Curriculum Vitae

Prof. Mountajab Saleh Al-Hasan

Professor in Mathematics



Personal Data:

First Name: Mountajab

Last Name: Al-Hasan

Place and Date of Birthday: Syria-Homs 28\11\1966

Marital Status: Married

Academic Status: Professor

Scientific Specialization: Mathematics

Home Address: Syria-Homs, Akrama

Work Address: Al-Baath University, College of Science,

Department of Mathematics

Mobile: 00963944427933

Home Telephone: 00963312751606

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Academic Qualification:

• **PH.D** Degree From Wroclaw University of Sciences and Technology, Poland, 2002, **Grade:** Excellence .**GPA**:3.5

Thesis Title: Equations of Ignaczak type in micropolar model (E-N)

Bachelor's Degree in Pure Mathematics from Al-Baath University 1990,
Grade: Excellence (First of the Batch) .GPA:3.4

Scientific Status:

Professor at Al-Baath University, College of Science, 2017 Until Now:

Visiting Professor: Tartous University: 2017-Until now

Visiting Professor: Hama University: 2021-Until Now

Visiting Professor: Al-Hwash Private University: 2020-Until Now

Associate Professor at Al-Baath University, College of Science, 2011-2017:

Visiting Associate Professor: Hama University: 2011-2012

Visiting Associate Professor: Tartous University: 2015-2017

Assistant Professor at Al-Baath University, College of Science, 2003-2011:

Visiting Assistant Professor: Aleppo University: 2004-2006

Visiting Assistant Professor: Damascus University: 2006-2008

Visiting Assistant Professor: Tishreen University: 2008-2009

Lecturer at Wroclaw University of Sciences and Technology, 1994 -2002. Lecturer at Głogów Private University—College of Business, 1999 -2001, Part Time.

Teaching Assistant at Damascus University, 1991-1993.

• Teaching Experience:

The Subject that I have Taught at Al-Baath University:

Real Analysis1, Real Analysis2, Real Analysis3, Mathematical Analysis1, Functional Analysis, Analytical Geometry, Analytical and Special Functions, Real Analysis4, Mathematical Mechanics1, Analytical Mechanics, Mathematical Elasticity Theory, Mathematical Liquid Mechanics, Wave Mechanics, Measure Theory, Mathematics History, Mathematical Elasticity Mechanics,

The Subject that I have Taught at Tartous University:

Mathematical Mechanics1, Mathematical Mechanics2, Real Analysis1, General Mathematics1, General Mathematics3, Statistics and Probability Principles, Functional Analysis, Real Analysis4, Advanced Deferential Equations, Differential Geometry.

The Subject that I have Taught at Hama University:

Finance Mathematics, Advanced Mathematics, Mathematical Mechanics1, Mathematical Mechanics2, Mathematical Mechanics3, Integral Equations and Variable Calculus, Theory of Differential Equations.

The Subject that I have Taught at Aleppo University:

Mathematics1, Mathematics5, Linear Algebra,

The Subject that I have Taught at Damascus University:

Analytical Geometry, Real Analysis3, Mathematical Mechanics1, Mathematical Mechanics2, Theory of Differential Equations. Mathematical Analysis

The Subject that I have Taught at Teshreen University:

Real Analysis1, Real Analysis2, Linear Algebra . Mathematical Statistics and Probability

The Subject that I have Taught at Alhwash Private University:

Business Statistics, Business Mathematics, Finance Mathematics, Mathematics 1 for Engineers, Mathematics 2 for Engineers, Mathematics 3 for Engineers,

The Subject that I have Taught at Wroclaw University of Science and Technology; Mathematics 1 for Engineers, Mathematics 2 for Engineers, construction Theory, Actuarial Mathematics.

The Subject that I have Taught at Glogów Private University—College of Business: Business Statistics, Finance Mathematics.

• Researches that I Have Published:

- [1] The Geometric Meaning of Traditional Inertial Frames According to Neutrosophical Logic, Journal: Neutrosophic Knowledge, Vol. 05,2024, University of New Mexico.USA.
- [2] —The kinematic elements for three dimensional material point from the view of neutrosophic logic, Journal of Iraq Al-Khwarizmi ,Accepted for Publication 05.10, 2024.

