

Taylor Vision



25

About us

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Edition

Taylor Lustrum Edition

History

Taylor is the study association related to the department Precision and Microsystems Engineering of DelftUniversity of Technology. The association was founded in 1988 to enhance the study experience of the students. The Taylor Foundation, in its legal form, was subsequently founded in 1992, making it an official organ in the TU Delft. During this time, the department changed its name from “Production Engineering” to the PME you are all familiar with.

In contrast to what many people think, Taylor is not named after the famous mathematician known for the Taylor expansion. It is named after the mechanical engineer Frederick Winslow Taylor, who was active in production engineering and industrial efficiency.

The logo of Taylor was inspired by the tip of an Atomic Force Microscope, an instrument that requires technology from all the divisions of the department.

Taylor aims enhances the study experience of the students by: trying to improve the relation between the students and the department staff, bringing the students in contact with the industry, providing the department with student feedback about courses and, last but not least, organizing recreational events to de-stress from the hard working life as a PME student.

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From the board

Dear reader,

Dear reader,

Welcome to the second Taylor Vision of this year. It has not been so long since the first Taylor Vision came through your mail box, but there has been going on more than enough to fill this new edition.

We are currently approaching the end of the third quarter, a quarter filled with project courses. The students are busy with their deadlines, but of course they can still find enough time to join the Taylor activities, which includes the pleasure of reading about the experiences of other students at past events. As always the lunch lectures and excursions will be mentioned, but there is also room for other interesting stories, such as the experience of international students here in Delft or an extensive story about the lustrum event, which was a great success! The evening started with a nice dinner at the Art Centre, which soon turned into a party with live music and amazing fireworks at midnight. But you will read more about that later in this Vision. We would however, like to thank the members of last year's Taylor Board and our Master Coordinator Eveline once again for the work they put in to this event. Also thanks to everyone who joined the party and made the evening unforgettable!

With the third semester almost at an end, the department is also busy recruiting the new PME members for next year. There was a decent showup at the master event and the students who do their bachelor end project at PME already joined their first Taylor drinks at the Fancy Pancy Spring Party. The signs are all there that both High Tech Engineering and Opto-Mechatronics are going to have a big group next year.

Before this all happens we look forward to the last quarter and finally, the Taylor Trip. We will continue to organize our activities with pleasures and we hope to see all of you around for another three months!

Yours sincerely,

Gijs van der Velden

Taylor Events: Q4

For the last quarter of this year we will leave you some time to focus on (hopefully) your very last courses ever. We would however not be Dispuut Taylor if we didn't organize some nice activities for you all !

In Q4 we will welcome back a company you probably are already familiar with: **DEMCON**. They will provide us with an interesting **lunch lecture**. Also we are happy to announce that we will organize a second lunch lecture by a new sponsor: **Festo!**

As was mentioned during the lunch lecture by ASML, we will also organize a **company visit to ASML** in Veldhoven, on May 17. Next to this you will have even more time to get to know the company during our second **drinks lecture**, by ASML.

We hope to see you all at the activities and of course at the monthly receptions!



UPCOMING ARTICLE...: Do you want to know more about the technical and artistic aspects of this dynamic balanced mechanism, you will all read about it in the next Taylor Vision!

Recent graduates

The following students have recently graduated from PME, congratulations to all!



Jan Frouws, specialisation: SOM
The Darcy Method for Topology Optimisation of Pressure Actuated Compliant Mechanisms

Bart Overes, specialisation: MNE
Imprint Lithography using Nanocrystalline CVD Diamond Molds

Pieter Kapel, specialisation: MNE
Manufacturing of a Polymeric Membrane with Integrated Porous Electrode

Wiebe Nelissen, specialisation: SOM
2D Lattice Materials for Actuation

Sander Bokseveld, specialisation: MSD
A Predictive Energy Management Strategy for Plug-In Hybrid Electric Vehicles utilizing Route Preview

Arnoud Kramer, specialisation: MSD
Linear Z-stage Design for the positioning of an AFM scanstage

Activities

Lunch lecture: ACE

The last lunch lecture of 2017 was presented by Gijs Akkermans and Frank Kennedy van Dam. They came to tell about their company ACE. The company is specialized in high-tech systems, industrial automation and product development. They're located in the Benelux with one of their buildings in Delft.

