

Curriculum Vitae

Professor Shaher Momani

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Personal Data

- Full Name: Shaher Mohammad Ahmad Momani
- Date of Birth: May 10, 1962
- Place of Birth: Ajloun-Jordan
- Nationality: Jordanian
- Sex: Male
- Marital Status: Married, two daughters and two sons
- Profession: Professor of Mathematics at The University of Jordan

Academic Qualification

- **Ph.D. in Mathematics, Applied Mathematics (Non-Newtonian Fluid Mechanics)**
University: University of Wales, United Kingdom, 1991.
Title of Thesis: Some Problems in Non-Newtonian Fluid Mechanics.
Advisor: Professor Ken Walters.
- **B.Sc. in Mathematics**
University: Yarmouk University, Jordan, 1984.

Academic Honors and International Prizes

1. The Islamic Educational, Scientific and Cultural Organization Science Prize "ISESCO Science Prize" (2008).
2. The Scopus Prize for Jordan Scientists (2009).
3. The Distinguished Researcher Prize at Mutah University (2009).
4. Third World Academy of Sciences (TWAS) Prize, in Italy, (2000).

5. The Award of Jordan National Commission For Education, Culture and Science (2008).
6. Classified as One of the Top Ten Scientists in the World in Fractional Differential Equations According to ISI Web of Knowledge.
7. Classified as the Top Scientist in the World in term of Publications in Fractional Differential Equations According to Scopus Database.
8. The ***h-Index=15*** According to Scopus Database Evaluation for Professor Shaher Momani (2009/2010).
9. A Scholarship from Mutah University to get a PhD (1987-1991).
10. A Grant from Qatar University to do a Research Project on Chaotic Dynamics and Phase Synchronization of Fractional Order Dynamical Systems (2007-2008).

Experience

- Editor-in-Chief: Arab Journal Of Mathematics And Mathematical Sciences (AJMMS).
Web Site:<http://www.ripublication.com/ajmms.htm>
- Founder of Jordan Research Group in Applied Mathematics (JRGAM).
Web Site: <http://www.mutah.edu.jo/jrgam/index.html>
- Professor: The University of Jordan, September 2009 to present.
- Professor: Mutah University, September 2007 to 2009.
- Professor: Qatar University, September 2006 to September 2007.
- Associate Professor: Mutah University, September 2004 to September 2006.
- Associate Professor: Jordan University, Summer course 2004.
- Associate Professor: United Arab Emirates University, September 2001 to September 2004.
- Associate Professor: Yarmouk University, September 2000 to September 2001.
- Associate Professor: Mutah University, November 1998 to September 2000.
- Assistant Professor: Mutah University, September 1991 to November 1998.
- Head of Department of Mathematics, Mutah University, September 1994 to September 1995.

Research Interests

My general research interests are in the areas of applied mathematics, Non-Newtonian Fluid Mechanics, differential equations of applied mathematics, fractional calculus and fractional differential equations. More specifically, my research interests can be summarized as follows:

1. Numerical solution of ordinary and partial differential equations of fractional order.
2. Theory of fractional differential equations and integral equations.
3. Newtonian and Non-Newtonian fluid mechanics.
4. Stability of fractional linear systems.

5. Fractional chaotic systems.
6. Variational inequalities and obstacle problems.
7. Mathematical Modelling.
8. Mathematical Physics.
9. Solitary Waves.
10. Nonlinear Dynamics.

Editor

1. Editor-in-Chief, Arab Journal of Mathematics and Mathematical Sciences.
Website: <http://www.ripublication.com/ajmms.htm>
2. Member, Editorial Board, International Journal of Differential Equations.
Website: <http://www.hindawi.com/journals/ijde/editors.html>
3. Member, Editorial Board, International Journal of Differential Equations: Special Issue on Fractional Differential Equations.
Website: <http://downloads.hindawi.com/journals/specialissues/0552010002.pdf>
4. Member, Editorial Board, Journal of Emerging Trends in Computing and Information Sciences.
Website: <http://www.cisjournal.org/Default.aspx>
5. Member, Editorial Board, ARPN Journal of Systems and Software.
Website: <http://scientific-journals.org/index.php>
6. Member, Editorial Board, International Journal of Nonlinear Dynamical Systems and Chaos(IJNDSC).
Website: <http://www.gbspublisher.com/ijndsc1.htm>
7. Member, Editorial Board, International Journal of Nonlinear Dynamics in Engineering and Sciences.
Website: <http://www.ijndes.com/index.htm>
8. Member, Editorial Board, World Journal of Modelling and Simulation (WJMS).
Website: <http://www.wjms.org.uk/>
9. Member, Editorial Board, Communications in Fractional Calculus Journal.
Website: <http://www.nonlinearscience.com/>
10. Member, Editorial Board, Journal of Fractional Calculus and Its Applications.
Website: <http://www.serialspublications.com/>
11. Member, Editorial Board, International Journal of Computational Mathematics and Numerical Simulation (IJCMNS).
Website: <http://mcm.edu.cn/ijcmns/othereditors2.htm>
12. Member, Editorial Board, Journal of Nonlinear and Fractional Phenomena in Science and Engineering.
Website: <http://www.jnfpse.com/index.htm>
13. Member, Editorial Board, Fractional Dynamic Systems Journal.
Website: <http://fds.ele-math.com/>

14. Member, Editorial Board, Applied Mathematics & Information Sciences Journal.
Website: <http://amis.dixiepublishing.com/>
15. Member, Editorial Board, Jordan Engineers Association Journal of Electrical Engineering (JEA-JEE).
16. Member, Editorial Board, International Review of Pure and Applied Physics Journal.
17. Member, Editorial Board, Mutah Journal for Scientific Research, 2004-2005.
Website: <http://www2.mutah.edu.jo/dar/arabic/abstracs/edibo05s.htm>

Reviewer

- Journal of Computational and applied Mathematics.
- Journal of Mathematical Analysis and Applications.
- Physics Letters A.
- Physica Scripta.
- Electronic Journal of Differential Equations.
- Communications in Nonlinear Science and Numerical Simulation.
- Chaos, Solitons & Fractals.
- Journal of Applied Analysis.
- Arabian Journal for Science and Engineering.
- Computers and Mathematics with Applications.
- International Journal of Computer Mathematics.
- Journal of Applied Mathematics.
- International Journal of Mathematics and Mathematical Sciences.
- Numerical Methods for Partial Differential Equations.
- Referee for several international and local journals.

Membership

1. Member of the International Who's Who, since 2006.
2. Member of the Jordanian Mathematics Society, since 1991.
3. Member of the Exactive Committee of the Jordanian Mathematics Society, 1994-1996.
4. Member of the British Society of Rheology, since 1989.
5. Member of Newton Institute of Non-Newtonian Fluid Mechanics. University of Wales.
6. Member of the American Mathematical Society, since 1996.
7. Leader of Jordan Research Group in Applied Mathematics (JRGAM), Jordan, 2005 – Present.
8. Member of the fractional calculus and its applications cumintuty.
<http://www.tuke.sk/podlubny/fc.html>
9. Member of the Research Group in Mathematical Inequalities and Applications (RGMIA).

