



Progress Report

Most Recent Engagements

This year Professor Ziarati chaired and organised the Midlands Engineering Dinner. C4FF has been hosting several meetings of the organising committee at its offices in Kenilworth.

The event poster is as follows:



Institution of MECHANICAL ENGINEERS

Main sponsor: **LIBERTY**

MIDLANDS ENGINEERING DINNER
Friday 18th October 2019

The National Conference Centre, Solihull B92 0EJ

4.00 – 6.00 free visit to museum
6.00 – 7.00 pre-dinner reception
7.00 – 10.30 dinner
11.15 - bar closed

Please join us for the Midlands Engineering Dinner, open to all our engineering colleagues. Our premier social event promoting engineering and academic excellence. An opportunity for both individuals and companies to meet, network and enjoy the occasion. There is also the opportunity to visit for free the Motorcycle Museum which celebrates many great engineering achievements. Our theme of "Innovation in the Supply Chain". Several companies will be showing their support for their future engineers with special displays in the hall. Key note speakers from Liberty Industries and Warwick Manufacturing Group. 2019 dinner charity - Birmingham Children Hospital

Dinner Ticket Prices: Members and Guests £55 - Young Engineers £45
Dress code: Black tie or lounge suits.
Ticket includes free admission to adjacent National Motorcycle Museum

For more information on the Dinner and sponsorship opportunities
contact: Drew Taggart, IMechE Midland Chairman, drew@thistlemanagement.com
Reza Ziarati, Chair Midland Engineering Dinner, reza.ziarati@c4ff.co.uk

To purchase tickets: <https://nearyou.imeche.org/eventdetail?id=16671>

Liberty our main sponsor, part of the GFG Alliance, is a fully integrated international steel and mining group, specialising in commodities trading, raw materials production as well as the manufacturing and distribution of steel, engineered components and associated services. The company enables young engineers to gain professional standards through its training programmes and apprentice scheme.

The event brought in the three worlds of Engineering Institutions, Industry and Academia in the region together. The following is a list of companies exhibiting at the event.

List of Exhibitors –



MOOG Aircraft brings technology which delivers sustainability, flexibility and reliability. We design and manufacture high-performance motion control solutions for a wide variety of industrial applications.

IET Coventry and Warwickshire Network supporting future engineers



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IMAGINEERING FOUNDATION introduce young people to the exciting world of engineering, science and technology

Precision Farm Engineering - Hands Free Hectare - Automated machines growing the first arable crop remotely, without operators in the driving seats or agronomists on the ground.

Maritime Research and Development, Hybrid systems development.

With a history stretching back more than 85 years, Perkins is one of the world's leading providers of gas engines. We aim to set standards of engineering excellence.

World class supplier of high-quality precision machined components supporting repeater, stranger and alien demands for the aerospace and advanced engineering markets.

Our purpose is to serve our customers and communities. This drives our vision to be the most trusted water company by 2020 and every year thereafter.

We're collaborating with global businesses, entrepreneurs, and leaders to deliver solutions that make a big impact on economic growth, society and the environment.

Centre for Factories of the Future (C4FF), deliver Business Intelligence Systems, application of artificial intelligence.

MTC provide on an industrial scale, a unique opportunity for manufacturers to develop new and innovative processes and technologies. The MTC is part of the High Value Manufacturing Catapult, supported by Innovate UK.

Each year the IMechE organises a Design Challenge for 1st and 2nd year undergraduates. This year Coventry University will demonstrate their winning design.

The evening was a great success and many people attended. It was felt that the venue was a fantastic place to host the event, so thank you to the National Conference Centre at Solihull. There were also some presentations to Lyng Hall School and some of their students for all their hard work on the C4FF's Air Quality Assignment. The photo below shows Professor Ziarati and Cllr Rasmussen presenting award to the school and the students who performed well in doing the assignment.



A variety of cutting edge modes of transport and other artefacts were on display at the Midlands Engineering Dinner 2019. There were several recent developments including autonomous vehicles being produce by Liberty and their partners. Liberty was the main sponsor of the event. Please see the photos below of some of these vehicles.



