



Name and surname:

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Field of study:

Physics

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EDUCATIONAL BACKGROUND

- + PhD in Physical Oceanography from Science and Research Branch, Islamic Azad University, Tehran (Summer 2012)
- + Master of Science in Physical Oceanography from North Tehran Branch, Islamic Azad University, (Summer 2006)
- + Bachelor of Science in Physics from Science and Research Branch, Islamic Azad University, Tehran (Spring 2003)

HONORS:

- + Obtaining a doctoral scholarship from Science and Research Branch, Islamic Azad University,
- + first rank among the Master of Science in Physical Oceanography graduates
- + First rank in the admissions of the PhD examination
- + Scientific advisor to the top team of the first national competition of aquatic robot design competitions
- + Top Idea Generator of the first egg acceleration event
- + Scientific advisor of the top team of the first national aquatic robots' competition

RELATED EXPERIENCES:

- + Research Director of the Faculty of Marine Science and Technology from August 2013 to July 2016
- + Research Director of Zakaria Razi Laboratory Complex and Sheikh Baha'i since 2018
- + Internal Director of International Journal of Marine Science and Engineering(IJMASE) since 2010

- + Executive Committee Chairman of the of the First National Congress on Halal Food (1398)
- + Member of the Young and Elite Researchers Club
- + Main member of the board of directors of the laboratory complex (Zakaria Razi and Sheikh Baha'i) Science and Research Branch
- + Member of the jury of the first national competition of aquatic robots
- + Member of the jury of the Journal of Hydrophysics
- + Member of the interview committee of the PhD examination in physical oceanography from 2010
- + Member of the interview committee for the doctoral exam in the field of civil engineering of coasts, ports and marine structures
- + Member of the Journal Evaluation Commission
- + Member of Iranian Marine Science and Technology Association
- + Member of Iranian Acoustic and Vibration Association

COLLABORATION WITH SCIENTIFIC JOURNALS

- + Chairman of International Journal of Marine Science and Engineering (IJMASE) since 2020.
- + Executive Director of International Journal of Marine Science and Engineering (IJMASE) from 2010 to 2020.
- + Journal of Food Processing and Preservation reviewer since 2020.
- + Hydrophysics journal reviewer since 2012.
- + Journal of marine science and technology (Khorramshahr) reviewer since 2014.
- + Iranian Journal of Marine Technology reviewer since 2017.

COLLABORATION IN SCIENTIFIC EVENTS

- + Chairman of the Executive Committee of the First National Congress on Halal Food (2018)
- + Member of the jury of the First National Congress on Halal Food
- + Member of the Scientific Committee of the First National Congress on Halal Food
- + Member of the Policy Council of the First National Congress on Halal Food
- + Member of the Executive Committee of the first national competition for designing and manufacturing aquatic robots (2016-2017)
- + Member of the Scientific Committee of the first national competition for designing and manufacturing aquatic robots (2016-2017)
- + Member of the jury of the first national competition for designing and manufacturing aquatic robots (2017-2016)
- + Chairman of the Executive Committee of the Second National Congress on Halal Food (2021)
- + Member of the jury of the Second National Congress on Halal Food (2021)

- + Member of the Scientific Committee of the Second National Congress on Halal Food (2021)
- + Member of the Policy Council of the Second National Congress on Halal Food (2021)

CERTIFICATES

- + • NDT Level II UT (Ultrasonic Testing) method from the American society of Non-Destructive Testing
- + • NDT Level II PT (Liquid Penetrant Testing) method from the American society of Non-Destructive Testing
- + Shallow water acoustic tomography: Numerical simulation and field applications.
- + Environmental challenges of Persian Gulf and Oman Sea with sustainable management approach.
- + Health, Safety and Environment (HSE) workshop attending.
- + Good Laboratory Practice (GLP) workshop attending.

PATENTS:

- + FORMULATION OF SAFFRON AND A METHOD OF PREPARATION THEREOF, Ahari, Hamed; Anvar, AmirAli; Rahimian, Mahdi; Allahyaribeik, Sara; Moradi, Sima, US Patent, Patent Number: US 10,953,065B2, Application Number: 17/086,763.
- + FORMULATION OF SAFFRON AND A METHOD OF PREPARATION THEREOF, Ahari, Hamed; Anvar, AmirAli; Rahimian, Mahdi; Allahyaribeik, Sara; Moradi, Sima, PCT, Application Number: PCT/IB2020/061605.

