

CURRICULUM VITAE

Hassan Mahmoud Abed Al-Aziz Al-Zoubi

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1. Personal Data

Date of Birth: 11 /02 / 1970

Nationality: Jordanian

2. Education

- Ph.D. (Mathematics/ Differential geometry) 2001, Aristotle University of Thessaloniki, Thessaloniki, Greece.
- B.Sc. (Mathematics) 1994, Aristotle University of Thessaloniki, Thessaloniki, Greece.

3. Ph.D. Dissertation

“*Linear Geometry in projective and Euclidean spaces*”, Aristotle University of Thessaloniki, Thessaloniki, Greece.

4. Employment

Academic Positions



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Curriculum Vitae Form - Procedures of Faculty Transfer and Promotion

- Assistant Professor, Department of Mathematics, Philadelphia University, Jarash, Jordan
Second semester 2002/2003 (Part time)
- Assistant Professor, Department of Basic Sciences, Al Baha Al Ahliyya College of Science, Al Baha, Saudi Arabia
(Second semester 2003/2004)
- Assistant Professor, Department of Mathematics, Al Zaytoonah University of Jordan, Amman, Jordan
September 2004 – May 2021
- Associate Professor, Department of Mathematics, Al Zaytoonah University of Jordan, Amman, Jordan
May 2021- current

Administrative Positions

- Chairman of Department of Basic Sciences, Faculty of Science and Information Technology, Al Zaytoonah University of Jordan, Amman, Jordan, 1/10/2018 – 1/10/2019.

5. Research Interests

Dr. H. Al-Zoubi main current research interests focus on surfaces of finite Chen-type in the Euclidean 3-space and Lorentz –Minkowski space, a topic which has been investigated about 40 years ago from B.Y. Chen corresponding to the first fundamental form of a surface. In this respect, H. Al-Zoubi and others, followed this theme by studying surfaces of finite type regarding the second and third fundamental form. Another types of research are:

- 1) Studying surfaces of coordinate finite type corresponding to the second and third fundamental form.
- 2) Studying surfaces of coordinate finite type Gauss map corresponding to the second and third fundamental form.
- 3) Studying surfaces of finite type Gauss map corresponding to the second and third fundamental form.

These types of research can be applied on special classes of surfaces such as ruled surfaces, tubes, quadric surfaces, cones, translation surfaces, surfaces of revolution and other more classes.

6. Teaching Experience



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- **Undergraduate Courses**

1. *Euclidean Geometry*
2. *Differential Equations*
3. *Numerical Analysis*
4. *Set Theory*
5. *Statistics and probabilities*
6. *Calculus I- IV*
7. *Linear Algebra I and II*
8. *Introduction to Geometry 1*
9. *Introduction to Geometry 2*
10. *Differential geometry*
11. *Selected topics in mathematics*
12. *Number theory*
13. *Discrete mathematics*

7. Membership of Committees

- **University**
 - Certificate equivalency committee
 - Examinations Committee
 - Quality assurance committee
 - Social and Culture Committee

8. Supervision of Graduate Research

Thesis Title (Master)	Student Name	Year
Bayes Estimation of the Parameters of the Kumaraswamy Probability Distribution	Azezah Hasan Al Abdallah Al-Zaytoonah University of Jordan	2021-2022
Applications and Properties of Conformable Fractional Gamma Three-Parameters Probability Distribution	Raneem Moh'd Alodat Al-Zaytoonah University of Jordan	2021-2022
Classification of surfaces of finite Chen type	Mohammad Abbas Mohammad ALkafaween Al-Zaytoonah University of Jordan	2021-2022
Properties of some kinds of surfaces according to the first and second Laplace operators	Mays Ahmed Mahmoud Jaradat Al-Zaytoonah University of Jordan	2023-2025
Some kind of surfaces whose position vector x satisfies a relation of the form $\Delta^m x = Ax$	Hamza Osama Mohamed Hzayen Al-Zaytoonah University of Jordan	2023-2025
-	Bayan	2024-2025

9. Professional and Scientific Meetings



- 4th International congress of Geometry, 26th May-1st June 1996, Thessaloniki.
- 5th Panhellenic congress of Geometry, 31st May- 2nd June 2001, Thessaloniki.

