

Curriculum Vitae of Dr. Said Mazaheri

PERSONAL INFORMATION

Name: Said Mazaheri



Date of Birth: 1966

Sex: Male

Job Title: Assistant Professor & Head of Maritime Transportation & Technology Group, Transportation Research Institute

EDUCATION/QUALIFICATION

- 1991 BSc in Civil Engineering, University of Ferdowsi, Mashad, Iran
- 1993 MSc in Hydraulic Structures, Sharif University of Tech. Tehran, Iran
- 2003 PhD in Offshore Engineering, Newcastle University, UK

CERTIFICATE/AWARD

- 1999 PhD Scholarship Award, Ministry of Science, Research and Technology, Iran
- 2003 Uk Energy Institute Industrial Contribution Award, EI, UK
- 2006 1st Stage of Iranian Commercial Ports Master Plan, Training Course, Port Training Institute GmbH (HPTI Hamburg),
- 2007 Marine Pipeline Engineering, ASME & CLARION, Houston, TX, USA

PROFESSIONAL MEMBERSHIP & SCIENTIFIC ACTIVITIES

- 1994 Chartered Civil Engineer
- 1995 Member of Iranian Hydraulic Associations
- 1998-99 Member of the Scientific Committee for Preparing The Iranian Standards for Ports and Offshore Structures
- 2003 Member of Energy Institute (Former Institute of Petroleum), UK
- 2003 Member of Institute of Marine Engineering, Science &Tech, UK
- 2004 Member of Society for Underwater Technology (SUT), UK
- 2005-now Member of Board of IRANAME (*Iranian Association of Naval Architects and Marine Engineers*)
- 2006-now Member of Board of Iranian Transportation Engineering
- 2006-now Scientific Advisor of the Iranian Journal of Marine Engineering
- 2006 Member of the Scientific Committee of the 8th Iranian Marine Industry Conference
- 2006 Member of Scientific Committee of the 7th International Conference on Ports and Marine Structures (ICOPMAS06)
- 2006-07 Scientific Secretary of the 2nd Offshore Industry Conference
- 2006-07 Scientific Secretary of the 1st Pipe Tech, Conference
- 2006-now Founder & Board of Trustees, Iranian Classification Society
- 2006-now Member of the Maritime Research Council
- 2007 Board of Executives, The 1st Conference on Project Procurement System
- 2008 Board of Executives, The 2nd Conference on Project Procurement System
- 2008 Member of Scientific Committee of the 8th International Conference on Ports and Marine Structures (ICOPMAS08)
- 2008 Member of Permanent standard committee of Port, Coast and Offshore Structures
- 2009 Scientific editor, Journal of Marine Engineering

TEACHING AND ACADEMIC EXPERIENCES

Teaching Activities

- 2008 - now Invited Lecturer, College of Civil Engineering, **Iran University of Science & Technology**, Tehran, Iran

Design Offshore Platforms (MSc Course)

Marine Geotechnics (MSc Course)

Fabrication & Installation of Marine Structures
- 2006-2007 Invited Lecturer, Faculty of Mechanical Engineering, **Sharif University of Technology**, Tehran, Iran

Marine Hydrodynamics (MSc Course)

Engineering Mechanics –Statics (BSc Course)

Design Offshore Platforms (MSc Course)

- Sep. 2005- Jan 2007 (3 semesters) Invited Lecturer, Faculty of Marine Technology, **Amirkabir University of Technology**, Tehran, Iran

Marine Geotechnics (MSc Course)

Fabrication and Installation of Offshore Structures (MSc Course)

- 2000-2003 Co-Lecturer and demonstrator, School of Marine Science & Technology, **Newcastle University, UK.**

Maritime Transportation & Economics

Advanced Offshore Design (MSc Course)

Offshore Design (BSc Course)

Fluid-Structure Interactions (MSc Course)

Offshore Installations (MSc & BSc Courses)

- 1998-1999 Elmo Farhang University, Tehran, Iran

Hydraulics (BSc Course)

Referee (External Examiner) of the following MSc Projects

- 2007- Wave Interaction with Spar Platforms, Faculty of Marine Technology, Amir Kabir University
- 2007- 3D Current Simulation in Near Shore Area, School of Civil Engineering, Iran University of Science & Technology
- 2007- Design of Seakeeping Test in the Sea, Mechanical Eng. Dept. Sharif University Of Technology,
- 2006- Evaluation of the usage of rock and rubble mound materials in rubble-mound breakwaters constructed in the northern part of the Persian Gulf (Tarbiat-Modarras University
- Evaluation of pile performance in marine structures due to earth quake loading
- Non-linear dynamic analysis of jack-up with considering soil-spudcan jack-up interaction
- Dynamic analysis of marine risers
- Fatigue analysis of jacket type platforms using spectral method
- Evaluation of the dynamic compaction methods for the lands around the northern part of the Persian Gulf.
- Hydrodynamic Analysis of Multi-body Floating Pier in Waves