ISI AND SCIENTIFIC RESEARCH ARTICLES

- + Nanoemulsion of saffron essential oil by spontaneous emulsification and ultrasonic homogenization extend the shelf life of shrimp (*Crocus Sativus L.*). (2021). *Journal of Food Processing and Preservation*, 45 (2), 1-9.
- + Calculating Relative Sound Velocities of Sea Salts by a New Method. (2009). *Asian Journal of Chemistry*, 21(8), 5833-5837.
- + Simulation of Waves on Boom and Oil Plume Rising using Smoothed Particle Hydrodynamics. (2020). *Journal of Applied Fluid Mechanics*, 13 (1), 39-54.
- + Internal gravity waves spectrum generated by a cylindrical body moving in a stratified fluid. (2020). *Journal of Applied Fluid Mechanics*, 13 (4), 1253-1262.
- + The impact of P/E ratio and price return on the stock market Bohemian quantum potential approach. (2020). *International Journal of Finance and Managerial Accounting (IJFMA)*, 5(18), 55-62.
- + Ultrasonic Waves Application in Sediments Determination. (2012). *Archives Des Sciences*, 65(8), 142-148.

- + Determination of sediments diameter using acoustic waves. (2013). International Journal of Marine Science and Engineering, 3(4), 169-174.
- + Analysis of liquids and chemicals costs in a sample port. (2014). International Journal of Marine Science and Engineering, 4(1), 1-5.
- + Materials performance assessment of protective layer of rubble mound breakwaters, southern coast of Iran. (2014). International Journal of Marine Science and Engineering, 4(2), 58-64.
- + Numerical study on current and cavitation around ship's propeller with and without energy saving device. (2016). International Journal of Marine Science and Engineering, 6(1), 8-18.
- + Effect of Thermocline Formation on Underwater Acoustic Waves Propagation in Persian Gulf. (2015). International Journal of Marine Science and Engineering, 5(1), 1-14.
- + Implementing Self-upending for lightweight Jackets in Persian Gulf. (2015). International Journal of Marine Science and Engineering, 5(2), 55-64.
- + Monitoring coastline changes in Amirabad Port by surveying coastline and sea level. (2016). International Journal of Marine Science and Engineering, 5(2), 93-98.
- + Analyzing Pressure Fields on Marine Current Turbine Blades by Cavitation Simulation via ANSYS Software. (2016). International Journal of Marine Science and Engineering, 6(1), 32-41.
- + The effects of boom on oil plume dispersion using smoothed particle hydrodynamics (SPH). (2018). Modares Mechanical Engineering (Tarbiat Modares University Press), 18(3), 29-37.
- + Investigating of clamp effects on fatigue damage in the fixed platforms riser. (2018). Research in marine sciences, 3(1), 245-258.
- + A quantum Model for the stock Market. (2020). Advances in Mathematical Finance and Applications, 5(5), 120-129.
- + Internal gravity waves spectrum generated by a hydrofoil body moving in a stratified fluid. (2020). Hydrophysics 5 (2), 33-42.
- + Experimental Study of Internal Waves Due to the Movement of a Cylindrical Body in a Density Stratified fluid. (1396). HYDROPHYSICS, 3 (1), 33-39.
- + Simulation of Circulation and the effect of oceanic meso-scale eddies on sound velocity profiles in the Persian Gulf by the ROMS model. (1398). Iranian Journal of Marine Technology, 6 (3), 113-127.

- + Estimation of extractable energy by creating artificial rip currents. (2019). *HYDROPHYSICS*, 5 (1), 73-85.
- + A study on the identification and modification of fish gelatin properties as a Halal source. (2019). *Journal of comparative pathobiology*, 105-112.

PUBLISHED BOOKS:

- + Research Methodology Hand Book. (2021). LAMBERT Academic Publishing.
- + Atlas of Food Microbiology. (2021). National Halal Research Center and Islamic Azad University.
- + Halal food production. (2019). Islamic Azad University Publishing Organization.
- + Research Methodology. (2019). Shahid Beheshti university, National Institute of Nutritional Research and Food Industry
- + Research Methodology in food science and technology (volume 4). (2021). Islamic Azad University (science and research branch), Ministry of Health and Medical Education.
- + Digital library of basic science (2019). Islamic Azad University.
- + production process of Iranian saffron stable emulsion Using ultrasonic probe homogenizer technology. (2020). Islamic Azad University Publishing Organization.
- + A review of new technologies in production of Iranian saffron nano-emulsions. (2020). Islamic Azad University Publishing Organization.