Committee Service

Coordinator and Member of Several Internal Committees at the Following Universities:

- **Mutah University: 1991-2000, 2004-2006 and 2007-2009.**
- **Yarmouk University: 2000-2001.**
- **United Arab Emirates University: 2001-2004.**
- **Qatar University: 2006-2007.**
- **The University of Jordan: 2009-present.**
- **Outside Universities:**
 1. Member of the Committee for Maths. Department of Irbid Private Univ.
 2. Member of the Committee for Maths. Department of Zarqa Private Univ.
 3. Member of the Committee for Maths. Department of Ziatounah Private Univ.
 4. Coordinator of the Committee for Maths. Department of Jadara Private Univ.
 5. Referee for Research Papers Publish in Various Journals.
 6. Member of a Defense exam Committee for Several Master Theses in Jordan Universities.
 7. Chaired a Session of the Third Jordanian Mathematics Conference, 1996.
 8. Chaired a Session of the Fifth Annual U. A. E. University Conference, 2004.
 9. Chaired a Session of the Recent Advances in Mathematics Conference, India, 2004.
 10. Member of the Exactive Committee of Qualification Exam at Jordan Universities.
 11. Chaired a Session of The Third Conferences On Research And Education In Mathematics, Malaysia 2007.
 12. Member of the Organizing Committee of The 2nd International Symposium on Nonlinear Dynamics, Shanghai, China, 2007.
 13. Chaired a Mini-Symposium in The 2nd International Symposium on Nonlinear Dynamics, Shanghai, China, 2007.
 14. Member of the International Program Committee of The Third IFAC Workshop on Fractional Differentiation and its Applications, Turkey, 2008.
 15. Member of the International Program Committee of The Fourth IFAC Workshop on Fractional Differentiation and its Applications, Spain, 2010.

Computer Skills

1. Mathematical Software: Mathematica, Fortran, Maple, Matlab.
2. Operating Systems: DOS, UNIX, Windows 2000.
3. Typesetting Software: Tex, LaTeX, Scientific Workplace, MicroSoft Word.
4. MCDL: Mutah Computer Drive License.

Published and Accepted Papers

This is a complete list of the papers of mine which either have appeared or have been accepted for publication. Owing to copyright restrictions, the papers are not available in electronic form. If you are interested in any of these papers, send me an e-mail and I will send you a reprint.

1. **G. Georgiou, Shaher Momani, M. J. Crochet, and K. Walters**, Newtonian and non-Newtonian flow in a channel obstructed by an antisymmetric array of cylinders, *Journal of Non-Newtonian Fluid Mechanics*, Vol. **40**, (1991) 231-260.
2. **S. Hadid, B. Maseadeh and Shaher Momani**, On the existence of maximal and minimal solutions of differential equations of non-integer order, *Journal of Fractional Calculus*, Vol. **9**, (1996) 41-44.
3. **S. B. Hadid, A. A. Ta'ani and S. M. Momani**, Some existence theorems on differential equations of generalized order through a fixed-point theorem, *Journal of Fractional Calculus*, Vol. **9**, (1996) 45-49.
4. **B. S. Maseadeh, A. A. Ta'ani and S. M. Momani**, On w-compact spaces, *J. of Institute of Mathematics and Computer Sciences*, (1996).
5. **B. Maseadeh, S. Momani and S. Hadid**, Solutions of differential equations of non-integer order in L^2 and C spaces, *Mutah Journal for Research and Studies*, Vol. **12**(1), (1997) 169-181.
6. **Shaher Momani**, The flow of non-Newtonian fluids through corrugated pipes, *Mu'tah Journal for Research and Studies*, Vol. **12**(4), (1997) 91-112.
7. **S. Momani and S. Hadid**, An algorithm for numerical solutions of fractional order differential equations, *Journal of Fractional Calculus* , Vol. **15**, (1998) 61-66.
8. **S. M. Momani and K. Walters**, The flow of non-Newtonian fluids through curved pipes, *Al-Dirasat Journal*, Vol. **26**(1), (1999) 74-87.
9. **S. M. Momani**, On existence of solutions of a system of ordinary differential equations of fractional order, *Far East Journal of Mathematical Sciences (FJMS)*, Vol. **1**(2), (1999) 265-270.
10. **S. M. Momani**, Variation of solutions of differential equations of non-integer order with respect to initial condition and parameters, *Far East Journal of Mathematical Sciences (FJMS)*, Vol. **1**(3), (1999) 423-428.
11. **S. M. Momani**, Stress distribution and pressure gradient of non-Newtonian fluids through converging ducts, *Mu'tah Lil-Buhooth Wa Al-Dirasat Journal*, Vol. **15**(1), (2000) 9-26.
12. **S. M. Momani**, Local and global uniqueness theorems on differential equations of non-integer order via Gronwall's and Bihari's inequalities, *Revista Technica Journal*, Vol. **23**(1), (2000) 66-69.
13. **Shaher Momani**, Numerical solution of differential equations of non-integer order by the generalized difference method, *Al-Zarqa Private University Journal*, Vol. **2**(1), (2000) 1-7.
14. **S. M. Momani**, On the existence of ε -approximate solutions of differential equations of non-integer order, *PanAmerican Mathematical Journal*, Vol. **10**(3), (2000) 61-69.
15. **Shaher M. Momani**, Local and global existence theorems on fractional integro-differential equations, *Journal of Fractional Calculus*, Vol. **18**, (2000) 81-86.
16. **Shaher M. Momani and Reyad El-Khazali**, On the existence of extremal solutions of fractional integro-differential equations, *Journal of Fractional Calculus*, Vol. **18**, (2000) 87-92.

17. **S. M. Momani**, The flow of non-Newtonian fluids through rotating pipes, *Al-Manara Journal*, Vol. **7**(1) (2001), 9-25.
18. **Shaher Momani**, Some existence theorems on fractional integro-differential equations, *Abhath Al-Yarmouk Journal*, Vol. **10**(2B), (2001) 435-444.
19. **S. M. Momani and S. B. Hadid**, Asymptotic behaviour of the maximal and minimal solutions of differential equations of non-integer order, *Far East Journal of Mathematical Sciences (FJMS)*, Vol. **6**(1), (2002) 31-39.
20. **S. M. Momani and S. B. Hadid**, Dependence of solutions of differential equations of non-integer order on initial conditions and parameters, *Al-Manara Journal*, Vol. **9**(2), (2003) 69-76.
21. **Reyad El-Khazali, Shaher Momani**, Stability analysis of composite fractional systems, *International Journal of Applied Mathematics*, Vol. **12**(1), (2003) 73-85.
22. **S. M. Momani and S. B. Hadid**, On the inequalities of integro-differential fractional equations, *International Journal of Applied Mathematics*, Vol. **12**(1), (2003) 29-37.
23. **S. M. Momani and S. B. Hadid**, Some comparison results for integro-fractional differential inequalities, *Journal of Fractional Calculus*, Vol. **24**, (2003) 37-44.
24. **S. M. Momani, S. B. Hadid and Z. M. Alawaneh**, Some analytical properties of solutions of differential equations of the noninteger order, *International Journal of Mathematics and Mathematical Sciences*, Vol. **2004**(13), (2004) 697-701.
25. **Shaher Momani**, Analytical solutions of strongly non-linear oscillators by the decomposition method, *International Journal of Modern Physics C (IJMPC)*, Vol. **15**(7), (2004) 967-979.
26. **Shaher Momani and Samir Hadid**, Lyapunov stability solutions of fractional integro-differential equations, *International Journal of Mathematics and Mathematical Sciences*, Vol. **2004**(47), (2004) 2503-2507.
27. **Shaher Momani and Kamel Al-Khaled**, Numerical solutions for systems of fractional differential equations by the decomposition method, *Applied Mathematics and Computation*, Vol. **162**(3), (2005) 1351-1365.
28. **S. M. Momani and S. B. Hadid**, On the continuous dependence of solutions of integro-fractional differential equations with respect to initial conditions, *Nonlinear Functional Analysis and Applications*, Vol. **10**(3), (2005) 379-386.
29. **Kamel Al-Khaled and Shaher Momani**, An approximate solution for a fractional diffusion-wave equation using the decomposition method, *Applied Mathematics and Computation*, Vol. **165**(2), (2005) 473-483.
30. **Shaher Momani**, Analytical approximate solution for fractional heat-like and wave-like equations with variable coefficients using the decomposition method, *Applied Mathematics and Computation*, Vol. **165**(2), (2005) 459-472.
31. **Shaher Momani, Khaled Moadi and Muhammad Aslam Noor**, Modified decomposition method for solving a system of third-order obstacle problems, *International Journal of Pure and Applied Mathematics*, Vol. **21**(1), (2005) 97-107.
32. **Shaher Momani**, An explicit and numerical solutions of the fractional KdV equation, *Mathematics and Computers in Simulation*, Vol. **70**(2), (2005) 110-118.