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Referee of the following Journal Papers

- A Comparison between Limestone Performances Used in Breakwaters in the Southern Coasts of Iran and the Criteria for the Use of Rock in Coastal Structures, Journal of Transportation Research
- Research in Stability of Reshaping Breakwaters Based on Experimental Results, Journal of Marine Engineering
- Investigation of the Mechanism of Scouring and Effect of Attack Angle on Control of Local Scour Around Nosed Rectangular Pier, Journal of Transportation Research
- Stochastic Nonlinear Dynamic Analysis of TLP under Wave Loads, Journal of Marine Engineering
- Probabilistic-based Methods for Jacket Type Offshore Platforms in Persian Gulf Subjected to Wave Loading, Journal of Marine Engineering
- Analysis of Offshore Pipeline Allowable Free Span Length, International Journal of Civil Engineering

- Analyzing Marine Pipelines due to the Propagation of Seismic Waves, Journal of Marine Engineering
- Path Planning of Underwater Robots Using Genetic Algorithm and Simulation of Controller for Trajectory Planning, Journal of Marine Engineering
- Optimization of Mooring Pattern of Floating Structures Using Simple Genetic Algorithm, Journal of Marine Engineering
- Influence of Drillship Roll on the Drillpipe Fatigue under Variable Amplitude Loading, Journal of Marine Engineering
- An Analytical-Approximated Method for Calculation of Semi-Submersibles Responses (Part I- Theoretical Concepts), Journal of Marine Engineering
- Motion Analysis of Abouzar 1200 Craned-Barge under the Operation Condition, Journal of Marine Engineering
- Investigation of the Effect of TLP's Hull Geometry on the Platform Response Under Waves, Journal of Marine Engineering

Supervision of MSc Projects

- Evaluation of Captive Boat Impacts on Iran-Alborz Semi-sub for Collision Scenarios
- LNG Carrier berthing and unberthing simulation in shallow water area

SKILLS Computer

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SKILLS

- Fortran
- MATLAB
- Labview
- AQWA (Seekeeping Software)
- SAMRES and SAMMOOR (Seekeeping and Mooring Analysis Software developed by the author)
- Neurosolution (Neural Network Software)
- 4Projects (Extranet- Management Project)
- Mike21(2D Hydrodynamic Software)
- Mike11(1D Hydrodynamic Software)
- CAD
- MS Office XP, Unix, Frontpage, Dreamwaver, Flash, Endnote, Mailbase, Webmaster,

Language

Fluent in English and Farsi

Others

Research Interests

- Seakeeping of Floating Offshore Vehicles & Structures
- Wave Hydrodynamics
- Offshore Structures
- Dynamic of Mooring Systems
- Application of Artificial Neural Networks in Ocean and Offshore engineering
- Marine Hydrodynamics
- Hydrodynamics of Ports and Harbors
- Port Engineering and Management
- Pipeline Engineering
- Marine Geotechnics
- Offshore Installation and Fabrication
- Marine Transport and Economics

Industry

- Project Management of Complex Projects
- LNG Export Terminals
- Oil and Gas Plants
- Marine Pipelines
- Offshore structures
- Breakwaters
- Ports and harbors
- Quays, wharfs and Jetties

Last updated on 4 January 2009

SKILLS

- Field measurements
- Physical models
- Supervision of construction projects
- Tendering documents

Teaching

- Offshore Design/Advance Offshore Design
- Fluid Structure Interaction
- Hydrodynamics
- Distance Learning (Blackboard)
- Computational Fluid Dynamics
- Offshore Platforms
- Marine Geotechnics
- Pipeline Engineering
- Drilling Engineering
- Fabrication and Installation of Offshore Structures

PROFESSIONAL EXPERIENCES

December 2005-Now

- Assistant Professor of Offshore Engineering & Head of Maritime Transportation & Technology Group, Transportation Research Institute

Responsible for defining and carrying out research projects in the field of:

-Marine Transport Infrastructures (Ports, Harbors, Jetties, Dolphins, Piers, Buoys, Platforms,)