10. Publications

• Papers in refereed journals

1. H. Alzaareer, **H. Al-Zoubi**; and F. Abdel-Fattah, Certain classifications on quadrics in simply isotropic space I^3 , *AIMS Mathematics*, 10(11): (2025) 26662–26679. DOI: 10.3934/math.20251172
2. **H. Al-Zoubi**, H. Alzaareer, Exponential Law for Mappings on Sequentially Locally Convex Topological Vector Spaces and Manifolds, *WSEAS Transactions on Mathematics*, Vol. **25**, 2026, 1-5.
3. H. Alzaareer, **H. Al-Zoubi**, W. Al-Mashaleh, M. Al-Sabbagh, Quadric Surfaces in Terms of Coordinate Finite II-type, *WSEAS Transactions on Mathematics*, Vol. **24**, 2025, 69-74. DOI: 10.37394/23206.2025.24.9
4. H. Alzaareer, **H. Al-Zoubi**, W. Al-Mashaleh, Classification of Surfaces of Finite Chen II-Type, *WSEAS Transactions on Mathematics*, Vol. **24**, 2025, 1-7. DOI: 10.37394/23206.2025.24.1
5. H. Alzaareer, **H. Al-Zoubi**, Rotational surfaces in terms of coordinate finite Chen II-type, *Pan-American Journal of Mathematics*, Vol. **3**, 2024, 1-12. <https://doi.org/10.28919/cpr-pajm/3-23>
6. **H. Al-Zoubi**, H. Alzaareer, M. Al Rawajbeh, M. Al Kafaween, Characterization of Tubular Surfaces in Terms of Finite III-type, *WSEAS Transactions on Systems and Control*, Vol. **19**, 2024, 22-25. DOI: 10.37394/23203.2024.19.3
7. A. Alkhatib, K. M. Jaber, **H. Al-Zoubi**, Mohammad Abdallah, and Mousa Salah, Exploring Progress in Forest Fire Detection, Prediction, and Behavior: An In-Depth Survey. *Int. J. Com. Dig. Sys.* **15**, No.1 (Feb-24).
8. H. Alzaareer, **H. Al-Zoubi**, Zhour Alodat, Properties of hemicompact topological groups, *Asia Pac. J. Math.* **11** (2024) p 1-9.
9. **H. Al-Zoubi**, H. Alzaareer, Non-degenerate translation surfaces of finite III-type, *Indian Journal of Mathematics*, Vol. **65** No. 3, (2023), pp 395–407.
10. **H. Al-Zoubi**, S. Bendehiba, M. Al-Sabbagh, and Mehmet Ozdemir, The Chen type of Hasimoto surfaces in the Euclidean 3-space, *AIMS Mathematics*, 8(7): (2023) 16062–16072. DOI:10.3934/math.2023819
11. **H. Al-Zoubi**, Non-degenerate rotational surfaces of coordinate finite II-type, *Asia Pac. J. Math.* **10** (2023) p 1-9.
12. **H. Al-Zoubi**, T. Hamadne, M. Abu Hammad, M. Al-Sabbagh, and Mehmet Ozdemir, Ruled and Quadric Surfaces Satisfying $\Delta^u N = \Lambda N$, *Symmetry*, Vol. **15** No. 2, 2023, 1-15.



