ANNUAL NEWSLETTER

SNAME

THE INTERNATIONAL COMMUNITY FOR MARITIME AND OCEAN PROFESSIONALS

NTUA- GREEK STUDENT SECTION **ISSUE 12** **WWW.SNAME.ORG/NTUA**

On this issue:

For the first time our section decided to publish an annual newsletter this summer to inform all members for our recent activity in the past 6 months and for the upcoming events!

MR. PETRAKAKOS OFFERS VALUABLE DIALOG ON OPPORTUNITIES AND CHALLENGES FACING THE SHIPBUILDING INDUSTRY

On Wednesday 14th of December, SNAME NTUA Greek Student Section held its first technical presentation for the year 2016-2017 titled ‘’Shipbuilding in the modern era’’. Our speaker was Mr. Charilaos Petrakakos, Senior Consultant in P&P Marine Consultants. The presentation was hosted in the Multimedia Amphitheater at NTUA Library and was moderated by Alexandros Senteris. The lecture had rich participation, including members and students from NTUA and TEI of Athens.

In this presentation Mr. Petrakakos focused on the present situation as well as the future changes in shipbuilding and ship repair industry. He gave an overview of the ship production ideal goals and the shipbuilding major works in order to understand the entire shipbuilding process and the flow of material from the stockyard to the end of product. Rather than first having an aerial view of the shipbuilding process he discussed each process and ship work in detail; as for the sequence followed in the industry. At the beginning, explained the various stages that are involved in a shipbuilding process. For him, one of the most important steps is the ship design. The design is basically done in three sub-phases, namely the preliminary design, the detailed design and the production design which differ in details and refinements. Through the design process the hull form and arrangement of the ship are determined, as well as Research and Development is conducted at this stage. The next step is the production planning. He pointed out that working and production schedules are developed considering the efficiency of the whole procedure.

FIGURE 1 MR. PETRAKAKOS DURING HIS PRESENTATION

Afterwards, having completed the design and prepared the material of the ship, a large percentage of outfitting equipment is ordered and placed by the shipyard, in order to achieve the parallelism of the hull fabrication and outfit installation.

In addition Mr. Petrakakos referred to his explanation in another crucial step: plate assembly and mounting of blocks. He explained how the cut steel plates as well as the processed components are assembled in order to ensure manufacturing efficiency.

Especially assembly is carried out step by step, starting by performing the small scale assembly, then the mid-scale and in the end the large scale assembly. Then, the blocks joined or installed using rigs and cranes.

Consequently, he mentioned the operation of quay and the sea trial where all of the ship's instruments and components are checked and verified to ensure that everything is in the right place and the right size. In conclusion, he pointed out that this process involves a lot of hard and precise work but in daily basis shipyards and shipbuilders around the world are making strong efforts to deliver ships that meet the demands of shipping regulating authorities (IMO, Classes, etc.) of being sustainable, energy efficient and eco-friendly.

FIGURE 2 A VIEW OF THE MANY STUDENTS THAT ATTENDED THE SEMINAR

Fostering the Next Generation: NTUA Student Section Hosts the 3rd Annual Young Professionals panel

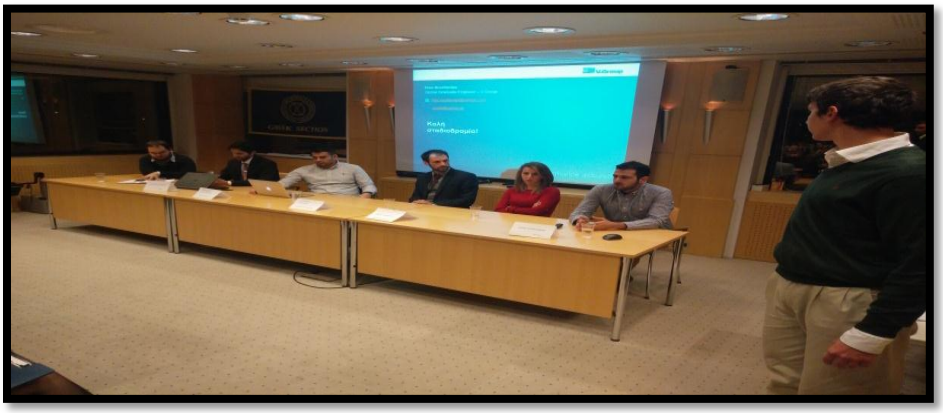

FIGURE 3 YOUNG PROFESSIONALS PANEL 2016

The National Technical University of Athens (NTUA) Student Section, in partnership with the Greek Section's Young Professionals, hosted the third annual Young Professionals Panel at the end of 2016. The event featured five keynote speakers from various fields of naval, marine and ocean engineering who shared their expertise with students.