The lecture started with a short story about the Volvo Ocean Race. In combination with Brunel they've competed multiple times. After the introduction by Gijs, Frank took it from there to give a case about one of ACE main businesses, value engineering. He took us through the whole process of analyzing an existing system, searching for improvement opportunities and designing and realizing a new solution.

At the end of the lecture, one lucky student was picked who received a pair of VR glasses. In summary, it was a very interesting and informative presentation.

Ramon de Koning



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Do you dream of changing the world of innovation? Do complex technological challenges appeal to your imagination? We are looking for you. ASML always wants to get in touch with eager and curious students.

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ASML

Be part of progress

Activities

Lunch lecture: TMC

On the 10th of January the first activity of 2018 was planned. TMC came to Delft to give a presentation with the title "MSD in practice – Becoming a system designer". It was very nice to see that the speaker, Jeroen Karregat, turned out to be a former PME student. Accompanying him was Phuc Vuong, who even did his PhD at the PME department. Small world isn't it!

Phuc showed us the flowerbed positioning station he designed, which is well known to the attentive PME student, and he explained the relevance of mechatronic systems in industry. After that, Jeroen took over and showed us some more practical examples of MSD applications at TMC. He also explained the term "employeneurship" with which he explained the possibilities that TMC gives their employees to work on their own projects.

It was an inspiring lunch lecture and it was very nice to hear from two speakers that actually stood in our very shoes, only a couple of years ago.

A loyal Taylor vision reader



Activities

Workshop: Python

Right as Q3 started off, all PME students had the opportunity to follow the Python workshop given by our very own Alejandro Aragón. Many of our students showed their willingness to learn this computer language, since the Instruction Room was almost completely filled! After everyone grabbed their free and delicious Thai dinner, Alejandro began the workshop by telling about Python in general and its advantages over Matlab. Python can basically do everything that Matlab can do, but quicker and for free, while being more versatile as well. Alejandro also mentioned the Hybrida project, a (still growing) finite element library that combines the best of interpreted languages like Python and C++. After this introduction, the basics of the Python language were shown (remember, indexing starts at 0, not at 1!). In addition to this, Alejandro brought one of his master students, Koen Markestein, to show some nice examples of what you can do with Python. As it turns out, you only need about 75 lines of code in Python to write your own FEM program!

The workshop was very useful for those who didn't know Python yet. It was informative yet relaxed, due to the many jokes Alejandro made while teaching. So thank you Alejandro and Koen for giving this workshop!

Vincent



Activities

Excursion to Denso!

On what was probably the coldest day of the year, a small group of PME students gathered at 7 am in front of the Aula. The Taylor board was already awaiting us with a big bus, including bus driver, to take us to Germany. Since it was very early, everybody was still a little sleepy, so we decided not to talk too much and use the 2 ½ hour bus drive for some extra sleep. Around 10, we arrived at Denso, just across the border.

At Denso, we were awaited by the staff who gave us a warm welcome. We were smart to put on our best suit in the morning, because a lady with a camera was there to record the complete excursion. After some coffee, we started with a tour around the facility to see all the stuff they design and test. Denso is not well known publically, but it is actually a very big company, which has almost all major car manufacturers as customers. We were shown a lot off cool high tech precision parts that they make and test, which Denso uses to make cars better and more efficient every year. Their test facilities are probably the key to their success. State of the art testing rigs and chambers were available to try the products under extreme conditions. They even have their own test track outside, where we were shown how they have tuned a Volvo XC60 to test its performance on the track.

After a great lunch, we were given a few presentations about some other projects that Denso is currently doing. They are clearly looking ahead, because the control of electric vehicles is one of the innovative programs that they are working on. We were also informed about the opportunities at Denso for graduating or starting our career. The company offers some great international traineeships, which are definitely interesting for the ones that want to work in the car industry and aren't shy to go abroad.

Then, the excursion already came to an end. After the necessary group picture and exchanging business cards, it was time for us to go back in the bus for a long drive to Delft.

