

CURRICULUM VITAE TEMPLATE



Position/Designation: Assistant Professor
 Department: Mathematical and Physical Sciences
 College: Arts and Sciences
 University of Nizwa, Sultanate of Oman

Personal Information

Name: SARA ZERGANI

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Teaching Activities, Current/Previous Experience

Currently:

- 1 Calculus 1
- 2 Linear Algebra II
- 3 Foundation of Mathematics
- 4 Foundation of Analysis

TEACHING EXPERIENCE:

1. February 2020 - November 2020: Lecturer in MATH, the University of the Western Cape, South Africa

Mat105 course (Calculus) (Engineering and Math students - First and Second year).

2. February 2012 - June 2015: Graduate assistantship. Universiti Teknologi Malaysia, Malaysia. (Part-time)

Linear Algebra (Math students - Second year).

Engineering mathematics and physical math (Engineering students - First and Second year).

Advanced Calculus (Second year).

3. 24 February 2007 - 31 January 2017: Pre-university preparation course lecturer and assistant to head of school, "parto-danesh", Iran.

Mathematics and Statistics.

Research Activities

(includes but not limited to research interests, conference attendance, conference presentations and publications: refereed journal, articles, books, etc.)

Research Interests:

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 of real physical problems and expansion of simulation code by using Delft3D and Matlab.

Conference Presentations:

Conference Attendance:

Publications:

RESEARCH & PUBLICATIONS:

- 1. 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, Aerospace and Earth Sciences (AeroEarth 2014)*, Kuta,Bali, Indonesia. 2014, pp. 43-49. (Best Paper Award at The 2nd International Conference On Geological, Geographical, Aerospace & Earth Sciences (Aeroearth 2014)), *IOP Conf. Series: Earth and Environmental Science*, 2015, Vol. **23**, pp. 1-7.
- 2. 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.
- 2**
- 3. 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.
- 4. 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.
- 5. Sara 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. 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.
- 7. 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. 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*.
- 9. Sara Zergani**, (2020). Modeling of Angiogenesis in Tumor Blood Vessels via Lattice Boltzmann Method. (Publication stage: Publish as book chapter).
- 10. 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).
- 11. Sara Zergani**, (2020). Numerical solution for the Forced Korteweg-de Vries Equation with damping and external noise terms.

Faculty Administrative Experience

Community Services

Consultancy
Membership in Professional Bodies
Awards and Recognitions
AWARDS: BEST PAPER AWARD The 2 nd International Conferences On Geological, Geographical, Aerospace & Earthscience (Aeroearth 2014). EXCELLENT ACHIEVEMENT AWARD In The PhD Thesis (9 September 2015).