

# JOB PROFILES JOB

## CALL FOR RECRUITMENT OF PERSONNEL Nº Conv.\_FIHAC/03\_2019

<b>PLACE</b>	<b>Predocctoral researcher</b>
<b>THE OCCASION OF COVERAGE</b>	<input type="checkbox"/> Annual programming <input checked="" type="checkbox"/> Project: FLOW-ECOSYSTEM-SEDIMENT INTERACTION CHARACTERIZATION FOR THE INCLUSION OF NATURE BASED SOLUTIONS IN COASTAL ADAPTATION TO CLIMATE CHANGE
<b>ENTITY OF ADMINISTRATIVE DEPENDENCY</b>	<input checked="" type="checkbox"/> Fundación Instituto de Hidráulica Ambiental de Cantabria <input type="checkbox"/> Universidad de Cantabria
<b>DIVISION OF DEPENDENCE</b>	Desarrollo y ejecución de proyectos
<b>AREA DEPENDENCE</b>	Clima, Energía e Infraestructuras Marinas

### REQUIRED PROFILE

GENERAL MISSION	ESSENTIAL JOB FUNCTIONS
CONCEPTION OR CREATION OF NEW THEORIES, KNOWLEDGE, PRODUCTS, AND TECHNIQUES PERFORMED ON A DOCTORAL THESIS	<p><b>GENERAL TASKS</b> Elaborate, under the supervision of the thesis advisor, his own doctoral thesis that allows for the broadening of scientific knowledge, creating new theories or modifying existing ones. Collaborate in the area of study, under the supervision of the thesis advisor or the project manager, and assessment of a given project.</p> <p><b>SPECIFIC TASKS</b> Elaborate, under the supervision of the thesis advisor, his own doctoral thesis that allows for the broadening of scientific knowledge, creating new theories or modifying the existing ones in subjects related to:            - Experimental analysis of sediment transport in vegetated fields.            - Experimental and numerical study of the drag forces to which different types of ecosystem are subjected under different flow conditions. The numerical study will be carried out by using CFD tools that allow including the detailed geometry of the ecosystem.            - Study of the attenuation of energy produced by real vegetation fields relating the induced energy attenuation with the biomass of the community.            - Development of new formulations for the quantification of the coastal protection provided by different ecosystems attending to the decrease of energy of the incident flow and to the capacity to hold the sediment and create soil.            - Collaborate in the area of study, under the supervision of the thesis advisor or the project manager, and assessment of the particular project.</p>

### EDUCATION REQUIREMENTS

UNIVERSITY DEGREE	BRANCH OF STUDY	EXPERIENCE	OTHER QUALIFICATIONS
Master/Licen. Arquitect.Inge	Engineering, Architecture, Sciences	No	

### SKILL ABILITY REQUIREMENTS

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<ul style="list-style-type: none"> <li>- Demonstrated experience in carrying out laboratory tests in tanks or wave channels</li> <li>- Demonstrated experience in the use of CFD models</li> <li>- Demonstrated experience in flow-ecosystem/sediment transport interaction studies</li> <li>- Demonstrated experience in Fortran programming, C++, python and Matlab</li> <li>- Training: have completed a course in Hydraulic Engineering or equivalent</li> <li>- Training: have completed a course in Oceanographic Engineering, oceanic climate or equivalent.</li> <li>- Training: have completed a course in Fluids Mechanics.</li> <li>- Training: have completed a course in CFD Numerical Models</li> <li>- English communication skills.</li> </ul>

### CHARACTERISTICS OF REQUIREMENTS

<b>TYPE OF CONTRACT</b>	a pre-doctoral researcher		
<b>ESTIMATED DURATION <sup>1</sup></b>	12 months		
<b>LOCATION OF WORKPLACE</b>	<input checked="" type="checkbox"/> Santander- Spain (IHCantabria)	<input type="checkbox"/> Other:	
<b>REMUNERATION</b>	17.085,36 €/ gross annual salary (12 payments) plus salary supplements based on assessable merits, specific to the call and in accordance with the remuneration system of the entity		
<b>EXPECTED DATE OF JOINING</b>	06/05/2019		

### CHARACTERISTICS OF THE RECRUITMENT AND SELECTION PROCESS

<b>TYPE OF PROCESS</b>	<b>Open Access</b>	Código: Conv._FIHAC/03_2019	
<b>POSITIONS</b>	1 (initially planned)		
<b>PROCESS OF REQUIREMENT</b>	Ad publication in FIHAC webpage: 04/03/2019		
	Closing Requirement process: 05/04/2019 at 13:00 h o'clock		
<b>PRE-SELECTION</b>	Expected date of pre-selection: 08/04/2019		
<b>SELECTION TEST</b>	<input type="checkbox"/> Date of the test:	Maximum of applicants:	
<b>JOB INTERVIEW</b>	Expected date of job interviews: 10/04/2019	Maximum of applicants: 5	Scoring in this phase <sup>2</sup> : 10
<b>REPORT</b>	Expected date of final report: 11/04/2019		
<b>FINAL DECISION</b>	Expected date of final decision: 12/04/2019		