PARTICIPATE IN SCIENTIFIC EVENTS

- + sound speed calculation in sea using the coefficient matrix. (2007). Fourth Conference on Underwater Science and Technology, Malek-e-Ashtar University, Isfahan, Iran (Oral).
- + Calculating relative sound velocity in sea (2007). Fourth Conference on Underwater Science and Technology, Malek-e-Ashtar University, Isfahan, Iran (Oral).
- + determination of Special characteristics of bottom Sediments size using ultrasonic waves. (2010). The 9th International Conference on Coasts, Ports and Marine Structures, Tehran, Iran (Poster).
- + Better Understanding of Sea Shores and Globalization. (2012). International Scientific Conference on Education and Globalization, Tehran, Iran (Oral).

- + The effect of clamp in the vibration oscillations pipe riser fixed platforms. (2016). civil engineering, architecture and urban development, SHAHID BEHESHTI University, Tehran, Iran (oral).
- + Monitoring coastline changes in Amirabad port by surveying coastline and sea level. (2018). The 2nd International conference on urban management, civil Engineering and technology in modern architecture, Rome, Italy (oral).
- + Implementing the “self-upending concept” for the jackets in persian gulf with the new arrangement of buoyancy tanks. (2018). The 13th International Conference on Coasts, Ports and Marine Structures, Tehran, Iran (Oral).
- + The effect of thermocline formation and its thickness change on underwater acoustic waves propagation in the Persian Gulf. (2015). 17th Marine Industry Conference (MIC), Kish Island, Iran (Oral).
- + Investigation of the effect of jacket platform on oscillating vibrations of riser pipes (Case study: South Pars region). (2016). National Conference on Applied Research in New Horizons of Civil Engineering and Architecture, Bushehr, Iran (Oral).
- + The effect of the presence of eddies investigation on the propagation of underwater sound waves. (2016). The Second National Conference on New Marine Technologies, Imam Khomeini University of Marine Sciences, Nowshahr, Iran (Poster).
- + • Simulation of vortex currents around the foundations of the Persian Gulf Bridge. (2017). 7th International Conference on Offshore Industries, Sharif University of Technology, Tehran, Iran (Oral).
- + Analysis of cavitation pressure fields in horizontal axis offshore turbines. (2017). 7th International Conference on Offshore Industries, Sharif University of Technology, Tehran, Iran (Oral).
- + experimental method for Measurement of sedimentary sound loss rate in shallow water. (2017). Twelfth National Conference on Marine Science and Technology under the Twelfth Symposium on Advances in Science and Technology, Mashhad, Iran (Oral).
- + Investigation the tranquility of Shahid Zakeri Port in Qeshm and provide a solution to reduce unrest. (2017). 19th International Conference on Marine Industries, Kish, Iran (Oral).
- + Investigation of the effect of different factors on rip currents in an artificial channel with similar conditions as the Caspian Sea by numerical modeling. (2018). 20th Marine Industry Conference (MIC), Kish Island, Iran (Oral).

- + Oil quality control using ultrasonic testing. (2018). 4th National Congress of Basic Veterinary Sciences, Tehran, Iran (poster).
- + An overview of the identification and modification of fish gelatin properties as one of the Halal gelatin sources. (2019). First National Halal Food Congress, Tehran, Iran (Oral).

EXTRACURRICULAR RESEARCH PROJECTS

- + Executor of research project on the use of ultrasonic probe homogenizer technology in the production process of stable Iranian saffron emulsion (Research project No. 14555).
- + Executor of research project on modeling and risk assessment of effluents from refinery activities in the South Pars region on the shores of the Persian Gulf to South Pars (South Pars Gas Complex Company).
- + Project partner of research project, preparation and compilation of instructions for the use of oil dispersants in oil pollution control operations (Environmental Protection Organization)
- + Project partner in the research project, determination the optimal location of ship scrap in the Persian Gulf and the Sea of Oman (Environmental Protection Organization).
- + Project partner in the standard research project for ship sewage and balance water at sea (Environmental Protection Organization).
- + The main project partner in the research project, silver and copper nano-composite production by green synthesis method.
- + The main partner of the project in the research project of increasing the organic and microbial properties of Iranian saffron "Crocus sativus" using ultrasonic homogenizer method for nanoemulsion produced (research project No. 14559).
- + The main partner of the project in the research project of studying the physicochemical properties of nanoemulsions produced from Iranian saffron "crocus sativus" (research project No. 14557).