33. **Shaher Momani**, A numerical scheme for the solution of Sivashinsky equation, *Applied Mathematics and Computation*, Vol. **168**(2), (2005) 1273-1280.
34. **Shaher Momani**, Analytic and approximate solutions of the space- and time-fractional telegraph equations, *Applied Mathematics and Computation*, Vol. **170**(2), (2005) 1126-1134.
35. **Kamel Al-Khaled, Shaher Momani and Ahmed Alawneh**, Approximate wave solutions for a generalized Benjamin-Bona-Mahoy-Burgers equation, *Applied Mathematics and Computation*, Vol. **171**(1), (2005) 281-292.
36. **Muhammad Aslam Noor, S. K. Mishra and Shaher Momani**, Properties of approximate preinvex functions, *Nonlinear Analysis Forum Journal*, Vol. **10**(2), (2005) 1-9.
37. **Shaher Momani and Salah Abuasad**, Application of He's variational iteration method to Helmholtz equation, *Chaos, Solitons & Fractals*, Vol. **27**(5), (2006) 1119-1123.
38. **Zaid Odibat and Shaher Momani**, Application of variational iteration method to nonlinear differential equations of fractional order, *International Journal of Nonlinear Science and Numerical Simulation*, Vol. **7**(1), (2006) 27-34.
39. **Shaher Momani**, Non-perturbative analytical solutions of the space- and time-fractional Burgers equations, *Chaos, Solitons & Fractals*, Vol. **28**(4), (2006) 930-937.
40. **Shaher Momani, Khaled Moadi and Muhammad Aslam Noor**, Decomposition method for solving fourth order obstacle problems, *Applied Mathematics and Computation*, Vol. **175**(2), (2006) 923-931.
41. **Shaher Momani**, Solving a system of second-order obstacle problems a modified decomposition method, *Applied Mathematics E-Notes*, Vol. **6**, (2006) 141-147.
42. **Shaher Momani and Zaid Odibat**, Analytical approach to linear fractional partial differential equations arising in fluid mechanics, *Physics Letters A*, Vol. **355**, (2006) 271-279.
43. **Shaher Momani and Zaid Odibat**, Analytical solution of a time-fractional Navier-Stokes equation by Adomian decomposition method, *Applied Mathematics and Computation*, Vol. **177**, (2006) 488-494.
44. **Shaher Momani and Khaled Moadi**, A reliable algorithm for solving fourth-order boundary value problems, *Journal of Applied Mathematics and Computing*, Vol. **22**(3), (2006) 185-197.
45. **Ziad Odibat and Shaher Momani**, Approximate solutions for boundary value problems of time-fractional wave equation, *Applied Mathematics and Computation*, Vol. **181**(1), (2006) 767-774.
46. **Shaher Momani and Rami Qaralleh**, An efficient method for solving systems of fractional integro-differential equations, *Computers and Mathematics with Application*, Vol. **52**(3-4), (2006) 459-470.
47. **Ziad Odibat and Shaher Momani**, Analytical spherically symmetric solution for the time-fractional Navier-Stokes equation, *Advances in Theoretical and Applied Mathematics (ATAM)*, Vol. **1**(2), (2006) 97-107.
48. **Shaher Momani and Muhammad Aslam Noor**, Numerical methods for fourth-order fractional integro-differential equations, *Applied Mathematics and Computation*, Vol. **182**(1), (2006) 754-760.

49. **Shaher Momani**, A numerical scheme for the solution of multi-order fractional differential equations, *Applied Mathematics and Computation*, Vol. **182**(1), (2006) 761-770.
50. **Shaher Momani and Nabil Shawagfeh**, Decomposition method for solving the fractional Riccati differential equation, *Applied Mathematics and Computation*, Vol. **182**(2), (2006) 1083-1092.
51. **Shaher Momani and Rami Qaralleh**, Analytical approximate solution for a nonlinear fractional integro-differential equation, *Nonlinear Analysis Forum Journal*, Vol. **11**(2), (2006) 237-249.
52. **Shaher Momani, Salah Abuasad and Zaid Odibat**, Variational iteration method for solving non-linear boundary value problems, *Applied Mathematics and Computation*, Vol. **183**, (2006) 1351-1358.
53. **Shaher Momani**, General solutions for the space- and time-fractional diffusion-wave equation, *Journal of Physical Sciences*, Vol. **10**, (2006) 30-43.
54. **Shaher Momani and Zaid Odibat**, Numerical comparison of methods for solving linear differential equations of fractional order, *Chaos, Solitons & Fractals*, Vol. **31**(5), (2007) 1248-1255.
55. **Shaher Momani**, An algorithm for solving a nonlinear fractional convection-diffusion problem, *Communications in Nonlinear Science and Numerical Simulation*, Vol. **12**(7), (2007) 1283-1290.
56. **Shaher Momani and Zaid Odibat**, Numerical approach to differential equations of fractional order, *Journal of Computational and Applied Mathematics*, Vol. **207**(1), (2007) 96-110.
57. **Shaher Momani and Zaid Odibat**, Fractional Green's function for linear fractional inhomogeneous partial differential equations in fluid mechanics, *Journal of Applied Mathematics and Computing*, Vol. **24**, (2007) 167-178.
58. **Shaher Momani and Rami Qaralleh**, Numerical approximations and Pade approximants for a fractional population growth model, *Applied Mathematical Modelling*, Vol. **31**(9), (2007) 1907-1914.
59. **Shaher Momani and Ziad Odibat**, Comparison between homotopy perturbation method and the variational iteration method for linear fractional partial differential equations, *Computers and Mathematics with Applications*, Vol. **54**, (2007) 910-919.
60. **Vedat Suat Erturk and Shaher Momani**, Comparing numerical method for solving fourth-order boundary value problems, *Applied Mathematics and Computation*, Vol. **188**, (2007) 1963-1968.
61. **Rabha Ibrahim and Shaher Momani**, On the existence and uniqueness of solutions of a class of fractional differential equations, *Journal of Mathematical Analysis and Applications*, Vol. **334**(1), (2007) 1-10.
62. **Shaher Momani and Ziad Odibat**, Homotopy perturbation method for nonlinear partial differential equations of fractional order, *Physics Letters A*, Vol. **365**, (2007) 345-350.
63. **Zaid Odibat and Shaher Momani**, A reliable treatment of homotopy perturbation method for Klein-Gordon equations, *Physics Letters A*, Vol. **365**, (2007) 351-357.
64. **Khalida Inayat Noor, Muhammad Aslam Noor and Shaher Momani**, Modified Householder iterative method for nonlinear equations, *Applied Mathematics and Computation*, Vol. **190**, (2007) 1534-1539.