Marnix Ackermans



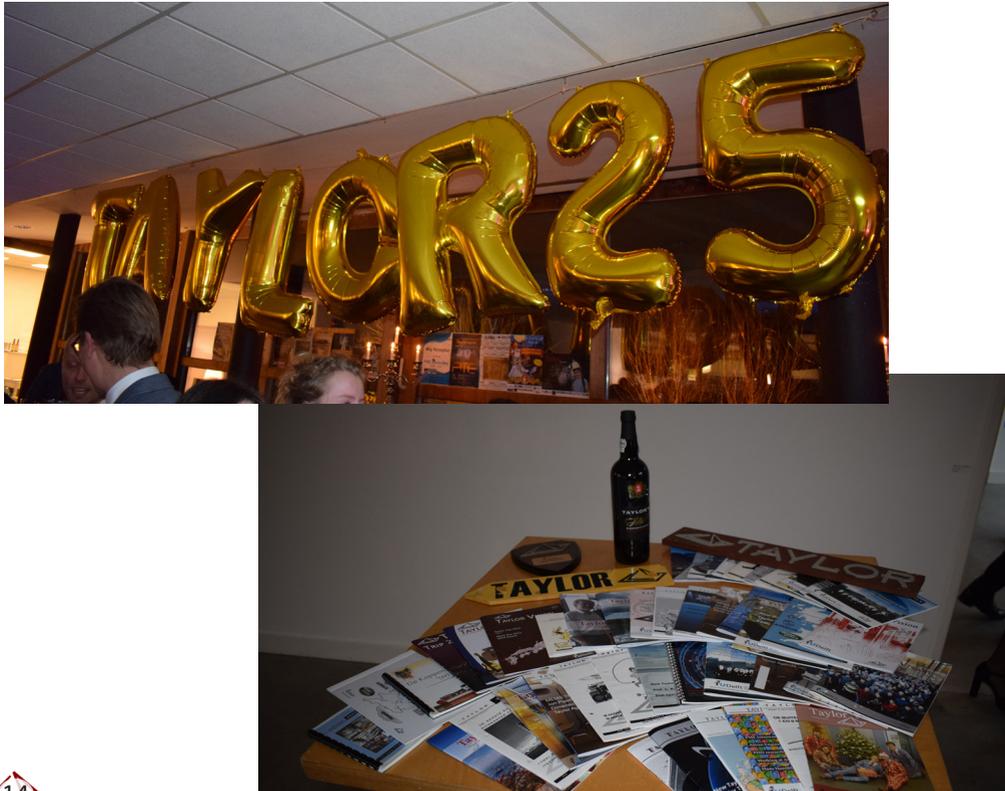
Lustrum Party

Taylor 25 years!!

Friday the 9th of March was the day we finally celebrated the 25th official anniversary of Stichting Dispuut Taylor. After months of preparation and creative thinking by the Lustrum Committee the ticket sale started.

Two weeks before the big night we became a bit frightened: Because of the nature of PME people, we could have expected that studying is more favoured than dancing, but, of course we did not take that into account. After a lot of spamming and pushing people to grow some balls and get tickets for the party, we managed to have a nice group of people to join us.

As you can always walk in to the Taylor office, we had open doors before the beginning of our celebration dinner. Marianne came in early and has seen the whole process of hanging our TAYLOR 25 balloons. A lot of decoration needed to be done in a short amount of time, so we 'committee of professionals' managed to get everything done in time.. *cough cough*.



Once the majority of dinner participants arrived, Just kicked off the evening with one of his famous speeches. Then the delicious dinner could start. The buffet and deserts were great, as you can expect it to be when prepared by the Art Centre.

After dinner, Just took the mic once again. This time it was to surprise the current Taylor board with some questions about their vision of the future years. The conclusions were clear: We would have world peace, everyone would be happy and there would be a lot of knowledge sharing. Because Justin could not attend the meeting, Thijs invited himself onto the stage to apply for being the new head of the department in 25 years.

Then it was time for the real party: while the band was setting up its equipment, the rest of the party gang arrived and a table with food for a whole orphanage was rolled in. Next to that, everyone was provided with a glass of Taylor port.

The singer of the band could tell that PME people were standing inside. His first comment to the group was that everybody needed to drink more. And so they did!

After an hour of partying it was time for a presentation from the last two chairmen, Gijs and Thijs. Gijs showed us how nothing has changed during 25 years of Taylor. The most memorable example would be the haircut of little Ad little houses.