Hosted at Maran and Alpha Tankers, the event aimed to establish a dialog with students about their future careers and served as an opportunity to build professional networks through SNAME. The panel was moderated by Alexandros Senteris and Vasileios Tsarsitalidis.

The 1st presentation was given by Ilias Soultanias, on behalf of Vgroup**.** Ilias Soultanias entered the school of NAME at NTUA in 2008 and pursued an active and diverse path for the following 6 years. Building a strong academic status during the first years of his studies, he moved on to TU Berlin for an exchange semester and later on, he went on internships in Athens, Berlin, Hamburg and Istanbul at different industry fields. At the same time, he remained an active advocate of student initiatives and organizations and especially SNAME by leading the NTUA section and participating in the SNAME Student Steering Committee of 2014. In his presentation, he made an overview of his resume and demonstrated the benefits of being a part of Vgroup, the internationally acknowledged provider of global maritime services. He also presented to the students, the graduate development program, underlining the variety of opportunities and potential that the organization has to offer, either at sea or ashore.

The 2nd presentation was given by Eleni Lazaratou. Mrs. Lazaratou was the 2nd graduate student of Naval Architecture and Marine Engineering in 2015 and she currently works in Operations Department of Maran Gas Maritime Inc., mainly specializing in compatibility and performance issues. In her presentation, she mentioned her participation in SIGGTO Committee for the drafting of industrial guidelines concerning the design of LNG Tanker manifolds. She also pointed out how important the Operations department is for a shipping company and the diversity of its responsibilities that mainly include Fleet performance, Charter party compliance, Terminal relations, Cargo management, Navigational procedures, Legal issues relevant to cargo custody, Safety and Security and Preparation for inspections and audits.

FIGURE 4 A VIEW OF THE CROWDED MARAN AUDITORIUM

The 3rd presentation was delivered by Evangelos Avgoulas, Research Associate in University of Cambridge. Mr. Avgoulas graduated from NTUA with a specialization in structures and he completed a Master's degree at the Imperial College in London regarding the advance composite materials. Afterwards, he received his PhD degree by the University of Cambridge, in joining composite and metal structures. In his presentation, he indicated what's involved in the PhD research process and the reason he was seeking an academia career at his first steps as a graduate naval architect. He emphasized on professional development, mentioning that how a modern PhD could be viewed as a flexible qualification. In his opinion, one can follow an alternative career, either related to his subject of specialism or drawn upon the advanced research skills their PhD has developed.

The 4th presentation was delivered by Panos Koutsourakis, Machinery Supervisor in Gaslog LNG Services Ltd. Mr. Koutsourakis, also a graduate of NTUA, titled with a Diploma in Management by the London School of Economics offered valuable information in the understanding of LNG shipping and shared his experience from his career so far. He focused on the opportunities of LNG transportation, LNG building and management challenges. He pointed out the technology offered by GTT cargo storage, that has already been proven efficient and suggested ways to optimize the space of cargo storage. Also he analyzed the LNG propulsion technologies and focused on the new trend towards higher pressure propulsion systems, which in his opinion, are promising greater energy efficiencies. At the end, he mentioned the importance of innovative management in order to enhance the company's value while achieving its goals.

The 5th presentation was delivered by Giorgos Plevrakis. Mr. Plevrakis presented an overview of his resume and told us some things about his experience. Mr. Plevrakis is a graduate student of Mechanical Engineering from NTUA with an intense interest for marine sector. After his graduation, he worked as a project engineer for a shipping Broker in Athens and he was later awarded an MBA by Athens University of Economics. Afterwards, he offered advisory and assurance services to acknowledged multinational corporations while working for Ernst & Young. Apart from this, he has also been responsible for the product development of certain Aluminum products in the international market for ELVAL. Later, he started working for MAN Diesel & Turbo for five years becoming familiar with every aspect and activity of the group; from after sales to new sales and from management of big maintenance projects to managing new plant projects. To conclude, Giorgos poses eight years of experience in the marine business and currently he is working as Business Development Manager of RINA Class for Greece. The presentation ended with the questions of students concerning the respective experience of speakers. Highlight of the event was the strong participation of the audience to the discussion with endless questions and proposals which made clear the need for more events like this one.

