

IST – LNEC Joint doctoral Initiative

## Dissertation Proposal

<b>TITLE: Beach morphodynamics modelling for the improvement of coastal protection solutions</b>
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<b>Short Description (up to 500 characters)</b>
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The nearshore-surf-beach-dune coastal zone is a dynamic environment shaped by the forcing agents wind, waves, sea level and maritime currents. The erosion hotspots of the high transport capacity Portuguese west coast are likely to be intensified by the impact of climate changes.

This research, to be developed mainly through numerical modelling, will be focused on the sea-structure-sediment interactions and their influence in the surrounding area morphodynamics. The insight will provide improved design parameters for defense schemes, thus, more efficient coastal protection.

<b>Keywords: Coastline, erosion, inundation, dune, sea-structure-sand interaction, numerical modelling</b>
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<b>Supervisors</b>
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