DECIVIL
DEPARTMENT OF CIVIL ENGINEERING, ARCHITECTURE AND ENVIRONMENT
TÉCNICO LISBOA

CERIS
Civil Engineering Research and Innovation for Sustainability

SEMINAR

Maritime Hydraulics and Coastal Engineering: from research to practice

Diogo Silva Mendes

Public Presentation

Diogo Mendes received his PhD from IST in 2020. His research focused on infragravity (IG) waves on barred beaches and tidal inlets. IG waves are longer and smaller than the commonly observed wind-generated waves that break on beaches, and they become particularly important in coastal areas during major storms. After completing a Post-Doc at the University of Aveiro, where he was responsible for carrying out a field monitoring program associated with a beach nourishment intervention at Costa Nova (Aveiro), he joined HAEDES Portugal. HAEDES is a Portuguese company that provides consulting services and design projects in maritime and fluvial environments, with a focus on nature-based solutions. In 2023, Diogo Mendes joined IST as an Assistant Professor. His research interests include maritime hydraulics, coastal engineering, coastal morphodynamics and nature-based solutions.

The seminar will focus on Diogo Mendes' work between 2016 and 2023. From a research perspective, he will introduce IG waves and explain their importance at the sea-land interface. The case study will be the Albufeira Lagoon where field observations have been collected before, during and after Hurricane Leslie (2018). The effect of IG waves on the inlet mouth will be presented based on field observations and numerical modelling. From a practical perspective, he will discuss the field monitoring program associated with a beach nourishment intervention at Costa Nova (Aveiro) and also the detailed design project for Barrinha de Esmoriz. Finally, the seminar will discuss some unanswered questions in Maritime Hydraulics and Coastal Engineering.

Satellite images of the Albufeira Lagoon before (left) and after (right) the impact of Hurricane Leslie (2018). Field observations were obtained within the red square and markers indicate the location of oceanographic instruments.

30-11-2023

12:30–13:30 (GMT+0)

Civil Engineering Building, IST (room V4.41)

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