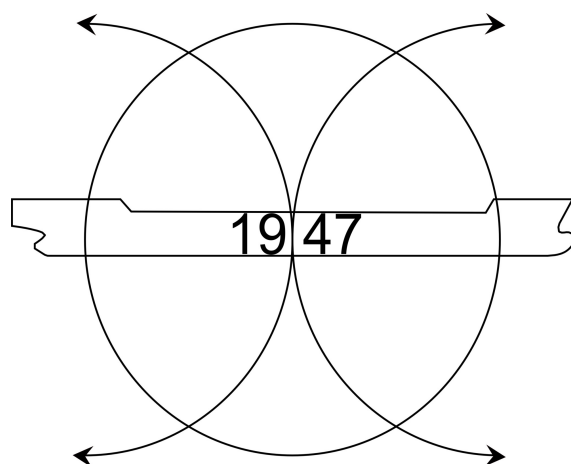


NUL-KRYDS

Annual Report 2019



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1 Words from the President

2019 has been another fine year for Nul-Kryds with a lot of activities, both academically and socially. You can read in detail about these activities in the following pages.

After a busy year in 2018 with both NTHS in Denmark and a study trip to Shanghai, 2019 has been more calm with only the regular Nul-Kryds events. At the same time we have also said goodbye to the leading forces in Nul-Kryds who have run the organisation the last 2-3 years. This means that we now have many new faces in Nul-Kryds who have to learn the Nul-Kryds traditions in order to arrange the coming events.

In general Nul-Kryds have continued to work hard to maintain and further strengthen the good social and professional relations between maritime students on different levels at DTU. Apart from studying every kind of floating structure, we consider the good social relationships as one of the finest elements of the education as a maritime engineer at DTU.

We have this year focused a lot on recruiting and advertising the maritime study path as the number of maritime students is relatively low. I would like to see some more students in Nul-Kryds and I know from the industry that the maritime engineers are in short supply. Therefore I will raise the flag and inform you that we need your ideas and collaboration in order to maintain the blue Denmark as an option for DTU students in the future.

We look forward to collaborating with you and your company in the year 2020. If you have any ideas for events or want to contribute with content for some of those events taking place on an annual basis, do not hesitate to contact us.

Happy New Year!

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2 Resume of the general assembly

The general assembly took place at DTU at the 26th September with approximately 25 participants broadly representing bachelor, both engineering and science, local master students as well as Nordic masters and international students. A few former students were also present at the general assembly.

The past year was evaluated with satisfaction where the study trip to Shanghai took an important part because this was a main task for the previous Nul-Kryds board. Then the plan for the oncoming year was presented before the new board was elected which can be seen below.

3 Board members

A very capable board was elected by the general assembly representing a good mixture of experienced and new highly motivated board members.

- **Frederik Hammer Berthelsen, President.**

Elected as President after one year as Vice President and before that one year as 1st substitute board member. Frederik was part of the NTHS71 planning committee and took part in planning of the study trip to Shanghai. He is on his third semester of the master in Maritime Engineering.

- **Sif Lundsvig, Vice President.**

Elected as Vice President after one year as 1st substitute. Sif is on her fifth semester of the Mechanical Bachelor of Engineering with a maritime specialisation and has previously been working on different ships.

- **Ondine Chegaray, Treasurer.**

Elected as Treasurer. Ondine was not part of the board last year due to exchange but before that she was an ordinary board member and took part in planning NTHS71. Ondine is on her seventh semester of the Bachelor of Science in Mechanical Engineering with a maritime specialisation.

- **Bjørn Willem Daugbjerg Welling, 1st ordinary board member.**

Newly elected as an ordinary board member. Bjørn is on his fifth semester of the Bachelor of Science in Mechanical Engineering with a maritime specialisation. Bjørn was part of this years NTHS delegation.

- **Jesper Anthonisen, 2nd ordinary board member.**

Newly elected as an ordinary board member. Jesper is on his seventh semester of the Bachelor of Science in Mechanical Engineering with a maritime specialisation. Jesper was part of this years NTHS delegation and has been on exchange to Southampton where he only took maritime courses.

- **Peter Jon Kristensen, 1st substitute board member.**

Newly elected as a substitute board member. Peter is on his third semester of the Mechanical Bachelor of Engineering with a maritime specialisation.

- **Daniel Enevoldsen, 2nd substitute board member.**

Newly elected as a substitute board member. Daniel is on his third semester of the master in Maritime Engineering. Daniel was part of the study trip to Shanghai.



Figure 1: *The Nul-Kryds board for 2019-2020.*
From left to right: Ondine, Bjørn, Frederik, Jesper (on the screen), Daniel, Sif and Peter.

