

د. سارة زرغاني

أستاذ مساعد

العلوم الرياضية والفيزيائية ـ شعبة الرياضيات

كلية العلوم والآداب

جامعة نزوى، سلطنة عمان

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موقع المكتب: 11G-39

يعمل في الجامعة: منذ 2023

الحالة الاجتماعية: ..

Dr Sara UoN CV.pdf

المؤهلات الأكاديمية

Post-Doc. in COMPUTATIONAL MATHEMATICS, PHYSIC, Universidade de Aveiro, Portugal. ، 2019، `` “Bathymetric and Morphology Effects On Estuarine Plume Dynamics”. (Coastal Hydrodynamic Modelling).``

PhD. in MATHEMATICS, Universiti Teknologi Malaysia, Malaysia.، 2015، MATHEMATICAL MODELING FOR TSUNAMI WAVES USING LATTICE BOLTZMANN METHOD

M.Sc. in ENGINEERING MATHEMATICS, Universiti Teknologi Malaysia, Malaysia.، Universiti Teknologi Malaysia, Malaysia.، 2012، ``Accurate solutions and Lattice Boltzmann modeling for shallow water equations``

M.Sc. in Algebra MATHEMATICS, University of Shahid Chamran, Iran.، 2009

B.Sc. in PURE MATHEMATICS, Iran.، 2007

أنشطة التدريس

Mat105 course (Calculus), University of the Western Cape, South Africa

Linear Algebra (Math students - Second year). Engineering mathematics and physical math (Engineering students - First and Second year). Advanced Calculus (Second year).Universiti

.Teknologi Malaysia, Malaysia

.Mathematics and Statistics.Pre-university preparation course lecturer

(MATH365: (Linear Algebra II

(MATH211: (Calculus I

(MATH221: (Foundations of Mathematics

(MATH323: (Foundation of Analysis

(MATH312: (Differential Equation for Engineers

(MATH116: (Pre-Calculus

MATH212، Calculus II

الأنشطة البحثية

الاهتمامات البحثية ـ

To be a scholar and researcher in mathematical physics (engineering mathematics), fluid dynamics to apply mathematical modeling to complex systems for natural disasters and mathematical biology with new methods for 3D simulations real physical problems and expansion .of simulation code by using Delft3D and Matlab

حضور المؤتمرات ـ

The 6nd International Conferences OnCoastal Hydrodynamic,2019,Portugal.، 09/06/2019

The 2nd International Conferences On Geological, Geographical, Aerospace & Earthscience (Aeroearth 2014).، 15/09/2014

المنشورات ـ

مقال:

1. 2025 Singularity-free solution for charged stellar model in f(Q, T) gravity: Mass-radius behavior and stability analysis.، 1. Saoud Al Saadi, M.K.Jasim ,S.K.Maurya and Sara Zergani, Mahmood Khalid Jasim, Sunil Kumar Maurya, Singularity-free solution for charged stellar model in f(Q, T) gravity: Mass-radius behavior and stability analysis. International Journal of Geometric Methods in Modern Physics (2026) 2650011 (29 pages). World Scientific Publishing Company DOI: .10.1142/S0219887826500118

2. 2025 Solving Differential Equations a Computational Approach Book Chapter، 3. M K Jasim, S K Maurya, Sara Zergani, Mahmood Khalid Jasim, Sunil Kumar Maurya, Book: Solving Differential Equations a Computational Approach Book Chapter: Single-Type Population Models in Mathematical Ecology Chapter 9 of BOOK International Accepted Aug 2025 Taylor and Francis, .Publication, MATH

3. 2024 Morphology Dynamics in Estuary Models، 2. Sara Zergani, Abdulrahman Al Maqbali, M. K. Jasim, S.K. Maurya, S.K. Maurya, (2025). Morphology Dynamics in Estuary Models, Published in LPU, NAAC, A++. www.lpu.in. Publish as a book.www.lpu.co.in Dec. 2024 LPU Publication House, Lovely Professional MATH 121. University Website: www.lpu.co.in copyrights LOVELY .PROFESSIONAL UNIVERSITY

4. 2023 Modeling of Angiogenesis in Tumor Blood Vessels via Lattice Boltzmann Method. ، Sara Zergani, Viswanathan K.K and Jang Hyun Lee (2021). Modeling of Angiogenesis in Tumor Blood

.(Vessels via Lattice Boltzmann Method. Medical & Biological Engineering & Computing (MBEC