-Port & Coastal Engineering & Management

- Mathematical and Physical Modeling of Ports and Waterways

- Field Measurements

- Marine Pipeline Engineering

PROFESSIONAL EXPERIENCES

- Marine Environmental Engineering
- Safety of Ports and Waterways
- Maritime Standards, Rules, Regulations and Conventions
- Fleets and Navigation
- Navigation Routs and Transit Cooridors

October 2004-Now

- Ports & Offshore Technology Group Director, TNA, Tehran, Iran

Responsible for doing all of the projects carried out or being carried out in the field of Oil & Gas, Offshore Structures, Port Engineering, Master Plan Studies, Monitoring & Modeling, and Advance Supervisions of Onshore and Offshore Structures. The highlights are:

- Supervision of Shahid Rajaei Port Complex, Phase II
- Engineering, Procurement and Construction (EPC) of the Phase 9 & 10 Outfall Pipeline
- Iran LNG Package III, Engineering Supervision
- Master Development Plan of TOMBAK LNG Plants (Joint with Sofregaz)
- Mahshar Import/Export Oil Terminal Revamp Project (Basic Engineering), NIOEC
- Design of Mahshar Jetties and Industrial Facilities (Detail Engineering), NIOEC
- Master Plan of Iranian Commercial Ports (Phase I, Strategic Planning), PSO
- Master Plan of Iranian Commercial Ports (Phase II, Port Plans), PSO
- The Development of South Pars Water Intake, POGC
- The Development of Pozm Fishery Port (Basic and Detail)

October 2004-Dec 2005

- **Deputy of Transit Department, Ministry of Road and Transportation**

July-October 2004

- Offshore Engineer Specialist, Lloyd's Register EMEA, Aberdeen

Responsible for checking and correcting the Bluewater design and calculations for the

PROFESSIONAL EXPERIENCES

200,000 dwt offshore platform in South of Africa

Jan.-June 2004

- Visiting Researcher (Post-doc), School of Marine Science & Technology, Newcastle University

Responsible for applying the response-based method for designing the mooring robes and cables of offshore platforms

Feb 2001-Oct. 2004

- IT Help Desk Advisor, ISS, Newcastle University

Responsible for Operating the IT facilities within the University Campus

Jun.-Dec. 2003

- Researcher, Tyne Marina Project (East Holborn Development, South Shields), School of Marine Science & Technology, Newcastle University

Responsible for designing and implementing the physical model of the marina in order to optimize the development plan based on the hydrodynamic aspects and ship maneuvering requirements.

Feb. 1997 – Aug. 1999

- Director, Ocean Engineering Group, Water Research Centre , Tehran

Responsible for carrying out more than 20,000,000,000 Rials consultancy and research projects in the maritime fields such as:

Physical & Mathematical modeling of Pars Service Port's Breakwaters and Berthing Structures

Feasibility Study of Fabrication Yards in Free Zones

Breakwater Design of Pars Service Port

Sedimentation Study in Pozm Fishery Port

Pars Water Intake

Hydrodynamic Monitoring of Khark Sea Pipeline

PROFESSIONAL EXPERIENCES

Development of Babolsar Fishery Port

Met-Ocean Measurements of Bandar Imam & Khor-e-Mosa Basin and Water Ways

Met-Ocean Measurements of Busher Bay

Sedimentation Study of Bris Port

Sept. 1995- Feb. 1996

- Advisor, Port and Shipping Organization, Tehran

Project manager of designing the Iranian Met-ocean stations in Persian Gulf, Oman sea and Caspian sea

Technical reviewer and advisor of various consultancy projects e.g. Traffic Saheli Port, Lengheh Development Plan, Anzali's Quays Extension Plan, Anzali's Entrance Improvement Project, Noshahr Development Plan and Amirabad Complex Port

Senior Advisor to prepare a durable concrete design for construction works adjacent to coastal areas of Persian Gulf

Sept. 1993- Feb. 1997

- Senior Engineer, Sazeh Pardazi Iran Consulting Engineers, Tehran

Project Manager of Freidonkenar Complex Port (Phase I, II and III)

Project Manager of Kangan Commercial Port (Phase I, II and III)

Project Manager of Anzali Fishery Port (Phase I, II and III)

