*** CURRICULUM VITAE C.V. ***

** PERSONAL INFORMATION **

*** Name:** Sahar Mubarak Z. Alqaraleh.

*** Academic rank:** Associate professor.

*** Nationality :** Jordanian.

*** Address :**

Department of Mathematics,

Faculty of Science,

Al-Hussein Bin Talal University,

Maan, Jordan.

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** EDUCATION **

1. **PhD degree** in Applied Functional Analysis, 2006, Michigan Technological University/USA.
2. **Master degree** in Mathematics, 1993/1994, the University of Jordan/ Jordan.
3. **Bachelor degree** in Mathematics, 1990/1991, Mutah University/ Jordan.

** COMPUTER SKILLS **

1. Mathematica.(Expert.)
2. Latex.(Expert.)

** LANGUAGES* **

1. Arabic: Native.
2. English: Excellent.

** RESEARCH INTERESTS **

1- Applied Functional Analysis.

2- Applied Mathematics.

3- Differential Geometry.

4- General Relativity.

5- Fuzzy Mathematics.

6- Abstract Algebra.

* * PROFESSIONAL EXPERIENCES * *

1. Mutah University/ Jordan 1993 -2001.
- Position Held: Lecturer.
- Discipline: Mathematics.

2. Michigan Technological University/ USA Jan/2002- July/2006.
- Position Held: Teaching Assistance.
- Discipline: Teach students. elementary courses in Mathematics, Mathematica software, and laboratory calculus sessions.

3. Al-Hussein Bin Talal University/ Jordan. /Aug/2006- Till Now
- Position Held: - Assistance Professor Aug/2006- July/2013 - Associate professor. July/2013-now
- Discipline: Teach students different courses in mathematics through discussion, practical and group exercises, Assess students through solving problems, evaluating and discussing exams and project requirements, Counsel and advise students on scheduling their classes and degree requirements.

4. Al Majmaah University/ Kingdom of Saudi Arabia: Sep/ 2014 - Sep/ 2015
- Position Held: Sabbatical leave, associate professor.

* * CONFERENCES * *

1. Dalhousie University Halifax Conference, Nova Scotia, Canada, The strength of rigid/plastic composites: a comparison of piecewise-linear and power-law approximations, July/17/2006

2. Petra International Conference on Mathematics, Oct. 23-25 Oct., 2007. Al-Hussein Bin Talal University/ Jordan.

3. Arabic Council for Training Arab Students. Al-Hussein Bin Talal University/ Jordan. August 9/2007.

4. The International Conference on Fractional Differentiation and its Applications, ICFDA, 16-18 July 2018, Amman, The Hashemite Kingdom of Jordan.

5. The Second International Conference on Mathematics Ewdr, Organized by: The Euro-Arab Organization for Environment Water, and Desert Reseaches, Antalya-Turkey 26-30/03/2020.

* * GRADUATE COMMITTEES * *

1. Member, Master degree in Mathematics for Mohammad Ali- Neimat. Reproducing Kernel Hilbert Space Method for Certain Class of Boundary Value Problem: Theorems Application. Al-Hussein Bin Talal University/ Jordan, December/2018.

2- Member, Master degree in Mathematics for Ahmad Awad Al-Habahbeh. Applications of Reproducing Kernel Method for Solving System of Boundary Value Problems, Al-Hussein Bin Talal University/ Jordan, April/2019

3- Member, Master degree in Mathematics for Rania Mohammed Al-Areed. Finiteness of the Order of a Trans-normal Manifold, Mutah University/Jordan, June/ 2020.

4- Member, Master degree in Mathematics for Mo'men Khalid Bany Amer, Complex Bipolar Multi-Fuzzy Sets Al-Hussein Bin Talal University/ Jordan, Jan./2022

5- Member, Master degree in Mathematics for Haneen Abdul-Lateef Saleh. Numerical Solutions of convection Boundary-Layer FLow in Casson Nano Fluid, Al-Hussein Bin Talal University/ Jordan, April/2021.

6- Supervisor, Master degree in Mathematics for Thaier Mohammed Al-Meqdad. Fractional Integrals Operators and their Applications in Mathematics and Other Sciences, Al-Hussein Bin Talal University/ Jordan, April/2019.

7- Supervisor, Master degree in Mathematics for Mohammed E. Talafha. Some Applications of Fuzzy sets, Al-Hussein Bin Talal University/ Jordan, Oct/2020.