Monitoring, Reporting and Verification of Exhaust Emissions (MRV)

On Wednesday 29th of March, SNAME NTUA Greek Student Section held its second technical presentation for the year 2016-2017 during which Mr. John Kokarakis, Chairman of SNAME Greek Section and Director of Technology and Business Development Hellenic-BS-ME Zone at Bureau Veritas gave an insightful lecture on the topic of Monitoring, Reporting and Verification of Exhaust Emissions (MRV).

At the beginning of the presentation Mr. Kokarakis pointed out that the European Commission issued a legislative proposal to establish an EU system for monitoring, reporting and verifying (MRV) of CO2 emission from large ships using EU ports. Per him, ships would thereby be obliged to monitor four parameters on a voyage basis, namely fuel consumption, distance travelled, time spent at sea and cargo carried. The monitored parameters would need to be verified and different indicators based on these parameters would have to be reported on an annual basis.

All the parameters that have to be monitored according to the MRV proposal are in principle already being monitored on board ships, although some ship owners might have to adjust the frequency and/or the timing of the monitoring. The main additional obligations for ship owners will be that the monitored data will have to be verified and reported.

Figure 5 Mr. Kokarakis during his presentation

Additionally, he indicated that the proposed MRV Regulation would have to be laid down in the monitoring plan with the ships having the choice among the following four alternative methods:

• Bunker delivery notes and periodic stocktakes of fuel tanks

• Bunker fuel tank monitoring on board

• Flow meters for applicable combustion processes

• Direct Emissions measurements

Afterwards, Dr Kokarakis explained the verification procedure. Per him, the accredited verifiers have three key tasks:

1. To verify ship-specific monitoring plans

2. To verify that the annual ship-specific emission reports comply with the monitoring plans and

3. To verify that the figures contained in the annual ship-specific emission reports are accurate.

Therefore, he concluded that if the MRV regulation prompted to ship owners, either on a voluntary or on a mandatory basis, a significant CO2 emission reduction could be expected from the regulation.

"Riding the Waves of Innovation''

On the 5th of April, SNAME NTUA Greek Student Section held its third technical presentation during which Mrs. Evi Politi, R&D Manager and Dr Stamatios Arkoulis, Analytics Specialist from Danaos Corporation spoke on the subject of '' Applications on Data Analytics in Shipping''

In their presentation '' Riding the Waves of Innovation'' shared Danaos views on the contemporary "smart" way of ship management and monitoring exploiting data analytics techniques that allows creating new high standards and maintaining competitive advantage and the vision for the future.

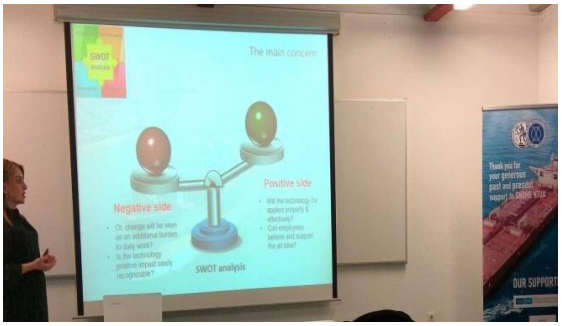

Figure 6 Mrs. Evi Politi during her presentation

They made an overview on how shipping is moving away from its traditional modus operandi, toward the new era of ''smart shipping''.

Eventually both speakers presented the Waves platform, through a full demonstration of all our advanced analysis tools including vessels Map and Algorithms, to explain the design concept of making big data best use and remaining one step ahead in terms of technology and innovation.

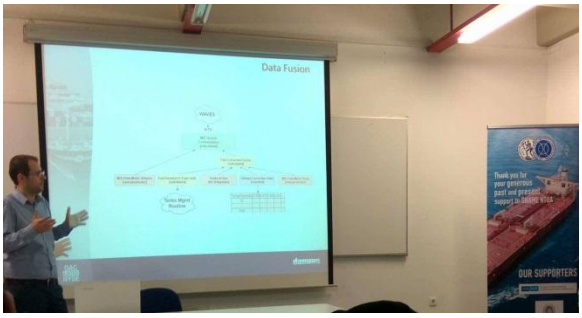

Figure 7 Dr Stamatios Arkoulis during his presentation

It was an honor to have a presentation from the R&D department and at the same time a great opportunity to get our eyes in the data analytics and data management areas and learn about further developments in shipping industry.

The end of the presentation was followed by a very constructive Q&A section, as the students' interest & excitement were highlighted; their questions were targeted and addressed to real business issues.