65. **Shaher Momani** and **Muhammad Aslam Noor**, Numerical comparison of methods for solving a special fourth-order boundary value problem, *Applied Mathematics and Computation*, Vol. **191**, (2007) 218-224.
66. **Rabha Ibrahim** and **Shaher Momani**, Multiple solutions for multi-order fractional differential equations, *Arab Journal of Mathematics and Mathematical Sciences*, Vol. **1**, (2007) 28-34.
67. **Shaher Momani**, A decomposition method for solving unsteady convection-diffusion problems, *Turkish Journal of Mathematics*, Vol. **31**, (2007) 1-10.
68. **Vedat Suat Erturk** and **Shaher Momani**, A reliable algorithm for solving tenth-order boundary value problems, *Numerical Algorithms*, Vol. **44**(2), (2007) 147-158.
69. **Zaid Odibat** and **Shaher Momani**, Numerical solution of Fokker-Planck equation with space- and time-fractional derivatives, *Physics Letters A*, Vol. **369** (2007), 349-358.
70. **Shaher Momani**, **Zaid Odibat** and **Vedat Suat Erturk**, Generalized differential transform method for solving a space- and time-fractional diffusion-wave equation, *Physics Letters A*, Vol. **370**, (2007) 379-387.
71. **Hossien Jafari** and **Shaher Momani**, Solving fractional diffusion and wave equations by modified homotopy perturbation method, *Physics Letters A*, Vol. **370**, (2007) 388-396.
72. **Zaid Odibat** and **Shaher Momani**, Numerical methods for nonlinear partial differential equations of fractional order, *Applied Mathematical Modelling*, Vol. **32**, (2008) 28-39.
73. **Shaher Momani** and **Rabha Ibrahim**, On a fractional integral equation of periodic functions involving Weyl-Riesz operator in Banach algebras, *Journal of Mathematical Analysis and Applications*, Vol. **339**, (2008) 1210-1219.
74. **Zaid Odibat** and **Shaher Momani**, Modified homotopy perturbation method: application to quadratic Riccati differential equation of fractional order, *Chaos, Solitons & Fractals*, Vol. **36**, (2008) 167-174.
75. **Zaid Odibat** and **Shaher Momani**, A generalized differential transform method for linear partial differential equations of fractional order, *Applied Mathematics Letters*, Vol. **21**, (2008) 194-199.
76. **Shaher Momani** and **Ziad Odibat**, A novel method for nonlinear fractional partial differential equations: Combination of DTM and generalized Taylor's formula, *Journal of Computational and Applied Mathematics*, Vol. **220**, (2008) 85-95.
77. **G. H. Erjaee** and **Shaher Momani**, Phase synchronization in fractional differential chaotic systems. *Physics Letters A*, Vol. **372**, (2008) 2350-2354.
78. **Vedat Suat Erturk**, **Shaher Momani**, and **Zaid Odibat**, Application of generalized differential transform method to multi-order fractional differential equations, *Communications in Nonlinear Science and Numerical Simulation*, Vol. **13**, (2008) 1642-1654.
79. **Vedat Suat Erturk** and **Shaher Momani**, Solving systems of fractional differential equations using differential transform method, *Journal of Computational and Applied Mathematics*, Vol. **215**, (2008) 142-151.
80. **Shaher Momani** and **Vedat Suat Erturk**, Solutions of non-linear oscillators by the modified differential transform method, *Computers & Mathematics with Applications*, Vol. **55**, (2008) 833-842.

81. **Omar Abdulaziz, Ishak Hashim and Shaher Momani**, Application of homotopy-perturbation method to fractional IVPs, *Journal of Computational and Applied Mathematics*, Vol. **216**, (2008) 574-584.
82. **Omar Abdulaziz, Ishak Hashim and Shaher Momani**, Solving systems of fractional differential equations by homotopy-perturbation method. *Physics Letters A*, Vol. **372**, (2008) 541-549.
83. **Zaid Odibat, Shaher Momani and Vedat Suat Erturk**, Generalized differential transform method: Application to differential equations of fractional order. *Applied Mathematics and Computation*, Vol. **197**, (2008) 467-477.
84. **Omar Jaradat, Ahmad Al-Omari and Shaher Momani**, Existence of the mild solution for fractional semilinear initial value problems, *Nonlinear Analysis Journal: Theory, Methods & Applications*, Vol. **69**, (2008) 3153-3159.
85. **M. S. Chowdhury, Ishak Hashim and Shaher Momani**, The multistage homotopy-perturbation method: A powerful scheme for handling the Lorenz system. *Chaos, Solitons & Fractals*, Vol. **40**, (2009) 1929-1937.
86. **Ishak Hashim, Omar Abdulaziz and Shaher Momani**, Homotopy analysis method for fractional IVPs, *Communications in Nonlinear Science and Numerical Simulation*, Vol. **14**, (2009) 674-784.
87. **Shaher Momani, Ziad Odibat and Ahmed Alawneh**, Variational iteration method for solving the space- and time-fractional KdV equation, *Numerical Methods for Partial Differential Equations Journal*, Vol. **24**(1), (2008) 262-271.
88. **Shaher Momani and Vedat Suat Erturk**, A numerical scheme for the solution of viscous Cahn-Hilliard equation, *Numerical Methods for Partial Differential Equations Journal*, Vol. **24**(2), (2008) 663-669.
89. **Shaher Momani and Ziad Odibat**, Numerical solutions of the space-time fractional advection-dispersion equation, *Numerical Methods for Partial Differential Equations Journal*, Vol. **24**, (2008) 1416-1429.
90. **Zaid Odibat and Shaher Momani**, Analytical comparison between the homotopy perturbation method and variational iteration method for differential equations of fractional order, *International Journal of Modern Physics B*, Vol. **22**, (2008) 4041-4058.
91. **Shaher Momani and Vedat Suat Erturk**, Solving a system of fourth-order obstacle boundary value problems by differential transform method, *Kybernetes*, Vol. **73**(2), (2008) 315-325.
92. **Shaher Momani, Omar Jaradat and Rabha Ibrahim**, Numerical approximations of a dynamic system containing fractional derivatives. *Journal of Applied Sciences*, Vol. **8**(6), (2008) 1079-1084.
93. **Shaher Momani and Hossein Jafari**, Numerical study of systems of fractional differential equations by the decomposition method. *Southeast Asian Bulletin of Mathematics*, Vol. **32**, (2008) 721-730.
94. **S. M. Momani, Ahlam Jameel and Sora Al-Azwai**, Local and global uniqueness theorems on fractional integro-differential equations via Gronwall's and Bihari's inequalities. *Soochow Journal of Mathematics*, Vol. **33**(4), (2007) 619-627.
95. **Vedat Suat Erturk and Shaher Momani**, Differential transform technique for solving fifth-order boundary value problems. *Mathematical and Computational Applications*, Vol. **13**(2), (2008) 113-121.

