



**avans**  
hogeschool

**Offshore: groter,  
sneller, efficiënter**

10 november 2011  
's-Hertogenbosch



# Offshore in Brabant “off-course”

## Minor “Offshore Engineering & Automation”

### *Aanleiding:*

In 2007 doet Avans docent Robert Plat employment onderzoek voor IRO-Nogepa

- Sterke branche, toonaangevend in de wereld
- Veel vacatures (13000 in 2007), vergrijzing
- Slecht bekend bij studenten
- Hogescholen in west en noord Nederland spelen niet echt in op de behoefte vanuit de Offshore.

### *Aanpak:*

- Vraag en aanbod koppelen: Idee voor opzet specifieke minor
- Avans heeft (veel) technische studenten
- Bedrijven hebben Offshore kennis

# Plaats van de minor in het onderwijsprogramma

Minoren	4de jaar	Afstuderen	Afstuderen	Keuze
		MINOR OFFSHORE Eng. & Autm. MINOR 2	MINOR 2	
MAJOR	3de jaar	MINOR 1	MINOR 1	Keuze
		STAGE	STAGE	
	2de jaar	Werktuigbouwkundig Ontwerpen	Industriële Automatisering	
MAJOR	1ste Jaar	Werktuigbouwkunde	Werktuigbouwkunde	Keuze
		Engineering	Engineering	

# Resultaat

- Gestart in sept. 2008 met 42 studenten, in 2009 met 58 studenten, 2010 met 42 studenten, 2011 met 78 studenten.
- 13 bedrijven verzorgen hoofdvakken
- 9 bedrijven geven gastcolleges
- 10 bedrijven verzorgen excursies
- 2 bedrijven geven practicum
- Een zeer actief en smaakmakend onderwijsprogramma



# Deelnemende bedrijven

## Geven een of meerdere hoofdvakken:

### 1<sup>e</sup> Blok:

- IHC Merwede, deepsea mining 7
- WARTSILA, Hydraulics & Propulsions Systems 7
- DOCKWISE, Stabiliteit 7
- GUSTO MSC, Inleiding Offshore, engineering 6
- HEEREMA Decommissioning 1
- KONGSBERG , sensoren 1
- BAKKERSLIEDRECHT, Diesel elektrisch , net  
vervuiling 2
- MARIN, simulatie, modelproeven 2
- GUSTO, besturing kranen hydraulisch, elektrisch 1

# Deelnemende bedrijven

## Geven een of meerdere hoofdvakken colleges:

### 2<sup>e</sup> Blok:

- IHC Merwede, Windmolens techniek en plaatsen(7)
- WARTSILA, Hydraulics & Propulsions practicum  
voorbereiding 1 + practicum installatie voor Avans
- VAN DER LEUN, keuze propulsie hybride 1
- REXROTH, Hydraulics & positioning 7+ practicum  
1 dag/ excursie
- ALLSEAS, Pijpenleggen 7
- VAN OORD, Baggertechnologie 7
- HUISMAN, besturingstechniek 3

## Deelnemende bedrijven (2)

- Geven gastcollege (G) / verzorgen excursie (E)**
- SAIO, offshore veiligheid training E
  - DAMEN Shipyards E
  - ALLSEAS E
  - FUGRO, zoeken naar olie en gas, G
  - HEEREMA, installation G
  - BOSKALIS, baggeren, stenen storten G + E
  - JUMBO SHIPPING, stabiliteit, afzinken op zee G + E
  - IHC E
  - HEESEN, superjachten, G + E
  - ABB, windmolens G
  - BAKKER SLIEDRECHT, positionering DP G
  - HUISMAN ITREC, hijswerktuigen G + E
  - HOLLANDIA, constructies G + E
  - REXROTH E

# Wat is bijzonder voor studenten aan de minor Offshore Engineering & Automation

- "Kicken en keihard werken"
- *Eerst de praktijk (context), dan pas theorie (inhoud):*
  - *Ideale kans om snel veel te leren*
  - *Studenten werken aan praktische opgaven die tot de verbeelding spreken*
- *Veel bedrijfscontacten(uniek)*
  - *Studenten maken contact met een veelheid van bedrijven*
  - *Studenten krijgen de kans goed na te denken over hun eigen beroepsprofiel*
- **Hoge scores van studenten in de evaluaties!**





## Kenneth van Loon



My name is Kenneth van Loon and I am 22 years old. After finishing the MBO study Mechanical Engineering, I decided to study HBO Mechanical Engineering at **Avans**. What appeals to me in this education is the combination of theory and practice. You are working on a project from the start to the end. You are not just designing and calculating the projects first, but you also actually executing it. This way you don't specialize in just one area, but you get to experience the entire process.