Lustrum Party

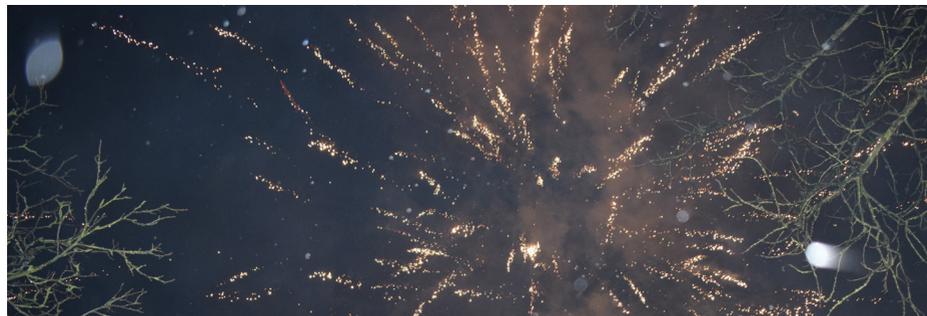
We loved everybody's enthusiasm, dancing and singing along at the party! Even though it was hard to understand Dutch songs for the internationals, we have spotted them dancing to the songs of Andre Hazes.



Tom showed off his guitar playing skills during the last songs of the band and we concluded the evening with a beautiful fireworks show during which we heard some people were kissing..

Thank you all for joining this beautiful evening!

Niek en Miranda
(members of the Lustrum Committee)



Lustrum Party

We would like to thank the Lustrum Committee, our predecessors, for taking the lead in organizing this unforgettable event. Without you we wouldn't have had an amazing celebration like this. Also special thanks to our Master Coordinator, Eveline, who played an important role in the organization of this evening as well.

Thank you! We had a fantastic evening!





Study abroad

“Down Under in the Netherlands”

Hey!! I'm, Matthew James, an **Australian** Mechanical Engineer from Sydney that's been studying **HTE** in the Netherlands for about 6 months now. In my time here I've noticed plenty of small differences that really accumulate to create a whole new experience. But before I tell you all about it, let me clear up a few really common misconceptions; yes, spiders are as big as you think they are, and no, it's still a perfectly safe country to travel around.

Alright! The first big difference is Alcohol. When I first arrived in the Netherlands, I was blown away to find out how cheap alcohol was here and how easy it was to get it. A cheap beer only costs 40 cents at the supermarket, and a really good beer at a pub will only cost about 5 euros. I was also really pleased to see a very relaxed drinking culture; there aren't many clubs in Delft, and most people I know here are usually content having just one beer or two in a sitting. In Australia, things are quite different. Alcohol is heavily taxed which means that it's really expensive. Expect to pay at least 30 euros per case of beer and about 25 euros for a bottle of vodka. Australians also drink differently. It's a cultural norm to buy “**rounds**”, this is where one person in a group will buy everyone a beer, and then afterwards the next person will do the same. If you're at a University pub with four other Australians, expect to drink a multiple of 5 beers in a sitting! Drinking is usually a much more high energy activity as well - expect the occasional drinking game challenge! Oh, and whatever you do, don't let the Aussies make you try “goon”...



The next big difference are **outdoor activities**. The Netherlands is an impressively flat country making it perfect for bike riding, rowing and running. Most Australians live along the coast which is usually not that flat, so sadly cycling is not as big as it is in the Netherlands. You won't find any bike parking lots! However, there are quite a few popular beach based activities like surfing, beach volleyball and swimming.

Australia vs Netherlands.

My home University (UNSW) was located 30 minutes walking distance away from a beautiful beach where it's not uncommon to see students finish their daily studies and then go for a dip in the ocean. Don't worry, it's completely safe, no sharks will get ya. Hiking is also a really great thing to do in Australia as well. If you're in Sydney, visit the “blue mountains” - if you find yourself based in Sydney, it's definitely worth a visit. Watch out for drop bears though!

Another thing I've noticed about the Netherlands is the **way people socialize**. Every Dutch person I've spoken to in the Netherlands so far is unfalteringly logical and direct. It's as if all Dutch people have a little bit of Engineer in them. Australia really prides itself on it's laid back culture, and so you'll find even in big cities a very friendly and relaxed vibe coming from most Aussies. As long as you get yourself involved in different activities, it should be really easy to make Australian friends.

