



To celebrate the year of Efficient Ship we will publish a series of compiled development papers each month for the whole year. MariFuture is pleased to announce a lecture by its Founder and current coordinator Professor Ziarati to be given on 29<sup>th</sup> March 2017 at Warwick University at 18.00 hrs. Other details and summary of the lecture are given below.

## WEST MIDLANDS BRANCH

Chairman :- Eur. Ing Timothy J Aston, MSc. C.Eng FIMarEST, FIET  
Tel. No. 0781 675 9419 eMail :- chairman.wm@imarest.org  
Hon. Secretary :- W.B. Harris, BSc. C.Eng. MIMarEST  
Tel. No. 0192 681 2503 eMail :- billharris1@hotmail.com  
Hon. Treasurer :- A. Myatt, C. Eng. MIMarEST  
Tel. No. 0152 783 2058 eMail :- myatt72@btinternet.com



## Lecture Meeting

Date: **Wednesday 29<sup>th</sup> March 2017** Time: **19:00 hours**

Venue: **University of Warwick, Warwick Manufacturing Group Bldg., Room 004,**  
**Off University Road, COVENTRY, CV4 7AL.**

### “The Efficient Ship”

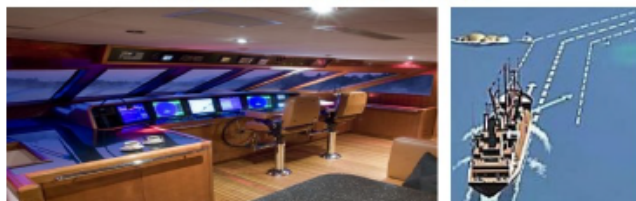
Presented by

**Professor Reza Ziarati BSc (Eng), PhD (Eng), Cert Ed, CMechE, CElecE, CMarEng,**  
**CEng, FIMechE, FIET, FIMarEST**

There are pressures on diesel engine manufacturers and ship owners to seek solutions to reduce engine exhaust emissions and reduce fuel consumptions. This lecture reports on the work of Centre for Factories of the Future's (C4FF) Maritime Division and focuses on findings of several recent and ongoing projects in ship energy management and exhaust emissions reduction.

The lecture cites the development of a series of modules referred to as Ship AutoSet systems regulating the navigational equipment and engine performance parameters for minimum fuel consumption and exhaust emissions by taking advantage of the wind and sea conditions as well as engine optimisation ensuring also compliance with Energy Efficiency Design Index without the risk of intentional reduction of speed. The primary experiments on actual ships have shown substantial fuel saving potential. The experiments carried out are expected to ensure safe application of the design rules guaranteeing, at the same time, the right balance between economic efficiency, environmental performance and safety.

#### Ship AutoSet Systems



The reason for the experiments was a decision support system to provide navigation knowledge to regulate engine running conditions for minimum fuel consumption and lowest feasible CO<sub>2</sub> emission supplementing the earlier experiments conducted to make the marine diesel engines more efficient and the recent work in reducing their exhaust emissions through novel configuration and after treatment systems.

#### REQUEST NOTICE

If you are attending this meeting it is requested that you contact Mr. A. Myatt on Tel. No. 0152 783 2058 or preferably eMail :- [myatt72@btinternet.com](mailto:myatt72@btinternet.com) giving your name & guest(s)  
This is essential as it would be helpful to arrange refreshments @ £1.50 p/p (Coffee/Tea & Biscuits)

IMarEST HQ. 1, Birdcage Walk, SW1H 9JJ, London, UK  
Tel.: +44 20 7382 2600 Fax: +44 20 7382 2670 www.imarest.org

Registered Charity No 21299

[Europe](#) [Australasia](#) [North&South East Asia](#) [Americas](#) [Middle East & Africa](#)



## **EUREKA ITEA**

As reported in the November 2016 News BAU with support from C4FF and their industrial partners prepared several ITEA3 proposals. BAU asked Professor Ziarati, the Coordinator of MariFuture and a Professor affiliated to BAU to attend the ITEA3 Open Days in Paris, 13-14<sup>th</sup> September 2016. One of the projects presented by Professor Ziarati was the IntelliMariPal which concerns the integration of maritime data and development of a platform for it. The proposal attracted considerable interest from other ITEA Open Days' participants. The proposal intends to streamline all the data necessary for ships, ports and shipping and maritime bodies and authorities which then expected to substantially improve the effectiveness and efficiency of ship and port operations Europe-wide. The project proposal was prepared and submitted to the ITEA on time. The partners of the project were informed early in December that their proposal has been successful and that they are invited to proceed to second and final stage of the competition. The deadline for submission of final proposal was 14<sup>th</sup> February 2017 and the project team worked hard to conclude the proposal and submit it on time. It was recently announced that Proposal was successful. This is great news for MariFuture and its members.

It is equally pleasing to note that project OPTIMUM which was named by Professor Ziarati and supported has also received approval after a 2-stage assessment by Eureka ITEA3 assessors. This is also a very exciting news. More on this success will be revealed in April 2017 News.

A delegation led by Professor Ziarati, visited universities of Plymouth, Coventry and Warwick to discuss new proposals. One interest was the discussion on Warwick University's submarine project which could form the basis for ITEA proposal to develop a novel under water drone system for ship under water inspection. New proposals are being considered by MariFuture coordinating team at C4FF.

## **ACTS Plus**

The first partner meeting for this newly approved project took place on 17-19 November 2016 in Istanbul. The next meeting is planned for 30-31 March 2017 in Croatia. The details of these meetings will be published in March 2017.