- [3] Generalization of Lame's method to classical static viscoelasticity, 2024, Journal of Al-Baath University, Accepter for Publication 10.10.2024.
- [4] The Beltrami-Michell Equations for the Polar Body of Koiter- Mindlin Type, The Third International Conference on Mathematics at Al-Baath University, 26-27 October 20024.
- [5] The generalization of Beltrami-Michell method of the thermodynamical state of micropolar and centro-symmetric elastic body, , Volume46, Nunber9, Pages63-84.2024, Journal of Al-Baath University.
- [6] Staggered Finite Differences Method for the Simulatin of Numerical Solutions to Ignaczak stress equation in plane strain state, Accepted for publication in 17.03.2024, Journal of Tartous University.
- [7] The foundations of the generalized micropolar and centro-symmetric thermoelasticity with one relax time in the invariable tensorial form, Volume46, Nunber13, Pages115-146.2024, Journal of Al-Baath University.
- [8] Volume-Surface integral transforms in changing the double nonhomogeneous Helmholtz partial differential equation of third order into integro-differential equation, , Volume46, Nunber13, Pages35-56.2024,, Journal of Al-Baath University.
- [9]—The kinetic elements for material point from the view of neutrosophic logic, Journal of Iraq Al-Khwarizmi, Volume8, Number 2, 2024.
- [10]—Studying the isotherm of the complementary Schaefer Ignaczak thermodynamical process of the first plane state of elastic strains for the unbounded micropolar body-Fourier Schaefer-Ignaczak formulas, ASPG Journal (USA), Vol. 03, No. 01, PP.08-20, 2024.
- [11] Green-Ignaczak Formulae For Schafer –Ignaczak behaviors of the micropolar solid of 6 material constants, The Second International Conference on Mathematics at Al-Baath University 25-26 November 2023,A18.
- [12] Decomposition of the second axisymmetric behaviors from the view of Schafer-Ignaczak for the micropolar elastic solid of 5 material constants, The Second International Conference on Mathematics at Al-Baath University 25-26 November 2023,A15.
- [13]—Combining regular solutions of the Schaefer -Ignaczak thermodynamical behaviors relating to the first plane state of elastic strain of the micropolar body subjected to temperature field, ASPG Journal (USA), Vol. 02, No. 01, PP. 27-41, 2023.
- [14] -2023 The pure Hooke and pure micropolar Schaefer-Lame behaviors for the first plane state of elastic strain of the micropolar body occupying R^2 in the cases of heat sources and body moments, Journal of Al-Baath University, Vol. 45, No. 18, PP. 57-92, 2023.