Year of Efficient Ship

MariFuture is continuing with the publication of a Development Paper on efficient ship each month throughout 2019 in support of the 'Year of Efficient Ship' due to the importance of the subject in order to make our members and partners aware of the impact of toxic pollutants from shipping; and the means available to us to reduce the level and amounts of the emissions from ships to a minimum level. In parallel, we will publish the results of our air quality research carried out to investigate the air quality in several cities and towns, focusing mainly in the UK.

New accepted EU funded Projects

GreenShip - This is a continuation of MariEMS initiative. The presentation at IMO at the HTW6 on 29th April 2019 by Capt. Zak (Solent University) and Professor Ziarati (C4FF, General Coordinator of MariFuture) describing how the MariEMS e-learning training courses can be accessed and used online, created a great deal of interest from several countries. This led to a review of a recently submitted proposal viz., GreenShip, to EU's Erasmus+ programme with a view to incorporate several countries as associated members.

This project is expected to start in October 2019 when the details will be published in MariFuture. The visit kick-off meeting is being arranged to take place in Barcelona on 9-11 December 2019.

PROMETHEUS - This proposal was accepted in mid- August 2019 and concerns the mental well being of ship crew. The project was expected to start in October 2019. The first meeting of the partners



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was scheduled 18-19 November 2019 in Athens. It was attended by Professor Reza Ziarati and Katie Parker (Research Officer) who received a warm welcome by Aris, our Greek partner in this project. Discussions began by introducing each partner and different partners spoke about their understanding of the Intellectual Outputs. There were two knowledgeable and experienced Captains in attendance which helped the project partners understand the potential risks and harm of sailors work on a day to day basis. Their input also circumstances which happen occasionally but have a large impact on the team's function on board the ship. We were lucky to meet, the lovely, Minna who has been practicing as a Nurse for 17 years with speciality of Mental Health and works to teach others her nursing knowledge. The photo's below show the project team members working together to build everyone's understanding and plan the future project.



PolyUniBus – This project concerns the policy making at the highest levels in bringing the two worlds of academia and industry together. This project is expected to start in October 2019. The details of the project and partnership will be reported in the October issue. The first workshop of the project was held on 21st and 22nd November 2019 at the University of Liverpool based in London. The aims of the project and the outputs were clarified. There were also discussions about the plan moving forward on the first few outputs.



Mentor – The Mentor project partner meeting took place in Kenilworth on 10-11th April 2019. The first workshop of the project was held on 10th April 2019 at Warwick University. C4FF coordinated



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the meetings during the two-day event and took the lead in the workshop activities. More information about the project and the meeting are provided in the Mentor project section below.

The third meeting of this project took place on 26-27 September 2019 in Switzerland.

ACTS Plus

The project assessment concluded in July 2019. The project received a grade of 8.1 which is considered a high grade. C4FF took a lead in preparing the final report. The project has commenced its post funding period in April 2019. The new simulator facilities the Solent University which was reported to be one of the best in the world and the ACTS Plus Advanced eCOLREGS (www.advanced.ecolregs.com) will be implemented at the university when the new simulator system centre is fully operational.

New Papers for major International conferences

Two new papers were prepared and submitted to the International Maritime Lecturers Association Conference in Georgia which took place in October 2019. One concerns Maritime English reporting on the work carried out in MariLANG project and the second is on the outcomes of the ACTS Plus project. As reported earlier Capt. Zakirul (Solent University) and Professor Ziarati (C4FF, General Coordinator of MariFuture) jointly presented the MariEMS Project and Courses for 'ship energy management trainees and trainers' to the participant at the IMO HTW6 meeting. The presentation was organised and authorised by the UK Maritime Coastguard Agency (MCA). Both Capt. Zakirul and Professor Reza attended the HTW6 as a member of UK delegation. The project partners would wish to thank MCA and IMO for this opportunity. The following are several photos from the event. Other MariFuture projects and new proposals were discussed during the visit to IMO with interested parties. A third paper is being prepared on RZ Multiple-choice which relates to the confidence assessment which removes the guessing dilemma in answering these types of questions in tests and examinations. The technique has played a major role in re-introduction of multiple-choice questions in e-learning applications.

