



SMARTSEA - Surveying & MARiTime internet of things

SMARTSEA Newsletter / Issue 1 / April 2020

The Challenge

The Internet of Things (IoT) is a network of physical “smart” devices (applicable in vessels, vehicles, buildings, factories etc) embedded with electronics, software, sensors, actuators, that allow inter-connectivity between these devices & data exchange.

Over the past five years the Internet of Things (IoT) technology has grown rapidly, finding applications in several sectors. Large shipping industries are already investing in IoT techniques to optimize transparency, safety and reduce costs.

However, there is a global shortage of trained engineers and technicians to handle this new technology safely

Overall Objectives

SMARTSEA Project aims to develop an advanced interactive certified MSc course related to Maritime & Surveyor IoT applications that will train individuals with the necessary skills & knowledge to work in the rising “Smart Maritime & Surveying” industry.

The course is formulated to stimulate transversal competences such as the increased sense of initiative & entrepreneurship. The course is designed to follow the European Credit Transfer & Accumulation System (ECTS) credit standards for certification recognition across the EU.

At a Glance

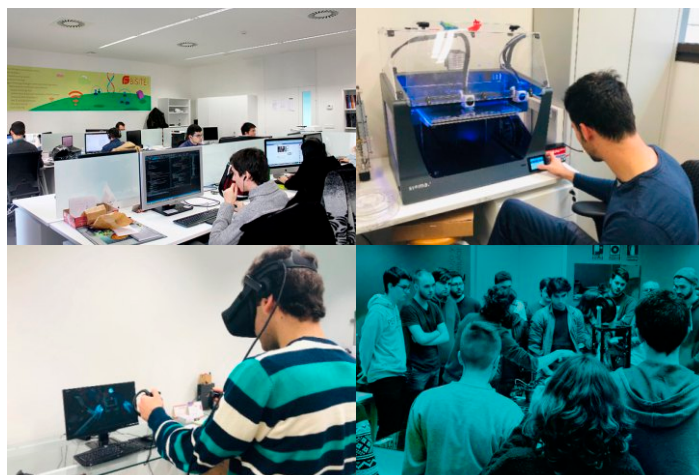
ERASMUS+ Programme Knowledge Alliances
Cooperation for innovation and the exchange of good practices

KEY ACTION 2 Proposal Call:
EAC-A03-2018

PROJECT NUMBER:
612198-EPP-1-2019-1-ES-EPPKA2-KA

DURATION: 3 years (Nov 2019 – Oct 2022)

COORDINATOR: University of Salamanca,
BISITE Research Group





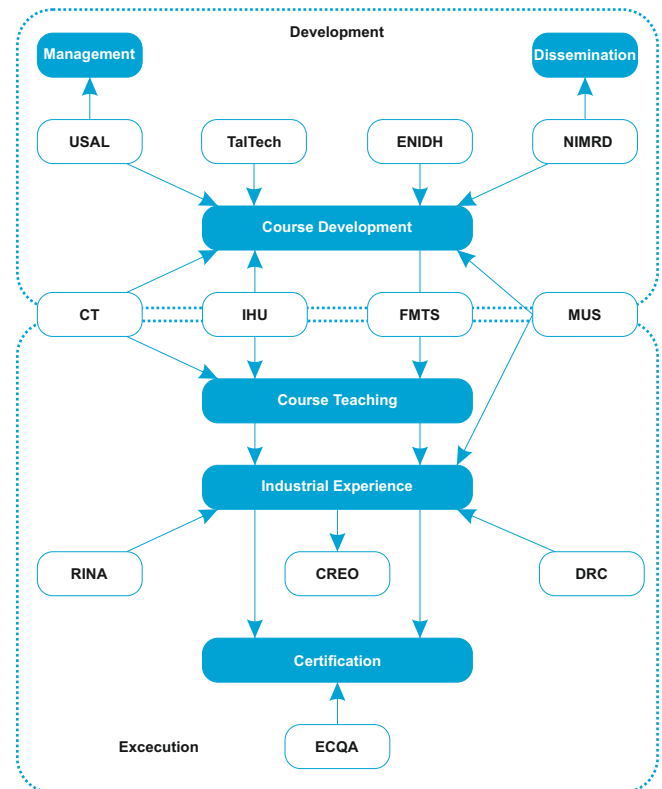
Course Development Progress

The course will consist of four phases:

- The preparation of the teaching material & laboratory apparatus.
- The execution of the course along the student exchange between end users (universities).
- A student dissertation based on the developed demonstrators.
- Maritime partners to host students for a short experience program during the demonstrator installation/use.

