Curriculum Vitae

♦ Personal Information

- Name: ***Emad Ahmad A. Az-Zo'bi***
- Date of Birth: May/07/1980
- Nationality: ***Jordan***
- Material Status: Married
- Contact Information: Jordan - Al Karak – Mutah University 61710- Mutah P.O.Box 7 – Faculty of Science – Department of Mathematics & Statistics - Tel: +962 3 2372380 Ext: 4198 – Mobile: +962 7 77921616 – Email: ***eaaz2006@yahoo.com - eaaz2006@mutah.edu.jo***

♦ Qualifications

- Ph.D of Mathematics & Statistics 2011 - Partial Differential Equations (PDEs) - University of Jordan – Department of Mathematics & Statistics - Thesis Title: Theory and Computations for Systems of Conservation Laws of Mixed Hyperbolic-Elliptic Type - Average: 3.4, Rating: very good.
- MSc of Mathematics & Statistics 2005 – Approximation Theory - Al al-Bayt University – Faculty of Science – Department of Mathematics - Thesis Tile: Some Exact Inequalities of Hardy-Littlewood-Polya Type - Average: 90.63, Rating: Excellent
- BSc of Mathematics & Statistics 2002 - Al al-Bayt University – Faculty of Science – Department of Mathematics - Average: 76.2, Rating: Very Good

♦ Experience

- Mutah University (Jordan) 2020 - Now – Prof. of Applied Mathematics.
- Mutah University (Jordan) 2015 - 2020 – Associate Prof. of Applied Mathematics.
- Mutah University (Jordan) 2011 - 2015 – Assistant Prof. of Applied Mathematics.
- Mutah University (Jordan) 2011-2021 – Supervisor and member of discussion committee for many MSc and PhD students.
- King Saud University (KSA) 2010-2011 – Instructor.
- University of Jordan (Jordan) 2006-2010 – Part-time Lecturer.
- Al-Balqa' Applied University (Jordan) 2005-2006 - Part-time Lecturer.
- Ministry of Education (Jordan) – 2002-2007 – Teacher of Mathematics

♦ Courses Taught

- PDEs and Theory of ODEs.
- Numerical Analysis.
- Computational Methods.
- Principles of Applied Mathematics.
- Calculus.
- Statistics & Probability.
- Linear Algebra.
- Euclidean Geometry.
- Number Theory.

♦ Research Interests

- Convergence and stability of numeric-analytic methods for PDEs.
- Applied mathematical modeling (Soliton waves, Conservation laws).
- Exact solutions of PDEs.

♦ Publications

1. E.A. Az-Zo'bi, A.O. Alleddawi, I.W. Alsaraireh, M. Mamat, F.D. Wrikat, L. Akinyemi, H. Rezazadeh. Novel solitons through optical fibers for perturbed cubic-quintic-septic nonlinear Schrodinger-type equation. International Journal of Nonlinear Analysis and Applications (IJNAA). 2021. Accepted.

2. E.A. Az-Zo'bi et.al. Novel soliton solutions of four sets of generalized (2+1)-dimensional Boussinesq-Kadomtsev-Petviashvili-like equations. Modern Physics Letters B. 2021, Accepted

3. E.A. Az-Zo'bi, A. Yıldırım, L. Akinyemi. Semi-analytic treatment of mixed hyperbolic-elliptic Cauchy problem modeling three phase flow in porous media. International Journal of Modern Physics B, 2021, https://doi.org/10.1142/S0217979221502933.

4. N.M. Rasheed, M.O. Al-Amr, E.A. Az-Zo'bi, M.A. Tashtoush, L. Akinyemi. Stable Optical Solitons for the Higher-Order Non-Kerr NLSE via the Modified Simple Equation Method. *Mathematics* 2021, *9*(16), 1986; https://doi.org/10.3390/math9161986

5. E.A. Az-Zo'bi, L. Akinyemi, A.O. Alleddawi. Construction of optical solitons for time-fractional generalized model in nonlinear media. Modern Physics Letters B. 2021, 2150409. https://doi.org/10.1142/S0217984921504091

