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# Cursor



December 15, 2011 | year 54



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## Squeaking and creaking start to 2012

It's fascinating to witness how in a year's time a university's mood can switch from euphoric to mildly depressed. I realized the change as I was flipping through the Departmental Councils' budget advice. Eight councils reluctantly gave a positive advice. At Industrial Engineering & Innovation Sciences they felt the measures to be 'too drastic': theirs was the only Council to give out a negative advice.

Just remember how jubilant we all were at the start of the anniversary year. At the New Year's gathering on January 3, Chairman of the Executive Board Arno

Peels proudly presented the Strategic Plan 2020. Ambition wasn't shunned: we wanted more students, more female professors, more foreign influx, a University College, a Science Park – heck, even a supermarket was an option. To put it briefly, our inferiority complex seemed out the window.

However, approaching the end of the year it's suddenly become clear the system is seriously affected down by the scourge of our good friend Halbe Zijlstra and the rest of the government. It can all be found in the recommendations mentioned above.

The connecting thread is the fear of a skyrocketing workload and loss of quality in both education and research. Concepts like 'downward spiral', 'unacceptable negative consequences' and 'critical limits' speak for themselves.

At Chemical Engineering they can look forward to a year of radical restructuring.

Take my advice: enjoy the wine from our 'practical' Christmas box, because I'm pretty sure it will brighten your outlook on reality. We'll be off to a fresh start next year.

## Happy holidays!

This is the final edition of Cursor for 2011. Cursor 9 will be available from Thursday, January 12, 2012. Meanwhile you can find news on our website: [www.tue.nl/cursor](http://www.tue.nl/cursor).

The Cursor editorial staff wishes everyone a great Christmas break, a smashing New Year's Eve and all the best for 2012!



# ◀ Rewwwind [www.tue.nl/cursor](http://www.tue.nl/cursor)

Our Rewwwind feature provides you with snippets of last week's news. What happened online after the previous Cursor magazine was published?

## Entertainment industry interested in Tesla Coil

December 14, 2011 - Several businesses including the dance scene are interested in the Tesla Coil: the lightning-generating device that was constructed at TU/e and was a crowd puller at light art festival GLOW (early

November). The Department of Electrical Engineering is currently talking to businesses on ways to use the Tesla Coil, which will also feature in the National Science Quiz.

## City excited about first ideas common Intro

December 13, 2011 - According to TU/e secretary ir. Harry Roumen, the Eindhoven mayor and members of the municipal executive have responded with great enthusiasm upon hearing the ideas of university, Fontys and the

Design Academy for a joint introduction program in 2012. Thursday, August 23, should be the first 'student day' during which students of all three institutions get acquainted with Eindhoven and vice versa.

## Full house at TU/e Lustre Gala

December 12, 2011 - On Friday night, December 9, the Eindhoven city hall hosted TU/e's Anniversary Gala. A thousand students showed up at

the event in full dress to celebrate TU/e's 55th anniversary. The main act was singer Do.

## TU/e and Zhejiang University to cooperate

December 2 - On December the second was the opening of the International Design Institute (IDI) at Zhejiang University in metropolis Hangzhou. Professor emeritus Jeu Schouten, who was dean at TU/e's Department of

Industrial Design until 2010, is the new director of the institute and responsible for its design. Rector magnificus Hans van Duijn was present at the opening and signed the joint venture agreement.



Photo | archive IEC

# ◀ Flashback

## Swimming 2007 versus 1968

Prior to the opening of the Van Lintbad at the Student Sports Center, TU/e staff and students did not have access to on-campus swimming facilities. From 1962-1971, when he was still a student of Electro Technology, Reinier Hendriks used to swim at the Eindhoven public swimming pool, that has since made way for CKE.

