# **Ocean Sciences Institute (OCEAN )PhD Scholarships – Call for PhD Topic Proposals Application Form**

*Offer reserved for research units attached to Institut OCEAN*

*Registration no: 2024/*

**Deadline: January, 26st 12:00 am 2024**

The completed proposal form should be completed in English incorporating in one single file the supervisors CVs and letters of cofinancing engagement or stakeholder support.

Two copies of the same application form labelled ‘surname of principal supervisor’AAP-PhD-OCEAN.**doc** &‘surname of principal supervisor’AAP-PhD-OCEAN.**pdf** should be sent to the Director of the OCEAN Institute Richard Sempéré (richard.sempere@univ-amu.fr) with a copy to the Institute's Project Manager Yoan Furtado (yoan.furtado@osupytheas.fr).

IMPORTANT. The pdf file should be signed by the Laboratory Director of the principal supervisor acknowledging they will provide the necessary administration support.

For more information on the PhD call refer to the OCEANS PhD call

1. **PhD TOPIC TITTLE**
2. **LIST 5 KEYWORDS:**
3. **ABSTRACT (English & French)**
4. **CO-SUPERVISOR INFORMATION** (For each supervisor, mention the (co-)supervised theses in progress (with % if applicable)
	1. **Name and Affiliation of the principal supervisor**
	2. **Name and Affiliation of the co-supervisor**
5. **DOCTORAL SCHOOL (ED) :** The PhD candidate will be enrolled to (select one from the following list): **352, 184, 250, 353, 251, 67, 355, 372**
6. **TOPIC EVALUATION CRITERIA**
	1. **Ocean Sciences Institute Challenges addressed (select relevant challenges – see Annex 1 for more details) -** How does your project contribute to addressing Ocean Sciences Institute identified challenge(s) (200 characters not including spaces)
	2. **Interdisciplinarity :** In max 200 words, describe the interdisciplinarity characteristics of your proposed project, eg disciplines-methods-laboratories combined, please be specific).
	3. **Internationalisation:** In max 200 words, describe the international characteristics of your proposed project (eg collaboration with international partners, foreseen mobility, etc – please be specific).
	4. **Innovativeness/valorisation**: In max 200 words, describe the innovative dimension of your project and how the Institute associated platforms will be valorized.
	5. **Link with Societal & Enterprise stakeholders**: In max 200 words, describe the links and relevance of the projects to Societal & Enterprise stakeholders. Please provide letters of support by stakeholders specifying the nature of their engagement.
	6. **Research program (national, international) and funding surrounding the research** of the thesis contract
	7. **Recent 5 publications of the PhD supervisors**

Description of the project that will be published publicly in the call for applications, specifying the scientific question and indicating a few publications (max 400 words each)

1. **RESEARCH PROJECT DESCRIPTION (NON-PUBLISHED INFORMATION) (max 1000 words)**
	1. **Introduction – state of the art- Description of the scientific question**
	2. **Objectives**
	3. **Proposed research design, methodology, experiments, and techniques, (highlighting innovativeness & interdisciplinarity of proposed approach)**
	4. **Expected outcomes/ deliverables**
2. **EXPECTED /DESIRABLE PROFILE OF THE CANDIDATE**

In max 400 words describe the expected competences and skills of the desired candidate, this will be published should your project be successful. (See AAP PhD-OCEAN for the minimum eligibility criteria).

1. **BUDGET**
	1. **Is there any co-financing proposed for the PhD? If yes, please define the % and include the letter of commitment from the co-financier if identified.**
	2. **Please specify for which PhD call you are applying**
2. **INCLUDE CV OF PRINCIPAL SUPERVISOR:** personal web homepage are welcome
3. **INCLUDE CV OF CO-SUPERVISOR:** personal web homepage are welcome
4. **COMMUNICATION & DISSEMINATION ACTIONS**

**12.1 Please describe the publication and communication actions you will undertake (conferences publications, international meetings etc)**

**12.2 Please note that should you be selected for this funding you engage as a minimum to the following dissemination actions:**

* + - Presentation of project in 1 ocean institute event per year
		- Acknowledgement of institute and funding according to the Amidex charte
		- Give one hour seminar to Ocean Master students.
		- Post minimum 1 times per year on Ocean social media, information on the project
		- Create project description text and a results summary to be published on OCEAN website

**APPENDIX**

**OCEAN SCIENCES INSTITUTE POLICY**

The Ocean Science Institute brings together a wide range of interdisciplinary scientists, engineers, students, political and business stakeholders aiming to:

1. Understand the past and present status of our oceans, for a sustainable future
2. Support ocean literacy and informed governance processes
3. Innovate for blue economy circularity & climate neutrality
4. End Pollution from source to sea.
5. Restore ocean biodiversity under adverse climate and anthropogenic pressures

**OCEAN SCIENCE CHALLENGES**

**CHALLENGE 1. Improving knowledge and communication of present and past dynamics of the ecosystems, impact of climate change, vulnerability, resilience to natural and anthropogenic pressures, forecast changes, services and mitigation:**

1.1. Understanding the dynamics of the Ocean and ecosystems’ functioning

1.2. Understanding pollution and climate impacts

1.3 Understanding Ocean-Atmosphere interactions

1.4. Forecasting the relationship between the ocean dynamics, biodiversity and ecosystems’ functioning and services

1.5 Adapting to climate change and definition of mitigation measures

1.6 Evaluating accurately long term (past, present and future) ocean resources and ecosystems

1.7 Reversing the long term overexploitation of the marine ecosystems

**CHALLENGE 2. Effective risk management and protection of coastal areas:**

2.1 Reducing the threat on coastal ecosystems and the negative effects on human-related activities

2.2. Evaluating, communicating and reducing the coastal risks of pollution

2.3. Forecasting coastal erosion and submersion for integrated coastal zone management

2.4. Improved decision support systems for sustainable Port and maritime management

2.5 Improved governance through scientifically informed MSP and MPA and improved juridical procedures

2.6 Improved international collaborations through better communication and understanding of cultural and historical contexts.

**CHALLENGE 3. Contribution to the creation of a digital twin of our oceans through accessible and interoperable ocean science data and observation systems:**

3.1. Advancing Marine and Maritime Intelligent Robotics systems

3.2. Tailor-made sensors and platforms, embedding AI to observe the ocean and its biodiversity

3.3. Intelligent Maritime and Offshore Security and safety systems

3.4. Modelling of Ocean dynamics & intelligent forecasting oceanic variables

3.5. Big data Passive Acoustics for long term and large-scale ocean monitoring

3.6. Advancing Trajectography, tracking and automatic monitoring systems

**CHALLENGE 4. Innovations in Marine engineering, Blue growth businesses, and governance based on an ocean literate society :**

4.1. Promote the engineering of maritime transport and offshore structure as well as those related to Marine Renewable Energies (MRE). Hydrodynamics and flows, wave and wave studies, optimization of energy performance, materials, durability of offshore structures, offshore wind

4.2 Promote public-private partnerships to overcome some obstacles of new activities including new sensors for pollutants, bioremediation measures, as well as new processes (for plastics and emerging contaminants) retention in wastewater treatment plans, satellite data services.

4.3. Establish strategies to encourage and facilitate cluster development in the Ocean, in Pollution, green material development, data science, through federation of Research/Industry.

4.4. Provide scenarios of environmental changes, investigating the impact of ecological changes to people, of alternative socio economics development pathways and blue growth.

4.5. Pilot innovative methods for citizen and stakeholder engagement, open science, ocean literacy and advocacy.