Project Manager of Designing the Shrimp Breeding Basins and Channels in Busher

Project Manager of Bahmanshir Mathematical Model

Project Manager of Daylam & Ghenave Bay Treatment

Hydrodynamic Engineer of Kongh Development Port

Design Engineer of Jask Fishery Port

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PROFESSIONAL EXPERIENCES

Design Engineer of Abu Musa Development Port

Design Engineer of Salakh Fishery Port

June 1991- Sept.1991

- Part time Engineer, Abghir Consulting Engineers, Tehran

Design Engineer of several Earth Filled Dams in Gillan & Mazandaran Provinces

Sept. 1990- Mar. 1991

- Part time Engineer, Mahab Ghods Consulting Engineer, Tehran

Design Engineer of Abshine Dam in Hamadan

PUBLICATIONS

A- BOOKS

2007, **Some Points on Pile Installations Around Adjacent structures** (in Persian Language), Under Press

2007, **Dredging Design & Practice**, Scientific Editor, TNA, Tehran, Iran

2006, **Ports and Marine Structures Design Manual; "Loading and Design Consideration"**, No. 300-1, Management and planning Organization and Transportation Research Institute, Tehran, Iran

2006, **Ports and Marine Structures Design Manual; "Breakwaters and Coastal Protection Structures"**, No. 300-5, Management and planning Organization and Transportation Research Institute, Tehran, Iran

PUBLICATIONS

2006, **Ports and Marine Structures Design Manual; "Berthing Equipment and Structures"**, No. 300-6, Management and planning Organization and Transportation Research Institute, Tehran, Iran

B- PAPERS

- Noori, S., Mostafa Garabaghi, A.H., Mazaheri, S., **Analysis of Ship Collision with a Semi-Submersible Platform**, The Proceedings of the Eighth (2008) ISOPE Pacific/Asia Offshore Mechanics Symposium, Bangkok, Thailand, November 10-14, 2008
- Hesabi, A.M., Alavi Mehr, J., Seif, M.S., Mazaheri, S., Panahi, R., **Statistical study on small active cargo and passenger vessels in the world**, 10th Conference on Marine Industries, 28-30 Oct. 2008, Abadan-Khoramshahr, Iran
- Noori, S., Mostafa Garabaghi, A.H., Mazaheri, S., **Study the strengthened shell behavior of a semi-submersible column due to lateral impact load**, 10th Conference on Marine Industries, 28-30 Oct. 2008, Abadan-Khoramshahr, Iran
- Noori, S., Mostafa Garabaghi, A.H., Mazaheri, S., **Finite element modeling of collision between ship and Iran Alborz Semi-submersible**, 8th International Conference on Port, Coast and Offshore Structures, Tehran, Iran
- Mazaheri, S., Daraii, J., 2008, **The Three-step Installation Model of Marine Poly Ethylene Pipeline in Shallow Coastal Water Area**, 8th International Conference on Port, Coast and Offshore Structures, Tehran, Iran
- Mazaheri, S. 2008, **Navigational Safety Aspects in Restricted Approach channels and Waterways**, International Conference on Safety and Operations in Canals and Waterways, 15-16 Sept. 2008, Glasgow, Scotland, UK
- Mazaheri, S. 2008, **Hydro thermodynamic Modeling of an Outfall System Discharging into the Near Shore Area Considering the Environmental Conditions**- Paper No. OMAE2008-57035, the 27th International Conference on Offshore Mechanics and Arctic Engineering (OMAE08), Estoril, Portugal
- Mazaheri, S. 2008, **Engineering Aspects of Using HDPE Pipe for the Refinery Outfalls Running into the Sea Water Depth**- Paper No. OMAE2008-57029 , the 27th International Conference on Offshore Mechanics and Arctic Engineering (OMAE08), Estoril, Portugal
- Rasouli, M., Taghvaei, S & Mazaheri, S., 2007, **Oil Spill Clean up from Sea by Sorbent Materials**, the 9th Marine Industry Conference, Noor, Iran
- Aziz Jalali, A and Mazaheri S. , **Evaluation of the ocean mathematical models**, the 9th Marine Industry Conference, Noor, Iran
- Karimirad, M. and Mazaheri, S., 2007, **Design of SBMs in Persian Gulf**, the 2nd Offshore Industry Conference, Tehran, Iran.
- Mazaheri, S. and Sabouri, Z., 2007, **How to Increase the Capacity of Sea Water Intake**, 26th International Conference on Offshore Mechanics and Arctic Engineering (OMAE07). ASME, USA
- Mazaheri, S., 2006, **The Usage of Artificial Neural Networks in Hydrodynamic Analysis of Floating Offshore Platforms**, Journal of Marine