Cyber Security

New projects are being developed and a meeting with leading IT specialists have been arranged for July 2019 at C4FF. There will be an announcement on the formation of a Cyber Security team in the near future.

Air Quality Group and Conference

C4FF has been supporting the Air Quality Group on the region and helped to organised its first meeting at Coventry University on 21 June 2019. To mark the UNICEF Air Quality Day, C4FF organised a reception at Berkeley House on 20th June 2019. The conference observation report is published as the Article in MariFuture's June 2019 issue and the conference summary report is published as MariFuture June 2019 Paper.

C4FF has also presented at the 'Air Quality Summit' chaired by Warwick and Leamington's MP Matt Western, held at Leamington town hall on Friday 11th October 2019. Please see the website attached below for further details published in the local newspaper, The Courier.



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https://www.leafingtoncourier.co.uk/news/people/transport-hub-and-clean-air-zone-among-ideas-shared-at-summit-to-tackle-pollution-problems-in-leafington-and-warwick-1-9109401?fbclid=IwAR1SsAk-jgra3tGKO1YmCzEKshEk27OwiGDdmcVwTLfM_OESnEIWxl6vEQ8

Following the interactive Kenilworth Chamber Exhibition from last month, C4FF have been successful in the initial collaboration with Green Business Network and plan an initial meeting. We hope that this will be a way to support the Air Quality Group in order to ensure a cleaner air quality for the future.

Mentor Project

The last partner meeting took place in Lausanne, Switzerland on 25-26 September 2019.

The #Mentor4WBL@EU Project was designed after the European Council prompted the EU Member States to increase "substantially the number of apprenticeships and traineeships to ensure that they represent real opportunities for young people, in cooperation with social partners and where possible integrated into education programmes". In addition, according to the newly adopted "European Framework for Quality and Effective Apprenticeships" (October 2017), European Commission identifies 14 key criteria that Member States and stakeholders should use to develop quality and effective apprenticeships. Among the specific criteria, is made a concrete reference on the necessity to exist a specific procedure for teachers, trainers and in company mentors to "update their skills and competences in order to train apprentices according to the latest teaching and training methods and labour market needs". In-company WBL mentors are in the core of quality WBL. However, in most European countries, they lack standardized support and guidance which will set the expectations and boundaries clarifying and ensuring their successful contribution in the learning process. Based on the above and the identification of the WBL needs and gaps by NetWBL, there is a significant need for the development of standards and qualifications that would identify certain knowledge, skills and competences. They should also provide adequate assessment that will lead to valid certification and August 2019 marifuture.org News ensure quality in-company WBL mentorship in enterprises providing apprenticeships and internships. More information about the project will be available on the project website when it is published. The project meeting of Mentor took place in Kenilworth, 10-11th April 2019. The first workshop of the project was held on 10th April 2019 at Warwick University. C4FF coordinated the meetings during the two-day event and take a lead in the workshop.

Career Comeback Support Program for Women's Project

The Career Comeback Support Program for Women's project was concluded in September 2019 and the final report submitted to the Turkish National Agency. The partners are awaiting the outcome of the assessment by the EU.

Career Comeback Support Program for Women (CCSP-W) The project started in September 2016. The partners have met in Istanbul, Kenilworth and Paris. The fourth partner meeting took place in Poland on 24-25 May. The subsequent meeting took place in Paris, France on 18-19 October 2018. The project is progressing well and is being implemented as outlined in the proposal. The project partners met in Paris, France on 18-19 October 2018 to discuss the progress and plan for future activities.



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UniBus

The international project partner meeting took place at Liverpool University London campus, UK, on 16-17 May 2019, the partners have made good progress on IO3 and IO4 UniBus Cloud Platform.