Standardization, Digital Adoption and Automation

The educational initiative Isalos.net in cooperation with SNAME NTUA Greek Student Section organized the event with subject: '' Ships of future: Standardization, digital adoption and Automation.''

The event took place on June 16th, for the celebration of Greek Merchant Navy Day.

Hosted at Aikaterini Laskaridis Foundation, the meeting aimed to establish a dialogue between students and professionals about the evolution of marine technology and the '' Automated Ships''.

FIGURE 8 THE AUDIENCE AND THE SPEAKERS' PANEL

Particularly, the speakers referred to the advantages of automated ships that will bring a technological revolution in the shipping industry over the next decades, focusing on increasing the vessels' efficiency and in fact to offer higher benefits to the shipping companies which invest in such technologies.

They pointed out that the vessels could be autonomously operated by advanced systems on board, while the monitoring and controlling will be executed by an operator in a shore control center.

In conclusion, all of them ensured the audience that the existence of seafarers will always remain necessary.

VISIT TO SKARAMANGAS SHIPYARDS: SPOTLIGHT ON SNAME-NTUA

FIGURE 9 SNAME'S TEAM IN FRONT OF "GEORGE AVEROF"

On Friday, May 19th 2017, SNAME NTUA Greek Student Section carried out a scheduled visit to "Skaramangas Shipyards". In our visit we were happily accompanied by Christos Papadopoulos, Assistant Professor at National Technical University of Athens and Vasileios Tsarsitalidis Dr. Engineer in Marine Propulsion and Hydrodynamics.

There, under the guidance of the Hellenic Navy's Officers we managed to attend some repairs of the glorious armored cruise ship "George Averoff".

The repairs were targeted on the maintenance of the ship and were related to the exterior (painting, changing parts of the reefs, cathodic protection etc.) as well as to the interior (mostly at the space of the museum and not at the functional-mechanical part of the ship).

"George Averoff" is the only ship of its kind that is left in the world until today.

It was constructed at Orlando Shipyards, Livorno, Italy during the period of 1908-1911 and consisted a technological achievement of its era. Moreover it took part on the side of Greece at all the important battles at the beginning of the 20th century and contributed excessively at the configuration of the modern Hellenic state.

FIGURE 10 "GEORGE AVEROF" STERN VIEW

Apart from the fact that we were given the chance to watch the repairs of such a great ship, we enriched our history knowledge and enhanced our national pride.

As a conclusion there could be no better way to end this successful year by enlarging the actions of our Student Section and generally contributing at the development of SNAME.

FIGURE 11 SNAME MEMBERS IN THE ENGINE ROOM OF "GEORGE AVEROF"

NEW FACES- Greek Student Section Elections

On 5th April after the presentation by Danaos Corporation, SNAME NTUA held its annual elections for the new executive committee, who will take over the new academic year 2017-2018. This year we had 5 candidates and four of them elected to the new SNAME NTUA EC. Lydia Kougioumoutzaki who is in her 4th year of studies and current secretary/treasurer of our student section was elected as chairwoman while Theodoros Kardaras and Pavlos Karagiannidis from 4th year too were elected as Vice-Chairman and Secretary/Treasurer respectively. Also Panagiotis Samaras who is in the 2nd year of his studies will be serving as Operations Officer.

It was a pleasure to have such an interesting discussion about the future of SNAME NTUA with all attendants during the elections and hear their views on our section,

The outgoing executive committee pledges its outmost support and gives its best wishes for the upcoming executive committee.

SNAME MARITIME CONVETION: Invitation to the members!

Dear Student Members,

A great event will take place in Houston Texas on 23-28 of October 2017. It's an excellent opportunity for everyone who is involved with the maritime industry and especially for the young ones, to get familiar with the latest developments and innovative ideas which will help to expand their field of studies. Send us your applications by e-mail, in order to receive funding and travel with us to the SMC this year!

Keep in touch…

Our website: www.sname.org/ntua

Like us on Facebook:

facebook.com/snamentua

Follow us on Twitter:

@SNAMEntua

Join us LinkedIn:

SNAME NTUA Greek Student Section

We would like to thank our generous past and present sponsors of SNAME NTUA:

ΙΣΝ/SNF ΙΔΡΥΜΑ ΣΤΑΥΡΟΣ ΝΙΑΡΧΟΣ
STAVROS NIARCHOS FOUNDATION

BUREAU VERITAS

HELLENIC PETROLEUM

Communication supporter:

isalos.net
Go Maritime Initiative