### جامعة الزرقاء - الأردن





#### **Prof. Gharib Mousa Ibrahim Gharib**

### ggharib@zu.edu.jo Gharibmusa@gmail.com

General Major/Specialization

Mathematics/ Integral Equation and Partial Differential Equation)

Academic Rank: Professor of Mathematics.

#### **Qualifications:**

| 1  | Ph.D. in Applied Mathematics, Mathematics Department, Faculty of Science, Byelorussian State University 1988-1991 Thesis title "Geometry of Non-Bending Form of Thin-Walled Sloping Shell Structures" |
|----|---|
| .2 | M. Sc. in Mathematics, Mathematics Department, Faculty of Science, Byelorussian State University 1982-1988 Thesis title "Some Inverse Problem of Moment less Shallow Shell's Theory of Translation"   |

### **Teaching Experience:**

| 1 | At 1/2/1993  | 12/8/1999    | Applied Science University |  |
|---|--------------|--------------|----------------------------|--|
| 2 | At 13/8/1999 | To 2/9/ 2012 | Tabuk University           |  |
| 3 | At 2/9/2012  | To now       | Zarqa University           |  |

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#### **Publications:**

| #  | Title   | Publisher   | Year/<br>Issue<br>(Vol/No) |
|----|---|---|----------------------------|
|    |   |   |                            |
| 64 | Revolution Optimization Algorithm: A New Human-based Metaheuristic Algorithm for Solving Optimization                                 | International Journal of Intelligent<br>Engineering and Systems   | 3/2025                     |
| 63 | Problems  Paper Publishing Based Optimization: A  New Human-Based Metaheuristic  Approach for Solving Optimization Tasks              | International Journal of Intelligent<br>Engineering and Systems   | 3/2025                     |
| 62 | Orangutan Optimization Algorithm: An Innovative Bio-Inspired Metaheuristic Approach for Solving Engineering Optimization Problems     | International Journal of Intelligent<br>Engineering and Systems   | 1/2025                     |
| 61 | Cryptanalysis of A New Method of<br>Cryptography Using GMS Integral<br>Transform Trigonometric  | The 3rd International Conference on<br>Mathematics and Artificial<br>Intelligence November 10-14, 2024,<br>Antalya-Turkey | Acceptance<br>2024         |
| 60 | Using New Integral Transform "GALM Equations  |   | Acceptance<br>2024         |
| 59 | Exploration of New Classes of Bi-<br>univalent Functions Defined by the<br>Subordination Principle Using q-<br>Gegenbauer Polynomials | Springer Proceedings in<br>Mathematics and Statistics, 2024,<br>466, pp. 343–355  | 2024                       |
| 58 | A Certain Subclass of Analytic Functions<br>Related to Calculus and Their Second<br>Hankel Determinant                                | Springer Proceedings in<br>Mathematics and Statistics, 2024,<br>466, pp. 325–333  | 2024                       |
| 57 | Using Modified Atomic Solution Method<br>to Solve Nonhomogeneous Fractional<br>PDE  | Springer Proceedings in<br>Mathematics and Statistics, 2024,<br>466, pp. 133–146  | 2024                       |
| 56 | The Integral Transform "GALM" and Its Applications on Partial Differential Equations  | The First Jadara International<br>Conference on Mathematical<br>Sciences ( JICMS24 )                                      | Acceptance<br>2024         |