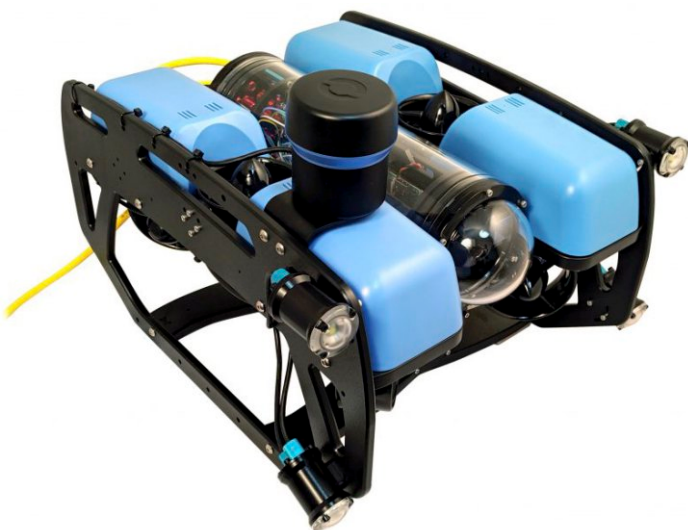
The consortium will be jointly developing and implementing new learning and teaching methods through interactive reconfigurable laboratory apparatus, an e-Learning platform to enable distant sharing of knowledge and remote access to measurement systems. Also, the consortium aims to exploit the features of:

- Remotely operated underwater vehicle (ROUV) as a student practice platform to enable them to enter the growing ROUV & Underwater IoT trend that large industrial corporations & research centers are currently developing & exploiting.
- Augmented Reality (AR) techniques as a student practice laboratory to enable them to enter the growing AR trend that large industrial corporations are currently developing.



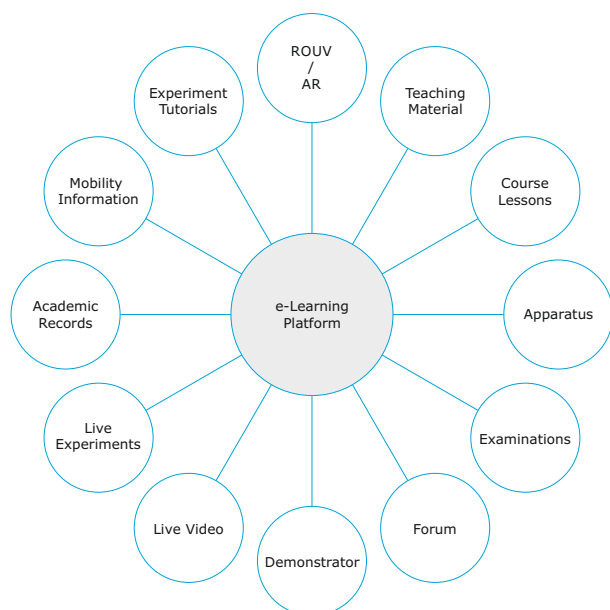
Expected Results

- To introduce a fully integrated & accredited Joint course in Maritime & Surveyor ICT systems in the syllabus of Universities across Europe.
- To obtain feedback from students & educators & dynamically review the MSc Course teaching & content to fortify the sustainability of the course for beyond the funding lifetime.
- To maintaining the SMARTSEA online portal by publishing new teaching materials and igniting discussions between the different types of users - educators and students.
- To develop reconfigurable laboratory apparatus & a new teaching methodology as an open educational resources (OER).
- To create and expand a community in Maritime Surveyor ICT systems.





E-Learning Platform



The SMARTSEA e-Learning platform is envisioned to provide tools for synchronous and asynchronous teaching/learning, creating and editing content, encouraging student participation in the learning process and ensuring sufficient interactivity within the teaching process. The platform will act as an educational tool not only for students but it will be a working tool for the educators, as well. Course experiments are designed to be accessed remotely using this platform, enabling students to control and collect data. Video tutorials & live streaming of experiments will provide the students with an interactive tool with the course material (lectures & experiments) and also with each other.