He remembers the pool having a great atmosphere, and staying late for drinks every once in a while. The photo pictures the start of one of NSK's polo games, back in 1968. The photographer is standing at the window side. Although it was a good pool, there was one downside: "Whenever the sun was shining, it was practically impossible to distinguish between the referee's colored flags, which often caused confusion among the players. Similarly, it could be hard to see the color of a player's cap - lack or white- so you didn't know whether it was a teammate or an opponent." Thankfully, these troubles are history. In the picture dated from 2007, Nayade is training without any confusing incident of light. (NS)



Photo | archive Bart van Overbeeke

# ≡ Clmn Internationalism in education



Internationalism is a crucial part of modern education. We receive education in order to find solutions to rising industrial and social problems. These solutions are achieved mainly by people, not by machines or software. I think that due to the current global demographical situation sooner or later any, let's say, Dutch or Swiss students will face the necessity of working in a multiethnic team after their graduation. In these teams, neglecting cultural differences may negatively affect any potential common success. I will illustrate my opinion by sharing my personal experience.

When I started my master's program I addressed all of my fellow students as 'colleagues'. It sounded professional and neutral for me. However, one Turkish student asked me to say 'friend' rather than 'colleague', because "otherwise it sounds like you hate me but have no choice but to work with me". But then, when I said 'friend' to a Chinese colleague, he didn't like. He said: "We have common goals but you are not my soul mate. We are partners". But then, when I said 'partner' to a Russian friend, he didn't appreciate it. He said: "It sounds like we're a gay couple". By now quite confused, I said 'friend' to my Mexican fellow, and he said: "Don't be too formal, Sultan! From now on, you'll be my 'Amigo!'" The above illustrates only a small part of my vast international experience at TU/e. Nevertheless, it proves we are all different and culturally unique people. We appreciate it when others respect our individuality and are willing to go the distance with colleagues that do just that. Therefore, education is more than only acquiring formal techniques and algorithms; it also involves learning how to interact in any team. Even if it consists of people who are from a country that's different from yours.

*Sultan Imangaliyev, from Kazakhstan, is a student of Systems & Control, Department of Mechanical Engineering*


 Vox Academici

Prof.dr. Douwe Beijaard, professor of Professional Learning,  
Eindhoven School of Education

## How do we help students in secondary and higher education excel?

Over half of Dutch pupils and students want to get rid of the 'zesjescultuur' (culture of Cs) and wouldn't mind excelling. This shows from a study by the National Platform Science & Technology (PBT; Platform Bèta Techniek) that published the excellence model last week, meant to help stimulate young people. Inspiring surroundings are important to have the young excel.

Only a quarter of pupils and students are happy with their learning environment, so a new approach is needed to increase that percentage. The PBT speaks of tailoring, "because every person has different needs in order to be motivated". Should teachers adapt their behavior and methods to get the most out of their students?

"I'm dead set against just putting labels on students: This one's a 'resigned planner', that one's more of a 'self-confident generalist' - which is what

PBT proposes", Douwe Beijaard says resolutely, being a Professor of Professional Learning at the Eindhoven School of Education. "The level of motivation not only depends on the type of person you are, but also on the subject matter and the way a subject's dealt with, for example. It's very obvious in the first year at university. Classes are impersonal, and students are required to acquire very basic skills, which is rather tough. Then as the program progresses and students are offered elective courses, some of them bloom. They approach the subject matter differently, and it's a subject they're genuinely interested in."

"Teachers play an important part in motivating pupils and students. I think there's a lot of room for improvement in that respect, which is much better than all that labeling. For example, more attention should be paid to why something is taught. The impact of dry

facts is limited, so put them in a social context and reveal their relevance. That way, students are presented with something much juicier and more challenging. On top of that, the general standard can do with a boost. Don't just focus on that one brilliant student, but try to stimulate everyone to be the best they can be. Cs are not good enough. Of course, a shift in current ideas is required. Today, you're somewhat of an outcast if you enjoy learning and want to perform well. It's the strangest thing. Being good is good, right?"

"A proper knowledge of the subject matter is unbearable to keep pupils and students motivated. You should offer more than just the lesson you've prepared. Sometimes, students want to delve into the subject, and you should provide them with that possibility. Luckily, more and more schools prefer first-degree, academic teachers, but it's a shame most teachers still follow old



Prof.dr. Douwe Beijaard. Photo | Bart van Overbeeke

teaching models. Education is just so much more versatile than that; it could do with a little more panache."