96. **Zaid Odibat and Shaher Momani**, An algorithm for the numerical solution of differential equations of fractional order, *Journal of Applied Mathematics and Informatics*, Vol. **26**, (2008) 15-27.
97. **Shaher Momani**, Numerical simulations for the space- and time-fractional partial differential equations, *Proceedings of The Third Conferences On Research And Education In Mathematics, Malaysia*, (2007) 51-56.
98. **Vedat Suat Erturk and Shaher Momani**, Differential transform method for obtaining positive solutions for two-point nonlinear boundary value problems, *International Journal: mathematical Manuscript (IJMM)*, Vol. **1**(1), (2007) 65-72.
99. **Shaher Momani, Ziad Odibat and Ishak Hashim**, Algorithms for nonlinear fractional partial differential equations: A selection of numerical methods, *Topological Methods in Nonlinear Analysis Journal*, Vol. **31**, (2008) 211-226.
100. **Zaid Odibat, Shaher Momani and Ahmed Alawneh**, Analytic study on time-fractional Schrödinger equations: Exact solutions by GDTM, *Journal of Physics: Conference Series*, Vol. **96**, (2008) 012066.
101. **Zaid Odibat, Shaher Momani**, Applications of variational iteration and homotopy perturbation methods to fractional evolution equations, *Topological Methods in Nonlinear Analysis Journal*, Vol. **31**, (2008) 227-234.
102. **Shaher Momani**, An efficient numerical scheme for solving fractional convection-diffusion problems. *International Journal of Computational and Numerical Analysis and Applications*, accepted (2007).
103. **Ziad Odibat, Shaher Momani and Ahmed Alawneh**, Approximate analytical solution of the space- and time- fractional Burgers equations. *Journal Européen des Systèmes Automatisés*, Vol. **42**(6), (2008) 627-638.
104. **Shaher Momani and Rabha Ibrahim**, Analytical solutions of a fractional oscillator by the decomposition method, *International Journal of Pure and Applied Mathematics*, Vol. **37**(1), (2007) 119-132.
105. **M. H. Alnasr and Shaher Momani**, Application of homotopy perturbation method to singularly perturbed Volterra integral equations. *Journal of Applied Sciences*, Vol. **8**(6), (2008) 1073-1078.
106. **Ziad Odibat and Shaher Momani**, Fractional Green's Function for a Class of Fractional Partial Differential Equations. *Journal Européen des Systèmes Automatisés*, Vol. **42**(6), (2008) 639-652.
107. **Shaher Momani, Vedat Suat Erturk and Sana Abu-Qurra**, An approximation of the analytic solution of the Helmholtz equation. *International Journal: mathematical Manuscript (IJMM)*, accepted.
108. **Vedat Suat Erturk and Shaher Momani**, solutions of two forms of Blasius equation on a half-infinite domain. *Journal of Algorithms and Computational Technology*, accepted.
109. **Rabha Ibrahim and Shaher Momani**, Upper and lower bounds of solutions for fractional integral equations. *Surveys in Mathematics and its Applications*, Vol. **24**, (2007) 145-156.
110. **Shaher Momani, G. H. Erjaee and M. H. Alnasr**, The modified homotopy perturbation method for handling non-linear oscillators. *Computers and Mathematics with Applications*, Vol. **58**, (2009) 2209-2220.

111. **Zaid Odibat and Shaher Momani**, The variational iteration method: An efficient scheme for handling fractional partial differential equations in fluid mechanics. *Computers and Mathematics with Applications*, Vol. **58**, (2009) 2199-2208.
112. **Shaher Momani and Muhammad Aslam Noor**, Some numerical methods for solving special third-order initial-boundary value problems. *Nonlinear Analysis Forum*, Vol. **13**, (2008) 109-117.
113. **S.H. Hoseinnia, A. Ranjbar and Shaher Momani**, Using enhanced homotopy perturbation method in fractional differential equation via deforming the linear part. *Computers and Mathematics with Applications*, Vol. **56**, (2008) 3138-3149.
114. **S. H. Hosseinnia, R. Ghaderi, A. Ranjbar N., M. Mahmoudian and Shaher Momani**, Sliding mode synchronization of an uncertain fractional order chaotic system. *Computers and Mathematics with Applications*, Vol. **59**, (2010) 1637-1643.
115. **E. Naseri, R. Ghaderi, A. Ranjbar, J. Sadati, M. Mahmoudian, S. H. Hosseinnia and Shaher Momani**, Solving linear fractional-order differential equations via the enhanced homotopy perturbation method. *Physica Scripta*, Vol. **2009**, (2009) 013034.
116. **M. Zolfaghari, R. Ghaderi, A. Sheikholeslami, A. Ranjbar, S. H. Hosseinnia and Shaher Momani and J Sadati**, Application of the enhanced homotopy perturbation method to solve the fractional-order BagleyTorvik differential equation. *Physica Scripta*, Vol. **2009**, (2009) 013032.
117. **M. Shahiri, R. Ghaderi, A. Ranjbar N., S.H. Hosseinnia and Shaher Momani**, Chaotic fractional-order Coulet system: Synchronization and control approach. *Communications in Nonlinear Sciences and Numerical Simulation*, Vol. **15**, (2010) 665-674.
118. **H. Delavari, R. Ghaderi, A. Ranjbar, and Shaher Momani**, Fuzzy fractional order sliding mode controller for nonlinear systems. *Communications in Nonlinear Sciences and Numerical Simulation*, Vol. **15**, (2010) 963-978.
119. **Sana Abu Gurrah, Vedat Suat Erturk and Shaher Momani**, Application of the modified differential transform method to fractional oscillators. *Proceedings of The Fourth International Workshop on Advanced Computation for Engineering Applications, Jordan*, (2008) 140-145.
120. **Mohammad Zurigat, Shaher Momani and Ahmad Alawneh**, Homotopy analysis method for systems of fractional integro-differential equations. *Proceedings of The Fourth International Workshop on Advanced Computation for Engineering Applications, Jordan*, (2008) 106-111.
121. **S. J. Sadati, A. Ranjbar N., S.H. Hoseinnia, R. Ghaderi, Shaher Momani**, Bifurcation analysis, parameter identification and synchronization of fractional order Newton-Leipnik system using adaptive control. *Proceedings of The International Workshop on New Trends in Science and Technology*, Turkey, 2008.
122. **E. Naseri, R. Ghaderi, A. Ranjbar N., S.H. Hosseinnia, M. Mahmoudian and Shaher Momani**, Bifurcation Analysis and Sliding Mode Control of Ziegler's Pendulum. *Proceedings of The International Workshop on New Trends in Science and Technology*, Turkey, 2008.
123. **H. Delavari, R. Ghaderi, A. Ranjbar N. and Shaher Momani**, Fractional Order Controller for Two-degree of Freedom Polar Robot. *Proceedings of The International Workshop on New Trends in Science and Technology*, Turkey, 2008.
124. **H. Delavari, R. Ghaderi, A. Ranjbar N. and Shaher Momani**, Fractional Order Controller Strategy for Nonlinear Dynamic Systems. *Proceedings of The International Workshop on New Trends in Science and Technology*, Turkey, 2008.

