Shahriar Mansoorzaadeh

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Address: Isfahan, Iran

DoB: 1963-07-23
Marital Status: Married
Military Service: Served

Profile Summary

I am a faculty member of Isfahan University of Technology. I specialize in computational fluid dynamics (CFD) and experimental fluid dynamics (EFD). My main expertise is multiphase flows and I have used it in the field of designing and manufacturing wave energy converters.

Education

PhD in Computatinal fluid dynamics
Branch: multiphase flows
Institute/University: Imperial college of science technology and medicine
London, England
1994 - 1999

Master of Mechanical Engineering
Institute/University: Sharif University of Technology
Tehran, Iran
1988 - 1992

Bachelor of Mechanical Engineering
Institute/University: Isfahan university of technology
Isfahan, Iran
1983 - 1987

Work Experience

A faculty member of Isfahan University of Technology
Isfahan, Iran
August 2007 - Present

Manager of hydrodynamic group
Resereach institute for subsea science and technology/ Esfahan University of Technology
Isfahan, Iran
2014 - 2023

Head of Hydrodynamic Laboratory
Researach institute for subsea science and technology/ Esfahan University of Technology
Isfahan, Iran
2012 - Present

Scientific consultant in the field of hydrodynamics
Isfahan, Iran
May 2000 - July 2007

Skills

Computational fluid dynamics CFD software; Ansyss-CFX, Ansys_AQWA

Experimental fluid dynamics (Experiments in towing tanks)

Language

Persian : Proficient

English : Upper Intermediate

German : Elementary

Arabic : Elementary

Journal publications

Numerical and experimental study of the hydrodynamic coefficients and power absorption of a two-body point absorber wave energy converter, A. Rahimi , S. Rezaei, J. Parvizian, Sh. Mansourzadeh, J. Lund, R.Hssini, A. Düster
Publisher: Renewable Energy
October 2022
Link : https://doi.org/10.1016/j.renene.2022.10.103

Dimensional optimization of a two-body Wave energy converter using response surface methodology, S. Rezaei, A. Rahimi, J. Parvizian, Sh. Mansourzadeh, A. Düster
Publisher: Ocean Engineering
October 2022
Link : https://doi.org/10.1016/j.oceaneng.2022.112186

A rectified unidirectional rotary PTO for two-body wave energy converters, S. Rezaei, A. Rahimi, J.Parvizian, Sh. Mansourzadeh, A. Düster
Publisher: Ocean Engineering
July 2023
Link : https://doi.org/10.1016/j.oceaneng.2023.114507

Experimental and numerical study of a novel unidirectional mechanical power take-off system for two-body wave energy converters, S. Rezaei, A. Rahimi, J.Parvizian, Sh. Mansourzadeh, A. Düster
Publisher: Energy Conversion and Management
July 2023
Link : https://doi.org/10.1016/j.ecmx.2023.100385

A study on the performance of circular and rectangular submerged break waters using nun-uniform FGVT method, E. Jafarzadeh, A. Bohluly, A. Kabiri-Samani, Sh. Mansourzadeh
Publisher: Coastal Engineering Journal
February 2023
Link : https://doi.org/10.1080/21664250.2023.2170688

A new CFD method for determination of translational added mass coefficients of an underwater vehicle
Publisher: Ocean Engineering
November 2020
Link : https://doi.org/10.1016/j.oceaneng.2020.107857

Experimental modeling of the interaction between waves and submerged flexible mound breakwaters, Journal of Engineering for the Maritime Environment, E. Jafarzadeh, A. Kabiri, sh. Mansoorzadeh, A. Bohlouli
Publisher: Proceedings of the Institution of Mechanical Engineers Part M. Journal of Engineering for the Maritime Environment
2020
Link : 1 https://doi.org/10.1177/1475090220944775

Determination of Drag and Lift Related Coefficients of an AUV Using Computational and Experimental Fluid Dynamics Methods, E. Javanmard, Sh. Mansoorzadeh, A. Pishevar J. Mehr
Publisher: International Journal of maritime engineering.
December 2021
Link : https://doi.org/10.5750/ijme.v162iA2.1130

Hydrodynamic characteristic curves and behavior of flow around a surface-piercing propeller using computational fluid dynamics based on FVM
Publisher: Ocean Engineering
November 2019
Link : https://doi.org/10.1016/j.oceaneng.2019.106445

Hydrodynamic characteristic curves and behavior of flow around a surface-piercing propeller using computational fluid dynamics based on FVM, E. Javanmard, E.Yari, J. Mehr, Sh. Mansoorzadehd
Publisher: Ocean Engineering
November 2019
Link : https://doi.org/10.1016/j.oceaneng.2019.106445

A Computational Fluid Dynamics Investigation on the Drag Coefficient Measurement of an AUV in a Towing Tank, E. Javanmard, sh. Mansoorzadeh
Publisher: Journal of Applied Fluid Mechanics
May 2019
Link : 10.29252/jafm.12.03.29525