4 Sauna evening

Among the less academic events are the Sauna evening. With roots in an ancient Finnish tradition the Sauna evening acts as a social gathering, aiming to tighten the relations between everyone with an interest in the world of maritime engineering. The Sauna evening often involves everything between anecdotes from experienced seaotters to waterfights between common landlubbers.

This years evening took place on February 15 and around 15 Nul-Kryds members participated. Primarily students but we also had the pleasure of having some old-timers to participate. The evening started with a vitalising dinner, preparing body and mind for the journey that was to come. Then followed the namesake of the evening, Sauna! If you still doubt the power of meeting new people while sweating, having same interests (more or less) and drinking a beer or two, you surely have not tried the Sauna evening.

Everyone is welcome to take part in the ancient, social and yet invigorating and healthy event: the Sauna evening. This years Sauna evening is gonna be on the 7th of February, so keep the date open!

5 Esbjerg trip

The two-day trip to Esbjerg went as planned, and the tight schedule made sure that everybody had plenty of company visits on short time. We started the 11th of March early in the morning, departing from DTU at 6.30. Around 14 students participated in the trip to Esbjerg in our two mini-busses rented for the trip.

On the way to Esbjerg we drove to Fayard. Here the visit was monitored like clockwork, just like the rest of the yard - efficiency and time schedules setting the standards for everything else.

From Funen the busses drove towards Viking and all their rubber. Here a classic example of a company doing plenty of research and developing in the country, but the big bulk of production being placed outside Danish borders. It was a lot of fun to see the new big emergency fleets and try climbing around in them in the testing facilities. The employees took good care to show and tell us about what it means to be a leading company in safety equipment.



Figure 2: *Looking into Vikings test facilities.*

We ended the day by visiting Ark Germania (DFDS) who was in port. Here we had a tour of the bridge, cargo hold and engine room. As she is a classic RORO vessel, plenty of ramps and lanes where to be found below decks, however being part of the NATO fleet, gave her some extra cranes and other equipment on board as well. It also gave the crew some trips to the Mediterranean when participating in NATO drills. It seemed they did not mind leaving their normal route for this at all!

Then we drove to a small cottage just outside Esbjerg, where we made tacos, played games and rested after being up early.



Figure 3: *The ramp of Ark Germania, Nul-Kryds went all the way down!*

Next morning we started in Esbjerg Steel Yard, where one small crew-boat and one small fishing vessel were in the docks being painted and looked over for general maintenance. It seemed though the yard is small they had plenty to do, also preparing for the big job of a complete overhaul of schoolship Denmark later 2019.



Figure 4: *Visiting the floating dock in Esbjerg Steel Yard.*

Then we departed from Esbjerg and went to see the impressive total of 11 Mærsk Supply Service vessels laid up in Fredericia on the way back home to DTU. The vessels are quite amazing pieces of equipment with all the gear and standards that are needed for DP vessels. However seeing so many proud vessels laying up doing nothing was not too cheerfull. But it is a good reminder of what political and economic changes can do to business no matter how big it seems at times.

All in all a big thank you for all the warm welcomes, and open introductions given by everybody that we visited - it is amazing to be able to see so many different aspects of the Danish maritime business in just two days!

6 NTHS 71

The annual event NTHS was this year held in Sweden, where the two student organisations Kongliga Skeppssällskapet from KTH and Chalmers Skeppsbyggare from Chalmers joined their strengths to prepare a great week for the participants. Ten participants formed the Danish delegation, of various years of study and nationalities. It is not exaggerating to state that everybody, including the other delegations had an amazing time, full of learnings, friendships and good mood. A detailed description of the week can be found in the *NTHS 72, Denmark 2019* report (upon request please write to nul-kryds@dtu.mek.dk).



Figure 5: *The Danish delegation who went to NTHS in Sweden.*

From left to right: Rasmus, Philip, Hans, Anna, Bjørn, Ondine, Mathias, Frederik, Chandan and Jesper.

The congress started in Stockholm where we had the pleasure to sleep in the hostel AF Chapman, a full-rigged ship in the centre of the city. The first visit was at Alfa Laval, where the participants were introduced to many of their products and fields of specialisation such as separators of mineral oil, ballast water systems, treatment of oil and water. We also discovered the Stockholm Repair Yard situated on the island Beckholmen in the city with its characteristic giraffe cranes. One of our guides in the yard was a former participant of NTHS and enjoyed seeing some familiar faces again. Finally, some company presentations were given at KTH, giving us the opportunity to see the university.