125. **M. Shahiri, A. Ranjbar N., S.H. Hosseinnia, R. Ghaderi and Shaher Momani**, Projective Synchronization of Oscillation and Chaos in Fractional-Order Anti-Controlled Rigid Body System. *Proceedings of The International Workshop on New Trends in Science and Technology*, Turkey, 2008.
126. **Shaher Momani, Banan Ma'ay'ah**, Non-standard discretization for nonlinear systems of fractional differential equations. *Proceedings of The Third IFAC Workshop on Fractional Differentiation and its Applications*, Turkey, 2008.
127. **S.H. Hoseinnia, A. Ranjbar N., R. Ghaderi, Shaher Momani**, Synchronization of uncertain fractional order Duffing-Holmes chaotic system via sliding mode control. *Proceedings of The Third IFAC Workshop on Fractional Differentiation and its Applications*, Turkey, 2008.
128. **G. H. Erjaee and Shaher Momani**, Non-Standard Discretization of Fractional Differential Equations. *proceeding of 8th seminar of differential equations and dynamical systems in*, Isfahan, Iran, 2008.
129. **M. Mahmoudian, R. Ghaderi, A. Ranjbar N. , J. Sadati, S.H. Hosseinnia and Shaher Momani**, Synchronization of fractional-order chaotic system via adaptive PID controller. *New Trends in Nanotechnology and Fractional Calculus Applications*, Springer, (2010) 445-452.
130. **H. Delavari, R. Ghaderi, A. N. Ranjbar and Shaher Momani**, Synchronization of chaotic nonlinear Gyros using fractional order controller. *New Trends in Nanotechnology and Fractional Calculus Applications*, Springer, (2010) 479-486.
131. **S.H. Hosseinnia, R. Ghaderi, A. N. Ranjbar, J. Sadati and Shaher Momani and Shaher Momani**, Synchronization of Gyro systems via fractional-order adaptive controller. *New Trends in Nanotechnology and Fractional Calculus Applications*, Springer, (2010) 495-502.
132. **S.H. Hosseinnia, R. Ghaderi, A. N. Ranjbar, F. Abdous and Shaher Momani and Shaher Momani**, Control of chaos via fractional-order state feedback controller. *New Trends in Nanotechnology and Fractional Calculus Applications*, Springer, (2010) 511-519.
133. **Shaher Momani, Ahmet Yldrm**, Analytical approximate solutions of the fractional convection-diffusion equation with nonlinear source term by He's homotopy perturbation method. *International Journal of Computer Mathematics*, Vol. **87**, (2010) 1057-1065.
134. **Ahmet Yldrm, Shaher Momani**, Series solutions of a fractional oscillator by means of the homotopy perturbation method. *International Journal of Computer Mathematics*, Vol. **87**, (2010) 1072-1082.
135. **Mohammad Zurigat, Shaher Momani, Zaid Odibat and Ahmad Alawneh**, The homotopy analysis method for handling systems of fractional differential equations. *Applied Mathematical Modelling*, Vol. **34**, (2010) 24-35.
136. **Mohammad Zurigat, Shaher Momani and Ahmad Alawneh**, Homotopy analysis method for systems of fractional integro-differential equations. *The International Journal on Neural, Parallel and Scientific Computation (NPSC)*, Vol. **17**, (2009) 169-186.
137. **Zaid Odibat, Shaher Momani and Hang Xu**, A reliable algorithm of homotopy analysis method for solving nonlinear fractional differential equations. *Applied Mathematical Modelling*, Vol. **34**, (2010) 593-600.
138. **Adel Al-rabtah, Vedat Suat Erturk and Shaher Momani**, Solutions of a fractional oscillator by using differential transform method, *Computers & Mathematics with Applications*, Vol. **59**, (2010) 1356-1362.

139. **H. Delavari, A. Ranjbar N, R. Ghaderi, Shaher Momani**, Fractional order control of a coupled tank. *Nonlinear Dynamics*, Vol. **61**, (2010) 383-397.
140. **Mohammad Zurigat, Shaher Momani and Ahmad Alawneh**, Analytical approximate solutions of systems of fractional algebraic differential equations by homotopy analysis method. *Computers & Mathematics with Applications*, Vol. **59**, (2010) 12227-1235.
141. **Omar Abdulaziz, M.S.H. Chowdhury, Ishak Hashim, and Shaher Momani**, Direct solutions of second-order BVPs by homotopy-perturbation method. *Sains Malaysiana*, Vol. **38**, (2009) 717-721.
142. **Asghar Ghorbani and Shaher Momani**, A homotopy perturbation algorithm to solve semi-differential equations. *Applied Mathematics Letters*, Vol. **23**, (2010) 922-927.
143. **Shaher Momani and Vedat Suat Erturk**, The solution of Flierl-Petviashvili equation and its variants using DTM-Pade technique. *World Applied Sciences Journal*, accepted.
144. **Shaher Momani, Abdullah Abu Rqayiq and Dumitru Baleanu**, A Non-Standard Finite Difference Scheme for Two-Sided Space-Fractional Partial Differential Equations. *The IFAC Workshop on Fractional Derivative and Applications (IFAC FDA2010)*, Spain, 2010.
145. **Fawang Liu, Mark M. Meerschaert, Shaher Momani, Nikolai N. Leonenko, Wen Chen, and Om P. Agrawal**, Fractional differential equations. *International Journal of Differential Equations*, Vol. **2010**, (2010) 1-2.
146. **E. Naseri, A. Ranjbar, S.H. Hosseinnia and Shaher Momani**, Backstepping Control of Fractional-Order Chaotic Systems. *The 3rd International Conference on Complex Systems and Applications*, France, 2009.
147. **M. Mahmoudian, A. Ranjbar, E. Naseri, S.H. Hosseinnia and Shaher Momani**, Control of Genesio-Tesi and Chen Chaotic Systems Using a Fractional-Order Controller. *The 3rd International Conference on Complex Systems and Applications*, France, 2009.
148. **M. shahiri T., A. Ranjbar, R. Ghaderi, S.H. Hosseinnia and Shaher Momani**, Synchronization of Chaotic Fractional-Order Couillet System via ASMC. *The 3rd International Conference on Complex Systems and Applications*, France, 2009.
149. **M. Mahmoudian, R. Ghaderi, E. Naseri, S. H. Hoseinnia, Shaher Momani, A. Ranjbar**, Control of Genesio-Tesi and Chen chaotic systems using a fractional controller. *The 3rd International Conference on Complex Systems and Applications*, France, 2009.
150. **H. Delavari, R. Ghaderi, A. Ranjbar N. and Shaher Momani**, A Study on the Stability of Fractional Order Systems. *Proceedings of The Fourth IFAC Workshop on Fractional Differentiation and its Applications*, Spain, 2010.
151. **Shaher Momani, Abdullah Abu Rqayiq and Dumitru Baleanu**, A Non-Standard Finite Difference Scheme for Two-Sided Space-Fractional Partial Differential Equations. *Proceedings of The Fourth IFAC Workshop on Fractional Differentiation and its Applications*, Spain, 2010.
152. **H. Delavari, R. Ghaderi, A. Ranjbar N., S.H. HosseinNia and Shaher Momani**, Adaptive Fractional PID Controller for Robot Manipulator. *Proceedings of The Fourth IFAC Workshop on Fractional Differentiation and its Applications*, Spain, 2010.