- [15] –2023 Combining the behaviors of the Ignaczak dynamical process relating to the second plane state of elastic strains of the micropolar elastic body, Journal of Al-Baath University, Vol. 45, No. 15, PP. 117-148, 2023.
- [16] –2023 Combining regular solutions of the Ignaczak dynamical process relating to the first plane state of elastic strain of the micropolar body, Journal of Al-Baath University, Vol.45, Nr.8, p. 11-38.
- [17] –2023 A Study of the Movement of a Neutrosophic Material Point in the Neutrosophic Plane by Using a Neutrosphic AH-Isometry, ASPG Journal, Vol. 02, No. 01, PP. 08-18, 2023, USA.
- [18] -2022 Combining regular and singular solutions of the Schaefer thermodynamical process relating to the first plane state of elastic strain of the micropolar body subjected to temperature field and occupying \mathbb{R}^2 , Journal of Al-Baath University, Vol.44, Nr.13, p. 131-156.
- [19] –2022 The Lame Green Behavior for Anisotropic and Non Homogeneous Micro polar elastic Body of Aero kovshinski Type , Journal of Tartous University, Accepted for Publication at 21.08.2022.
- [20] –2022 The System of Integral Equations for Nowacki's potentials corresponding to the solution for the Koiter-Mindlin elastic body with body loads, Journal of Tartous University, Accepted for Publication at 17.08.2022.
- [21] 2022 The isothermal of the Schaefer complementary thermodynamical process relating to the first plane state of small elastic strain of the micropolar body subjected to temperature field and occupying \mathbb{R}^2 , Journal of Tartous University, Accepted for Publication at 09.05.2022.
- [22] 2022 The Invariance tensorial forms of the energy balance for the (L-S) thermodynamical body of one relax time in terms of $\{\mathbf{u},\boldsymbol{\mathcal{G}}\}\$ and of $\{\mathbf{S},\mathbf{q}\}\$, Journal of Al-Baath University, Vol.44, Nr.1, p. 79-104.
- [23] 2021 The method of Lame Potential in solving Navier-Stocks equations that describe the hydrodynamical state of Newton fluid, Journal of Al-Baath University, Vol. 43, Nr. 23, p. 97-110.
- [24] 2021 The thermo-dynamical state functions and corresponding constitutive relations for the Hooke elastic solid in an arbitrary curvilinear coordinate system, Journal of Al-Baath University, Vol. 43, Nr. 21, p. 135-155.
- [25] 2021 The Equations of the two Plane States of Elastic Strains for the Thermodynamical Polar Body of Constructed Rotations, , Journal of Al-Baath University, Vol. 42, Nr. 17, p. 67-80.
- [26] 2021 The radiation conditions and the corresponding integral representation for the solution of the micropolar elastic body with no vanishing body loads and heat source harmonically varying in time, Journal of Al-Baath University, Vol. 42, Nr. 15, p. 33-62.
- [27] 2021 Generating the Schaefer vector method that solving the first plane state problems of micropolar elastic solid subjected to temperature field, Journal of Al-Baath University, Vol. 43, Nr. 7, p. 147-159.

- [28] 2021 The Navier-Stokes (N-S) fluid in variable tensor form in an arbitrary curvilinear coordinate system, Journal of Al-Baath University, Vol. 43, Nr. 1, p. 49-64.
- [29] 2020 Stress–temperature equations of motion of Ignaczak and Beltrami–Michell types in arbitrary curve coordinate system, AJSRP Journal of Nature, Life and Applied Sciences, , Volume (4), Issue (4): 30 December 2020, P: 91-110.
- [30] 2020 The Sommerfeld asymptotic conditions for Nowacki's potentials corresponding to the solution for the Koiter-Mindlin elastic body with no vanishing body loads harmonically varying in time, Journal of Al-Baath University, Vol. 42, Nr. 15, p. 129-150.
- [31] 2020 The generalized thermodynamical Beltrami Michell tensorial equations for the general thermo-dynamical state of the Hooke body, AJSRP Journal of Nature, Life and Applied Sciences, Volume (4), Issue (1): 30 Mars 2020, P: 60 71.
- [32] 2019 The behavior of unbounded solid with microstructure using the pure Hooke and micropolar differential equations in the cases of body moments and heat sources, Journal of Al-Baath University, Vol. 41, Nr. 19, p. 73-94.
- [33] 2019 Nowacki's potential method for solving the problem of solid body subjected to electromagnetic and thermal fields, Journal of Al-Baath University, Vol. 41, Nr. 17, p. 55-70.
- [34] 2019 The invariable tensorial form of the Ignaczak equations for the Hooke thermodynamical model, Journal of Al-Baath University, Vol. 41, Nr. 15, p. 89-104.
- [35] 2019 The Hooke thermodynamical model in a curve coordinate system, Journal of Al-Baath University, Vol. 41, Nr. 13, p. 137-152.
- [36] 2019 Singular behavior superposition for unbounded elastic body with microstructure governed by differential equations of stresses and temperature unknowns, Journal of Al-Baath University, Vol. 41, Nr. 10, p. 119-138.
- [37] 2018 Thermodynamical Gibbs potential and thermodynamical internal energy in coupled asymmetric thermoelasticity, Journal of Al-Baath University, Vol. 40, Nr. 10, p. 31-50.
- [38] 2017 The combination of the thermal longitudinal and transverse waves and the thermal longitudinal and transverse micropolar waves in elastic body within the frame of linear coupled dynamical micropolar hemitropic thermoelasticity, Journal of Al-Baath University, Vol.39, Nr.19, p. 53-70.
- [39] 2016 The combination of singular solutions of infinite micropolar elastic body with axisymmetric state of elastic strain and subjected to temperature field, Journal of Al-Baath University, Vol. 38, Nr. 8, p. 39-62
- [40] 2016 The Sommerfeld asymptotic conditions for displacements in Hooke elastic body with no vanishing body loads harmonically varying in time, Journal of Al-Baath University, Vol. 38, Nr. 4, p. 11-24.
- [41] 2016—The integral formulas determinating the stresses and temperature in micropolar elastic body, Journal of Al-Baath University, Vol. 38, Nr. 7, p. 121-138.