News & Events

5th of November 2019

The 2nd Workshop of EU Research & Innovation Maritime Projects was hosted by Danaos Shipping Co. (smart-sea.eu/?p=110)

2nd-3rd December 2019

The SMARTSEA Kick-Off meeting was successfully conducted in Lisbon and hosted by the Infante D. Henrique Nautical School (smart-sea.eu/?p=123)

31st January – 2nd February 2020

Presentation of the project SMARTSEA in the frame of the Internal Conference on Research and Innovation, organized by the International Hellenic University in Thessaloniki, Greece (smart-sea.eu/?p=319)

4th of February 2020

Kick-off Meeting for the Knowledge Alliances 2019 projects, organized by the EACEA, Brussels, Belgium (smart-sea.eu/?p=281)

22nd April 2020

SMARTSEA project announcement and the Flyer were posted on website of the "The Commission on the Protection of the Black Sea Against Pollution" (smart-sea.eu/?p=332)

28th April 2020

SMARTSEA consortium members will participate online to The Subsea Innovation Day: Digitalisation, hosted by GCE Ocean Technology (smart-sea.eu/?p=336)

9th-11th September 2020

SMARTSEA consortium members will participate at the 27th EuroSPI / EuroAsiaSPI² 2020 Conference, in Düsseldorf, Germany (smart-sea.eu/?p=341)

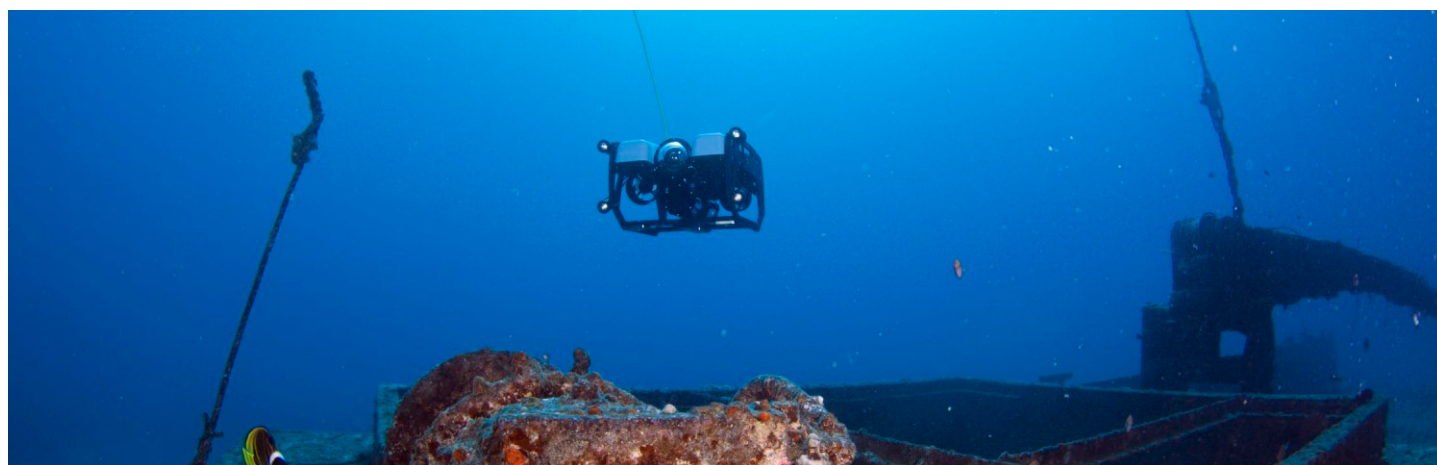
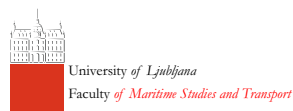
7th-9th October 2020

17th International Symposium Distributed Computing and Artificial Intelligence 2020 will be held in L'Aquila, Italy, (smart-sea.eu/?p=257)



Consortium

The consortium consists of six universities: University of Salamanca-BISITE Research Group, University of Ljubljana, International Hellenic University, Maritime University of Szczecin, Tallinn University of Technology, Escola Superior Náutica Infante D. Henrique, one research centre (National Institute for Marine Research and Development Grigore Antipa), two SMEs: Cerca Trova Ltd, ECQA GmbH and three environmental surveying and shipping companies: Creoclean, RINA Hellas SA, Danaos Shipping Company Ltd.



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