Prof. Gharib Mousa Ibrahim Gharib

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

General Major/ Specialization

Mathematics/ Integro - differential eq.(Partial DE)

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	

Publications:

#	Title	Publisher	Year/ Issue (Vol/No)
62	Orangutan Optimization Algorithm: An Innovative Bio-Inspired Metaheuristic Approach for Solving Engineering Optimization Problems	International Journal of Intelligent Engineering and Systems	1/2025
61	Cryptanalysis of A New Method of Cryptography Using GMS Integral Transform Trigonometric	The 3rd International Conference on Mathematics and Artificial Intelligence November 10-14, 2024, Antalya-Turkey	Acceptance 2024
60	Using New Integral Transform "GALM Transform" Solving Differential Equations	The 3rd International Conference on Mathematics and Artificial Intelligence November 10-14, 2024, Antalya-Turkey	Acceptance 2024
59	Exploration of New Classes of Bi-univalent Functions Defined by the Subordination Principle Using q-Gegenbauer Polynomials	Springer Proceedings in Mathematics and Statistics, 2024, 466, pp. 343–355	2024
58	A Certain Subclass of Analytic Functions Related to Calculus and Their Second Hankel Determinant	Springer Proceedings in Mathematics and Statistics, 2024, 466, pp. 325–333	2024
57	Using Modified Atomic Solution Method to Solve Nonhomogeneous Fractional PDE	Springer Proceedings in Mathematics and Statistics, 2024, 466, pp. 133–146	2024
56	The Integral Transform "GALM" and Its Applications on Partial Differential Equations	The First Jadara International Conference on Mathematical Sciences (JICMS24)	Acceptance 2024
55	The Optical Model Absorption Term in the Frame of Fractional Derivatives	Atoms/ MDPI, Atoms 2024, 12, 37. https://doi.org/10.3390/atoms12070037	2024
54	New Two Parameter Integral Transform "MAHA Transform" and its Applications in Real Life	WSEAS TRANSACTIONS on MATHEMATICS DOI: 10.37394/23206.2024.23.56	2/9/2024
53	Steps of Exact and Analytic Solutions of Ordinary Differential Equations using	WSEAS Transactions on Mathematics.	2024 Acceptance

	MAHA Integral Transform and its Applications		
52	New algebraic approach towards interval-valued neutrosophic cubic vague set based on subbisemiring over bisemiring	International Journal of Neutrosophic ScienceThis link is disabled., 2024, 23(4), pp. 277–291	2024
51	Conformable Triple Sumudu Transform with Applications	WSEAS Transactions on Mathematics,2024, 23, pp. 42–50	2024
50	On Chaos and Complexity Analysis for a New Sine-Based Memristor Map with Commensurate and Incommensurate Fractional Orders	Mathematics	16/10/2023
49	Novel Approach to Multi-Criteria Decision-Making Based on the n,mPR-Fuzzy Weighted Power Average Operator	Symmetry	21/8/2023
48	On Ikeda-Based Memristor Map with Commensurate and Incommensurate Fractional Orders: Bifurcation, Chaos, and Entropy	fractal and fractional	1/10/2023
47	The New Four-Dimensional Fractional Chaotic Map with Constant and Variable-Order: Chaos, Control andSynchronization	Mathematics	18/10/2023
46	Bifurcation, Hidden Chaos, Entropy and Control in Hénon-Based Fractional Memristor Map with Commensurate and Incommensurate Orders	Mathematics	5/10/2023
45	On Stability of a Fractional Discrete Reaction–Diffusion Epidemic Model	fractal and fractional	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 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 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. 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 Burgers Equation by Sub-equation 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 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	Advances in Mathematics: Scientific Journal	2021

	Transformations and Travelling Wave Solutions	2021	
30	A Mathematical Proposed Model for Public key encryption Algorithms in Cybersecurity	Advances in Mathematics: 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 Negative Curvature	Book Publisher International	2020
26	Solutions of nonlinear equations to describe physical models in plasma	ITALIAN JOURNAL OF PURE AND APPLIED MATHEMATICS	*2020*
25	Soliton Solutions of Ion Acoustic Waves in Plasma	LAMBERT Academic puplishing	2018
24	Exact Solution for Camassa-Holm Equations which Desribe Pseudo-Spherical Surface	Global Journal of Pure and Applied Mathematics	2018
23	Designs For Multiple Comparisons of 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 8
21	Application of homotopy analysis method for solving nonlinear dynamical system	IOSR Journal of Mathematics (IOSR-JM)	2016 V: 12 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 Evolution Equations by Using Inverse Scattering Mthod (Book Chapter)	Functional Analysis and Probabilty	2015 Scopus