- [42] 2016 —Studying the behavior of unbounded micropolar elastic body without external stresses, Journal of Al-Baath University, Vol.38, Nr.1, p.35-64.
- [43] 2015 The generalization of Beltrami Michell equations of Hooke elastic body to its dynamic state in a curve coordinate system, Journal of Al-Baath University, Vol. 37, Nr. 2, p. 55-74.
- [44] 2015 The correspondence of solutions class of stress—temperature equations for micropolar elastic body, Journal of Al-Baath University, Vol. 37, Nr. 9, p. 35-52.
- [45] Superposition method for the stress equations in the first axially symmetric problem of elastic solid with microstructure . Journal of Fluid Mechanics. Cambridge University
- [46] 2015—Proving the uniqueness of solution of the stress-temperature equations for elastic body with microstructure, Journal of Al-Baath University, Vol.37, Nr.2, p.193-210.
- [47] (2014) Coupled Dynamic Micropolar Problems of Thermoelasticity: Stress—Temperature Equations of Motion of Ignaczak Type. In: Hetnarski R.B. (eds) Encyclopaedia of Thermal Stresses. Springer, Dordrecht, p. 740 753.
- [48] 2013 Studying the isotherm of the complementary Ignaczak solutions for the (E-N:6) micropolar body occupying \Re^3 , Journal of Al-Baath University, Vol. 35, Nr. 1, p. 205-236.
- [49] 2012 Nowacki's potential problem for Hooke elastic body and Lame's problem for elastic body with microstructure in a curve coordinate system, Journal of Al-Baath University, Vol. 34, Nr. 18, p. 129-144.
- [50] Fourier-Schaefer- Ignaczak Formulas for the Second Plane State of Elastic Strain of 2D(E-N:5) micropolar Solid, Journal of Al-Baath University.
- [51] 2011 An integral partial mathematical model of elastic body in the frame of linear dynamic thermoelasticity, Journal of Al-Baath University, Vol. 33, Nr. 25, p. 119-148.
- [52] 2009 using volume-surface transforms for translating the differential equations of elastic body into integral equations, Journal of Al-Baath University, Vol. 31, Nr. 20, p. 175-192.
- [53] 2008 The equivalence of solving the stress-temperature description problem and the traditional description problem of elastic body with microstructure, using the superposition method, Journal of Al-Baath University, Vol. 30, Nr. 12, p. 255-278.
- [54] 2007—Superposition method for stress-temperature equations of motion, Journal of Al-Baath University, Vol.29, Nr.5, p.53-78.
- [55] (2001) Stress temperature equations of motion of Ignaczak type for a three dimensional problem of micropolar thermoelasticity, Journal of Thermal Stresses, 24 (2001), p. 709 722.
- [56] (2001) Radiation conditions and integral representations of a solution in coupled micropolar thermoelasticity, Journal of Thermal Stresses, 24 (2001), p. 1007 1018.

• Chapter in Books:

Janusz Dyszlewicz & Mountajab Micropolar theory of elasticity, Springer, Germany, 2004.