6. M. Senol, E.A. Az-Zo'bi, L. Akinyemi, A. Alleddawi. Novel soliton solutions of the generalized (3+1)-dimensional conformable KP and KP–BBM equations. Computational Sciences and Engineering 1 (1) (2021). 10.22124/CSE.2021.19356.1003

7. E.A. Az-Zo'bi, W.A. Alzoubi, L. Akinyemi, M. Şenol & B.S. Masaedeh. A variety of wave amplitudes for the conformable fractional (2 + 1)-dimensional Ito equation. Modern Physics Letters B, 2021, 2150254. https://doi.org/10.1142/S0217984921502547

8. E.A. Az-Zo'bi, W.A. AlZoubi, L. Akinyemi, M. Şenol, Islam W. Alsaraireh & M. Mamat. Abundant closed-form solitons for time-fractional integro–differential equation in fluid dynamics. Opt Quant Electron 53, 132 (2021). https://doi.org/10.1007/s11082-021-02782-6

9. E.A. Az-Zo'bi, MO Al-Amr, A Yıldırım, WA AlZoubi. Revised reduced differential transform method using Adomian's polynomials with convergence analysis. Mathematics in Engineering, Science and Aerospace (MESA). 2020; 11(4): 827-840

10. E.A. Az-Zo'bi, F.D. Wrikat. On Algebraic binding number of simple graphs. Indian Journal of Natural Sciences. 2020; 10(59): 18453- 18456.

11. E.A. Az-Zo'bi, New kink solutions for the van der Waals p-system, Mathematical Methods in the Applied Sciences, 42 (18) (2019) 6216-6226.

12. E.A. Az-Zo'bi, K. Al-Khaled, A. Darweesh, Numeric-analytic solutions for nonlinear oscillators via the modified multi-stage decomposition method. Mathematics, 7 (2019) 550.

13. E.A. Az-Zo'bi, Peakon and solitary wave solutions for the modified Fornberg-Whitham equation using simplest equation method. International Journal of Mathematics and Computer Science 14 (3) (2019), 635-645.

14. E.A. Az-Zo'bi, The residual power series algorithm for solving variable-depth shallow water equations, Sci. Int. (Lahore), 31 (3) (2019) ,393-396.

15. E.A. Az-Zo'bi, Solitary and periodic exact solutions of the viscosity-capillarity van der Waals gas equations, Applications and Applied Mathematics: An International Journal, 14 (1) (2019) . 349 − 358.

16. E.A. Az-Zo'bi, Analytic treatment for generalized (m+1)-dimensional partial differential equations, J. of The Korea Society for Industrial and Applied Mathematics, 22 (4) (2018) 289-294.

17. E.A. Az-Zo'bi, Analytic Simulation for 1D Euler-Like Model in Fluid Dynamics, Journal of Advanced Physics Vol. 7, pp. 330–335, 2018.

18. E.A. Az-Zo'bi, A reliable analytic study for higher-dimensional telegraph equation, J. Math. Computer Sci., 18 (2018), 423–429.

19. E.A. Az-Zo'bi, A. Yıldırım, W.A. AlZoubi, The residual power series method for the one-dimensional unsteady flow of a van der Waals gas, Physica A 517 (2019), 188−196.

20. E.A. Az-Zo'bi, Exact Analytic Solutions for Nonlinear Diffusion Equations via Generalized Residual Power Series Method, International Journal of Mathematics and Computer Science, 14 (1) (2019), 69−78.

21. E.A. Az-Zo'bi, Exact Series Solutions of One-Dimensional Finite Amplitude Sound Waves, Sci. Int. (Lahore), 30 (6) (2018), 817-820.

