

# Amir Etemad Shahidi

Senior Lecturer

Cities Research Institute



Dr Amir Etemad Shahidi is a senior lecturer of School of Engineering and Built Environment of Griffith University. He was also selected as the Australia's leading researcher in the field of Ocean and Marine Engineering in 2018. He has more than 25 years of experience in applied research and specialist consultancy in the fields of coastal and water engineering. His research interests are in climate change and the implications on Coastal Engineering and Management. The emphasis of his research is on providing more economic and sustainable design and planning of coastal structures.

## **EDUCATION/PROFESSIONAL QUALIFICATIONS:**

Doctor of Philosophy in Coastal Environment - University of Western Australia 1998

Master of Engineering (advanced) in Civil Engineering – Sharif University of Technology 1991

Bachelor of Engineering in Civil Engineering – Sharif University of Technology 1989

#### **EMPLOYMENT:**

Jan 2012-Present Senior Lecturer, Griffith University

Nov 2010 -Dec 2011: Professor, School of Civil Engineering, Iran University of Science & Technology, Tehran, Iran. July 2005-Oct 2005, Associate Professor, School of Civil Engineering, Iran University of Science & Technology, Tehran, Iran

Jan 2005 – Dec 2012: Senior Consultant, TNA Co, Iran.

Sep 1998-June 2005:Assistant Professor, School of Civil Engineering, Iran University of Science & Technology, Tehran, Iran

1997-1998, Research Associate – CWR, University of Western Australia

1991-1993, Coastal Engineer, Pargasiran Co

### **FIELDS OF EXPERTISE**

- Wave Climate Variability and Climate Change
- Renewable Wave Energy
- Design of Coastal Structures
- Estuarine hydrodynamics, water quality and sediment transport

#### **EXPERIENCE:**

- Iran's small general purpose ports plan
- Iran's commercial ports master plan, phase 2 (joint venture with Hamburg Port Consultant)
- Iran's commercial ports master plan, phase 1 (joint venture with Hamburg Port Consultant)
- Water quality study of Kondok dam
- Cheeroyeh fishery port
- Iran's minor ports plan
- Amirabad sea water intake and outfall
- Bandar Abbas sea water intake and outfall
- Field study of sedimentation in Port of Bushehr
- Design of Bushehr fishing port