I've also noticed that the **architecture** in Delft is very beautiful and old fashioned. There are cobblestone paths, beautiful churches and very pretty canals. Because Australia is a much newer country, expect to see a much more modern look. Also, because Australia is a pretty large cultural boiling pot, expect to find a wonderfully diverse range of Asian food stalls. Oh, and don't expect to see houses built as narrowly as Dutch houses! Australia is a bit more spread out in that regard.

One of the defining features about Australia is its geographical isolation. In Europe, you can walk 10 meters to the left and end up in another country with an entirely different culture. In Australia, you're stuck in a **giant, mostly homogenous country**. This shouldn't discourage you from traveling around Australia though! Traveling up (or down) the east coast and passing by places like **Byron Bay, surfers paradise, and the Whitsundays** is always a great idea.



Also, if you can, try and visit South East Asia on your way to and from Australia. Bali is the default tourist hotspot for Australians.

Hopefully this gives you a bit of a cultural summary of the differences between Australia and the Netherlands. **It's definitely more than pronouncing the letter “J”**. I know this sounds cliché, but the best way to find it is to just go there and experience it for yourself!

Matthew James



Activities

Lunch lecture: Sioux CCM

It was the 12th of March and everybody was looking forward to a nice lunch lecture as always. When the speakers from Sioux CCM entered the lecture hall however, something was different from the other lectures. It took me a while to discover what it was, but then I saw it: they were carrying a load of equipment into the lecture hall!

The rest of the crowd also noticed this and soon everyone was paying attention carefully. The speakers started with a general story about themselves, their projects and of course Sioux CCM. They had been working on many projects and they showed us a few to give an example of the diversity in projects their company had worked on. After the introduction it was time for a bit more technological story about the 3D Dental Scanner, which was designed and built by our guests. The main point they made was that the working principle of the project was the first thing they had to come up with.

When they were finished with their first prototype it turned out to be way too big to put in someone's mouth, so they had some finetuning to do. The final result was a smaller 3D scanner and that was what turned out to be the equipment they brought with. They ended the presentation with a live demonstration of the scanner. All in all it was a very complete and interesting lunch lecture!

A very dedicated PME student



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The Great Gijs Game

Try to fill in the box below, but make sure to follow the following rules:

T is to the left of P

A is above M and R

Y is above E

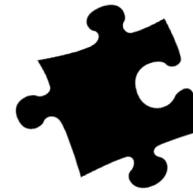
L is to the right of A and above T

O is above T and to the right of R

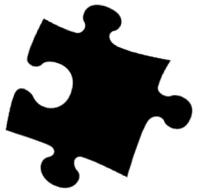
R is to the left of E

Send your answers to Gijs van der Velden, your highness raffles a great prize!! ;) See next page for the winners of the previous Puzzle!