Evaluation of Moonpool Effects on Hydrodynamic Resistance of a Supply Vessel Using Experimental and Numerical Methods,M. shahabadi, A. shadlaghani, s. Mansoorzadeh
Publisher: International Journal of Maritime Technology
Link : http://dx.doi.org/10.18869/acadpub.ijmt.7.1

Experimental Study on Reflection Coefficient of Curved Perforated Plate, S. M.R Hodaei, M. Chamani, Sh.Mansoorzadeh, A.Kabiri-Samani and M. Moghim
Publisher: Journal of Marine Science and Application
November 2016
Link : https://doi.org/10.1007/s11804-016-1383-5

Calculation of Linear Damping Coefficients by Numerical Simulation of Steady State Experiments, Sh. Mansoorzadeh, A. shadlaghani
Publisher: Journal of Applied Fluid Mechanics
Link : https://doi.org/10.18869/acadpub.jafm.68.225.24342

An Investigation of Free Surface Effects on Drag and Lift Coefficients of an Autonomous Underwater Vehicle (AUV) Using Computational and Experimental Fluid Dynamics Methods, Sh. Mansoorzadeh, E.Javanmard
Publisher: Journal of Fluids and Structures
November 2014
Link : https://doi.org/10.1016/j.jfluidstructs.2014.09.001

Finite Element Simulation of Incompressible Flow Past a Heated/Cooled Sphere, S Mansoorzadeh, C.C. Pain, CR.E. de Oliveira, A.J.H. Goddard
Publisher: Int.J.Numer.Meth.Fluids
December 1998
Link : https://doi.org/10.1002/(SICI)1097-0363(19981030)28:6%3C903::AID-FLD746%3E3.0.CO;2-O

A Study of Bubbling and Slugging Fluidized Beds Using the Two-Fluid Granular Temperature Model, C.C. Pain, S Mansoorzadeh, CR.E. de Oliveira,
Publisher: International Journal of Multiphase Flow
March 2001
Link : https://doi.org/10.1016/S0301-9322(00)00035-5

Numerical Modeling of Gas-Solid Fluidized beds Using the Two Fluid Approach, Pain, C.C., Mansoorzadeh, S., de Oliveira, C.R., & Goddard, A.J.
Publisher: International Journal for Numerical Methods in Fluids
2001
Link : https://onlinelibrary.wiley.com/doi/pdf/10.1002/fld.132

A Numerical investigation of bubbling gas-solid fluidized bed dynamics in 2-D geometries, C.C. Pain, S. Mansoorzadeh, J.L.M. Gomes
Publisher: Powder technology
December 2002
Link : https://doi.org/10.1016/S0032-5910(02)00167-5

Numerical and Analytical Investigation on Accelerated motion of an Underwater Vehicle, A. Shadlaghani, M. Shahabadi, Sh.Mansoorzadeh
Publisher: International journal of Maritime Engineerng (JMT)
2013

Hydrodynamic Analysis of Autonomous Underwater Vehicle (AUV) Flow Through Boundary Element Method and Computing Added-Mass Coefficients,M. Shahbazi, sh. Mansoorzadeh, A. pishehvar
Publisher: International Journal of Artificial Intelligence and Mechatronics
2015
Link : https://www.ijaim.org/administrator/components/com_jresearch/files/publications/IJAIMIRC-858%20_final.pdf

Calculation of Linear Added mass Coefficients for a submerged vehicle Using Numerical and Analytical Methods, A. Shadlaghani, Sh. Mansoorzadeh
Publisher: 6th International Offshore Industries Conference
2015
Link : Conference,Tehran,https://civilica.com/doc/482659

Determination of a plunger type wave maker characteristics in a towing tank, s.m.r. hodaie, sh. mansoorzadeh, m.r. Chamani, s. m.beheshti maal
Publisher: International Conference on Coasts, Ports and Marine Structures
2010
Link : https://civilica.com/doc/256911

BOOK

Hydrodynamic coefficients and their measurement methods, Author: Dr Shahriar Mansoorzadeh

Projects

• Manager of the project "Extracting Energy from Sea Waves"
May 2023
Link : https://subseard.iut.ac.ir/en/lab/2126

• Manager of the project " Development of the AUV software simulator"

• Manager of the project ”Acquiring technical knowledge of hydrodynamic tests of surface and subsurface vessels through the design and construction of towing tank laboratory equipment.

• Manager of the project "Equipping existing AUV hardware to the acoustic modem system, IMU and camera"-

• Design and construction of a Planar Motion Mechanism (PMM) for measuring the hydrodynamic coeficcients of surface and subsurface vehicles

• Head of the Hydrodynamics Laboratory of the research institute for subsea Science and Technology

Teaching

FLuid Mechanics
Mechanical engineering department of Isfahan University of Technology

Water transfer systems
Mechanical engineering department of Isfahan University of Technology

Patents

Design and manufacture of a force measuring device in three directions with six degrees of freedom of movement, patent number: 64843

Design and construction of the towing tank carriage of hydrodynamic laboratory of research institute for subsea science and technology of IUT, patent number: 69010

Design and manufacture of a laboratory wave absorber with three degrees of freedom of movement, patent number: 69627