|    |   |                                     | T            |
|----|---|-------------------------------------|--------------|
| 55 | The Optical Model Absorption Term in                  | Atoms/ MDPI, Atoms 2024, 12, 37.    | 2024         |
|    | the Frame of Fractional Derivatives                   | https://doi.org/10.3390/atoms1207   |              |
|    | Fractional Derivatives                                | 0037                                |              |
| 54 | New Two Parameter Integral Transform                  | WSEAS TRANSACTIONS on               | 2/9/2024     |
| 54 | "MAHA Transform"                                      | MATHEMATICS                         | 2, 3, 202 :  |
|    | and its Applications in Real Life                     | DOI: 10.37394/23206.2024.23.56      |              |
| 53 | Steps of Exact and Analytic Solutions of              |                                     | 2024         |
|    | Ordinary Differential Equations using                 | WSEAS Transactions on               |              |
|    | MAHA Integral Transform and its Applications          | Mathematics.                        |              |
| 52 | New algebraic approach towards                        | International Journal of            | 2024         |
|    | interval-valued neutrosophic cubic vague              | Neutrosophic ScienceThis link is    |              |
|    | set based on subbisemiring over                       | disabled., 2024, 23(4), pp. 277–291 |              |
|    | bisemiring Conformation Transferred                   | MCEAC Transaction                   | 2024         |
| 51 | Conformable Triple Sumudu Transform with Applications | WSEAS Transactions on               | 2024         |
|    | With Applications                                     | Mathematics,2024, 23, pp. 42–50     |              |
| 50 | On Chaos and Complexity Analysis for a                | Mathematics                         | 16/10/2023   |
|    | New Sine-Based  |                                     |              |
|    | Memristor Map with Commensurate and                   |                                     |              |
|    | Incommensurate Fractional Orders                      |                                     |              |
| 49 | Novel Approach to Multi-Criteria                      | Symmetry                            | 21/8/2023    |
|    | Decision-Making Based on the n,mPR-                   |                                     |              |
|    | Fuzzy Weighted Power Average                          |                                     |              |
|    | Operator  |                                     |              |
|    | ·   |                                     |              |
| 48 | On Ikeda-Based Memristor Map with                     | fractal and fractional              | 1/10/2023    |
|    | Commensurate and Incommensurate                       |                                     |              |
|    | Fractional Orders: Bifurcation, Chaos,                |                                     |              |
|    | and Entropy   |                                     |              |
| 47 | The New Four-Dimensional Fractional                   | Mathematics                         | 18/10/2023   |
| 4/ | Chaotic Map with Constant and                         |                                     | 10, 10, 2023 |
|    | Variable-Order: Chaos, Control                        |                                     |              |
|    |   |                                     |              |
|    | andSynchronization                                    |                                     |              |
| 46 | Bifurcation, Hidden Chaos, Entropy and                | Mathematics                         | 5/10/2023    |
|    | Control in Hénon-Based Fractional                     |                                     |              |
|    | Memristor Map with Commensurate                       |                                     |              |
|    | and Incommensurate Orders                             |                                     |              |
|    |   |                                     |              |



| 45 | On Stability of a Fractional Discrete   | fractal and fractional  | 2/10/2023                |
|----|---|---|--------------------------|
| 45 | Reaction–Diffusion Epidemic Model   | Tradia and Tradiconal   | 2/10/2023                |
| 44 | Coefficient estimation utilizing Faber polynomial for a subfamily of bi-univalent functions   | Axioms  | 24/5/2023                |
| 43 | The n-Point Composite Fractional Formula for Approximating Riemann— Liouville Integrator  | Symmetry  | 23/2/2023                |
| 42 | A Generalization of Gegenbauer<br>Polynomials and Bi-Univalent Functions  | Axioms  | 28/1/2023                |
| 41 | Double Formable Integral Transform for Solving Heat Equations   | Symmetry  | 12/1/ 2023               |
| 40 | SOLVING THE FRACTIONAL NEWELL-WHITEHEAD EQUATION BY ATOMIC SOLUTION METHOD  | WSEAS Transactions on<br>Mathematics  | 16/2/2023                |
| 39 | FIXED POINT THEOREMS FOR MONOTONE MAPPINGS ON PARTIAL M*-METRIC SPACES  | ITALIAN JOURNAL OF PURE AND APPLIED MATHEMATICS   | 2023 V: 49.<br>P 154-172 |
| 38 | Using Medfield Atomic Solution Method to Solve Nonhomogeneous Fractional PDE  | Springer Proceedings in Mathematics & Statistics,   | 2023                     |
| 37 | Book: Mathematics and Computation IACMC 2022, Zarqa, Jordan, May 11–13 ISBN 978-981-99-0447-1 (eBook) https://doi.org/10.1007/978-981-99-0447-1 | Springer Proceedings in Mathematics & Statistics  Volume 418  | 3/6/2023                 |
| 36 | Solving Non-linear Fractional Coupled<br>Burgers Equation by Sub-equation<br>Method   | Springer Proceedings in Mathematics & Statistics 418, https://doi.org/10.1007/978-981- 99-0447-1_32 | 3/6/2023                 |
| 35 | Using Atomic Solution Method to Solve the Fractional Equations  | Springer Proceedings in Mathematics & Statistics 418, https://doi.org/10.1007/978-981- 99-0447-1_10 | 3/6/2023                 |
| 34 | Applications on Formable Transform in Solving Integral Equations  | Springer Proceedings in Mathematics & Statistics 418, https://doi.org/10.1007/978-981- 99-0447-1_4  | 3/6/2023                 |