"In our teacher trainings, we try to present our future teachers with the total package. We offer solid basics, and also stress the importance of retaining a didactic view on education,

and focusing on the students. Change your methods here and there, so students stay sharp. Teachers should be challenged to motivate their students. And that doesn't mean you should completely tailor your ways to a single student, that option's just too poor." (NT)

## Connect with my Culture

There were **22** stalls at Vertigo plaza during 'Connect with my Culture', the TU/e lustre event on Monday December 12.

...Representing **28** countries

It attracted some **900** visitors

The buffet featured dishes from **7** different countries

**750** passports had been printed, which was not enough

**700** kilo of food was stocked up for the buffet



Photo | Bart van Overbeeke

# “You create a bubble and s



TU/e: a home away from home for tens of thousands of employees and students. The international community is a relatively small one, with infinite connections between its members, be they professional or private. In ‘Linked’, two community members talk about their mutual relationship and their connection to the university.

**Aaron (31) and Karen (30) from Mexico have been inseparable for ten years. They share the same interests, and in late 2007 that led them to the COBRA research group at the Department of Electrical Engineering. Both received their PhD on November 30: one in the morning, and one in the afternoon. The couple sees only upsides of having shared the same careers for years.**

Karen likes the house to be clean and organized. Aaron knows full well that she does, but sometimes, just for fun, he’ll slightly move a cup on the kitchen counter. To which she then responds: “Hey, I see you’re trying to spice things up in here!” It’s exemplary for their relationship; they put everything into perspective by joking, they see the humor in situations. It’s hard to put into words what makes their better half so special, and they never really stop to think about it, either. They just click. The couple - they’re constantly finishing each other’s sentences during the interview - doesn’t have to pretend in their relationship. And after having given it some thought, both feel the other’s sense of humor is the trait they

value the most, and is what connects them. For better, but especially for worse.

Karen Solis Trapala and Aaron Albores Mejia meet in early 2001. The lovebirds were both studying at Universidad de las Americas-Pueblo, and although they later found out they attended some of the same classes, they didn’t know each other right off the bat. When Aaron was in France for a year, Karen spent a lot of time with his sister. The latter wouldn’t stop praising her brother and was adamant about the two meeting each other. And they hit it off straight away, sparks were flying. They still can’t help but smile at the memory.

## Humor is the binding factor

They were interested in the same things and knew they wanted to be researchers. To that end, Karen and Aaron decided to continue their studies at the CICESE Research Center in the north of Mexico, where they saw each other all the time. While doing their masters, they stumbled upon a leading institute in the field of Optical Communications, or telecommunications by means of light: the COBRA Institute. They decided not to think about what they’d do should only one be accepted, but to their excitement, they were both invited to travel to the far-off Eindhoven for their PhDs. Since Aaron’s a soccer enthusiast, he knew of PSV, but that’s about as far as their knowledge of the city and the rest of the country went.





# Share the joy and the pain”

They touched down in the Netherlands on December 4, 2007 and their first impression was, well, bad. They were cold and had to wear “thousands of layers”. Looking back, all they can do, once again, is laugh about the situation. And their social integration and the process of getting to feel at home all happened very smoothly. “We were highly motivated. And it’s nice to be together. You create a bubble, and share the joy and the pain.”

## Same-day defense: nerve-racking

They quickly had an active social life. Aaron and Karen have always been regulars at the Sports Center, where Aaron signed up for TU/e soccer teams. They got to know all kinds of nationalities. Together, they initiated common lunches for their research group. Karen: “When we had just started here, we were disappointed to see our colleagues had lunch in groups of only two or three, or even behind their desks. We got everyone excited about common lunches and now we all eat together.”

They’re not together all the time - they don’t share an office, for example - but it’s obvious they spend a lot of time together. Take their trips to and from work: they have a tandem bike. Karen: “We soon found out a bike is indispensable in the Netherlands. And on our tandem bike, we can chat and don’t have to wait for each other all the time. Besides, it’s fun to see people’s reactions to our unusual bike!” The newly-promoted Mexicans are nothing but positive about all the time they’ve spent together. Aaron: “It’s good to have a partner that understands what you’re doing. Had only one of us been

writing their dissertation, it would have been tougher. Now, you know exactly what the other’s going through.” Her research focused on the possibilities of using several new materials for optical communications devices, and his concentrated on ways for new technologies to transmit light as fast as possible.

