

PAULO JORGE ROSA-SANTOS	
FACULDADE DE ENGENHARIA DA UNIVERSIDAD DO PORTO (FEUP/UPORTO)	
PROFESSOR	
<p>Invited Assistant Prof. at FEUP/UPORTO, has a Ph.D. degree (2010) in Civil Engineering (Coastal & Port Engineering) and is Integrated Member of CIIMAR – Interdisciplinary Centre of Marine and Environmental Research of UPORTO, Portugal. Research interest in the application of physical and numerical modelling to the study of coastal, port & offshore related issues.</p> <p>Collaboration in several studies and projects dealing with, <i>e.g.</i>, development of Wave Energy Converters and the design of coastal protection structures. More than 50 scientific, peer-reviewed publications, and participation in more than 30 engineering, R&D projects and consultancy studies, in coastal, port and offshore engineering, coastal management and applied hydraulics. Reviewer to 8 inter. journals and 7 conferences. Member of the Scientific Committee of 5 conferences and Member of the Local Organizing Committee of 7 conferences and seminars.</p> <p>As Professor, teaches in the Integrated Master Course on Civil Eng., in the Integrated Master Course on Environmental Eng. and in the Doctoral Programme in Civil Eng. of FEUP/UPORTO. Guest Professor of the Faculty of Engineering - Agostinho Neto University, Luanda (2013 and 2014).</p> <p>Member of the Board of Portuguese Water Resources Association – North Branch.</p> <p>Participation in several R&D projects in the domain of wave energy conversion: PTDC/MAR-TEC/6984/2014, OPWEC - Optimization of wave energy converters (2016-2020); SE@PORTS - Sustainable Energy at Sea PORTS (2017-2020); PTDC/EME-MFE/103524/2008, Design of mooring systems for wave energy converters (2008-2010); Development of CECO wave energy converter (2012- on going); POWEC: Tests on a conceptual “pressurized” Oscillating Water Column as a Wave Energy Converter (under MARINET, 7th FP).</p>	

ON THE USE OF WAVE ENERGY AT SEA PORTS: OPPORTUNITIES AND CHALLENGES

The use of marine renewable energies can positively impact on two major environmental priorities for EU ports: reduction of greenhouse gases emissions and air pollution. The topic is of utmost important in contexts of progressive growth of ports' activity and energy consumption. The talk covers the opportunities and challenges that might be expected with the integration of wave energy converters in structures subjected to wave action, such as breakwaters. The technologies available, past and on-going R&D works and application examples are presented.