

CURRICULUM VITAE

Name: Majid Jandaghi Alae

Nationality: Iranian

Date of Birth: 1960

Address: No. 6, Azadegan Boulevard, Sheikh-Bahae Jonoubi Ave., 1437615613 Tehran- Iran

Tel: +98(21) 8801 5040, 8801 5060

Fax: +98(21) 8802 9956

Mobile: +98 (0) 91 2106 1423

E-mail: majid.jandaghi@gmail.com, mja@ptpco.com

WEB: www.ptpco.com

ACADEMIC AND PROFESSIONAL ACHIEVEMENTS

A) EDUCATION

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| 1998 | Ph.D. in Coastal Oceanography, The University of Western Australia, Perth-Australia. |
| 1990 | M.Sc. in Hydraulic Structures Engineering, Amir Kabir University of Technology, Tehran-Iran. |
| 1989 | Training Course in 'Port & Harbour Engineering', Institute of International Co-operation Agency, Japan. |
| 1985 | B.Sc. in Civil Engineering, Amir Kabir University of Technology, Tehran-Iran. |

B) PROFESSIONAL ASSOCIATIONS

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| 2002- present | Member of FIDIC |
| 2012- 2017 | Member of Directing Board for ICOMSEA, Iranian Coastal & Marine Structural Engineering Association |
| 2007- present | Member of Iranian Hydraulic Association |
| 2003- 2013 | Member of Iranian National Committee for Oceanography, IOC-UNESCO. |
| 1999-present | Member of the Paper Selection Committee of bi-annual International Conf. on Ports, Coasts and Marine Structures, ICOPMAS 2004 |

2002-2003	Member of the Paper Selection Committee of Sixth International Conference on Coastal and Port Engineering in Developing Countries, COPEDEC VI
2001-2002	Secretary of the Conference and head of Paper Selection Committee of the Fifth International Conference on Ports, Coasts and Marine Structures, ICOPMAS '2002
1999-2000	Secretary of the Conference & Chairman of the Organizing Committee of International Conference on Ports, Coasts and Marine Structures ICOPMAS '2000
1999-2000	Member of the Scientific Committee of ICOPMAS '2000
1998-2002	Head of the Committee for technical evaluation of proposed maritime projects, Ports and Shipping Organization (P.S.O)
1999-2002	Representative of the Ports and Maritime Organization in Iran in Supreme Council for Oceanography
1999-2002	Representative of the Ports and Maritime Organization in Iran in National Committee of Oceanography
1999-2003	Representative of the Ports and Maritime Organization in Iran in CASPCOM, Regional Cooperation (in Marine and Meteorology) in the Caspian Sea.
1999-2000	Member of the Scientific Committee for preparation of the Iranian Marine Structures Code (Sections for Breakwater and Shore Protection).
1997-98	Head of the Organizing Committee of the "3 rd International Conference on Coasts, Ports and Marine Structures, ICOPMAS '98
1997-98	Member of Scientific Committee of ICOPMAS '98

C) TEACHING EXPERIENCES

1. Teaching Courses

- Principals of Port Design and Coastal Engineering at faculty of civil engineering- Amir Kabir University of Technology (AUT).
- Fluid Mechanics 200 & 300 Tutorial, University of Western Australia (UWA).
- Beach Deformation-Tutorial, UWA.
- Fluid Mechanics, faculty of civil and environmental engineering, AUT.
- Advanced Hydraulics, faculty of civil and environmental engineering, AUT.
- Coastal Engineering, faculty of civil and environmental engineering, AUT.
- Port Planning, faculty of civil and environmental engineering, AUT.

2. Academic Supervision

(Co-Advisor) M. Bali “*Secondary Cirulation due to Flow Curvature Around Large Obstacles*”, Ph.D. candidate, Faculty of Civil Engineering, AmirKabir University of Technology, Tehran 2013-2018

(Co-Advisor) M. Allahyar “*Wave Prediction Using Satellite, Meteorological Information, Mathematical Models and Direct Measurement and Camparisin Between them (CHABAHAR Port)*” (in Persian) M.Sc. thesis, Faculty of Engineering, University of Tehran, 2002

(Co-Advisor) P. Rezaee Moghaddam “*Study on Wave-Groundwater Interaction Effects on Beach Profile Changes*” (in Persian) M. Sc. Seminar, Faculty of Civil Engineering, KNT University of Technology, 2002