Karen and Aaron managed to finish their PhD at the same time and were extremely happy when they heard they could defend their dissertation on the same day, because that meant they could celebrate with all their friends at once. It was a nerve-racking day, because they had to defend their own dissertation as well as feel for the other. By now, they’ve managed to put all the stress behind them. Their Dutch adventure is ending. Karen and Aaron look back at an unforgettable experience, stress the importance of the institute to them, and already know they’ll terribly miss all their friends, not to mention the tandem biking. But yet another adventure awaits: both will be starting at a renowned research institute in Japan. An opportunity they had to seize. And they know they can do it, just as long as they’re together.

Interview | Judith van Gaal  
Photo | Bart van Overbeeke



# New year: the beginning



Holidays | Esmee de Gooyer  
Photos | Bart van Overbeeke  
Illustrations | Studio Lakmoes

University is home to almost a thousand international staff members and about 900 international students, all with their own cultural traditions and rituals. We asked four students and employees from different continents how they celebrate Christmas and the New Year, and what they have planned for this year.



## Dutch Christmas and New Year's facts

- 📅 This year, the Dutch plan to spend 448 euro per household on Christmas, according to the British Centre for Retail Research. It's less than the European average of 605 euro. Half of the money will be spent on presents, 36 percent on food and drinks.
- 📅 Every year, 2.8 million Christmas trees are sold in the Netherlands.
- 📅 The tradition of decorating a tree is originally a German one.
- 📅 The largest 'Christmas tree' of the Netherlands is the decorated TV mast in IJsselstein: the Gerbrandytoren, also known as 'Lopik'. Unfortunately, the tower caught fire this year, so there will be no decorations.
- 📅 Over the past one hundred years, we've only had eight white Christmases in the Netherlands. The last two were in 2009 and 2010.
- 📅 Sixty percent of the annual consumption of champagne takes place in the last two weeks of the year. On January 1 from 12.02-12.30AM, we drink the contents of approximately one million bottles – one-third of the annual total.
- 📅 Last year, the Netherlands lit 65 million euro worth of fireworks.
- 📅 For Dutch people, decorating the Christmas tree is the second-most important tradition of the Netherlands. Eating 'oliebollen' (deep-fried, sweet dumplings) on New Year's Eve comes in fourth place (Sinterklaas comes first, and the 'Vrijmarkt' on Queen's Day holds a third place).
- 📅 On average, the Dutch eat eight 'oliebollen' per person during the holidays, totaling 135 million 'oliebollen'.

Tiblets Zeray Demewez (28) from Ethiopia, graduate student at Mathematics for Industry

## New Year's Eve marks start of dry season

*What are your plans for this year's holiday season?*

"I'll be celebrating Christmas with my cousin and her family in Hengelo. They celebrate the Dutch way, with a Christmas tree, dinner, and gifts. Although she's Ethiopian and her husband's Turkish, they're raising their children to be Dutch. I'll probably be spending New Year's Eve with friends in the Netherlands. For me, Christmas break is a time to recover. I'm not used to have time off, since in Ethiopia there's no vacation this time of year."

*How is Christmas celebrated in Ethiopia?*

"In Ethiopia, it's a different celebration altogether. We celebrate Christmas on January 7, one day only. We regard Christmas as a religious holiday more so than people do in the Netherlands. Some Ethiopians put up a Christmas tree, but compared to the Netherlands, it's negligible. On January 7, the entire family goes to church in traditional

Ethiopian attire, and eats traditional Ethiopian food like 'doro wat': chicken in tomato sauce with eggs and injera, a kind of crepe. This January 7, I'll be in the Netherlands, but I'll be celebrating Christmas the Ethiopian way with my Ethiopian friends."