8- Supervisor, Master degree in Mathematics for Ahmad Jaradat. Exact solutions of the KDV-equation, Al-Hussein Bin Talal University/ Jordan, 2021

9- Supervisor, Master degree in Mathematics for Amaal Al-Eiseh. Exact solutions of the three wave interaction equations, Al-Hussein Bin Talal University/ Jordan, 2021

10- Supervisor, Master degree in Mathematics for Razan Rafaiah. Approximating the solution of some initial value problems by Runge-Kuttah methods, Al-Hussein Bin Talal University/ Jordan, 2021

11- Supervisor, Master degree in Mathematics for Dania Rafaiah. A comparison study between some numerical methods for approximating the solutions of linear systems of Equations, Al-Hussein Bin Talal University/ Jordan, 2022

12- Supervisor, Master degree in Mathematics for Shareefah Ajaleen. Some polynomial interpolation methods of discrete and continuous data, Al-Hussein Bin Talal University/ Jordan, 2022

** * TAUGHT COURSES * **

i) Under graduate course:
- Calculus 1,2,3,4.
- Linear Algebra 1,2.
- Ordinary and Partial Differential Equations.
- Real Analysis, Complex Analysis, Functional Analysis, and Numerical Analysis.
- Euclidian and Non Euclidian Geometry.
- Abstract Algebra 1,2.
- General Topology.

ii) Graduate Courses:
1- General Topology 2- Functional Analysis

** * AWARDS * **

1. Scholarship from Al-Hussein Bin Talal University/Jordan to study PhD in Applied Mathematics at Michigan Technological University, USA 2002-2006.

2. Scholarship from Mutah University/Jordan to study Master degree in Mathematics at The University of Jordan/ 1991-1993.

** * PUBLICATIONS * **

1 - **Sahar M. Alqaraleh**, and Adeeb G. Talafha. New Family of Exact Soliton Solutions for the Nonlinear Three-Wave-Interaction Equations, Journal of Mathematics and Statistics Vol. 7(1), pp. 45-50, (2011).

2 - Adeeb G. Talafha and **Sahar M. Alqaraleh**. Obtaining Analytic Soliton Solutions for the Three-Wave-Interaction Equations by the Extended Tanh Method. Advances in Theoretical and Applied Mathematics. Vol. 7 (2), pp.109-123, (2012).

3 - **Sahar M. Alqaraleh**, Feras M. Al Faqih and Adeeb G. Talafha. Constructing a train of soliton solutions for the three-wave-interaction equations. Applied Mathematical Sciences, Vol. 7(63), pp. 3097-3109, (2013).

4 - **Sahar M. Alqaraleh**, Adeeb G. Talafha. A systematic Approach Toward Constructing Novel Solitary Wave Solutions for the Three-Wave-Interaction Equations, International Journal of Computational and Applied Mathematics. Vol. 8(2), pp.139-153, (2013).

5 - Adeeb G. Talafha, **Sahar M. Alqaraleh**, Mohammed Al-Smadi, Samir Hadid, Shaher Momani. Analytic solutions for a modified fractional three wave interaction equations with conformable derivative by unified method, Alexandria Engineering Journal, Vol. 59(5), pp. 3731-3739, (2020).

6 -Adeeb G. Talafha, **Sahar M. Alqaraleh**, Mohammed Al-Smadi, Samir Hadid, and Shaher Momani. Exact Soliton Solutions for Conformable Fractional Four-Wave Interaction Equations Using Ansatz Method, Progress in Fractional Differentiation and Applications, Vol. 8, No. 4, pp459-473, (2021).

7 - Adeeb G. Talafha, **Sahar M. Alqaraleh**, A.E El-Ahmady, Jehad Al-Jaraden On Fuzzy Fundamental Groups and Fuzzy Folding of Fuzzy Minkowski Space, Advances in Fuzzy Systems, Vol. 2021, 9 pages, (2021).

8 - Mohammad Talafhaa, Abd Ulazeez Alkourib, **Sahar Alqaraleha**, Hamzeh Zureigatc and Anas Aljarrahd, Complex hesitant fuzzy sets and its applications in multiple attributes decision-making problems, Journal of Intelligent and Fuzzy Systems, Vol. 41, pp. 7299-7327, (2021).

9 - **Sahar M. Alqaraleh**, Abd Ulazeez M. J. S. Alkouri, Mourad Oqla Massadeh, **Adeeb G. Talafha**, Anwar Bataihah. Bipolar Complex Fuzzy Soft Sets and Their Application, International Journal of Fuzzy System Applications. Vol. 11(1), 23 pages, (2022).

10 - **Sahar M. Alqaraleh**, Adeeb G. Talafha, Shaher Momani, Shrideh Al-Omari, Mohammed Al-Smadi. Exact Soliton Solutions for Conformable Fractional Six-Wave Interaction Equations by the Ansatz Method, Fractals, Vol. 30, 16 pages, (2022).

11 Adeeb G. Talafha, and **Sahar M. Alqaraleh**, Novel Soliton Solutions for the Fractional Three Wave Resonant Interaction Equations, Demonstratio Mathematica, Vol. 55, pp 490–505, (2022).

12 - **Sahar M. Alqaraleh**, Adeeb G. Talafha, A.E El-Ahmady, On Fuzzy Fundamental Groups and Fuzzy Retraction of Fuzzy Anti-De Sitter Spacetime, submitted to the International Journal of Fuzzy System Applications, (2022).

13 - **Sahar M. Alqaraleh**, Adeeb G. Talafha, A.E El-Ahmady, The Geodesic Deformation Retract of the Hyperbolic Labachevsky Model and its Folding, submitted to the Advances in Fuzzy Systems, (2022).

**** * REFEREES * ***