(Advisor) A. Dastgheib “*Numerical Study of Interaction Between Flow Curvature Induced Secondary Circulation (FSCS) and Sea Bed Case Study : Shahid Rajae Port Complex, Bandar Abbas, Iran*” (in Persian) M.Sc. thesis, Amir Kabir University of Technology, Tehran, Iran, 2001

D) TECHNICAL EXPERIENCES

2015-2020 Project manager of Monitoring and numerical simulation of dominant Met-Ocean Phenomena in North-Western region of the Persian Gulf including Extensive Field Observations and Numerical Hindcast of Wind, Waves, Currents and Sediment Transport. Funded by Ports and Maritime Organization (PMO).

20-2009 Technical advisor for design of Methanol Jetty in Busher Province

2012-2015 Project manager of Monitoring and numerical simulation of dominant Met-Ocean Phenomena in the Caspian Sea, Extensive Field Observations and Numerical Hindcast of Wind, Waves, Currents and Sediment Transport. Funded by PMO.

- 2012-2014 Advisor to the teamwork for design of 20 small fishery-commercial ports, along the Persian Gulf
- 2009-2011 Member of the committee for preparing The Guidelines for Design of Small Craft Harbors, for Iranian Coastlines, issued by Plan and Budget Organization, Iran.
- 2009-2011 Member of the technical committee for design of shelter for small fishery boats in Dayyer, Buser Province
- 2008-2009 Head of Design teamwork for Master-plan and detailed design of Freidon-kenar Commercial port, located along the Caspian Sea
- 2008-2009 Technical advisor for design of Methanol Jetty in Buser Province (for berthing of 40,000 DWT Methanol Carriers)
- 2007-2009 Head of the teamwork for Design of Ramsar Recreational Port
- 2006-2007 member of teamwork for study on sediment transport in Imam Port using field data and numerical modeling
- 2006-2007 Head of teamwork for port planning and design of Hormoz Passenger Port
- 2005-2006 Head of teamwork for design of passenger quay in Genaveh Port
- 2004-2005 Head of teamwork for design of berthing dolphins for 50,000 DWT bulk carriers Sarooj Jetty, Kangan, Iran.
- 2003-2005 Head of teamwork for design of Aftab Port, Gorzeh Iran.
- 2002-2003 Member of advisory team for study on hydrodynamics and sedimentation in Urmieh Lake
- 1998-2002 Head of advisory team for the study on sedimentation in Buser Port- Iran
- 1998-2002 Head of advisory team for the study on sediment transport in Imam Port,
- 2001-2002 Head of advisory team for the study on sedimentation in Amirabad Port,
- 1998-2002 Head of advisory committee for preparation of Coastal Engineering Database
- 1990-2002 Design and Development of Information Management Plan for Iranian Ports
- 1990-2002 Project manager for design of the Measurement Network for Parameters
- 1992 Project manager for design of Bahonar Fishing Harbour
- 1992 Design of repair for rubble-mound breakwater in Abumosa Port
- 1990-91 Repair design of rubble-mound breakwater of Kangan Port
- 1990 Design of seawall for adjacent shores to Buser Commercial Port
- 1989 Design of a concrete ro-ro jetty in Bahonar Port
- 1988 Design of repair and improvement of Breakwaters, Anzali Port.
- 1987 Design of repair for the quay concrete piles in Buser Commercial Port,
- 1987 Design of small-craft jetty for Anzali Port,

- 1987 Design of mooring dolphins for Busher Commercial Port
- 1987 Study on dredging in stiff seabeds, Qeshm Port
- 1986 Design of concrete tower for different light house, for commercial ports.
- 1986 Design of steel Structures of Light Tower, for small ports.
- 1986 Design control of port layout and marine structures, Ramin Fishing Harbour
- 1986 Design control of port layout and marine structures, Pozm Fishing Harbour
- 1986 Design control of port layout and marine structures, Beris Fishing harbour
- 1986 Development of a computer model for structural analysis, based KANI Method

E) MANAGEMENT EXPERINCES

- 2002-18 Pouya Tarh Pars Consulting Engineers, Director-Technical Department
- 1998-02 General Director of Coastal Engineering Dept., Ports & Shipping Organization of Iran, (P.S.O).
- 1989-92 General Director of Design and Supervision Dept., (P.S.O),
- 1987-89 Head of Design Office, (P.S.O)

