2017

NAFTES

Naval Fire Fighting Training & Education System

Newsletter #2

Welcome to NAFTES

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IKY Erasmus+

A. Scope and Objectives

The present newsletter is the 2nd Newsletter of the NAFTES project aiming to provide a brief summary of the main activities that have been undertaken between March, 2017 and November, 2017. NAFTES is an Erasmus+ project aiming at enhancing the quality of the training of ships crews, both military and commercial ones, on firefighting operations. The training will be performed through an on-line platform, called NAFTES, that will include the use of rich media, innovative preparation tools and AR (Augmented Reality) equipment, such as AR lens.

The NAVAL FIRE FIGHTING TRAINING and EDUCATION SYSTEM (NAFTES) is a holistic framework for the training of crew and officers in simulated fire conditions in representative ship engineering compartments. NAFTES assumes three different facets structured around the Fire Fighting Simulator and Crew Evacuation Simulator (Damage Control School) of the Naval Training Command of the Hellenic Navy. The FFS, a central component in the Damage Control School, has been in operation since 2006 and adopts a conventional training workflow which will be radicalized through NAFTES. The Hellenic Navy (participating organization in NAFTES through the Hellenic Ministry of Defense, HMOD) intends to broaden the use and extend the scope of this unique training platform to commercial shipping companies from all around the globe. Therefore, NAFTES is considered of paramount importance to the Greek shipping industry, one of the most important sectors of the Greek economy which currently undergoes a serious crisis.

B. Partners

- (Coordinator) Greek Academic Network – GR
- Hellenic Ministry of Defence – GR
- Danaos Shipping – CY
- IES Solutions – IT

C. Vocational Education & Training

NAFTES relies on three very important technical components tightly coupled to deliver a rounded whole. Such components are the e-learning management system (open and extensible to meet the needs of modern training programs), the AR applications (installed and operated in crew carried, fully networked devices) and the context awareness mechanism that capture the location of the trainee. Therefore, NAFTES will provide the technological means of radically improving the training processes currently followed in DCS. The AR component will allow trainees to be engaged in complicated drills/scenarios. Trainees will be guided throughout the complex engineering structure to precisely execute fire-fighting and/or evacuation drills. More elaborate versions of the AR component will be provided to the leaders of the trainee groups or instructors in order to provide an immediate overview of the training context (the drill progress, the spatial distribution of the trainees, etc.) as well as the current status of the fire-fighting effort.

NAFTES foresees 3 types of training based on different educational material and technologies.

1. **Introductory training** using **rich-media didactic material**
2. **Classroom training** using **NAFTES e-learning platform**
3. **Hands-on training** through **Augmented Reality applications**

D. NAFTES Information Day

Hellenic Ministry of Defence (HMOD) organised an information day for the personnel of the Greek military Naval Base in Salamina island. During this dissemination event, GUnet had the opportunity to present the overall picture of NAFTES and interact with experts specialised in naval firefighting operations. Extensive presentations of the NAFTES e-learning platform and augmented reality scenarios were also demonstrated.

Presenting NAFTES to the officers of the Hellenic Navy.

E. Visit to frigate 'Aigaion' and missile boat 'Krystallidis'

Administrative personnel and technicians of the Greek Academic Network have visited the frigate 'Aigaion' and the missile boat 'Krystallidis' on July, 24th, 2017. During this visit, the participants had the chance to meet the personnel of Hellenic Navy on board and inspect two different types of vessels that the NAFTES field training could take place. The participants discussed alternative training scenarios in order for the project to have a clear picture about the different needs and challenges that should be addressed by NAFTES.

F. NAFTES Transnational Meetings

The **2nd NAFTES Transnational meeting** took place at the Naval Base of Skaramagkas (Damage Control School premises) on June, 8-9, 2017.

2nd Transnational meeting Group picture.

The **3rd NAFTES Transnational Meeting** took place in Limassol, Cyprus on November 13-14, 2017. Both Transnational Meetings gathered all the NAFTES members (GUnet, the Hellenic Navy, DANAOS and IES Solutions) for two days, in which they discussed the current status of the project and its future

developments. In the second day of the Cyprus meeting we discussed in details all the expected results of the project and we worked on the preparation of the 1st NAFTES Multiplier Event.

G. 1st NAFTES Multiplier Event

On 15 November the first NAFTES Multiplier Event was held. The event aimed at informing people of the project, as well as showing the potentialities of the training platform and its applications. Representatives of external organizations have been able to fully understand the project and the functionalities of the platform, both in terms of content and applications (especially e-learning and Augmented Reality). The participants also tested firsthand the AR application of NAFTES.

Presentation (left) and testing (right) preliminary NAFTES results during the 1st Multiplier Event.

H. NAFTES AR applications

A significant component of the NAFTES training is represented by the Augmented Reality applications, used to provide a more realistic simulated experience. During the training phases, crew members will be able to visualise objects, information, animations or videos, and perform tests, directly on the Hololens lens. Hololens have been chosen as the main Augmented Reality device used in NAFTES. The NAFTES members created images and QR codes that, when read by the Hololens, trigger them to generate the AR content. The photo shows the Hololens in action.

Presentation of the AR demo during the 1st Multiplier Event.