| 33 | A COMMON FIXED POINT THEOREM IN M_ METRIC SPACE AND AN APPLICATION                                    | Nonlinear Functional Analysis and<br>Applications      | 2022            |
|----|---|--|-----------------|
| 32 | Reduction of the self-dual Yang-Mills equations to sinh-poisson equation and exact solutions          | WSEAS TRANSACTIONS on MATHEMATICS                      | 2021            |
| 31 | Exact Solution for Sawada–Kotera Equation Using Backlan Transformations and Travelling Wave Solutions | Advances in Mathematics:<br>Scientific Journal<br>2021 | 2021            |
| 30 | A Mathematical Proposed Model for<br>Public key encryption Algorithms in<br>Cybersecurity             | Advances in Mathematics:<br>Scientific Journal         | 2021            |
| 29 | Comparison among Some Methods for Estimating the Parameters of Truncated Normal Distribution          | Journal of Advances in Mathematics                     | 2021            |
| 28 | Conserved quantities and fluxes for some nonlinear evolution equations                                | WSEAS TRANSACTIONS on MATHEMATICS                      | 2020            |
| 27 | Pseudo-spherical Surfaces of a Constant<br>Negative Curvature   | Book Publisher International                           | 2020            |
| 26 | Solutions of nonlinear equations to describe physical models in plasma                                | ITALIAN JOURNAL OF PURE<br>AND APPLIED MATHEMATICS     | 2020            |
| 25 | Soliton Solutions of Ion Acoustic Waves in Plasma   | LAMBERT Academic puplishing                            | 2018            |
| 24 | Exact Solution for Camassa-Holm<br>Equations which Desribe Pseudo-<br>Spherical Surface               | Global Journal of Pure and Applied Mathematics         | 2018            |
| 23 | Designs For Multiple Comparisons of<br>Control Versus Treatments                                      | global journal of pure and applied mathematics         | 2018            |
| 22 | Approximation of Stochastic Integrals of the Poisson Process  | Journal of Advances in mathematics                     | 2016 V12 N<br>8 |



| 21 | Application of homotopy analysis method for solving nonlinear dynamical system   | IOSR Journal of Mathematics (IOSR-JM)   | 2016 V: 12<br>N: 1                       |
|----|--|---|--|
| 20 | Travelling wave solutions of Kaup – Kupershmidt equation which describe pseudo spherical surfaces                          | Journal Applid Mathematics(AM)  | 2015 /V6                                 |
| 19 | Soliton Solutions for Nonlinear<br>Evolution Equations by Using Inverse<br>Scattering Mthod (Book Chapter)                 | Functional Analysis and<br>Probabilty   | 2015<br>Scopus                           |
| 18 | The necessary and sufficient conditions for the solutions of elliptic problems   | Journal of Social science research  | 2014<br>Volume 4<br>N: 1                 |
| 17 | Derivation of Yang-Mills equations<br>from Maxwell Equations and Exact<br>solutions  | Journal of Advances in mathematics  | 2013                                     |
| 16 | Exact Solutions and Conservation Laws For Ibragimov-Shabat Equation Which Describe Pseudo-spherical Surface (Book Chapter) | Handbook of Evolution Equations   | 2012<br>Scopus                           |
| 15 | Soliton Solutions for Nonlinear<br>Evolution Equations by Using Inverse<br>Scattering Mthod                                | Integration: Mathematical Theory and Applications  Nova Science Publishers, Inc | 2012<br>Volume 3,<br>Number 1,           |
| 14 | Surfaces of a Constant Negative<br>Curvature   | International Journal of Differential Equations Hindawi Publishing Corporation  | Volume<br>2012,<br>Scopus                |
| 13 | Canonical Reduction of Self-Dual Yang-<br>Mills Equations to Fitzhugh-Nagumo<br>Equation and Exact Solutions               | Chaos Solitons & Fractals   | 2009 UK<br>Scopus                        |
| 12 | Conservation Laws for the Calogero-<br>Degasperis Family of Equations Which<br>Describe Pseudo-Spherical Surfaces          | International Journal of<br>Mathematical Analysis                               | 2009 Vol.3<br>no.9<br>Bulgaria<br>Scopus |