18	The necessary and sufficient conditions for the solutions of elliptic problems	Journal of Social science research	2014 Volume 4 N: 1
17	Derivation of Yang-Mills equations from Maxwell Equations and Exact 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 Scopus
15	Soliton Solutions for Nonlinear Evolution Equations by Using Inverse Scattering Mthod	Integration: Mathematical Theory and Applications Nova Science Publishers, Inc	2012 Volume 3, Number 1,
14	Surfaces of a Constant Negative Curvature	International Journal of Differential Equations Hindawi Publishing Corporation	Volume 2012, Scopus
13	Canonical Reduction of Self-Dual Yang-Mills Equations to Fitzhugh-Nagumo Equation and Exact Solutions	Chaos Solitons & Fractals	2009 UK Scopus
12	Conservation Laws for the Calogero-Degasperis Family of Equations Which Describe Pseudo-Spherical Surfaces	International Journal of Mathematical Analysis	2009 Vol.3 no.9 Bulgaria Scopus
11	Soliton Solutions for Unstable Nonlinear Schrodinger Equation which Describe Surface of Constant Negative Curvature	International Journal of Evolution Equations	2008 Vol.3,no.3 USA
10	Travelling Wave Solutions for the KdV-Burgers-Kuramoto and Nonlinear Schrodinger Equations which Describe Pseudo-spherical Surfaces	J. of Applied Mathematical Sciences	2008 USA Scopus
9	Exact Solutions and Conservation Laws For Ibragimov-Shabat Equation Which Describe Pseudo-spherical Surface	Computational and Applied Mathematics	2008 Vol.3 no.2 Brazil

8	Canonical Reduction of the Self Dual Yang-Mills Equation to Inhomogeneous Nonlinear Schrodinger Equation and exact Solutions	Applied Mathematical Sciences	2008 Vol.2.no.49 Bulgaria
7	An Approximation of Stochastic Integrals in the Generalized Random Processes Algebra	International J. of Contemporary Mathematical Sciences	2007 Vol.3 no.10 Bulgaria
6	Geometry of Finding Thin Elastic Shallow Shells of Translation with the Given Momentless Homogenous Strain,	Dan, BSSR,	1993 Vol.37. N3 Byelorussia
5	Some Non-linear Problems of Elasticity Theory & Methods of their Solution in a Selection, Entitled: Non linear Evaluation Equation in Applied Problems.	IMAN UKRSS KIEV	1991
4	Optimum Equal–Strength Forms of Thin–Walled Sloping Shell Structures.	All Union Inter – Collage Scientific Setaction, Entitled: Ilydromechanices & Elasticity Theory. Denepropetrovesk	1990
3	Thermoelastic Non- Bendingly Deformed Very Sloping ShellStructures	Ifzh,	1990 Vol. 59, No. 2,
2	Non-Bending Deformed thin – walled shell structures of variable thikness	DAN BSSR,	1989 Vol. XXXIII, No. 9
1	Differently Stress –loaded Thermoelastic Sloping Transfer Shells, Stress Difference Across Thicknesses.	All Union Scientific & Technical Monthly " Ifzh ". Minsk	1989 Vol . 56, No.5,

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 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
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	
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 University	Conservation lawsfor fifth – order nonlinear evolution equations	Tahaer Jamil Hammad 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 University	Nonlinear Evolution Equations and Inverse Scattering	Abd-Alrahman Mahmoud Shehada Jabr
5	2016	Zarqa University	Canonical reduction of self-dual Yang-Mills theory tosome nonlinear evolution equations	imed Ibrahim Mohammed smeh
6	2016	Zarqa University	Exact solutions of the self-dual Yang-Mills equations	Ahmad Abd El-Raheem Ayasrah
7	2017	Zarqa 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
9	2017	Zarqa University	solution of Conformable time-fractional Whitham-Broer-Kaup equations by Residual power series method	Nagah Nagi Saleh Aisa
10	2017	Zarqa University	Conformable solution of time-fractional Drinfeld-Sokolov-Wilson system using Residual power series method	Albatol Abdalhafid Farag Alfartas
11	2017	Zarqa University	Comparison among some methods for estimating the parameters of truncated normal distribution	Mohammad salim Issa . 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-Differential Equations	Aalaa Alaa al-Din 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-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 Equations Using Reproducing Kernel Hilbert Space Method	Duaa Bassam
18	2020	Zarqa University	Mathematical Description of Wave Propagation in Kidney Lithotripsy	Bushra Mowafak Ali Shihab
19	2020	Al al-Bayt University	Exact Solution of 3-D Time independent Schrodinger Equation of Some New Interatomic potentials by The Nikiforov-Uvarov Method	Hazem Saleh Mohammed Al-Saud
20	2020	Zarqa University	Solve Fractional System of Plasma by the Fractional Sub- Equation Method	Marah Fawzi Ali Ababneh
21	2021	Zarqa University	A Mathematical Model for Public Key Encryption Algorithms in Cyber Security	Heba Ahmed Jaber Saif
22	2021	Zarqa University	Solving the Handling Stiff Systems of Ordinary Differential Equations by Homotopy Analysis Method	Zainab Ali Ahmed Abdel Qader
23	2021	Zarqa University	Solving the Fractional Sawada-Kotera Eqution by Homotopy Analysis Method	Nasreen Ali Fayez Al-Hamayel
24	2021	Zarqa University	Conformable Solution of the Fractional Lane-Emden Equation Using Residual Power Series Method	Abdul Rahman Jamal Saeed Abu Zaida
25	2021	Zarqa University	Solve Space-Time Fractional Benjamin-Bona-Mahony Equation by the Fractional Sub- Equation Method	Saad Brahama
26	2021	Zarqa University	Atomic Solution of Fractional Wave Equation	Alaa Nasri Taha Qassem