Submitted Papers

1. **Shaher Momani** and **Salah Abuasad**, Variational iteration method for solving Fisher's equation. *Communications in Nonlinear Science and Numerical Simulation*, submitted.
2. **Rabha Ibrahim** and **Shaher Momani**, On a fractional integral equation of periodic functions involving Weyl-Riesz operator. *Kyngpook Mathematical Journal*, submitted.
3. **Hamid A. Jalab**, **Shaher Momani** and **Rabha Ibrahim**, Parametric stability of almost-periodic solutions for BAM neural networks without delays. *Journal of Mathematical Analysis and Applications*, submitted.
4. **Samir Hadid**, **Shaher Momani** and **Rabha Ibrahim**, Solutions of fractional integro-differential equations in L^2 and C spaces. *Electric J. of Differential Equations*, submitted.
5. **Rabha Ibrahim** and **Shaher Momani**, Positive solutions for fractional differential equation: $D^\beta[\phi^m(D^\alpha u(t))] = f(t, u, D^\alpha u)$. *electronic Journal of Differential equations*, submitted.
6. **Shaher Momani** and **Vedat Suat Erturk**, The differential transform method and Pad approximants for a fractional population growth model. *Mathematics and Computers in Simulation*, submitted.
7. **Rabha Ibrahim** and **Shaher Momani**, Existence and uniqueness of periodic solutions for a nonlinear integral equation involving Weyl-Riesz fractional operator. *Applied Mathematics and Computation*, submitted.
8. **Vedat Suat Erturk** and **Shaher Momani**, Solutions of the problem of prey and predator and the epidemic model via differential transform method. *Kybernetes*, submitted.
9. **Shaher Momani**, **Muhammad Aslam Noor** and **Syed Tauseef Mohyud-Din**, Numerical methods for solving a special sixth-order boundary value problem. *Applied Mathematics and Computation*, submitted.
10. **Ishak Hashim**, **M.S.H. Chowdhury** and **Shaher Momani**, Homotopy-perturbation method for solving systems of partial differential equations. *Numerical Methods for Partial Differential Equations*, submitted.
11. **Sana Abu Gurrah**, **Shaher Momani** and **Vedat Suat Erturk**, The modified differential transform method for handling strongly non-linear oscillators. *Journal of Sound and Vibration*, submitted.
12. **Ahmad El-Ajou**, **Zaid Odibat**, **Shaher Momani** and **Ahmad Alawneh**, Construction of Analytical Solutions to Fractional Differential Equations Using Homotopy Analysis Method. *Journal of Computational and Applied Mathematics*, submitted.
13. **Asghar Ghorbani** and **Shaher Momani**, A homotopy perturbation algorithm to solve semi-differential equations. *Applied Mathematical Modelling*, submitted.
14. **Rabha W. Ibrahim**, **Maslina Darus** and **Shaher Momani**, Subordination and superordination for certain analytic functions containing fractional integral. *Applied Mathematics and Computation*, submitted.
15. **M. H. Alnasr**, **G. H. Erjaee** and **Shaher Momani**, Application of the multistage homotopy perturbation method to the bifurcation of some dynamical systems. *Applied Mathematical Modelling*, submitted.

16. **Asgar Ghorbani and Shaher Momani**, A novel algorithm for nonlinear ordinary differential equations of first order. *Applied Mathematical Modelling*, submitted.
17. **S.H. Hosein Nia, A. Ranjbar N., H. Delavari, R. Ghaderi, Shaher Momani**, Using sliding mode control to synchronize the chaos in fractional order Genesio-Tesi and Coulet Systems. *Chaos, Solitons and Fractals*, submitted.
18. **Marwan Al-Quran, Shaher Momani and Mohammad Alrefai**, The decomposition method and the variational iteration method for exact solutions of partial differential equations with continuous delay. *Applied Mathematical Modelling*, submitted.
19. **Hseyin Kocak, Ahmet Yldrm, Shaher Momani**, Homotopy perturbation method for solving the space-time fractional advection-dispersion equation. *International Journal of Computer Mathematics*, submitted.
20. **Nurettin DOGAN, Marwan Al-Quran, Vedat Suat Erturk and Shaher Momani**, Variational Iteration Method For Solving Singularly Perturbed Two-Point Boundary Value Problems. *International Journal of Computer Mathematics*, submitted.
21. **Marwan Al-Quran, Nurettin DOGAN, Vedat Suat Erturk and Shaher Momani**, Variational Iteration Method For Solving Two-Parameter Singularly Perturbed Two Point Boundary Value Problems. *International Journal of Computer Mathematics*, submitted.
22. **Hseyin Kocak, Ahmet Yldrm, Shaher Momani**, Rational approximation solution of the foam drainage equation with time- and space- fractional derivatives. *Computers & Mathematics with Applications*, submitted.
23. **Inan Ates, Ahmet Yldrm, Shaher Momani**, Applications of variational iteration and homotopy perturbation methods to obtain exact solutions for time-fractional diffusion-wave equations. *Computers & Mathematics with Applications*, submitted.
24. **Nurettin DOGAN, Vedat Suat Erturk and Shaher Momani**, Application of He's Variational Iteration Method For Solving Singularly Perturbed Volterra Integral Equations. *International Journal of Computer Mathematics*, submitted.
25. **Nurettin DOGAN, Vedat Suat Erturk, Shaher Momani and Omer Akin**, Differential Transform Method For Solving Singularly Perturbed Volterra Integral Equations. *Acta Applicanda Mathematicae*, submitted.

Conferences and Study Visits

1. The First Jordanian Mathematics Conference, Jordan, 1991.
2. The Second Jordanian Mathematics Conference, Jordan, 1994.
3. The Third Jordanian Mathematics Conference, Jordan, 1996.
4. A workshop in Teaching Sciences in the Twenty First Century, Cairo, 1995.
5. A workshop in Teaching Calculus Using Mathematica Software, Alexandria, 1995.
6. Visiting Professor, Department of Mathematics, Univ. of Wales, UK, June - August 1996.
7. A workshop on Mathematics of Computation, Yarmouk University, Jordan, 1997.
8. Visiting Professor, Department of Mathematics, Univ. of Wales, UK, August 1997.

9. The 15th World Congress on Scientific Computation, Modelling and Applied Mathematics (IMACS), Berlin, Germany, 1997.
10. Sixth SIAM Conference on Optimization, Atlanta, USA, 1999.
11. A workshop on Numerical Solution of Differential Equations, Mu'tah University, Jordan, 2000.
12. A workshop on Applications of Calculus, UAE University, UAE, 2001.
13. First UAE Math-Day Conference, University of Sharjah, UAE, 2003.
14. Third International Workshop on Scientific Computing and Application, Honk Kong, China, 2003.
15. A workshop on Making Internship Programs More Effective, UAE University, UAE, 2003.
16. Second UAE Math-Day Conference, American University of Sharjah, UAE, 2004.
17. Invited speaker in Recent Advances in Mathematics Conference, India, 2004.
18. Invited speaker in The Third Conferences On Research And Education In Mathematics, (2007), Malaysia.
19. Invited speaker in The 2nd International Symposium on Nonlinear Dynamics, (2007), Shanghai, China.
20. Invited speaker in the First National Conference: SOFA 2010, (2010), Skikda University, Algeria
21. Visiting Professor, Department of Mathematics, Qatar University, Qatar, November 2007.
22. Visiting Professor: Department of Mathematics, University of Wales, June-August 1996, UK.
23. Visiting Professor: King Abdullah University for Science and Technology (KAUST), June 2010, KSA.
24. Visiting Professor: Universiti Kebangsaan Malaysia (UKM), June 2010, Malaysia.