|    | T  |   |                    |
|----|--|---|--------------------|
| 44 | Soliton Solutions for Unstable Nonlinear   | International Journal of Evolution                      | 2008<br>Vol.3,no.3 |
| 11 | Schrodinger Equation which Describe Surface of Constant Negative Curvature   | Equations   | ,                  |
|    | Tuescalling Massa Calestiana familia a Malv  |   | USA                |
|    | Travelling Wave Solutions for the KdV-<br>Burgers-Kuramoto and Nonlinear   | J. of Applied Mathematical Sciences                     | 2008               |
| 10 | Schrodinger Equations which Describe Pseudo-spherical Surfaces   |   | USA Scopus         |
|    | Exact Solutions and Conservation Laws  |   | 2008 Vol.3         |
| 9  | For Ibragimov-Shabat Equation Which Describe Pseudo-spherical Surface  | Computational and Applied Mathematics                   | no.2               |
|    | Consultation of the Calf Dual  |   | Brazil             |
|    | Canonical Reduction of the Self Dual Yang-Mills Equation to Inhomogeneous  |   | 2008               |
| 8  | Nonlinear Schrodinger Equation and   | Applied Mathematical Sciences                           | Vol.2.no.49        |
|    | exact Solutions  | .,  | Bulgaria           |
|    |  |   |                    |
|    | An Approximation of Stochastic   |   | 2007 Vol.3         |
| 7  | Integrals in the Generalized Random  | International J. of Contemporary  Mathematical Sciences | no.10              |
|    | Processes Algebra  | 23.2  | Bulgaria           |
|    |  |   | 1993               |
|    | Geometry of Finding Thin Elastic   |   | Vol.37. N3         |
| 6  | Shallow Shells of Translation with the Given Momentless Homogenous Strain,   | Dan, BSSR,  | Dualam::!-         |
|    | even womentiess nomogenous strain,   |   | Byelorussia        |
|    | Some Non-linear Problems of Elasticity   |   | 1991               |
| 5  | Theory & Methods of their Solution in a  | IMAN UKRSS KIEV   |                    |
| 5  | Selection, Entitled: Non linear Evaluation Equation in Applied Problems.   | NIAN OKASS KIEV   |                    |
|    | Equation in Applica Froblems.  |   |                    |
|    |  | All Union Inter – Collage Scientific                    | 1990               |
| 4  | Optimum Equal—Strength Forms of  | Setaction, Entitled: Ilydromechanices & Elasticity      |                    |
|    | Thin–Walled Sloping Shell Structures.  | ,   |                    |
|    | Thermoelastic Non- Bendingly   | Theory. Denepropetrovesk                                | 1990 Vol.          |
| 3  | Deformed Very Sloping ShellStructures  |   | 59, No. 2,         |
| 3  | 2 c.c c.c. y c.c. | Ifzh,   | 23, 2,             |
|    | Non-Bending Deformed thin – walled   | DAN BSSR,   | 1989 Vol.          |
| 2  | shell structures of variable thikness  |   | XXXIII, No. 9      |
|    |  |   |                    |

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| Ī |   | Differently Stress –loaded             | All Union Scientific & Technical | 1989 Vol. |
|---|---|--|----------------------------------|-----------|
|   | 1 | Thermoelastic Sloping Transfer Shells, | Monthly " Ifzh ". Minsk          | 56, No.5, |
|   | - | Stress Difference Across Thicknesses.  |                                  |           |
|   |   |  |                                  |           |

#### **Books:**

| # | Book Title                 | Publisher                              | Year |
|---|----------------------------|--|------|
| 1 | General Mathematics        | Dar Curriculum                         | 1997 |
| 2 | Introduction of statistics | The Department of the National Library | 1996 |
| 3 |                            |  |      |

### **Translated Books:**

| # | Book Title                 | Publisher    | Year |
|---|----------------------------|--------------|------|
| 1 | Introduction of Statistics | Dar Al-Hamed | 1999 |
| 1 | Biology                    | Dar Al-Hamed | 1999 |

### **Atricles:**

| # | Article Title                      | Publisher                 | Year |
|---|------------------------------------|---------------------------|------|
| 1 | The emergence of numerical systems | Cultural Magazine / Tabuk | 2006 |

### Academic career progression after obtaining a PhD degree:

| #  | From      | to       |  |
|----|-----------|----------|--|
| 27 | 2012/9/2  | Present  | Professor , Zarqa University, Mathematics Department                         |
| 26 | 12/9/2017 | 1/7/2020 | Dean of Scientific Research  |
| 25 | 12/9/2017 | 1/7/2020 | Vice Editer-in-Chief of Zarqa Journal for Research and Studies in Humanities |
| 24 | 12/9/2017 | 1/7/2020 | Vice Editer-in-Chief of International Quality Assurance Journal              |