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13. **H. Al-Zoubi**, T. Hamadneh, and A. Alkhatib, Quadric surfaces of coordinate finite type Gauss map in the Euclidean 3-space, *Indian Journal of Mathematics*, Vol. **64** No. 3, (2022), pp 385–399.
14. **H. Al-Zoubi**, H. Alzaareer, A. Zraiqat, T. Hamadneh, and W. Al-Mashaleh, On Ruled Surfaces of Coordinate Finite Type, *WSEAS Transactions on Mathematics*, Vol. **21**, 2022, 765-769.
15. H. Alzaareer, **H. Al-Zoubi**, F. Abed Al-Fattah, Quadrics with finite Chen-type Gauss map, *Journal of Prime Research in Mathematics*, 18(1) (2022), 96-107
16. **H. Al-Zoubi**, A. Kelleci, T. Hamadneh, and M. Al- Sabbagh, Classification of Surfaces of Coordinate Finite Type in the Lorentz-Minkowski 3-Space, *Axioms*, Vol. **11** (2022), pp 1–17.
17. T. Hamadneh, **H. Al-Zoubi**, I. Abu Falahah and M. Al- Sabbagh, Direct Algorithm for Bernstein Enclosure Boundary of Polynomials, *Journal of Mathematics*, Vol. **2020** (2020), pp 1–8.
18. **H. Al-Zoubi**, F. Abed Al-Fattah, M. Al- Sabbagh, Surfaces of finite III-type in the Euclidean 3-space, *WSEAS Transactions on Mathematics*, Vol. **20**, 2021, 729-735.
19. W. Al-Mashaleh, H. Qawaqneh, **H. Al-Zoubi**, Some results on traces of the generalized products and sums of positive semidefinite matrices. *International Journal of Mathematics and Computer Science*, Vol. 17(2022), no. 2, 619–625
20. **H. Al-Zoubi**, Surfaces of finite III-type, *International journal of mathematical models and methods in applied sciences*, Vol. 15 (2021), 190–194.
21. A. Dababneh, A. Zraiqat, A. Farah, **H. Al-Zoubi**, and M. Abu Hammad. Numerical methods for finding periodic solutions of ordinary differential equations with strong nonlinearity. *Journal of Mathematical and Computational Science*, Vol. **11**, (2021), pp 6910–6922.
22. **H. Al-Zoubi**, T. Hamadneh, M. Abu Hammad, and M. Al- Sabbagh, Tubular surfaces of finite type Gauss map, *Journal for Geometry and Graphics*, Vol. **25** (2021), No. 1, 45–52.
23. T. Hamadneh, A. Zraiqat, **H. Al-Zoubi** and M. Elbes, Sufficient Conditions and Bounding Properties for Control Functions Using Bernstein Expansion, *Applied Mathematics & Information Sciences*, Vol. **14**, (2020), pp 1–9.
24. **H. Al-Zoubi**, M. Al- Sabbagh, Anchor rings of finite type Gauss map in the Euclidean 3-space, *International Journal of Mathematical and Computational Methods*, Vol. **5**, (2020), pp 9–13.
25. **H. Al-Zoubi**, H. Brham, T. Hamadneh and M. Al Rawajbeh, Tubes of coordinate finite type Gauss map in the Euclidean 3-space, *Indian Journal of Mathematics*, Vol. **62** No. 2, (2020), pp 171–182.