Figure 6: *Visit of the repair yard in Stockholm.*

From Stockholm we travelled by bus to Gothenburg with a stopover at Kristinehamn to visit Rolls Royce. At Rolls Royce, we were shown among others the assembly hall for propellers, the training room and the design process. Gothenburg hosted the visits of Volvo Penta, Chalmers University and Stena. The university also hosted some company presentations, as well as the anecdote evening and the great final banquet.



Figure 7: *All the participants of the congress in front of Chalmers University in Gothenburg.*

The two Swedish delegations managed to make the week full of interesting and various topics. In the evenings, the participants had the opportunity to get to know each others and create international friendships and enjoyed time together, whether it was in restaurants or karaoke bars.

7 Martha evening

The traditional Martha evening was a success once again in 2019. It took place on June 15 at DTU in one of the atriums with around 30 participants. In spite of wind and weather the pavilions and the grill were kept in place due to good naval architectmanship - which included gaffa-tape and a lot of motivation! The grill menu was both for meatlovers and vegetarians and a beer or two were enjoyed by both.

And once again meeting S/S Martha and her crew whether it was like seeing a good old friends ones more, or a fresh new acquaintance being made, everybody seemed to enjoy the experience. Thereby this Danish cultural treasure now has made new friends amongst the students visiting DTU from other places and so does the rest of us too.



Figure 8: *The menu was not as in the movie, but the hands were clean!*

So without promising too much, then we will stick to this tradition at least a bit more, maybe with a fresh twist or two in the coming spring.

8 Company evening

On September 18 Nul-Kryds carried out a Company evening with the headline: "Stories from the real world". The purpose of the Company evening was to connect the students with the maritime industry through newly graduated Naval architects and Marine Engineers, and to lessen the gap from student to engineer. There were around 20 participants to this event.

Nul-Kryds invited 3 companies to send 1 or 2 presenters to come and talk about their experience in the real world and their daily work. The speakers and content were:

Rasmus Brandenburg Bilde - OSK-ShipTech

Rasmus studied his bachelor at Aarhus Univeristy and his master at UCL. He graduated in 2017, and started working for Hauschildt Marine until he moved to OSK-ShipTech earlier this year. Recently most of his job consisted of scrubber retrofits due to the 2020 sulphur regulations

Arnbjørn Maressa & Mikkel Borup - NOV Flexibles

Arnbjørn graduated from DTU in 2018 and has worked for NOV ever since. Since graduating Arnbjørn has mostly worked with wave loads and oscillations.

Mikkel graduated from DTU in 2019 and has worked for NOV ever since. Mikkel works with optimising the end fitting of the flexible pipe, because it is the most vulnerable part of the pipe.

Christian Simon Nielsen - DFDS

Christian graduated from DTU in 2015 and has worked as a project manager for DFDS ever since. Christian talked about the pros and cons of being a Project Manager, so the participants could start figuring out then whether or not they would like to work as a Project Manager.

In between the presentations, Nul-Kryds provided sandwiches for everyone. During dinner and after the presentations the participants had an opportunity to network with the presenters.

9 Tech Event

Nul-Kryds participated on November 1 in a maritime introduction event at DTU for the Mechanical Engineering (Produktion & Konstruktion) students on their first semester. The event featured a panel debate with students from Nul-Kryds - Frederik and Bjørn from the Board - and representatives from the industry. Here Cobham SATCOM, Maersk, FORCE Technology and VL Dynamics where represented.

Furthermore the participants played "Constructor Game" developed by Det Blå Danmark to get an idea of the maritime industry. Here Nul-Kryds assisted the students in playing the game and helped with technical questions. The event was hosted by Danske Rederier and Danske Maritime.

We hope to see many of the students in Nul-Kryds at some point and that such events can continue as annual events so new Mechanical Engineering students at DTU are introduced to the maritime industry.



Figure 9: *Tech Event for the Mechanical Engineering students on their first semester.*

10 Christmas lunch

The annual Christmas lunch took place on the 2nd of November 2019. This is an event where current students have a chance to meet old-timers of the student union Nul-Kryds. While having fun and meeting with old friends, it is also a great way for international student to get to know the Christmas traditions of Denmark. It suits as a perfect opportunity to broaden your network in the maritime industry. This year 18 people participated in the event. It all started at 4 pm where the table was set for a maritime Christmas lunch at Saxen, at the halls of Kampsax at DTU.



Figure 10: *The table arrangement in Saxen for the annual Christmas Lunch.*

As the tradition states, the event started off with gløg and æbleskiver as a welcome. While everybody greeted each other and started small talking while drinking a few beers and some even started early on the snaps.