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|    | 1         |           |   |  |
|----|-----------|-----------|---|--|
| 23 | 20/9/2015 | 11/9/2017 | Vice Dean of Science Faculty  |  |
| 22 | 20/9/2015 | 11/9/2017 | Chairman of the Department of Mathematics   |  |
| 21 | 19/7/2016 | Present   | Professor at Zarqa University, Mathematics Department                                       |  |
| 20 | 2/9/2012  | 19/7/2016 | Associate Professor at Zarqa University, Mathematics Department                             |  |
| 19 | 25/1/2011 | 2/9/2012  | Associate Professor at Tabuk University, Mathematics Department                             |  |
| 18 | 13/8/1999 | 25/1/2011 | Assistant Professor at Tabuk Teacher College, Tabuk University                              |  |
| 17 | 14/2/1993 | 13/8/1999 | Assistant Professor at the University of Applied Science, Jordan                            |  |
| 16 | 2/9/2001  | 2/9/2012  | Chairman of the Department of Mathematics Tabuk University                                  |  |
| 15 | 1/9/2008  | 2/9/2012  | Chairman of the Department of Computer Science in addition to the Department of Mathematics |  |
| 14 | 2000      | 2003      | Director of Community Service Center  |  |
| 13 | 2000      | 2012      | Director of Committee of Tests and Timetables at Tabuk Teacher College                      |  |
| 12 | 2002      | 2005      | Member of the Committee of Students' Affairs  |  |
| 11 |           |           | Member of the Budget Committee at Tabuk Teacher College                                     |  |
| 10 | 2002      | 2008      | Member of the Board of Directors of the Social and Monetary Fund at Tabuk Teacher College   |  |
| 9  |           |           | Member of the Educational Research Center at Tabuk Teacher College                          |  |
| 8  |           |           | Member of the Administrative Affairs at Tabuk Teacher College                               |  |
| 7  |           |           | Member of the Computer Science Committee  |  |
| 6  |           |           | Member of the Computer Science Committee  |  |
| 5  |           |           | Member of the Intellectual Forum at Tabuk Teacher College                                   |  |
| 4  |           |           | Academic Consultant for Research unit   |  |
| 3  |           |           | Member of the Permanent Committee for Tabuk University Annual Report                        |  |
| 2  |           |           | Member of the Committee of Mathematics for the restructuring of the college of Science.     |  |
| 1  |           |           | Member of the Preliminary Year Committee at Tabuk Teacher College                           |  |

### Teaching Master's Courses:

**Course Name** 



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| Integral Equations                                    | 1 |
|---|---|
| Applied Mathematics 1,2                               | 2 |
| Theory of ordinary differential equations             | 3 |
| Partial differential equations                        | 4 |
| Real Analysis (Theory of Measurement and Integration) | 5 |
| Mathematical statistics                               | 6 |

### **Supervision of Theses:**

| # | Year | University          | Thesis Title   | Student Name                         |
|---|------|---------------------|--|--------------------------------------|
| 1 | 2015 | Zarqa<br>University | Conservation lawsfor fifth – order nonlinear evolution equations   | Tahaer Jamil Hammad<br>Abo Khmash    |
| 2 | 2015 | Zarqa University    | Exact Solutions for some Nonlinear Partial  Differential Equations which Describe Pseudo- Spherical Surfaces           | Feras Hasan Altalla                  |
| 3 | 2015 | Zarqa University    | Bäcklund transformations and Travelling wave Solutions for some nonlinear evolution equations                          | Amal Mahmoud Abdallah                |
| 4 | 2016 | Zarqa<br>University | Nonlinear Evolution Equations and Inverse Scattering   | Abd-Alrahman Mahmoud<br>Shehada Jabr |
| 5 | 2016 | Zarqa<br>University | Canonical reduction of self-dual Yang-Mills theory tosome nonlinear evolution equations                                | med Ibrahim Mohammed<br>smeh         |
| 6 | 2016 | Zarqa University    | Exact solutions of the self-dual Yang-Mills equations  | Ahmad Abd El-Raheem<br>Ayasrah       |
| 7 | 2017 | Zarqa<br>University | Analytical Solutions for Nonlinear Dynamical System by using homotopy analysis method                                  | Mahmud Ali Mhedat                    |
| 8 | 2017 | Zarqa University    | Application of homotopy analysis method for solving linear and nonlinear differential equations with fractional orders | Hana Marai Mohammed                  |