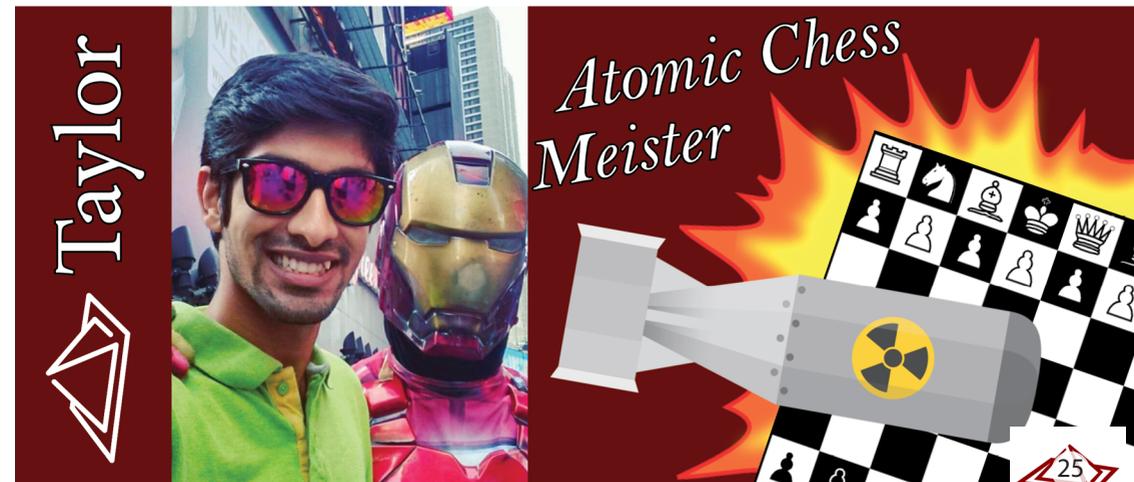
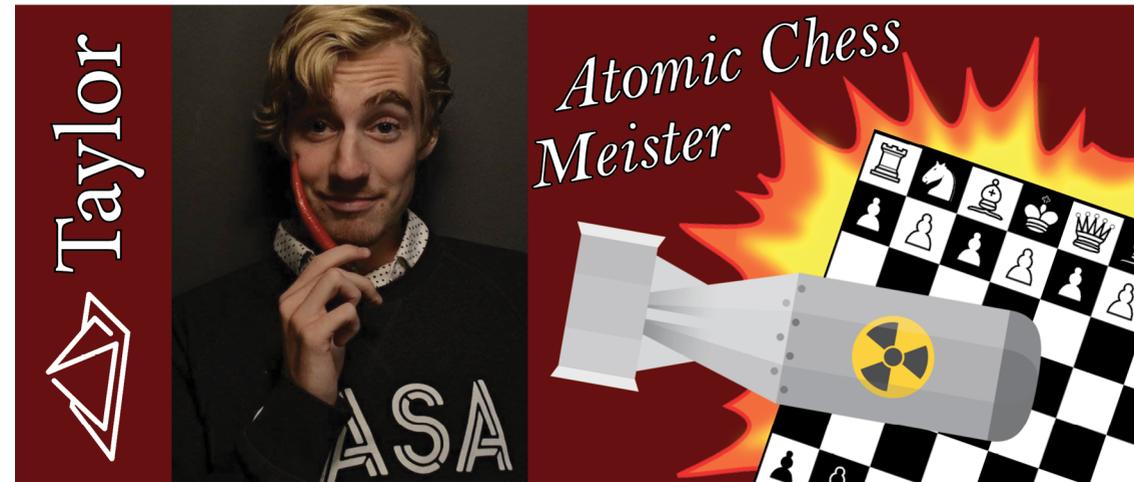
Atomic Chess Puzzle TV1



WINNERS

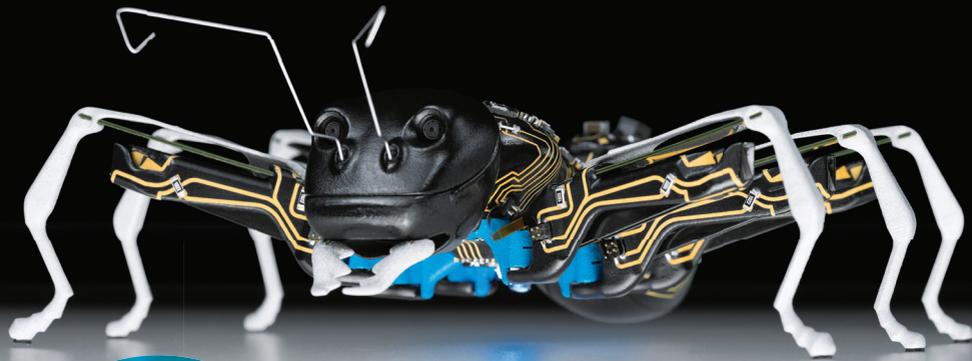


Arnold and Nimit, come pick up your amazing price at the Taylor office!



FESTO

Ben jij een technische duizendpoot?



**Werken
bij festo.nl**

**Kom jij werken of stage lopen
in een inspirerende omgeving?**

Get involved

Quotes

We would love to receive funny, motivational, wise or other quotes from our PME staff, students and PhD'ers to make a nice section with quotes in the Vision. Please send them to us together with a little bit of context.

Vision

We are always looking for new stories for the Vision which is why we would like to invite you to send your story. This can range from articles or your PhD work to internship experiences. Do not hesitate to contact us and who knows you might be in the next Vision!

Taylor

If you have any comments ideas or questions about Taylor and its activities, feel free to contact us.

You can contact us at:
Taylor-3me@tudelft.nl

Check out the website for more information!
www.dispuuttaylor.nl