The food was put on the table at approximately 18:00. In transition to earlier years, and the normal Danish traditions, the cold dishes as shrimps, pickled herring, eggs etc. was served along with the hot dishes as roast pork, gravy and leverpostej both normal and vegan edition and a lot more traditional Christmas food. As the the Danish Christmas beer had come out the day before, this was put on the tables as well, along with the "OP Andersen" and other kinds of snaps of course to soften the mood.

This was followed by a small break from the food, while people where getting to know each other playing games, networking etc. while the final part of the lunch was being prepared.

Risalamande was then served, and of course there was a price for finding the whole almond. The price this year was of cause a bottle of snaps and a very special Christmas calendar, which definitely was worth winning. After this the party started, people were dancing, singing and genuinely just having a great time. The party lasted into the night and there was plenty of beverages for everybody.

The Christmas lunch is all about the the atmosphere, which was definitely at its peek all night. We therefore look forward to the Christmas lunch next year where we hope to see a lot of newcomers as well as old-timers. The event next year will again be held in the first weekend of November 2020. Therefore put a cross in your calendar at November 7 2020.

11 Work at DTU during 2019

Throughout the year the Nul-Kryds board meets one-two times a month. It is during these meetings that we plan who is responsible for what when we organise events, but a lot of the time is also spend talking about what it is like to be a maritime student at DTU, discuss if any new suggestions has come in and brainstorm on events we would like to host in the future.

Apart from the specific activities described in this report, Nul-Kryds has in 2019 continued to work to increase the interest for the maritime industry at DTU. We have continued to visit all the maritime courses and presented the maritime study line as well as Nul-Kryds. Furthermore we have continued collaborating with the Section for Fluid Mechanics, Coastal and Maritime Engineering (DTU MEK FVM) in order to have a talk between the students and the professors as well as helping with promoting the courses. This year this lead to the Tech Event for the B.Sc. Mechanical Engineering students on their first semester. This will hopefully continue as an annual event. And in the spring 2020 we will help with arranging a similar event for the B.Eng. (Diploma) Mechanical Engineering students on their first and second semester.

This fall we also helped with promoting the Business & Technology Summit for DTU and CBS students which Mette Sanne Hansen, Head of Maritime DTU, and Henrik Sornn-Friese, Director of CBS Maritime, arranged as a part of ShippingLab. This was one week with case work where skills from DTU and CBS students were combined to solve a case provided by DFDS. This will continue as an annual event in order to strengthen cross-disciplinary project work for the maritime students, to strengthen networking between the two educations and to get the students to work with company-like cases. The DTU students got ECTS-points for participating in the case work which meant that DTU were well represented. Three DTU students from Nul-Kryds, including the Nul-Kryds President, won the case competition with their idea on how to optimise the cargo operation in harbours.

We have also continued to promote the IDA Maritime events so Nul-Kryds members can go there together and hear about the maritime industry.

This year we also began to use our LinkedIn site more in order to present what we are doing during the year. So follow us there to get some Nul-Kryds updates throughout the year until the next annual report:

<https://www.linkedin.com/company/nul-kryds/>

12 Plans for 2020

In the spring we will focus on promoting and participating in the Tech Event for the B.Eng. Mechanical Engineering students as there is a lack of these student in Nul-Kryds since they mostly have lectures in Ballerup and all the maritime professors are sitting in Lyngby.

In the spring we are also participating in NTHS 73 in Finland. We are looking forward to participate in the congress as the Finnish student union has a lot of traditions and a very close relationship with the industry.

We will of course also have our annual events: Sauna evening (7/2-2020), Martha evening (13/6-2020) and Christmas Lunch (7/11-2020) as well as our company evenings. We hope that we will see more Nul-Kryds old-timers at our social events as there has been lack of those in the recent years. The old-timers are important for keeping the Nul-Kryds spirit and telling anecdotes from their time at DTU.

Towards the end of 2020 Nul-Kryds is planning an international study trip to Asia in cooperation with DTU MEK FVM. This will take place in the Autumn break where hopefully 24 students will participate together with 1-2 professors from DTU. This is something we look very much forward to as it really contributes to the good social relationship in the union. We therefore hope to get the necessary funding so this trip is possible.

A continuous focus for Nul-Kryds in these years is promoting the maritime study line and we will continue to do so. We hope to get help from the industry and its organisations in order to promote maritime engineering even more, as this is needed in order to secure skilled engineers in the maritime field in the future, and also a fruitful learning environment at DTU. Therefore you are welcome to contact us at nul-kryds@dtu.mek.dk if you have ideas for Nul-Kryds events, visits or company evenings.



Figure 11: The former Nul-Kryds President Philip Holt and the current President Frederik H. Berthelsen were featured in a Søfart article (Søfart Week 24 2019) about studying Maritime Engineering at DTU.

13 Sponsors