|    | ı    |                          |   |                                      |
|----|------|--------------------------|---|--------------------------------------|
| 9  | 2017 | Zarqa University         | solution of Conformable time-fractional Whitham-<br>Broer-Kaup equations by Residual power series<br>method                         | Nagah Nagi Saleh Aisa                |
| 10 | 2017 | Zarqa University         | Conformable solution of time-fractional Drinfeld-<br>Sokolov-Wilson system using Residual power series<br>method                    | Albatol Abdalhafid Farag<br>Alfartas |
| 11 | 2017 | Zarqa University         | Comparison among some methods for estimating the parameters of truncated normal distribution  | Mohammad salim Issa .<br>Alaesa      |
| 12 | 2018 | Zarqa University         | Soliton Solutions of ion acoustic waves in plasma   | Hind Hmed Al-Duri                    |
| 14 | 2018 | Zarqa University         | Solutions of Nonlinear Volterra – Fredholm Integro-<br>Differential Equations   | Aalaa Alaa al-Din<br>Hamzah          |
| 15 | 2018 | Zarqa University         | A Ceneralizing of the Fractional Sub-Equation Method to Solve System of Space-Time Fractional Differential Equations                | Najati Jehad Hasan Abu-<br>Shawer    |
| 16 | 2019 | Zarqa University         | Reduction of the self-dual Yang-Mills equations to sinh-poisson equation and exact solutions  | Hamzah Shdefat                       |
| 17 | 2019 | Zarqa University         | Solving Volterra – Fredholm Integro- Differential<br>Equations Using<br>Reproducing Kernel Hilbert Space Method                     | Duaa Bassam                          |
| 18 | 2020 | Zarqa University         | Mathematical Description of Wave Propagation in Kidney Lithotripsy  | Bushra Mowafak Ali<br>Shihab         |
| 19 | 2020 | Al al-Bayt<br>University | Exact Solution of 3-D Time independent Schrodinger<br>Equation of Some New Interatomic potentials by The<br>Nikiforov-Uvarov Method | Hazem Saleh<br>Mohammed Al-Saud      |
| 20 | 2020 | Zarqa University         | Solve Fractional System of Plasma by the Fractional Sub- Equation Method  | Marah Fawzi Ali<br>Ababneh           |
| 21 | 2021 | Zarqa University         | A Mathematical Model for Public Key Encryption<br>Algorithms in Cyber Security  | Heba Ahmed Jaber<br>Saif             |
| 22 | 2021 | Zarqa University         | Solving the Handling Stiff Systems of Ordinary Differential Equations by Homotopy Analysis Method                                   | Zainab Ali Ahmed<br>Abdel Qader      |



|    | 1    |                  |   | - ·                                   |
|----|------|------------------|---|---------------------------------------|
| 23 | 2021 | Zarqa University | Solving the Fractional Sawada-Kotera Eqution by<br>Homotopy Analysis Method                         | Nasreen Ali Fayez<br>Al-Hamayel       |
| 24 | 2021 | Zarqa University | Conformable Solution of the Fractional Lane-Emden<br>Equation Using Residual Power Series Method    | Abdul Rahman Jamal<br>Saeed Abu Zaida |
| 25 | 2021 | Zarqa University | Solve Space-Time Fractional Benjamin-Bona-Mahony<br>Equation by the Fractional Sub- Equation Method | Saad Brahama                          |
| 26 | 2021 | Zarqa University | Atomic Solution of Fractional Wave Equation   | Alaa Nasri Taha<br>Qassem             |
| 27 | 2021 | Zarqa University | Solving non-Linear Fractional Stiff systems by the Fractional Sub-Equation Method                   | Wurud Ali Nassif<br>Muhammad          |
| 28 | 2021 | Zarqa University | Conformable Solution of some Fractional Equations Using Residual Power Series Method                | Wala Nafed Hosni<br>Abdullah          |
| 29 | 2021 | Zarqa University | Solving Ibragimov-Shabat Fractional Partial Differential Equation                                   | Obada Mehrez ALgresi                  |
| 30 | 2022 | Zarqa University | Solving Hunter-Saxton Fractional Partial Differential Equation                                      | Lana Ahmad AlAbsi                     |
| 31 | 2022 | Zarqa University | A Generalization of the Conformable<br>Fractional Sumudu Transform                                  | Omar Aymen Makahla                    |
| 32 | 2022 | Zarqa University | A Generalization of the Conformable Fractional Laplace Transform                                    | Tamara Mahmud<br>Salamha              |
| 33 | 2023 | Zarqa University | Solving the Fractional Newell-Whitehead Equation Using Atomic Solution Method                       | Baraa Ahmed Abu Jarad                 |
| 34 | 2022 | Zarqa University | Application of the conformable fractional sumudu transform  | Muaed abu Gazala                      |
| 35 | 2023 | Zarqa University | Conformable Double Sumudu Transform for Solving Heat Equations                                      | Mustafa Yousef<br>Mustafa obeid       |
| 36 | 2023 | Zarqa University | Using Sub- Equation Method to Solve Some Fractional Equations                                       | Abdallah khalid<br>ahmed alhamad      |
| 37 | 2023 | Zarqa University | Double Sumudu Transform for Solving Heat Equations  | ahmad Fadhil noaman                   |
| 38 | 2023 | Zarqa University | Finding Atomic Solutions of Fractional<br>Partial Differential Equations in a<br>Banach Space       | Bylasan Mohamed<br>Khalil Lafi        |