• Books in Progress:

- 1. Analytical Mathematical Theory of Elasticity . Biblio Publishing (USA) Q1
- 2. Analytical Mathematical Fluid Theory. Global Knowledge (USA)Q1

• Supervision of Master & Theses:

- [1]—Transforming the Partial Differential Equations of Elastic Body into Integral Equations on Spherical Surface, 2010.
- [2] Dynamic Equations of Elastic Body with Elastic Strain in Curve Coordinate System, 2012.
- [3] Studying the Strains in Continuum from the View of Deferential Geometry, 2013.
- [4] Finding Solutions of Some Problems in Elasticity Mechanics Using Special Functions, 2015.
- [5] A comparative Study of Some Methods for Solving Elasticity Problems, 2016.
- [6] Studying the Asymptotic Conditions for Solutions of Problems in Mechanics of Elastic Media, 2016.
- [7] A study of Some States of Singularity of The physical Fields in Elasticity, 2017.
- [8] The Relationship between the Elastic Coefficients and the Crystal Structure of Solids, 2018.
- [9] Studying the Differential Equations Governing the Behaviour of Elastic Body Subjected to Electromagnetic Field, 2019.
- [10] Different Formulas for Tensors in Classical Fluid, 2020.
- [11] A Study of Wave Equations and Wave Propagations in Elastic Media, 2020.
- [12] The Fundamental Equations of Some Continuous Media of Elastic Type, 2020.
- [13] A Study in Lord Shulman (L-S) and Green–Lindsay (G-L) Theories of Generalized Thermodynamics of Elastic Solids, 2020.
- [14] Studying in the Thermodynamics of Micropolar Elastic Bodies, 2021.
- [15] A Study in the Theory of Polar Continua, 2021.

- [16] A Study in Micropolar Fluid Theory, 2022.
- [17] Study of Some Method of Solving Systems of Equations for Solid Body with Microstructure, 2022.
- [18] The Relationship between The Green Functions and The Solutions of the Differential Equations Describing Some Continuous Media, 2022.
- [19] Seeking for The Integral Equations Systems Governing Dynamical Behavior of Same Continue Media, 2022.
- [20] Study In Kinetic Thermoelasticty, 2024.
- [21]- Methods for solving viscoelastic equations, 2024.
- [22]- Numerical study of Ignaczak stress equations for the first plane strain state, 2024.

Under Supervision Master Thesis:

- [1] A Study in Plane Strains or Stresses.
- [2] Symmetry groups in solid bodies
- [3] Solutions of mathematical model equations for electromagnetic fluids

Diploma Projects that I supervised:

- [1] The Fundamental Solutions of Partial Differential Equations in Elastic Mechanics, 2003,
- [2] Finding solutions of differential equations that describe the liquid equilibrium, 2006,

• PHD Supervision:

- [1] The Boundary Compatibility Conditions (BCC) Relating to Unique Solution for Beltrami Michell equations in Complicated Microstructure Media, 2020.
- [2] Solving the Equations Governing Micromorphic Media, 2024.
- [3] A Study of some problems of singularity of physical fields, 2024.
- [4] Somerfield asymptotic conditions and related integral representations correspondding to the solutions of different formulations of the elasticity and plasticity problems of bodies with complex microstructure, 2024.

Under Supervision PH.D Dissertations:

[1] – The generalized thermodynamics of micromorphic body in their possible states.

• Scientific Conferences and Symposia that I have Participated in it:

- 1. Applied Sciences Conference at Drsden University of Technology . Germany 10-june-1999
- 2. The Mathematical Conference In Poznan University Poland 3-March-2000.
- 3. The Mathematics Conference at Krakow University, Poland, June 2001,
- 4. Mathematics & Physics Conference at Hamburg University of Technology .Germany 10-Dec-2001
- 5.List of Historical Seminars at the Polish Scientific Research Centre in Warsaw 7 / 06 / 2002.
- 6. Symposium on Methods of teaching Mathematics, Al-Baath University 15-Nov 2002,
- 7. Symposium on Methods of teaching Mathematics, Al-Baath University 10-Feb 2003,
- 8. Symposium on Educational Qualification, Al-Baath University 15-May 2004,
- 9. Symposium with the French Astronomical Society Uranscope 10-october-2004. France
- 10. Conference on Quality of Higher Education at the University of Kalamoon with the Participation of the University of Glamorgan: 7-8 June, 2005.
- 11. Workshop in the History of Mathematics, Al-Baath University 5-May 2005,
- 12. Workshop with the Paris Astronomical Observatory at Al_Baath University 2006
- 13 The First International Conference on Mathematics at Damascus University 4_Nov_2009
- **14.**The first International Conference on Mathematics at Al-Baath University 14-16 October 2008.