5. Sara 2018 ، KdV and fKdV Model for the RunUp of Tsunamis Via Lattice Boltzmann Method. Zergani, Z.A. Aziz and K.K. Viswanathan, (2017). KdV and fKdV Model for the RunUp of Tsunamis Via Lattice Boltzmann Method. International Journal of Applied Engineering Research ISSN 0973-4562 Volume 12, Number 24 (2017) pp. 14338-14347 © Research India Publications. http://www.ripublication.com

6. 2017 ،" Bathymetric and Morphology Effects On Estuarine Plume Dynamics in Near-Field, Mid-Field, Far-Field Regions"، Sara Zergani, Vaz N., Dias J.M. (2019). "Bathymetric and Morphology Effects On Estuarine Plume Dynamics in Near-Field, Mid-Field, Far-Field Regions". Estuarine .Coastal and Shelf Science

7. 2017 ،" Bathymetric and Morphology Effects On Estuarine Plume Dynamics in Source Region، Sara Zergani, Vaz N., Dias J.M. (2018). "Bathymetric and Morphology Effects On Estuarine Plume .Dynamics in Source Region". Estuarine Coastal and Shelf Science

8. 2017 ، Modeling of Propagation Tsunami Waves by Lattice Boltzmann Method. Sara Zergani, Z.A. Aziz and K.K. Viswanathan, Modeling of Propagation Tsunami Waves by Lattice Boltzmann Method. International Journal of Applied Engineering Research ,2016, ISSN 0973-4562 Volume 11, .Number 15 PP 8483-8500 © Research India Publications

9. 2016 ، Exact solutions and Lattice Boltzmann method modelling for shallow water equations, Sara Zergani, Z.A. Aziz and K.K. Viswanathan, Exact solutions and Lattice Boltzmann method modelling for shallow water equations, Global Journal of Pure and Applied Mathematics, 2016, Vol. .12(3), pp. 2243-2266

10. 2016 ، Elastic and seismic model for generation of tsunamis via lattice Boltzmann method, Sara Zergani, Z.A. Aziz and K.K. Viswanathan, Elastic and seismic model for generation of tsunamis via lattice Boltzmann method, Global Journal of Pure and Applied Mathematics, 2016, .Vol. 12(3), pp. 1979-1999

11. 2015 ، A shallow water model for the propagation of tsunami via Lattice Boltzmann method, Sara Zergani, Z.A. Aziz and K.K. Viswanathan, A shallow water model for the propagation of tsunami via Lattice Boltzmann method, Proceedings of The 2nd International Conferences On Geological, Geographical, Aerospaces and Earth Sciences (AeroEarth 2014), Kuta,Bali, Indonesia. 2014, pp. 43-49. (Best Paper Award at The 2nd International Conference On Geological, Geographical, Aerospaces & Earth Sciences (Aeroearth 2014)), IOP Conf. Series: Earth and .Environmental Science, 2015, Vol. 23, pp. 1-7

12. 2013 .he Impact of Implementing the Use of Ict in Mathematical Problem Solving in Malaysian Universities,، W. Mkomange, S. Chukwuekezie, S. Zergani, And M. Ajagbe, (2013). "The Impact of Implementing the Use of Ict in Mathematical Problem Solving in Malaysian Universities,`` .Interdisciplinary Journal Of Contemporary Research In Business, Vol. 4, P. 373

الخبرة الإدارية

- 2025 – الآن: Present: Head of the Risk Management Committee Representative of the - 2025 .Department
- 2025 – الآن: Present: Head of the Community Engagement Committee, Cultural Season, - 2025 .Marketing Alumni & Social Activities of the Department

2025 – الآن: Academic Advising Officer.

- *.Academic Advising Officer :2025 – 2023*

خدمة المجتمع

Academic Advising Committee (Chair) Quality Assurance Committee Member E- :16/01/2024
learning Committee Member

الجوائز والتقدير

BEST PAPER AWARD The 2nd International Conferences On Geological, Geographical, 2023
.(Aerospace & Earthscience (Aeroearth 2014

.(EXCELLENT ACHIEVEMENT AWARD In The PhD Thesis (9 September 2015 2015

Sara Zergani, Abdulrahman Al Maqbali, M. K. Jasim, S.K. Maurya, S.K. Maurya, (2025). Morphology Dynamics in Estuary Models, Published in LPU, NAAC, A++. www.lpu.in. Publish as a book.www.lpu.co.in Dec. 2024 LPU Publication House, Lovely Professional MATH 121. University Website: www.lpu.co.in
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