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26. T. Hamadneh, **H. Al-Zoubi** and S. A. Alomari, Fast Computation of Polynomial Data Points Over Simplicial Face Values, *Journal of Information & Knowledge Management*, Vol. **19**, No. 1 (2020), pp 1-13.
27. T. Hamadneh, M. Ali and **H. AL-Zoubi**, Linear Optimization of Polynomial Rational Functions: Applications for Positivity Analysis, *Mathematics*, Vol. **8**, No. 2 (2020), pp 1-12.
28. M. Abu Hammad, H. Alzaareer, **H. Al-Zoubi** & H. Dutta, Fractional Gauss hypergeometric differential equation, *Journal of Interdisciplinary Mathematics*, Vol. **22** issue 7 (2019) pp. 1113-1121.
29. M. Al Rawajbeh, I. Al Hadid, **H. Al-Zoubi**, Adoption of Cloud Computing in Higher Education Sector: An Overview, *International Journal of Technology and Engineering Studies*, Vol. **5** issue 1 (2019) pp. 28-34.
30. S. Bendehiba, **H. Al-Zoubi**, Translation surfaces of finite type in Sol_3 , *Commentationes Mathematicae Universitatis Carolinae*, Vol. **22**, No. 2 (2020), pp 237-256.
31. S. Al-Zu'bi, Y. Jarawsheh, **H. Al-Zoubi**, M. Elbes, T. Kanan, B. Gupta, Multi-orientation geometric medical volumes segmentation using 3D multiresolution analysis, *Multimedia Tools and Applications*, Vol. **78**, Issue 17, pp 24223-24248.
32. M. A. Awadallah, M. Al-Betar, A. Bolaji, E. M. Alsukhni, **H. Al-Zoubi**, Natural selection methods for artificial bee colony with new versions of onlooker bee, *Soft Computing*, Vol. **23** (2019) No. 15, 6455-6494.
33. **H. Al-Zoubi**, M. Al- Sabbagh, S. Stamatakis, On surfaces of finite Chen III-type, *Bull. Of the Belgian Mathematical society*, Vol. **26** (2019) No. 2, 177-187.
34. **H. Al-Zoubi**, A. Dababneh, M. Al- Sabbagh, Ruled surfaces of finite II-type, *WSEAS Transactions on Mathematics*, Vol. **18**, 2019, 1-5.
35. **H. Al-Zoubi**, S. Al-Zu'bi, S. Stamatakis, H. Almimi, Ruled surfaces of finite Chen-type, *Journal for Geometry and Graphics*, Vol. **22** (2018), No. 1, 15-20.
36. **H. Al-Zoubi**, K. Jaber, S. Stamatakis, Tubes of finite Chen-type, *Communications of the Korean Mathematical Society*, Vol. **33** (2017) No. 2, 581-590.
37. **H. Al-Zoubi**, Tubes of finite II-type in the Euclidean 3-space, *WSEAS Transactions on Mathematics*, Vol. **17**, (2018), 1-5.
38. **H. Al-Zoubi**, S. Stamatakis, W. Al-Mashaleh, M. A. Awadallah, Translation surfaces of coordinate finite type, *Indian Journal of Mathematics*, Vol. **59**, No. 2, 2017, 227-241.
39. **H. Al-Zoubi**, S. Stamatakis, Ruled and quadric surfaces satisfying $\Delta^{\text{III}}\mathbf{x} = \Lambda\mathbf{x}$, *Journal for Geometry and Graphics*, Vol. **20**, No. 2, (2016) 147-157.



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40. S. Stamatakis, **H. Al-Zoubi**, Surfaces of revolutions satisfying $\Delta^{\text{III}}\mathbf{x} = \Lambda\mathbf{x}$, *Journal for Geometry and Graphics* Vol. **14**, No. 2, (2010), 181–186.
41. S. Stamatakis, **H. Al-Zoubi**, On surfaces of finite Chen type. *Result. Math.* Vol. **43**, 2003, 181-190.

- **Books**

1. Introduction to Geometry, Dar Alam Althaqafa for Publishing and Distribution, 2015.
2. Development and modernization of Euclidean geometry book for Alquds Almaftooha University, 2011.

- **Conference Presentations**

1. *1st Arab Conference in Mathematics, Applied Science Private University October 2004, Amman.*
2. *ICMM 2016: International conference on mathematics and mechanics, 1-2 May 2016 Venice, Italy.*
3. *Icpam 2017: International conference of pure and applied mathematics, 22-25 July 2017, Prague, Czech Republic.*
4. *ICAMCS 2018: International Conference on Applied Mathematics and Computer Science Jan 19-21/2018 Budapest, Hungary.*
5. *AMACS 2018: 3rd International Conference on Applied Mathematics And Computer Science London, UK, October 26-28, 2018.*
6. *JEEIT 2019: IEEE Jordan International Joint Conference on Electrical Engineering and Information Technology, April 9-11, 2019, Amman, Jordan.*
7. *OMG Conference 2019: 16-20 Sep. 2019, Dornbin, Austria.*
8. *ICIT 2021: IEEE Jordan The 10th International Conference on Information Technology, July 14-15, 2021, Amman, Jordan.*
9. *MMCTSE 2022: 6th International Conference on Mathematical Models & Computational Techniques in Science & Engineering 20-22 Sep. Athens Greece.*
10. *ICIT 2023: IEEE Jordan The 11th International Conference on Information Technology, Aug 9-10, 2023, Amman, Jordan.*
11. *MCSI 2023: The 8th IEEE International Conference on Mathematics and Computers in Sciences and Industry, Athens, Greece, October 14-16, 2023*
12. *CNASBE 2024: 2nd International Conference on Computing in Natural Sciences, Biomedicine and Engineering, Athens, Greece, October 19-21, 2024*