Postdoctoral Fellow on Inverse Methods for Structural Health Monitoring of Offshore Wind Energy Technologies

Job Offer

Topics: Deep Learning, Data-Driven Computing, Partial Differential Equations, Inverse Problems, Offshore Wind Energy

PI in charge: Vincenzo Nava, David Pardo

Salary and conditions: The gross annual salary of the Fellowship will be 28,000 - 32,000 €.

It will then be on your own responsibility to make your yearly income declaration at the Bizkaia Treasury Agency.

There is a moving allowance for those researchers that come from a research institution outside the Basque Country up to EUR 2,000 gross.

Free access to the Public Health System in Spain is provided to all employees.

This contract will be funded by “IA4TES – Inteligencia Artificial para la Transición Energética Sostenible” project.

Contract and offer: 1 year + 1 year (based on performance evaluation)

Deadline: 29th March 2022 at 14:00 CET (UTC+1)

How to apply: Applications must be submitted on-line at: http://www.bcamath.org/en/research/job

Scientific Profile Requested

Requirements: • Promising young researchers.
• Applicants must have their PhD completed before the contract starts.
• PhD in Mathematics and/or Civil, Mechanical, Industrial, Offshore Engineering or similar areas.

Skills and track-record: • Good interpersonal skills.
• A proven track record in quality research, as evidenced by research publications in top scientific journals and conferences.
| | • Demonstrated ability to work independently and as part of a collaborative research team.  
| | • Ability to present and publish research outcomes in spoken (talks) and written (papers) form.  
| | • Ability to effectively communicate and present research ideas to researchers and stakeholders with different backgrounds.  
| | • Fluency in spoken and written English.  

**Scientific Profile:**  
The preferred candidate will have:  
• Strong background in the numerical solution of Partial Differential Equations and/or Deep Learning techniques.  
• Background in Inverse Problems.  
• Experience in treatment of long time series.  
• Experience in simulation of long time series.  
• Experience in modelling Failure Modes and Effects Analysis (FMEA) for components / subsystems / systems.  
• Good programming skills in Python and preferably, also Tensorflow.  
• Interest and disposition to work in interdisciplinary groups.  

The candidate would preferably be in possess of:  
• Experience in the sector of offshore wind energy, or offshore oil and gas, or structures in offshore environment.

**Application and Selection Process**

**Formal Requirements:**  
The selected candidate must have applied before the application deadline online at the webpage [http://www.bcamath.org/en/research/job](http://www.bcamath.org/en/research/job)

The candidates that do not fulfil the mandatory requirements will not be evaluated with respect to their scientific profile. Additional documents could be requested during the evaluation process so as to check this fulfilment.

**Application:**  
Required documents:  
- CV  
- Letter of interest  
- 2 recommendation letters  
- Statement of past and proposed future research (2-3 pages)
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<th>Evaluation:</th>
<th>Based on the provided application documents of each candidate, the evaluation committee will evaluate qualitatively: the adaption of the previous training and career to the profile offered, the recommendation letters, the main results achieved (papers, proceedings, etc.), the statement of past and proposed future research and other merits; taking in account the alignment of these items to the topic offered.</th>
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<td>Incorporation:</td>
<td>As soon as possible thereafter</td>
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