<sup>1</sup>In cases of temporary contracts

<sup>2</sup>Score obtained by the assessment of merit, minimum (threshold) required for a / a candidate / a pass to the phase of the interview

SCORING INFORMATION/ CANDIDATE MERITS				
MERITS	EVALUATION	ASSESSMENT		MAXIMUN
<b>DEMONSTRATED EXPERIENCE IN CARRYING OUT LABORATORY TESTS IN TANKS OR WAVE CHANNELS</b>	CV VITAE	NUMBER OF PROJECTS	5 Point(s)/projects	10
Participation in the projects or programs must be accredited by a certification issued by the related company or organization.		Maximum: 2		
<b>DEMONSTRATED EXPERIENCE IN THE USE OF CFD MODELS</b>	CV VITAE	NUMBER OF PROJECTS	5 Point(s)/projects	10
Participation in the projects or programs must be accredited by a certification issued by the related company or organization.		Maximum: 2		
<b>DEMONSTRATED EXPERIENCE IN FLOW-ECOSYSTEMS / SEDIMENT TRANSPORT INTERACTION STUDIES</b>	CV VITAE	NUMBER OF PROJECTS	5 Point(s)/projects	10
Participation in the projects or programs must be accredited by a certification issued by the related company or organization.		Maximum: 2		
<b>DEMONSTRATED EXPERIENCE IN FORTRAN PROGRAMMING, C++, PYTHON AND MATLAB</b>	CV VITAE	NUMBER OF PROJECTS	2 Point(s)/projects	4
Participation in the projects or programs must be accredited by a certification issued by the related company or organization.		Maximum: 2		
<b>TRAINING: HAVE COMPLETED A COURSE IN HYDRAULIC ENGINEERING OR EQUIVALENT</b>	CV VITAE	COMPLIENCE REQUIREMENTS	10 Point(s)	10
Based on the academic record, the following will be scored: the Matricula de Honor with 10 points, the Sobresaliente with 6 points, the Notable with 4 points and the Aprobado with 2 points. In the case of degrees obtained abroad, the table of equivalences of the Resolution of July 16, 2008, of the Directorate General of Universities will be applied.		Maximum: 10		
<b>TRAINING: HAVE COMPLETED A COURSE IN OCEANOGRAPHIC ENGINEERING, OCEANIC CLIMATE OR EQUIVALENT</b>	CV VITAE	COMPLIENCE REQUIREMENTS	10 Point(s)	10
Based on the academic record, the following will be scored: the Matricula de Honor with 10 points, the Sobresaliente with 6 points, the Notable with 4 points and the Aprobado with 2 points. In the case of degrees obtained abroad, the table of equivalences of the Resolution of July 16, 2008, of the Directorate General of Universities will be applied.		Maximum: 10		
<b>TRAINING: HAVE COMPLETED A COURSE IN FLUIDS MECHANICS</b>	CV VITAE	COMPLIENCE REQUIREMENTS	10 Point(s)	10
Based on the academic record, the following will be scored: the Matricula de Honor with 10 points, the Sobresaliente with 6 points, the Notable with 4 points and the Aprobado with 2 points. In the case of degrees obtained abroad, the table of equivalences of the Resolution of July 16, 2008, of the Directorate General of Universities will be applied.		Maximum: 10		
<b>TRAINING: HAVE COMPLETED A COURSE IN CFD NUMERICAL MODELS</b>	CV VITAE	COMPLIENCE REQUIREMENTS	10 Point(s)	10
Based on the academic record, the following will be scored: the Matricula de Honor with 10 points, the Sobresaliente with 6 points, the Notable with 4 points and the Aprobado with 2 points. In the case of degrees obtained abroad, the table of equivalences of the Resolution of July 16, 2008, of the Directorate General of Universities will be applied.		Maximum: 10		
<b>ENGLISH COMMUNICATION SKILLS</b>	CV VITAE	COMPLIENCE REQUIREMENTS	5 Point(s)	5
English Skills will be certified by CEFR accreditation levels: (A1/ A2: 1 point; B1: 2 points; B2: 3 points; C1: 4 points; C2: 5 points )		Maximum: 5		
<b>MAXIMUM OF POINTS IN SPECIFIC ASSESSMENT</b>				<b>79</b>
<b>MAXIMUM OF POINTS IN THE INTERVIEW</b>				<b>39</b>
<b>MAXIMUM TOTAL OF POINTS</b>				<b>118</b>

**APPROVAL OF JOB PROFILE DIAGRAM**

Signature:

Approved: Raul Medina Santamaria, Vice president

Date: March 05, 2019