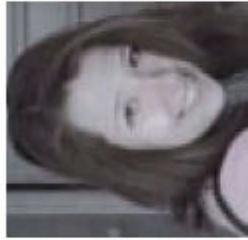
I chose to do the minor Off-shore because I find modern techniques and large machines and installations very interesting. Much bigger than in the Off-shore branch is almost impossible, as can be seen often at the Discovery Channel. Besides this, I also knew several former students who did the Off-shore minor. They told me that this is a very interesting and active minor with a lot of excursions, but that still requires hard work. The strong point of this minor is the close collaboration with the Off-shore companies. There are guest lectures from people who actually work in Off-shore. Their experience and knowledge of the business make these lectures interesting at another level

than "regular" lectures. There are many excursions during the minor. This brings the opportunity to get in contact with a lot of people within the Off-shore branch and you get a good view on the actual ins and outs of the branch. This way you can really decide in a constructive way whether the branch suits you and if you see a future for yourself here. So far the minor really appeals to me. The connection with my study mechanical engineering is good and we work on a fun and challenging project, in which we can put all our energy and passion into.

Next year I will be graduating and I want to start working right after this. That is why I hope to do an all-round graduation project in engineering, which will give me an even clearer view on the different jobs that may be interesting for me. This may be in Off-shore, but I am not complete sure yet. What I am certain of, is that I would like to put the things I learned into practice and take myself to the next level in order to keep developing myself.

The most special experience I had up until now is the SAIO safety training. In this training we did several practices and we had to adapt ourselves to the situation in order to secure ourselves. This was a very fun experience, because it will probably not happen very easily in the daily life.

## Josie Schonhoff



### What is your name?

Josie Schonhoff

### What is your age?

I am 23 years old.

### What is your pre-education?

I did college preparatory high school education (VWO in Dutch)

### What do you study?

I study mechanical engineering

### What do you like about your study?

My study is practical and diverse

### What kind of internship did you do?

I did an internship at Huisman, which is a company that designs and constructs offshore equipment

### Why did you choose for the Minor Off-Shore?

The offshore branch appeals to me very much. It involves the development of cool large constructions, and there is a lot of job opportunities in this branch

### Why did you choose this minor at Avans rather than another school?

The minor of Avans has a good reputation. During my internship I met someone doing the same minor. He made me enthusiastic about choosing the same

**What are, according to you, the strong qualities of the Minor Off-Shore?** The best quality is that the lectures are given by the companies themselves. This way, you get to know the companies and their way of working the best.

Besides this, the projects are with and for the companies. This is a nice way of getting to know a big off-shore company and to orientate yourself at potential future employers

### Is the minor what you expected of it?

Yes, the minor is what I expected it to be. It is good to be in contact with leading off-shore companies in The Netherlands this way

### Does the minor Off-shore fit the rest of your study?

Yes, I study mechanical engineering and many of the off-shore companies construct mechanical engineered installations. What is especially fun, is that we also learn things that are not provided within our own study, like ship stability and propulsion

### What do you like about the Off-Shore branch?

The enormous size of the installations and the multiple challenges in developing those installations

### What would you like to do after you graduate and why?

I am not sure yet, probably something in Offshore

### What has been your most interesting experience, project, learning moment or excursion with regard to Off-Shore?

The safety training of SAIO was fun to do. We learned what to do when you have to be in the water for a long time or when your helicopter crashes in the sea



# **Wat is bijzonder voor bedrijven aan de minor Offshore Engineering & Automation**

- Direct contact met 4 de jaars studenten. Dit jaar 78 studenten
- Invloed op het onderwijsprogramma
- Na èèn jaar mogelijk een goed opgeleide en ingewerkte jonge medewerker

## **Extra boodschap aan bedrijven**

- Bind scholen en studenten aan je via projecten binne de minor Offshore, stages en afstuderen

## Studenten contest

In de Offshore minor worden twee projecten uitgevoerd:

1. *Eerste 10 weken van de minor: kennismaking met de offshore branche, contacten leggen met bedrijven, projectgroep van 4-5 studenten.*
  - *Weinig tijd, beperkte omvang en diepgang*

*Dit is het project wat de studenten in de lunchpauze laten zien*

2. *Tweede 10 weken van de minor: Meer specifiek project. Projectgroepen van 2-5 studenten.*
  - *Meer tijd, grotere omvang, meer diepgang*

Na de Minor Offshore Afstuderen: Meeste studenten kiezen voor Offshore branche: half jaar met twee studenten:

- *Studenten kunnen laten zien wat ze kunnen*

## Energieopslag van 10 kWh

