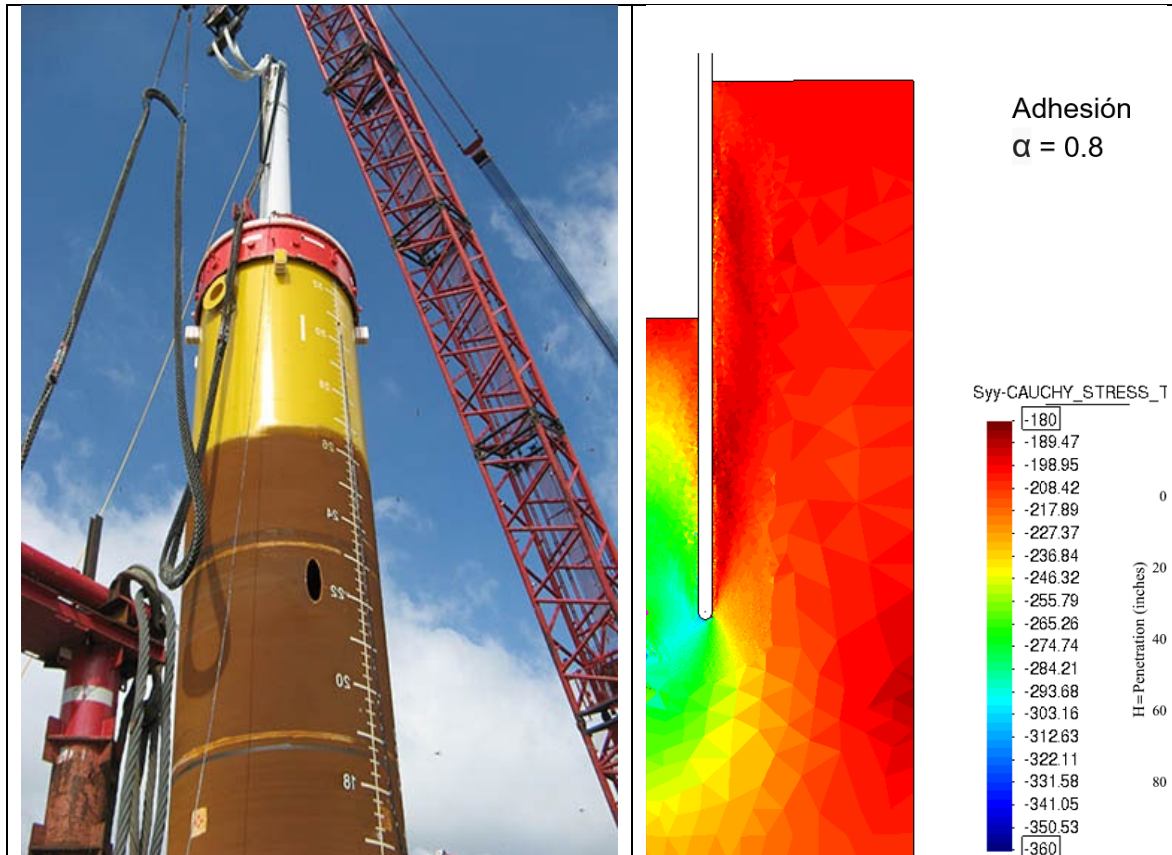


PhD opportunity at CIMNE-UPC (Barcelona, Spain)



Project description

This project goal is to develop and test a realistic modelling platform to represent the dynamic interaction during installation of monopiles in soils. Coupled hydro-mechanical behaviour will be considered for the soil, allowing for drained, undrained or partly drained installation. Representation of the monopile will aim to reproduce the dynamic driving signals recorded at installation. Being able to correctly reproduce installation will open new fundamental perspectives into monopile design for both lateral and axial loading. Model development will be based on the Geotechnical Particle Finite Element method (GPFEM) that has proven its ability to tackle quasi-static and dynamic coupled problems involving large deformations.

Conditions

A 4 year FPI grant by the Spanish Ministry of Science is available to support the candidate. The expected starting date is around June 2022, by which time the candidate should have a MSc degree on Civil Engineering, Geotechnical Engineering or a related field. Interested candidates should send a CV to Prof. Marcos Arroyo (marcos.arroyo@upc.edu) or Mr Jon Rodríguez at fellowships@cimne.upc.edu before the 5th of November 2021.