F) RESEARCH ACTIVITIES

- 2005-07 Study on improvement of floating concrete pontoons in coastal areas with high tidal-range
- 1993-98 Study on interaction of coastal flows and large obstacles (Island Wake)
- 1988-91 Investigation on Sea Water Chemical Properties for Iranian Coastal Seas
- 1989-90 Study on Steel Structures' Corrosion in Marine Environment, the Persian Gulf

G) HONORS AND AWARDS

- 1993 Ph. D. Scholarship Award from Ministry of Culture and Higher Education of Iran

H) PUBLICATIONS

Books:

- **Jandaghi Alaei, M.**, "Coasts, Ports and Marine Structures". Ports and Shipping Organization, 2004.

Papers:

- Ranjbar M.H., **M. Jandaghi Alaei**, M. Nazar Ali, (2019) “A modeling study of the impact of increasing water exchange rate on water quality of a semi-enclosed bay”. Journal of Ecological Engineering, Vol. 136, P. 177-184.
- Bali M., M. Kolahdoozan, A. R. Zarrati **M. Jandaghi Alaei**, (2019) “Vertical velocity in rectangular channel bends: numerical study and development of a prediction formula”, Journal of the Brazilian Society of Mechanical Sciences and Engineering, 14:489.
- **Jandaghi Alaei M.**, M.H. Moeini, E. Jafari, H. Khalili, M.H. Nemati, A. Khaleghi (2018) “Numerical simulation of the sea water intrusion and flow regime in Arvand river” 13th International Conference on Coasts, Ports and Marine Structures (ICOPMAS), Tehran, Iran.
- Moeini M.H., Jafari E., Bali M., **Jandaghi Alaei M.** and Pattiaratchi C. (2016) “Simulation of the sea water circulation and coastal currents in the Caspian Sea”, 12th International Conference on Coasts, Ports and Marine Structures (ICOPMAS), Tehran, Iran.
- Hamzeloo S., Moeini M.H., **Jandaghi Alaei M.**, (2016), Simulation of the surface wind field and wave winds over the Oman Sea. Poster European Geosciences Union, (EGU), Vienna Austria.
- Jafari, E., Moeini, M.H., **Jandaghi Alaei M.**, Nazarali, M., Baali, M., (2016). Sea water temperature observation and simulation in the Caspian Sea, ICOPMAS conference, Tehran, Iran.
- **Jandaghi Alaei M.**, Jafari E. and Bali M. (2015) "Coastal currents in the Caspian Sea- Astara & Anzali", 7th Short Course/Conference on Applied Coastal Research (SCACR), Florence, Italy.
- Jafari E., Moeini M.H., **Jandaghi Alaei M.**, Pattiaratchi C. (2014) "Numerical simulation of the density currents in the Caspian Sea", 11th International Conference on Coasts, Ports and Marine Structures (ICOPMAS), Tehran, Iran.
- Jafari E., **Jandaghi Alaei M.**, Pattiaratchi C., Nemati M.H., Farhand A., (2014) "Evaluation of the ECMWF interim wind data for numerical wave hindcasting in the Caspian Sea", The 34th International Conference on Coastal Engineering (ICCE), Seoul, Korea.
- Kazemi A., Bardideh A., **Jandaghi Alaei M.**, (2014) “ A Study on the Settlement of Nakhle-Nakhoda Breakwater and the Applied Solution”. Proceedings of ICOPMAS’14. Pages 572-575.