The new ACTS project, ACTS Plus is based on the Pareto analysis carried out as a part of the recently concluded ACTs project. The Pareto analysis showed that some of the COLREGS rules are more complicated than others and that there are situations where a number of rules apply. The paper argues the importance of continuing the ACTs project both according to the plans for its post-funding period and also by preparing a new proposal for EU funding (ACTS Plus). It is worth pointing out that as a result of the new paper a proposal was prepared by some the partners and submitted to the UK national agency.

This new ACTS project is led by Southampton Solent University (SSU) and coordinated by C4FF. The project started officially on 1<sup>st</sup> October 2016.



## **MariEMS**

The partners of the MariEMS (Maritime Energy Management Training Strategic Partnership) project met in Slovenia in February (8-12<sup>th</sup>) to monitor progress to date and discuss how to continue the project with a view to make sure the proposal as proposed is implemented successfully and on time.

The second meeting of partners of the MariEMS project took place during 7-9 September, 2016 in Rauma, Finland. The partners discussed the latest developments and reviewed the job specification and the specification for the training of ship energy officers developed so far and attended the project's workshop organised by the Finnish partners, Rauma Port and Satakanta University. The project meetings and the seminar were a great success. On behalf of the Project Manager and partners, Professor Dr Reza Ziarati, gave a key note speech, presenting the importance of the project in reducing energy consumption at sea and in ports. He stated that this project is expected to help reduce energy use on board ships and in port contributing to a significant reduction of marine pollutions and engine emissions. This project proposes the development of an energy management job and training specification, as well as an e-learning delivery system for the new role of the Energy Manager which has been created specifically for the shipping industry. The intention of MariEMS is also to encourage shipping companies to seek compliance with the IMO and relevant ISO requirements.

It is noted that Southampton Solent University is expected to run the first multiplier workshops seeking the view of maritime academics and industrialist on the training programme specification. The workshop was delayed due to changes to the job specification and training programme content and will now take place on 29<sup>th</sup> March 2017 at Warwick University. 6-9 pm. A visit was made to EMSA to discuss the MariEMS project and seek feedback.



The project was disseminated at the 55<sup>th</sup> International Boat Show exhibition in Barcelona by UPC team from the Faculty of Nautical Studies, 12-16 October 2016. A paper is being prepared for presentation a IAMU 2017 in September 2017 in Bulgaria.

### **MariLANG Project**

The third partner meeting took place 16-17<sup>th</sup> January 2017 at Antwerp Maritime Academy, Belgium. The next meeting is planned to take place in Slovenia.

The MariLANG project intends to develop a Maritime English training programme based on the EU funded SeaTALK learning materials and the EU funded MarTEL assessments, both of which are compliant with the IMO Maritime English Model (3.17). It is worth mentioning that partners from both SeaTALK and MarTEL were involved in the 2015 revision of the IMO Maritime English Model Course through the International Maritime Lecturers Association (IMLA). The funding of MariLANG is very good news as it will complete the process started with MarTEL establishing a Maritime English assessment system, followed by SeaTALK seeking material for it, in conclusion MariLANG will develop an actual training programme for Maritime English which will include the three new categories defined in the revised model course: Electro-Technical Officers, GMDSS radio operators, and Personnel providing direct service to passengers in passenger spaces on passenger ships.



## MariePRO Project

The MariePRO received a grading of 81%. This is very high grade and the partners hope that the project would receive the 'Best in Europe' Award for their outstanding work.

MariePRO project funding period came to an end on 31 August 2016. The project was to review maritime education and training programmes, searching for good practices and developing an ECVET compliant Maritime Environment Awareness course incorporating the existing IMO Model Course and the and any new developments introduced by the IMO since the inspection of the their Model course 1.38. More details about the project can be found in the Project page of MariFuture or at <http://www.utu.fi/en/units/cms/projects/mariepro/Pages/home.aspx>. The partners held their final meeting and conference in Turku at the same time as the European Maritime Day (EMD), 16-20<sup>th</sup> May 2016. The final conference was very successful and over 50 delegates attended the event on 17<sup>th</sup> May 2016. Professor Ziarati, the Chairman and current Director of C4FF was invited to chair the panel at the MariePRO conference, titled 'Sustainable Shipping'. The keynote speeches by the President of the European Maritime Safety Agency (EMSA) and Dr Sadan Kaptanoglu, Kaptanoglu Shipping and member of Board of BIMCO outlined the challenges the regulatory bodies and shipping companies are encountering respectively. The most important consideration for the shipping companies was noted to be the survival and solvency against severe and adverse market conditions. The summary of the speech by Dr Kaptanoglu can be found in the MariFuture June 2016 Article.

The main output of the project is a report on Maritime syllabus differences, good practice report on application of ECVET primarily in maritime education and a comprehensive and ECVET compliant Maritime Environment Awareness course which includes the content of the IMO Model Course by the same name but also includes all the recent up-dates which have not been included in the IMO course. The novelty of the MariePRO Maritime Environment Awareness course is that it also includes some of the recommendations by the industry and provides two versions of the course, one for the seafarers already working in the sector (2-day) and one for the Cadets aspiring to become ship officers (5-day). There are plans to prepare several articles and papers on these outputs and publish then in the MariFuture website in the next few months.

A summary of all the projects can be found in [www.marifuture.org](http://www.marifuture.org). For further information about MariFuture please refer to the MariFuture website.

Dr Martin Ziarati