

## Thesis Topic Proposal Form

**TITLE:** Lined plunge pools – Experimental and numerical analysis of plunge pool spillways with emphasis on floor slabs stability  
**FOCUS AREA:** Hydraulics

### Short Description

Research will:

- focus on hydrodynamic actions on plunge pool slabs combining experimental and prototype data with CFD;
- address the effects of slab joint patterns and foundation drainage conditions;
- address the influence of air entrainment in the pressure field above and under the slabs;
- involve acquisition of experimental and prototype data on plunge pool floors for assessment of laboratory scale effects;
- include calibration of CFD model aimed at characterizing hydraulic parameters with a detail not practically obtainable experimentally.

**Keywords:**

### SUPERVISORS

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Doct. Program: Civil Engineering

Doct. Program: Civil and Environmental Engineering

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Start institution (IST or LNEC): LNEC