Courses Taught at University Level

- **Mutah University: 1991-2000, 2004-2006, and 2007-prsent**

1. Math. 101	Calculus I	B. Sc. level.
2. Math. 102	Calculus II	B. Sc. level.
3. Math. 105	Math. for Economics	B. Sc. level.
4. Math. 112	General Mathematics	B. Sc. level.
5. Math. 201	Advanced Calculus	B. Sc. level.
6. Math. 203	Ordinary Differential Equations I	B. Sc. level.
7. Math. 211	Real Analysis I	B. Sc. level.
8. Math. 242	Linear Algebra I	B. Sc. level.
9. Math. 271	Applied Mathematics	B. Sc. level.
10. Math. 301	Ordinary Differential Equations II	B. Sc. level.
11. Math. 321	Numerical Analysis I	B. Sc. level.
12. Math. 421	Numerical Analysis II	B. Sc. level.

13. Math. 481	Special Topics in Numerical Analysis,	B. Sc. level.
14. Math. 491	Special Topics in Fluid Mechanics,	B. Sc. level.
15. Math. 495	Research Project	B. Sc. level.
16. Math. 500	Techniques of Sci. Research	Master level.
17. Math. 501	Theory of Differential Equations	Master level.
18. Math. 521	Numerical Analysis	Master level.
19. Math. 579	Fractional Calculus	Master level.
• Qatar University: 2006-2007		
1. Math. 101	Calculus I	B. Sc. level.
2. Math. 215	Mathematics for Computer Science	B. Sc. level.
3. Math. 217-1	Mathematics for Physics	B. Sc. level.
4. Math. 217-2	Mathematics for Engineering	B. Sc. level.
5. Math. 498	Special Course	B. Sc. level.
• United Arab Emirates University: 2001-2004		
1. Math. 1052	Calculus I	B. Sc. level.
2. Math. 1102	Calculus II	B. Sc. level.
3. Math. 1094	Math. for Eng. I	B. Sc. level.
4. Math. 1754	Math. for Eng. II	B. Sc. level.
5. Math. 2453	Set Theory	B. Sc. level.
6. Math. 2752	Ordinary Differential Equation.	B. Sc. level.
7. Math. 3052	Math. for Teachers I	B. Sc. level.
8. Math. 3102	Math. for Teachers II	B. Sc. level.
9. Math. 3171	Applied Mathematics	B. Sc. level.
10. Math. 3203	Numerical Analysis I	B. Sc. level.
11. Math. 3495	Research Project	B. Sc. level.
• Yarmouk University: 2000-2001		
1. Math. 101	Calculus I	B. Sc. level.
2. Math. 102	Calculus II	B. Sc. level.
3. Math. 203	Ordinary Differential Equation	B. Sc. level.
4. Math. 251	Partial Differential Equation	B. Sc. level.
5. Math. 321	Numerical Analysis I	B. Sc. level.
6. Math. 421	Numerical Analysis II	B. Sc. level.
7. Math. 621	Special Topics in Applied Mathematics	Master level.
• Jordan University: Summer Course 2004		
1. Math. 101	Calculus I	B. Sc. level.
2. Math. 103	Math. For Econ.	B. Sc. level.
3. Math. 201	Calculus III	B. Sc. level.
4. Math. 202	Math. For Eng.	B. Sc. level.
5. Math. 472	Numerical Analysis	B. Sc. level.
6. Math. 902	Theory of D. E.	Ph.D level.
7. Math. 901	Theory of I. E.	Ph.D level.

Research Supervision

0.1 MSc Students

1. Khaled Moady: The numerical solution of obstacle boundary value problems, Mutah University, Jordan, (2004).
2. Salah Aldeen: Variational iteration method for solving ordinary and partial differential equations, Mutah University, Jordan, (2005).
3. Rami Qaraleh: The numerical solution of fractional integro-differential equations, Mutah University, Jordan, (2005).
4. Saed Khorshaid: A modified homotopy perturbation Method for solving linear and nonlinear differential equations, Mutah University, Jordan, (2005).
5. Mohammad Al-Shboul: Numerical methods for fourth-order and fifth-order fractional boundary value problems, Mutah University, Jordan, (2005).
6. Nesreen Mkhaterh: Variational iteration method for solving fractional ordinary differential equation, Mutah University, Jordan, (2005).
7. Sora Al-Azawi: Local and global uniqueness theorems on fractional integro-differential equations via Bihari's and Gronwall's inequalities, Al-Nahrin University, Iraq (2006).
8. Sana Abu Gurrah: Modified differential transform method for solving strongly nonlinear oscillators, Mutah University, Jordan, (2007).
9. Banan Mai'a: Chaotic dynamics and phase synchronization of fractional order dynamical systems, Mutah University, Jordan, (2007).
10. Hazim Bashirah: Numerical solution of singular IVPs, Mutah University, Jordan, (2007).
11. Jamel Al-Rwahl: Synchronization of fractional differential Chaotic System, Mutah University, Jordan, (2009).
12. Abdullah Abu Rqayiq: A non-standard finite difference scheme for two-sided space-fractional partial differential equations, Mutah University, Jordan, (2009).
13. Sumar Rawashdeh: Synchronization of fractional differential Chaotic System, Mutah University, Jordan, (2010).

0.2 Ph.D. Students

1. Rifat Saed: The numerical solution of linear and nonlinear fractional integro-differential equations, Al-Nahrin University, Iraq, (2004), (part time).
2. Mohammad Zuraiqat: An efficient numerical method for solving systems of ordinary differential equations of fractional order, Jordan University, Jordan, (2007).
3. Omar Abdul Aziz Ali: Explicit method for nonlinear fractional equations, University Kebangsaan Malaysia, Malaysia, (2007).
4. Jadallah Rezaqalla: Solutions of some constitutive equations containing fractional derivatives, University Kebangsaan Malaysia, Malaysia, (2009).
5. Khaled Moady: A non-standard finite difference schemes for solving fractional-order chaos and hyperchaos systems, University Kebangsaan Malaysia, Malaysia, (2009).

References

1. **Professor Ahmad Alawaneh**, The University of Jordan, Jordan. E-mail: aalawneh@aabu.edu.jo
2. **Professor Samir Hadid**, Department of Mathematics, Ajman Scientific University, UAE. E-mail: sbhadid@yahoo.com
3. **Professor Abdul-Majid Wazwaz**, Department of Mathematics and Computer Science, Saint Xavier University, Chicago, IL 60655, USA. E-mail: wazwaz@sxu.edu
4. **Professor Ken Walters**, Department of Mathematics, University of Wales, Aberystwyth, Dyfed SY23 3BZ, UK.
5. **Professor Muhammad Aslam Noor**, COMSTATS Institute of Information Tech., Pakistan. E-mail: noormaslam@hotmail.com

I hereby declare that the information provided in this C. V. is true complete and correct to the best of my knowledge and belief.

Signature:.....

Date: October, 2010.