22. E.A. Az-Zo'bi, M.M. Qousini, Modified Adomian-Rach Decomposition Method for Solving Nonlinear Time-Dependent IVPs, Applied Mathematical Sciences, 11 (8) (2017) 387 - 395.
23. E.A. Az-Zo'bi, M. Marashdeh & K. Al Dawoud, Numerical Simulation of One-Dimensional Shallow Water Equations, International Journal of Sciences: Basic and Applied Research 23 (2) (2015) 196-203.
24. E.A. Az-Zo'bi, Analytic-Numeric Simulation of Shock Wave Equation Using Reduced Differential Transform Method, Science International (Lahore) 27 (3) (2015) 1749-1753.
25. E.A. Az-Zo'bi, K. Al Dawoud & M. Marashdeh, Numeric-analytic solutions of mixed-type systems of balance laws, Applied Mathematics and Computation 265 (2015) 133–143
26. E.A. Az-Zo'bi, New Applications of Adomian Decomposition Method, Middle-East Journal of Scientific Research 23 (4) (2015) 735-740. (ISI)
27. E.A. Az-Zo`bi, On the Convergence of Variational Iteration Method for Solving Systems of Conservation Laws, Trends in Applied Sciences Research 10 (3) (2015) 157-165.
28. E.A. Az-Zo'bi, On the Reduced Differential Transform Method and its Application to the Generalized Burgers-Huxley Equation, Applied Mathematical Sciences, 8 (177) (2014) 8823–8831.
29. E.A. Az-Zo'bi & K.Al-Dawoud, Semi-analytic solutions to Riemann problem for one-dimensional gas dynamics, Scientific Research and Essays, 9(20) (2014) 880-884.
30. E.A. Az-Zo'bi, M.F. Marashdeh & R.F. Uzbashy, The Fundamental Group of Intuitionistic Fuzzy Topological Spaces, Applied Mathematical Sciences, 8 (157) (2014) 7829-7843.
31. E.A. Az-Zo'bi, An Approximate Analytic Solution for Isentropic Flow by An Inviscid Gas Equations, Archives of Mechanics, 66 (3) (2014) 203-212.
32. E.A. Az-Zo'bi, Exact Analytic Solution for Telegraph Equation by Reduced Differential Transform Method, European Journal of Scientific Research 107 (3) (2013) 425-43.
33. E.A. Az-Zo'bi, Construction of Solutions for Mixed Hyperbolic Elliptic Riemann Initial Value System of Conservation Laws, Applied Mathematical Modeling, 37 (2013) 6018-6024.
34. E.A. Az-Zo'bi, Modified Laplace decomposition method, World Applied Sciences Journal 18 (11) (2012) 1481-1486.
35. E.A. Az-Zo'bi, Convergence and stability of modified Adomian decomposition method, Lap Lambart academic publishing (2012).
36. E.A. Az-Zo'bi & K. Al-khaled, A new convergence proof of the Adomian decomposition method for a mixed hyperbolic elliptic system of conservation laws, Applied Mathematics and Computation 217(8) (2010) 4248-4256.
37. E.A. Az-Zo'bi, "A New Generalization of Bojanov Varma's Inequality", Int. Journal of Math. Analysis, 3 (14) (2009) 667 – 671.

♣ Submitted Papers
- New generalized conformable liquid crystals model and its nematicons.
- New soliton solutions for the higher-dimensional non-local Ito equation.
- Dynamics of a new class of solitary wave structures in telecommunications systems via a (2+1) nonlinear transmission line.
- New generalized cubic-quintic-septic NLSE and its optical solitons

♣ Citations
- *Scopus.* 161 citations, h-index=9.
- *Google Scholar.* 317 citations, h-index=12, i-index=13.

♣ Activities
- *Mathematica & Matlab*.
- Latex (Scientific WorkPlace).
- TOT (Trainer of Trainers).
- Math Zone Training Workshop, McGraw Hill Education.

- Windows (7/8/10), Microsoft Office 365 (Word, Excel, Access, Power Point), Internet (licensed from the International Computer Driven License - ICDL). Microsoft Teams. Moodle.

Languages

- Arabic mother tongue,
- English; Fluent.

References

- Prof. Dr. Kamel M. Al-Khaled, Jordan University of Science and Technology, Jordan. Email: kamel@just.edu.jo. Mobile: +962 795010519.
- Prof. Dr. Abdul-Majid Wazwaz, Saint Xavier University, USA. Email: wazwaz@sxu.edu.Tel: +1 (773) 779-9061
- Prof. Dr. Ahmet Yıldırım, Ege University, Turkey. Email: yildirim.ahmet@ege.edu.tr