27	2021	Zarqa University	Solving non-Linear Fractional Stiff systems by the Fractional Sub-Equation Method	Wurud Ali Nassif Muhammad
28	2021	Zarqa University	Conformable Solution of some Fractional Equations Using Residual Power Series Method	Wala Nafed Hosni 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 Fractional Sumudu Transform	Omar Aymen Makahla
32	2022	Zarqa University	A Generalization of the Conformable Fractional Laplace Transform	Tamara Mahmud 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 Mustafa obeid
36	2023	Zarqa University	Using Sub- Equation Method to Solve Some Fractional Equations	Abdallah khalid 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 Partial Differential Equations in a Banach Space	Bylasan Mohamed Khalil Lafi
39	2023	Zarqa University	Finding Atomic Solutions of Fractional Partial Differential Equations in a Tensor Product	Donia Mohmud Thyab Alhosari
40	2023	Zarqa University	The New Integral Transform: GALM Transform and Its Application on Partial Differential Equations	Ahmad Hatem Alsawaeer
41	2023	Zarqa University	The New Integral Transform GALM Transform and Its Application on Ordinary Differential Equations	Loay Rateb Ahharabsha
42	2024	Zarqa University	Solving The Reducible Equation of the Korteweg-de Vries Type by Atomic Solution Method	Sara Mohamed

43	2024	Zarqa University	A New Complex Transform: GMS Transform and Its Applications for Solving Ordinary Differential Equations	Saif Awad Allah Alsoud
44	2024	Zarqa University	A New Complex Transform: GMS Transform and Its Applications For Solving Partial Differential Equations	Mahmud Alqm
45	2024	Zarqa University	The GALM Transform and its Applications in Solving Integral Equations	Nabeel Ahmad Ali Amireh
46	2024	Zarqa University	Double GALM Transform and its Applications	Ibtehal Gharib
47	2025	Zarqa University	Applications in GMS Transform for Solving Integral Equations	Faisal Abu- Rumman
48				
49				
50				

Conferences:

year	Paper Title	Organizing Institution	Conference
2023	Using Medfield Atomic Solution Method to Solve Nonhomogeneous Fractional PDE	Zarqa Univesity	The 8thinternational Arab conference on mathematics and computations 2023
2022	Conformable Triple Sumudu Transform with Applications	Duzce University	*5th International Conference on Mathematical and Related Sciences (ICMRS 2022)*
2022	Using Atomic Solution Method to Solve the Fractional Equations	Zarqa Univesity	The 7thinternational Arab conference on mathematics and computations 2022

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

Courses I have taken in chronological order:

Series	Year of the course Duration	Organizer	Title of the training course	مسلسل
1	2015	Zarqa University	Strategic Planning Course in Academic Institutions	3 Days
2	2015	Zarqa University	Course of preparing the strategic plan for the college	2 Days
3	2012	Zarqa University	Qualification course for faculty members	3 Days

4	2015	Zarqa University	Scientific Research Course	3 Days
5	2009	Imam Muhammad bin Saud University	Strategic Planning Course in Academic Institutions	3 Days
6	2009	King Abdulaziz University	Academic Calendar Course	3 Days
7	2008	Mathematics department	Preparation of exams	2 Days
8	2008	Red Crescent	course in first aid,	2 Days
9	2007	Saudi Teachers College	Academic Advising	1 Day
10	2006	Alfred Center - Jordan	SPSS Statistical Analysis	30 hours
11	2005	Community Service	Training of Trainers	32 hours
12	2005	Saudi Teachers College	Computer Course	2 weeks
13	2002	Community Service	Power Point	1 week
14	م 1992	French, American and Arab company	insurance courses for the French, American and Arab company	3 months

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 α differential in algebra generalized random process .
7	Classification methods approximation Poisson random process .
8	Approximation stochastic integrals at Poisson process .
9	Approximation stochastic α –integrals in algebra generalized random process I. Approximation stochastic α–integrals in algebra generalized random process II.
10	Integral transform
11	Integral equation
12	Cyber Security

Community Service :

ت	Activity	period
.1	Iftar in Ramadan (for the disabled in the Abu Nseir Association) (For orphans in Abu Nseir Association)	2019-2025
.2	Contributing to the celebrations held by the Municipality of Amman / Abu Nseir	2019-2025
.3	Contribute to all activities held by the Abu Nseir Association	2019-2025
.4	Participation in general election committees	2020,2024

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		
Postal Address		B.BOX : 132222 Post Code: 13132		