![CIMNE International Center for Numerical Methods in Engineering]

Ph. D. student position in Computational Methods Applied to Marine Engineering and Naval Architecture

CIMNE (www.cimne.com) is a Research Center in Computational Methods, whose mission is to advance in the knowledge and technology in engineering and applied sciences. The ultimate goal of CIMNE is to become an international reference centre and leader in computational mechanics, through achieving excellence in all the activities carried out by the centre.

CIMNE has been recently awarded the Spanish Severo Ochoa accreditation, which recognizes CIMNE as a Spanish Research Center of Excellence.

CIMNE is offering a Ph.D. student position to join the Marine Engineering and Naval Architecture group at Barcelona for the following project funded by Spanish Ministry of Science and Innovation (MICINN).

Research project: Development, validation and Demonstration of a Semi Lagrangian algorithm for the analysis of Ship Navigation in Ice (NICESHIP).
Funding entity: Spanish Ministry of Science and Innovation
Reference: RTI2018-094744-B-C21
Principal Investigators: Julio García-Espinosa and Borja Serván-Camas

Description of the project
The aim of the project is the development of a semi-Lagrangian numerical formulation capable of analysing the interaction of ship and offshore platforms with ice in polar environments. In particular, the Semi-Lagrangian Particle Finite Element Method (SL-PFEM) will be extended to take into account fluid-ice-free surface-structure interactions.

For further information about the project:
https://www.cimne.com/webcimne/sigpro/Ficha.aspx?id=845

Required skills
Undergraduate degree in Engineering or Physics
High level of English

Desired skills
Programming skills: C/C++/Fortran
Mathematical skills: Keen with Computational Methods
Engineering skills: CFD/FEM user

Application process
The programme is open to students of any nationality. If you are interested in this call, please apply by November 7th 2019 (at the latest) at:

http://www.ciencia.gob.es/portal/site/MICINN/menuitem.dbc68b34d11ccbd5d52ffeb801432ea0/?vgnextoid=14d767e8fd8cd610VgnVCM1000001d04140aRCRD

If you have any requirements or questions, address to fellowships@cimne.upc.edu.

Consorcio: **Generalitat de Catalunya** & **UPC Universitat Politècnica de Catalunya**   En colaboración con: UNESCO