- NazarAli M., **Jandaghi Alae M.**, Pattiaratchi C. (2014) “ Estimation of Atmospheric Pressure Anomaly Using Accoustic Doppler Current Profiler (ADCP) ”. Proceedings of ICOPMAS’14. Pages 281-284.
- Jaafari M., Moeeni, M. H., **Jandaghi Alae M.**, Pattiaratchi C. (2014) “ Numerical Simulation of Density Currents in the Caspian Sea”. Proceedings of ICOPMAS’14. Pages 77-79.
- Moeeni, M. H., Hamzeloo S., **Jandaghi Alae M.**, Pattiaratchi C. (2014) “ Simulation of Surface Wind Field Over the Caspian Sea for Using in Hydrodynamic Models”. Proceedings of ICOPMAS’14. Pages 100-104.
- Abdolali, A., Kolahdoozan, M., **Jandaghi Alae. M.**, Allahyar. M.R., (2012). On The Comparison Of Analytical Methods Using For The Decomposition Of Wave Characteristics. 8th International Conference On Coastal And Port Engineering, PIANC, COPEDEC VIII. Madras, Chennai, India.
- **Jandaghi Alae. M.**, Kolahdoozan, M., Nazarali M., Pattiaratchi C.B., (2008) Hydrodynamics and Sediment Transport Modeling of Imam Khomeini Port Complex. ICOPMAS ’08, Tehran, Iran.
- **Jandaghi Alae, M.**, Entezari M., and Kebriaee A., (2008) ”Numerical modeling of sediment transport in Imam Port Complex”. Book of abstracts of the 7th International Conference on Coastal and Port Engineering in Developing Countries (COPEDEC VII). pp 5-6
- **Jandaghi Alae, M.**, Pattiaratchi C. and Ivey G. (2007) “Numerical simulation of the summer wake of Rottnest Island, Western Australia”. Dynamics of atmospheres and oceans, Vol 43, issues 3-4, pp 171-198
- **Jandaghi Alae, M.** and Dastgheib A., (2005) “Scour holes around breakwaters induced by coastal currents”. Book of abstracts of the 7th International Conference on the Mediterranean Coastal Environment.
- **Jandaghi Alae, M.**, Ivey, G. and Pattiaratchi, C. (2004) “Secondary circulation induced by flow curvature and coriolis effects in Island Wake”. Ocean Dynamics, Vol 54, pp27-38
- Allahyar, M., Dolatshahi Pirouz M., and **Jandaghi Alae, M.**, (2003) “A Comparison between Wave Prediction Methods for Design of Marine Structures-Chabahar Port”. Presented at the 4th Conference of Hydraulics, Iran., Proceedings of the 4th Conference of Hydraulic, pp 148
- Rezaee Moghaddam, P. and **Jandaghi Alae, M.**, (2003)., “A numerical and field study on beach deformation in Kalarabad, Caspian Sea”, Book of extended abstracts of 6th International Conference on Coastal and Port Engineering in Developing Countries (COPEDEC VI), pp 247-249
- Allahyar, M., **Jandaghi Alae, M.** and Dolatshahi, M., (2003). “A comparison of different methods in measuring of wave parameters in Chah-Bahar port”. Book of Extended Abstracts of

- 6th International Conference on Coastal and Port Engineering in Developing Countries, (COPEDEC VI), Colombo, Srilanka, 2003., pp 189-191
- Dastgheib, A., and **Jandaghi Alaei**, M., (2003) “Field observation and numerical modeling of FCSC: Rajaei Port-Iran”. Presented at the 6th International Conference on Coastal and Port Engineering in Developing Countries (COPEDEC VI), Book of extended abstracts, pp 165-167
 - Rezaei Moghaddam, P., **Jandaghi Alaei**, M., Aghasi, A., Soltanpour, M., (2002) “A numerical investigation of beach profile changes in southern coasts of the Caspian Sea”. Presented at 5th International Conference on Coasts, Ports and Marine Structures (ICOPMAS '02), Ramsar, Iran, Book of Extended Abstracts, pp 123-126.
 - Allahyar, M., **Jandaghi Alaei**, M. and Mesghali, M., (2002) Evaluation of gathered data by PSO buoys Presented at 5th International Conference on Coasts, Ports and Marine Structures (ICOPMAS '02), Ramsar, Iran, Book of Extended Abstracts, pp 99-103.
 - Dastgheib, A. and **Jandaghi Alaei**, M., (2002) “Numerical modelling of flow structure in the vicinity of Shahid Rajaei port: Bandar Abbas-Iran”. Presented at 5th International Conference on Coasts, Ports and Marine Structures (ICOPMAS '02), Ramsar, Iran, Book of Extended Abstracts, pp 17-20.
 - **Jandaghi Alaei**, M. and P. Rezaei Moghaddam., (2002) “Dewatering: A solution for shore protection-the Caspian Sea”. Presented at Littoral 2002, Porto, Portugal, Proceedings, Vol. 2, pp. 339-344.
 - **Jandaghi Alaei**, M., C. Pattiaratchi and A. Dastgheib., (2002) “Large scour holes induced by coastal currents” Presented at Physics of Estuaries and Coastal Seas (PECS '02) Hamburg, Germany, Book of Extended Abstracts, pp 123-127
 - **Jandaghi Alaei**, M. and A. Dastgheib., (2002), “Large scour holes around rubble mound breakwaters”, Accepted for oral presentation at International Conference in Coastal Engineering (ICCE 2002), Cardiff, England.
 - **Jandaghi Alaei**, M., (2000) “Secondary circulation induced by flow curvature around curved shaped breakwaters”. Proceedings of the 4th International Conference on Coasts, Ports and Marine Structures (ICOPMAS 2000). Book of Abstracts pp. 199, Full Paper in the CD of the Conference.