#### **Selected Publications**

- Shaeri, S and Etemad-Shahidi, A. (2021). Wave Overtopping at vertical and battered smooth impermeable structures. Coastal Engineering, 166, 103889, https://doi.org/10.1016/j.coastaleng.2021.103889
- Etemad-Shahidi, A., Bali, M., and van Gent, M. (2021) On the toe stability of rubble mound structures, Coastal Engineering 164,103835, https://doi.org/10.1016/j.coastaleng.2020.103835
- Koosheh, A., Etemad-Shahidi, A., Cartwright, Tomlinson, R., and van Gent, M. (2021). Individual wave overtopping at coastal structures: A critical review and existing challenges. Applied Ocean Research, 106 (2021) 102476,
- Etemad-Shahidi, A., Bali, M., and van Gent, M. (2020) On the stability of rubble mound structures, Coastal Engineering, 158, 103655, https://doi.org/10.1016/j.coastaleng.2020.103655
- Shaeri, S., Etemad-Shahidi, A. and Tomlinson, R. (2020) Revisiting longshore sediment transport formulas, ASCE J. Wat port, Coasts and Ocean Eng, 146(4):04020009, http://10.1061/(ASCE)WW.1943-5460.0000557.
- Pillai, K., Lemckert, C., Etemad-Shahidi, A., Cappietti, L., Sigurdarson, S. (2019) Effect of sea level rise on the wave overtopping rate at berm breakwaters, ASCE J. Waterways, Port and Coastal Engineering, 145,
- Morim, J., Cartwright, N., Hemmer, M., Etemad-Shahidi, A., Strauss, (2019) Inter-annual variability of potential power production from wave energy converters, Energy, 169,1224-1241,
- Shaeri, S., Strauss, D., Etemad-Shahidi, A., and Tomlinson, R. (2018) Hydro-sedimentological Modelling of a Small, Trained Tidal Inlet System, Currumbin Creek, Southeast Queensland, Australia, J. of Coastal Research, 34,341-359
- Pillai, K., Etemad-Shahidi, A. and Lemckert, C. (2017) Wave overtopping at berm breakwaters: Experimental study and development of prediction formulae, Coastal Engineering, 130, 85–102
- Kamranzad, B., Etemad-Shahidi, A. and Chegini V. (2017) Developing an optimum hotspot identified for wave energy extraction in the northern Persian Gulf, Renewable Energy, 114, 59-71
- Shaeri, S., Tomlinson, R, Etemad-Shahidi, A., and Strauss, D. (2017) Application of numerical modelling to assess maintenance strategy management options for a small tidal inlet, Estuarine, Coastal and Shelf Sci, 187, 273-292,
- Morim, J., Cartwright, N., Etemad-Shahidi, A., Strauss, D. and Hemmer, M. (2016) Wave energy resource
  assessment along the southeast coast of Australia on the basis of 31-year hindcast, Applied Energy, 184, 276-297,
- Bonakdar, L., Oumeraci, H. and Etemad-Shahidi, A. (2016) Run-up on Vertical Piles due to Regular Waves: Small-scale Model Tests and Prediction Formulae, Coastal Engineering, 118, 1-11
- Sedigh, M., Tomlinson, R, Cartwright, N. and Etemad-Shahidi, A. (2016), Numerical modelling of the Gold Coast Seaway area hydrodynamics and littoral drift, Ocean Engineering, 121, 47-61
- Kamranzad, B., Etemad-Shahidi, A. and Chegini V. (2016) Temporal-spatial variation of wave energy and nearshore hotspots in the Gulf of Oman, Renewable Energy, 94, 341-352
- Kamranzad, B., Etemad-Shahidi, A. and Chegini V. and (2016) Sustainability of wave energy resources in southern Caspian Sea, Energy, 97, 549-559
- Kamranzad, B., Etemad-Shahidi, A. Chegini V. and Yeganeh A. (2015) Climate Change impact on wave energy in the Persian Gulf, Ocean Dynamics, 65, 777-794
- Etemad-Shahidi, A., Rohani, MS., Parsa, J. and Lemckert, C. (2014) Effects of sea level rise on the Salinity of Bahmanshir estuary, International Journal of Environmental Science and Technology, 12, 3329-3340
- Morim, J., Cartwright, N., Etemad-Shahidi, A., Strauss, D. and Hemmer, M. (2014) A review of wave energy estimates for nearshore shelf waters off Australia, International Journal of Marine Energy, 7, 57-70
- Hadadpour, S., Etemad-Shahidi, A., Jabbari, E. and Kamranzad, B. (2014) Wave energy and hot spots in Anzali port, Energy, 74, 529-536
- Etemad-Shahidi, A. and Jafari, E. (2014) New formulas for prediction of wave overtopping at inclined structures with smooth impermeable surface, Ocean Engineering, 84, 124-132
- Kamranzad, B., Etemad-Shahidi, A. and Chegini V. and. (2013) Assessment of wave energy variation in the Persian



Gulf, Ocean Engineering, 70, 72-80

- Moeini, M.H., Etemad-Shahidi, A., Chegini, V. and Rahmani, I. (2012) Wave data assimilation using a hybrid approach in the Persian Gulf, Ocean Dynamics, 62, 785-797
- Jafari, E. and Etemad-Shahidi, A. (2012) Derivation of a new model for prediction of wave overtopping at rubble-mound structures, ASCE J. Waterways, Port and Coastal Engineering, 138, 42-52
- Saket, A and Etemad-Shahidi, A. (2012) Wave energy potential along the northern coasts of the Gulf of Oman, Iran, Renewable Energy, 40, 90-97
- Parsa, J. and Etemad-Shahidi, A. (2011) An empirical model for salinity intrusion in alluvial estuaries, Ocean Dynamics, 61, 1619-1628
- Etemad-Shahidi, A., Parsa J. and Hajiani, M. (2011) Salinity Intrusion Length: Comparison of different Approaches, PICE, Maritime Engineering, 164, MA1, 32-42