



Partner search

Date (DD-MM-YY)

- (*) Relevant topic in work programme

LC-SC3-RES-31-2020: Offshore wind basic science and balance of plant (RIA)

- Quick description of the project

Our expertise and competences suitable for this call:

1. Embedded fiber sensing technology for the health monitoring of offshore structures and materials using guided wave tomography: early detection of material degradation and lifetime assessment
2. Distributed strain and vibration measurement using high speed Rayleigh reflectometry
3. Remote health monitoring of hybrid cables using fiber optic links
4. Numerical and semi-analytical simulation for structural inspection and material characterization based on NDT technologies, enabling statistical studies and database generation for leveraging AI solutions and predictive maintenance.
5. Online Learning approaches for predictive maintenance
6. Federated learning approach to enhance the quality of models in communication constrained environments or transfer learning method to adapt to new plants
7. Materials improvement and development of new materials
 - Tests in large climatic chambers (salt spray, climatic, ...)
 - Mechanical tests coupled with environmental constraints
 - Mechanical tests monitoring by X-ray imaging
 - Robotized X-ray imaging allowing large parts inspection
8. Methods and algorithms for data-driven forecasting and diagnosis models (Data analysis, Machine Learning, Signal Processing).

We propose to participate as WP leader or partner in a consortium.

- (*) Description of the expertise requested (up to 1000 characters)

- Keywords describing the expertise requested (up to 10 words)

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Organisation information

Organisation and country:

CEA (Alternative Energies and Atomic Energy Commission), France

Type of organisation:

☐ Enterprise ☐ SME ☐ Academic ☒ Research institute ☐ Public Body ☐ Other: Association

Former participation in FP European projects?

☒ Yes ☐ No

Web address:

<http://www.cea.fr/english>

Description of the organisation:

CEA (France's Alternative Energies and Atomic Energy Commission) is a Research and Technology Organisation (RTO) and a full member of EARTO.



CEA involves since more than 20 years in the sector of renewable energy as alternative energy to nuclear and fossil source

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(*) –Mandatory