- 15. Workshop in the Recreational Mathematics, Al-Baath University 5-Nov. 2018,
- **16.**Informatics and Mathematics Symposium at Al-Baath University with the Participation of Caucasus University 2023.
- 17. The Second International Conference on Mathematics at Al-Baath University 25-26 November 2023.
- 18. The 14th International Scientific Conference of the Iraq Mathematical Society in Cooperation with Damascus University, 4,5-August 2024.
- 19. The Third International Conference on Mathematics at Al-Baath University 26-27 October 2024.

Scientific Tasks:

- 1- Evaluated about 145 Scientific Papers from different Scientific Journals,
- 2- Member of the Master's Defense Committee for about 46 Master's Dissertations,
- 3- Member of the PhD Defense Committee for 32 Ph.D Thesises.
- 4- Evaluated about 31 Scientific Productions for Assistant and Associate Professors,
- 5- Evaluated about 32 Academic Books,

Administrative Tasks:

- Head of Statistics Department: 2018 Until 2020

Educational and Training Coerces:

1.Advanced Computer Use Certificate, Faculty of Informatics, Al-Baath University, 1993.

- 2. Polish Language Certificate in Institute of Foreign Languages in Lodz (Poland), 1994.
- 3.TOFEL Course in Institute of Foreign Languages in Wroclaw, 1995.
- 4.TOFEL Certificate, Poland 1995. The Result: 650/677
- 5. Linux Course in Wroclaw University of Science and Technology1998.
- 6. Certificate in Educational Qualification 2002-2003.
- 7. Diploma in Educational Qualification 2003-2004.
- 8.ICDL Certificate from the Japanese-Syrian Society for Informatics 2011.
- 9. English Language Certificate (Advanced Level (C2)), from Institute of Foreign Languages-Al-Baath-University, 2005.
- 10. Quality Certificate from the University of Kalamoon with Participation of the University of Glamorgan (UK), 2005

Memberships:

- 1. Membership of the Syrian Teachers Syndicate, 1993 until now,
- 2. A faculty Member in the College of Science-Al-Baath University, 2003 until now,
- 3. American Scientific Publishing Group. 2023

Member of University Committees, Councils

- 1. Member of the graduate students examining committees of many Ph.D. and Master's Thesis in Mathematics.
- 2. Member of the Mathematics Department Council, Faculty of Science, Al-Baath University, Homs, Syria (2003 till now).

Reviewer of the following journals:

- 1,New Mexico University journal .USA,
- 2.ASPJ Journal (USA)
- 3.Biblio Publishing (USA)

- 4, Journal of Damascuss University,
- 5, Journal of Aleppo University,
- 6, Journal of Al-Baath University,
- 7, Journal of Tartous University,
- 8, Journal of Teshreen University,
- 9, Journal of Hama University

COMPUTER SKILLS

- ICDL Certificate
- Linux users, Microsoft Office software & Internet advanced user

Languages Known:

Arabic: Mother tongue

English: Excellent speaking & writing. Polish: Excellent speaking & writing.

French: Accepted

References

Prof.HAB.Slawawomir Bednarczyk, Dean of the College of Mecha-nical Engineering ,Wroclaw University of Science and Technology, 0048713209030, Email: <u>slawomir.bednarczyk@pwr.edu.pl</u>

Prof.Dr.Abdulbasit Alkhatib, President of Al-Baath University, 00963930831266, Email: akhteb@albaath-univ.edu.sy.

Prof.Dr.Abdo Alobed Professor in Mathematics in Tabuk University – Kingdom Saudi Arabia, 00966535531550, Email: <u>aalobed@ut.edu.sa</u>

Prof.Dr. Taleb Gareeba, Professor in Mathematics in Al-Baath University, 00963944763824,

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Prof.Dr.Essam Nassim, Professor in Mathematics in Al-Baath University, 00963988449988.

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