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| 39 | 2023 | Zarqa University  | Finding Atomic Solutions of Fractional                             | Donia Mohmud Thyab     |
|----|------|-------------------|--|------------------------|
|    |      | ,                 | Partial Differential Equations in a Tensor                         | Alhosari               |
|    |      |                   | Product  |                        |
| 40 | 2023 | Zarqa University  | The New Integral Transform: GALM                                   | Ahmad Hatem            |
|    |      |                   | Transform and Its Application on                                   | Alsawaeer              |
|    |      |                   | Partial Differential Equations                                     |                        |
| 41 | 2023 | Zarqa University  | The New Integral Transform GALM                                    | Loay Rateb Ahharabsha  |
|    |      |                   | Transform and Its Application on                                   |                        |
|    |      |                   | Ordinary Differential Equations                                    |                        |
| 42 | 2024 | Zarqa University  | Solving The Reducible Equation of the                              | Sara Mohamed           |
|    |      |                   | Korteweg-de Vries Type by Atomic Solution                          |                        |
|    | 2024 |                   | Method   | C 'C A 1 A 11 1 A 1 1  |
| 43 | 2024 | Zarqa University  | A New Complex Transform: GMS Transform                             | Saif Awad Allah Alsoud |
|    |      |                   | and Its Applications for Solving Ordinary                          |                        |
|    | 2024 | 7 11              | Differential Equations   | 201                    |
| 44 | 2024 | Zarqa University  | A New Complex Transform: GMS Transform                             | Mahmud Alqm            |
|    |      |                   | and Its Applications For Solving Partial                           |                        |
| 45 | 2024 | Zarqa University  | Differential Equations  The GALM Transform and its Applications in | Nabeel Ahmad Ali       |
| 45 | 2024 | Zarqa Offiversity | Solving Integral Equations   | Amireh                 |
| 46 | 2024 | Zarga University  | Double GALM Transform and its                                      | Ibtehal Gharib         |
| 40 | 2024 | Zarqa Offiversity | Applications   | Totellar Ghario        |
| 47 | 2025 | Zarga University  | Applications in GMS Transform for Solving                          | Faisal Abu- Rumman     |
| ٦, | 2023 | Zarqa Omversity   | Integral Equations   | Tulbul Hou Humman      |
| 48 |      |                   | integral Equations   |                        |
| 10 |      |                   |  |                        |
| 49 |      |                   |  |                        |
| 50 |      |                   |  |                        |

### **Conferences:**

| year | Paper Title  | Organizing Institution | Conference   |
|------|--|------------------------|--|
| 2023 | Using Medfield Atomic Solution<br>Method to Solve<br>Nonhomogeneous Fractional PDE | Zarqa Univesity        | The 8 <sup>th</sup> international Arab conference on mathematics and computations 2023 |
| 2022 |  | Duzce University       | 5th International<br>Conference on<br>Mathematical                                     |

## جامعة الزرقاء - الأردن



| 2022 | Conformable Triple Sumudu Transform with Applications  Using Atomic Solution Method to Solve the Fractional Equations  | Zarqa Univesity   | and Related Sciences (ICMRS 2022)  The 7 <sup>th</sup> international Arab conference on mathematics and computations 2022 |
|------|--|---|---|
| 2022 | Application of Laplace residual series method for solving time-fractional Fisher equation  | Zarqa Univesity   | The 7 <sup>th</sup> international<br>Arab conference on<br>mathematics and<br>computations 2022                           |
| 2019 | Exact Solution for Sawada–Kotera<br>Equation Using Backlan<br>Transformations and Travelling<br>Wave Solutions   | Academic Research and<br>Solutions Sociedad Limitada<br>(ARS<br>Spain | 3 <sup>th</sup> International<br>Engineering Mathematics<br>& Applied Sciences (IEAS-<br>19)                              |
| 2018 | Soliton solutions for system of PDEs that describes ion acoustic waves in plasma   | Academic Research and<br>Solutions Sociedad Limitada<br>(ARS<br>Spain | 2 <sup>th</sup> International<br>Engineering Mathematics<br>& Applied Sciences (IEAS-<br>18)                              |
| 2017 | Canonical Reduction of Self-Dual<br>Yang-Mills Theory to some<br>Nonlinear Evolution Equations to<br>Inhomogeneous nonlinear Schr <sup>®</sup><br>dinger and Exact Solutions | Academic Research and Solutions Sociedad Limitada (ARS) Spain         | International Conference<br>on Natural Sciences and<br>Recent Advances in<br>Engineering Technology                       |

