


Event: **ENERGY in TRANSPORTATION 2018**
 Date: **Saturday November 3, 2018**
 Place: **Athens, Hellas**



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| # | <p>Marinos Charalampous Naval Architect and Marine Engineer, School of Engineering - Naval Architecture Department, University of West Attica, Athens, Greece</p> |  |
| Title: | Naval Architect and Marine Engineer | |
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| Presentation title: | Experimental Investigation of the Wave Run Up on a TLP Floating Wind Turbine | |
| <p>The target of this paper was to, apply experimental investigation on the wave run up of a semi- submersible floating wind turbine (WT) of 5 MW subjected to Airy- linear waves to be presented and discussed. The studies were carried out for two different cases: (a) the floating structure with wind turbine subjected to waves when the turbine blades are in stationary condition and (b) the floating structure with wind turbine subjected to waves when the turbine blades are in operating condition. The experiments were conducted using a scale model (1:100) of a floating structure with three cylinders spread symmetrically, constructing an equilateral triangle with the wind turbine at the center of the triangle, in the laboratory wave basin, at the Department of Naval Architecture, University of West Attica, Greece. The wave basin measures 11 m x 1.2 m in size and the water depth used for the experiment is 0.6 m. The wave basin is fitted with wave absorber on the other side to reduce reflection. The model is fabricated using PVC tubes. The turbine blades were also fabricated in PVC, in which the profiles of the blades are as per the National Renewable Energy Laboratory (NREL) 5 MW wind turbine. The influence of the turbine blade rotation on the wave run up of the structure was investigated and the responses of the system under regular waves were presented in terms of statistical values. The experimental results obtained from numerical investigation gives the wave run up near the structure. The mooring system used in this study is a Tension Leg Platform (TLP) system</p> | | |

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CV:

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Education:

2013-2018, Diploma in Naval Architect and Marine Engineering, School of Engineering - Naval Architecture Department, University of West Attica, Athens, Greece

Military Service:

2011-2012 Service to the Cypriot national guard as specialized telecommunications, radio operator and cryptographer. Rank: Soldier

Certificate:

Reflect Conference, organized by Heart Group and 0100 ventures, 13th & 14th April 2018 at Limassol

The Future of Big data and Artificial Intelligence in Modern Ships, organized by isalos.net, 20th March 2018 at Piraeus

Environmental Regulations and the Shipping Industry, organized by isalos.net, 19th October 2017 at Piraeus

Management of Human Resources in Shipping Industry, organized by Xinis Education, 19th May 2015 at Piraeus

Publications:

M.P. Charalambous, T.P. Mazarakos (2018). Experimental Investigation of the Wave Run Up on a TLP Floating Wind Turbine. **International Conference: Energy in Transportation 2018** (EinT 2018), 3 November, 2018, Athens.

Work Experience:

April 2018 Until now, at One Tech Services, Three month at operation department and until now at Technical Department

2010-2011 at Fishing Boat, Marine engineer

2008-2010 at Dimitrakis Garage, motorcycles mechanical engineer