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PUBLICATIONS

- Engineering, Vol. 3 No. 4 pp 1E-13E, IRANAME
- Mazaheri, S. and Sabouri, Z., 2006, **Mathematical model of South Pars Water Intake**, pp 107, ICOPMAS06, Tehran, Iran
 - Mazaheri, S. and A. Izadparast, 2006, **Navigation Simulation in Mahshar Estury (Entrance Channel)**, pp 170, ICOPMAS06, Tehran, Iran
 - Mazaheri, S. and Gholbahar, 2006, **A method for the repairing an old oil jetty, case study, Mahshar Oil Terminal**, pp 219, ICOPMAS06, Tehran, Iran
 - Mazaheri, S., 2006, **A simple method for calculating responses of a turret-moored FPSO in shallow water areas**, World Maritime Technology Conference (WMTTC), 6-10 March 2006, London, UK .
 - Mazaheri, S., 2006, **Mooring load Analysis of a moored Tanker in a steady current**, Accepted for the Journal of Marine Structures, Elsevier.
 - Mazaheri, S. and Downie, S. J., 2005, **Response-based method for determining the extreme behavior of floating offshore platforms**, Journal of Ocean Engineering, Vol 32/3-4 pp 363-393, Elsevier
 - Mazaheri, S. and Incecik, A., 2004. **Predicting the maximum mooring force of a moored floating offshore structure**, 23rd International Conference on Offshore Mechanics and Arctic Engineering (OMAE04). ASME, Vancouver, British Columbia, Canada, pp. 2004-51245.
 - Valentine, E.M., Downie, M.J., Mazaheri, S. and Koh, A., 2003. **East Holborn dock marina hydraulic model study**, School of Civil Engineering and Geosciences & School of Marine Science and Technology, Newcastle University, Newcastle upon Tyne, UK.
 - Mazaheri, S., Mesbahi, E., Downie, M.J. and Incecik, A., 2003. **Seakeeping analysis of a turret-moored FPSO by using artificial neural networks**, 22nd International Conference on Offshore Mechanics and Arctic Engineering (OMAE03), Cancun, Mexico.
 - Mazaheri, S., 2003. **Response-based analysis of an FPSO due to arbitrary wave, wind and current loads**. PhD Thesis, University of Newcastle, Newcastle upon Tyne, Various paging pp.
 - Mazaheri, S., 2002. **The development of second-order loads and motions of an FPSO as a part of response-based approach**, 1st PG Research Conf. Dept. of Marine Tech., Newcastle University, Newcastle upon Tyne, UK.
 - Mazaheri, S., 2000. Response-based analysis of floating offshore structures. MPhil-PhD transfer report Thesis, Newcastle University, Newcastle upon Tyne, 20 pp.
 - Mazaheri, S. and Incecik, A., 2000. Response-based analysis of Floating Offshore structures (FOS) in Persian Gulf, 4th International Conference on Coasts, Ports and Marine Structures. PSO, Bandar Abbass, Iran, pp. 559.
 - Mazaheri, S., 1999. The application of mathematical models in wave studies, 1st Workshop of Wave Predictions. Hydraulic Association, Tehran University, Tehran, Iran.
 - Mazaheri, S., 1998. The application of hydrodynamic mathematical models in designing and optimising the layout of South Pars Port, 3rd International Conference on Coasts, Ports and Marine Structures, Amirkabir University, Tehran.
 - Mazaheri, S. and Darabinia, F., 1998. Comparison between SMB and OSW models for predicting deep water waves in Persian Gulf, 3rd International Conference on Coasts, Ports and Marine Structures, Amirkabir University, Tehran, pp. pp 72-83.

PUBLICATIONS

- Mazaheri, S., 1997. Tidal currents in Persian Gulf, 1st Hydraulic Conference, Kaje Nasir University, Iran.
- Mazaheri, S., 1996. Analysing the hydraulic behaviour of Bahmanshir River, 4th Seminar on River Engineering, Ahvaz University, Ahvaz
- Mazaheri, S., 1995. Measurements of ocean parameters in port designing projects. Journal of Omran-e-Sharif(18): 4.
- Mazaheri, S., 1994. Modelling and optimising the layout of Kong Breakwaters, 2nd Workshop on Marine Structures, Sharif University of Technology, Tehran.
- Mazaheri, S., 1993. The effects of waves and currents on sedimentation in navigation channels (case study: determining the sediment rate in Bahmanshir Access Channel). MSc Thesis, Sharif University of Technology, Tehran, Various paging pp.