### Courses I have taken in chronological order:

رقم النموذج: ZU/QP08F016

| Series | Year of<br>the<br>course<br>Duration | Organizer        | Title of the training course                       | مسلسل  |
|--------|--------------------------------------|------------------|--|--------|
| 1      | 2015                                 | Zarqa University | Strategic Planning Course in Academic Institutions | 3 Days |



|    | T      |                           | T                          | T _    |
|----|--------|---------------------------|----------------------------|--------|
| 2  | 2015   | Zarqa University          | Course of preparing the    | 2 Days |
|    |        |                           | strategic plan for the     |        |
|    |        |                           | college                    |        |
|    |        |                           |                            | _      |
| 3  | 2012   | Zarqa University          | Qualification course for   | 3 Days |
|    |        |                           | faculty members            |        |
| 4  | 2015   | Zarga University          | Scientific Research Course | 2 Dave |
| 4  | 2013   | Zarqa University          | Scientific Research Course | 3 Days |
| 5  | 2009   | Imam Muhammad bin Saud    | Strategic Planning Course  | 3 Days |
|    |        | University                | in Academic Institutions   |        |
|    |        | 1                         |                            |        |
| 6  | 2009   | King Abdulaziz University | Academic Calendar          | 3 Days |
|    |        |                           | Course                     |        |
|    |        |                           |                            |        |
| 7  | 2008   | Mathematics department    | Preparation of exams       | 2 Days |
| 8  | 2008   | Red Crescent              | course in first aid,       | 2 Days |
| 0  | 2000   | Neu Crescent              | Course in mist alu,        | 2 Days |
| 9  | 2007   | Saudi Teachers College    | Academic Advising          | 1 Day  |
|    |        |                           | _                          | -      |
| 10 | 2006   | Alfred Center - Jordan    | SPSS Statistical Analysis  | 30     |
|    |        |                           |                            | hours  |
| 11 | 2005   | Community Comitee         | Tunining of Tuning         | 22     |
| 11 | 2005   | Community Service         | Training of Trainers       | 32     |
|    |        |                           |                            | hours  |
| 12 | 2005   | Saudi Teachers College    | Computer Course            | 2      |
|    |        | - Sadar readilers conlege | Computer Course            | _      |
|    |        |                           |                            | weeks  |
|    |        |                           |                            |        |
| 13 | 2002   | Community Service         | Power Point                | 1      |
|    |        |                           |                            | wook   |
|    |        |                           |                            | week   |
| 14 | 1992 م | French, American and Arab | insurance courses for the  | 3      |
|    |        | company                   | French, American and       | months |
|    |        | ,                         | Arab company               |        |
|    |        |                           |                            |        |
|    |        |                           |                            |        |

# جامعة الزرقاء - الأردن



#### **Research Interests**

| 1  | Soliton solutions for nonlinear evolution equations   |
|----|---|
| 2  | Geometric integrability, conservation laws and Bäcklund transformations   |
| 3  | Yang Mills equations and Pseudo spherical surfaces  |
| 4  | Designs for multiple comparisons for control versus treatments.   |
| 5  | Condition of Non-Bending deformed sloping transfer shells with regard translation creeping of materials.  |
| 6  | Associated solution equation for $\alpha$ differential in algebra generalized random process .  |
| 7  | Classification methods approximation Poisson random process .   |
| 8  | Approximation stochastic integrals at Poisson process .   |
| 9  | Approximation stochastic $\alpha$ –integrals in algebra generalized random process I.<br>Approximation stochastic $\alpha$ –integrals in algebra generalized random process II. |
| 10 | Integral transform  |
| 11 | Integral equation   |
| 12 | Cyber Security  |

### **Community Service:**

رقم النموذج: ZU/QP08F016

| period    | Activity  |    |  |  |  |  |
|-----------|---|----|--|--|--|--|
| 2019-2025 | Iftar in Ramadan (for the disabled in the Abu Nseir<br>Association)<br>(For orphans in Abu Nseir Association) | .1 |  |  |  |  |

# جامعة الزرقاء - الأردن



| 2019-2025 | Contributing to the celebrations held by the Municipality of Amman / Abu Nseir | .2 |
|-----------|--|----|
| 2019-2025 | Contribute to all activities held by the Abu Nseir Association                 | .3 |
| 2020,2024 | Participation in general election committees                                   | .4 |

### **Personal Information:**

| Name                    | Professor | Gharib Musa Gharib                           |           |               |
|-------------------------|-----------|--|-----------|---------------|
| Place and Date of Birth |           | Senjel / 4/10/1963                           |           |               |
| Nationality             |           | Jordanian                                    |           |               |
| Marital Status          |           | .Married                                     |           |               |
| Address                 |           | Amman -                                      |           |               |
| Work Tel No.            |           | 1557   | Extention | 0096253821100 |
| Mobile:                 |           | 0799191348<br>B.BOX: 132222 Post Code: 13132 |           |               |
| Postal Address          |           |  |           |               |

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