(2018) 167-178.

27. Rubayyi T. Alqahtani a, **M.M. Babatin**, Anjan Biswas, Bright optical solitons for Lakshmanan-Porsezian-Daniel model by semi-inverse variational

principle, Optik 154 (2018), 109–114.

28. Anjan Biswas, Mehmet Ekici, Abdullah Sonmezoglu, **MM Babatin**, Optical solitons in birefringent fibers with weak non-local nonlinearity and four-wave mixing by extended trial equation method, Optik 166, 2018,285-293.

29. Anupma Bansal, Anjan Biswas, Qin Zhou, **MM Babatin**, Lie symmetry analysis for cubic–quartic nonlinear Schrödinger's equation, Optik 169 (2018), 12-15.

30. A Biswas, M Ekici, A Sonmezoglu, **MM Babatin**, Dispersive optical solitons with differential group delay and parabolic law nonlinearity by extended trial function method, Optik 169 (2018), 403-415.

31. EV Krishnan, A Biswas, Q Zhou, **MM Babatin**, Optical solitons with anti-cubic nonlinearity by mapping methods, Optik 170 (12018) 520-526.

32. A Biswas, M Ekici, A Sonmezoglu, **MM Babatin,** Optical solitons with differential group delay and dual-dispersion for Lakshmanan–Porsezian–Daniel model by extended trial function method, Optik 170 (2018), 512-519.

33. MM Khader, **MM Babatin**, Hermite collocation method for obtaining the chaotic behavior of a non-linear coupled system of FDEs, International Journal of Modern Physics C, 2020.

34. MA Abdelkawy, **MM Babatin**, AM Lopes, Highly accurate technique for solving distributed-order time-fractional-sub-diffusion equations of fourth order, Computational and Applied Mathematics, 2020.

35. MA Abdelkawy, AM Lopes, **MM Babatin**, Shifted fractional Jacobi collocation method for solving fractional functional differential equations of

variable order, Chaos, Solitons & Fractals, 2020.

36. Mohamed A. Abdelkawy, Ahmed Z. M. Amin, **Mohammed M. Babatin**, Abeer S. Alnahdi, Mahmoud A. Zaky and Ramy M. Hafez, Jacobi Spectral Collocation Technique for Time-Fractional Inverse Heat Equations, *Fractal and Fractional*, 2021, 5, 115.
37. MM Khader, **MM Babatin**, An approximate method for solving MHD boundary layer flow over a stretching sheet with Joule heating and convective thermal condition, International Journal of Modern Physics C, Vol.33, No.2 (2022).
38. M.A. Abdelkawy, M. E.A. Zaky, **Mohammed M. Babatin,** Abeer S. Alnahdi, Jacobi spectral collocation technique for fractional inverse parabolic problem, Alexandria Engineering Journal, Volume 61, Issue 8, August 2022, Pages 6221-6236.
39. M.M. Khader, **M.M. Babatin**, Numerical study for improvement the cooling process through a model of Powell-Eyring fluid flow over a stratified stretching sheet with magnetic field, Case Studies in Thermal Engineering, 31, 2022, 101786.
40. Mohamed M. Khader, **Mohamed M. Babatin**, Ahmed M. Megahed, Numerical Study of Thermal Radiation Phenomenon and Its Influence on Amelioration of the Heat Transfer Mechanism through MHD Non-Newtonian Casson Model, Coatings 2022, 12, 208.
41. Mohamed A. Abdelkawy, Ahmed Z. M. Amin, António M. Lopes, Ishak Hashim, **Mohammed M. Babatin**, Shifted Fractional-Order Jacobi Collocation Method for Solving Variable-Order Fractional Integro-Differential Equation with Weakly Singular Kernel, Fractal Fract. 2022, 6, 19.
42. Mohamed A. Abdelkawy, **Mohammed M. Babatin**, Abeer S. Alnahdi,

T.M.Taha, Legendre spectral collocation technique for fractional inverse heat conduction problem, International Journal of Modern Physics C, Vol.33, No.5 (2022).

43. Amr M. S. Mahdy, **M. M. Babatin**, M. M. Khader, Numerical treatment for processing the effect of convective thermal condition and Joule heating on Casson fluid flow past a stretching sheet, International Journal of Modern Physics C, Vol.33, No.8 (2022).
44. M. M. Khader, **M. M. Babatin**, Ahmed M. Megahed, A. Eid, Implementing the Galerkin Method Associated with the Shifted Vieta-Lucas Polynomials for Studying Numerically the Bionanofluid Flow Which Is Saturated by Gyrotactic Microorganisms over a Slippery Stretching Sheet, Hindawi Journal of Mathematics Volume 2022.