- **Jandaghi Alaei, M. and C. Pattiaratchi., (1999)** “Scouring around the head of a breakwater, Shahid Rajaee Port Complex, Iran”. Proceedings of Coastal and Port Engineering in Developing Countries (COPEDEC '99), Cape Town, South Africa, April 1999. Vol. 1, pp. 266-275.
- **Jandaghi Alaei, M.(1999)**, “Three-Dimensional Flow Structure Around Large Marine Structures” (in Persian). Presented in the Second Conference of Hydraulics, IUST, Iran, Proceedings of the Second Conference of Hydraulics pp. 29-36.
- **Jandaghi Alaei, M., (1998)** “Three-dimensional structure of flow around a breakwater head”. Proceedings of the 3rd International Conference on Ports and Marine Structures, (ICOPMAS '98), Tehran-Iran, December 1998. Vol. 1
- **Jandaghi Alaei, M. and Pattiaratchi, C. (1998)**, Three-dimensional structure of coastal currents around a natural obstacle Proceedings of the 9th Physics of Estuaries and Coastal Seas (PECS '98), 24-26 Sept.1998, Ehime University, Matsuyama, Japan. P. 179-186.
- **Jandaghi Alaei, M., Pattiaratchi, C. and Ivey, G., (1998c)** “Numerical Simulation of the Summer Wake of Rottnest Island (47 pages)” Center for Water Research (CWR), University of Western Australia.
- **Jandaghi Alaei, M., Ivey, G. and Pattiaratchi, C., (1998b)** “Secondary circulation induced by flow curvature and coriolis effects in Island Wake” (41 pages). Center for Water Research (CWR), University of Western Australia.
- **Jandaghi Alaei, M., C.pattiaratchi and G. Ivey, (1998a)** “The three-dimensional structure of an island wake: Rottnest Island”. Center for Water Research (CWR), University of Western Australia.
- **Jandaghi Alaei, M., C.pattiaratchi and G. Ivey, (1998)** “Field observations and numerical modelling of secondary circulation in the summer wake of Rottnest Island”. Presented in Coastal and Marginal Seas, Paris-France, June 1-4, 1998.
- **Jandaghi Alaei, M., Pattiaratchi, C. and Ivey, G. (1998)**, “Field observations and numerical simulations of upwelling in the wake of Rottnest Island”.Presented in 1998 OCEAN SCIENCE MEETING (spring meeting of American Geophysical Union),February 9-13, San Diego – California,1998.

- **Jandaghi Alae**, M., pattiaratchi, C. and Ivey, G. (1996), “Three dimensional structure of an island wake –Rottneest Island” Presented in physics of Estuaries and coastal seas,The Netherlands,1996.
- Pattiaratchi, C., Abu Shamle, **Jandaghi Alae M.**, Burling, Gersbach, pang and Ranasinghe, (1996).”Application of the three –dimensional numerical model for study of coastal Phenomena in south-western Australia”. Proceedings of ocean-Atmosphere-pacific conference,1996 .
- **Jandaghi Alae**, M. and Pattiaratchi, C. (1995), “Island wakes in stratified shelf waters” Presented in Australian Space and ocean science ,Hobart –Australia,1995.
- **Jandaghi Alae**, M. (1990), “Corrosion Evaluation Methods for Steel and Concrete Marine Structures” (in Persian). Presented in Seminar of Ports’ Executive Deputies, Noshahr.
- **Jandaghi Alae**, M.(1990), “Natural Conditions in Port Planning” (in Persian). Presented in Seminar of Ports’ Executive Deputies, Noshahr.
- **Jandaghi Alae**, M. (1990), “Climate Evaluation in the Persian Gulf in Order to Investigate Marine Steel Structures Corrosion” (in Persian). Presented in Seminar of ‘Construction in Hot & Humid Weather in the South of Iran’ Bandar Abbass.