*And how do people celebrate the New Year in Ethiopia?*

"In Ethiopia, the New Year is celebrated on September 14. The seasons are quite different from those in the Netherlands. We have a cold, a dry and a wet season, and the wet season ends between late August and mid-September. So the New Year also celebrates the end of the wet season. We celebrate the growing of flowers and plants, the birth of new life. The day also marks the end of the summer vacation, and the start of classes. We make bonfires, eat, and celebrate, and the next day boys and girls go door to door to wish everyone a happy New Year. The girls sing songs,

and the boys give out flowers they picked. They are given money in exchange. I'll also be celebrating Ethiopian New Year with my Ethiopian friends in the Netherlands."

*What's the main difference between Christmas in the Netherlands and in your home country?*

"In the Netherlands, Christmas is linked to the season. The cold, the lights everywhere, the Christmas trees... It evokes a different emotion. Naturally, in Ethiopia it's hot, so we mainly celebrate the birth of Jesus. I don't think that should involve a Christmas tree."

*What's your holiday-season advice for other foreign students?*

"I'd advise them to enjoy the holidays. Go out and have a good time with family and friends. If you can, travel to see other cultures celebrate the New Year."

Hrishikesh Salunkhe (25) from India, PhD student of Computer Science

## Christmas with imported trees

*What are your plans for Christmas and New Year's Eve?*

"I'll probably be here for Christmas, or in Europe at least. I just started my PhD, so I can't return to India for very long. My Indian friends at university have just finished their master's, so they can. The past years, we've celebrated Christmas in Eindhoven. Everyone brought all kinds of dishes and we'd all eat together. This year, I'll be celebrating the New Year in Slovakia with a group of thirty to fifty people, ten of which are from TU/e. We'll be partying day and night, and we'll go skiing, which I've never done before. Last year when I tried ice skating I broke my ankle, so I can't wait."

*How is Christmas celebrated in India?*

"Although Christianity isn't the first religion in India, everyone celebrates it. It's the same for every other holiday of whatever religion. Christmas is celebrated differently throughout India.

I myself am from Central India, where Christmas is celebrated with family members and the neighborhood on December 25. The day starts with dance and plays for the children, and after that we have a celebration in our local society with lots of food and drinks, and presents. Christmas trees don't grow in most of India, so we import them. Christians go to their church' Christmas mass, go door to door caroling and hand out toffee to children."

*And what do you do on New Year's Eve in India?*

"For young people, the celebration of the New Year is a madhouse: they're out all night. Families come together for a nice meal, and at twelve tons of fireworks are lit, lighting up the whole sky. Indians absolutely love fireworks, but it's only allowed during Diwali - the Hindu festival of lights - and the New Year. On January 1, they go all out."

*What's the main difference between celebrating Christmas in the Netherlands and in your home country?*

"In the Netherlands, entire cities have Christmas decorations. Everywhere you look you see lights and streamers. In India, the homes are decorated on the inside only."

*What's your holiday-season advice for other foreign students?*

"Contribute to society. This year, I've volunteered in a hospital through T!NT. It really is gratifying work, and volunteering during the holidays is even better, because of the special time of year. Still, make sure to eat, drink and have fun just the same."





# of a party or a madhouse?



Ezequiel Delvitto (26) from Argentina, graduate student with the Design and Technology of Instrumentation program

## When Papá Noel comes, everyone starts looking for their own present

*What are your plans for this year's Holiday season?*  
"I'll be in the Netherlands for Christmas this year. Unfortunately, I'm new here and I haven't met a lot of people yet. I have no plans. For New Year's, I'll be going to Barcelona with an Argentinean friend of mine I met at university. We'll go sightseeing and partying."

*How do people celebrate Christmas in Argentina?*  
"In Argentina, Christmas is celebrated on December 24 and 25. On the 24th, the family gathers, or sometimes it's more than one family. We have a late dinner with mainly salt things like meat, and drink wine. After dinner, we drink champagne or cider and toast to Christmas, and then it's time for the

sweet desserts: 'pan dulce' (sweet bread), chocolate, fruit salad, ice cream, nuts and dried fruit. Finally, Papá Noel shows up, Santa Clause. There was already a Christmas tree in the room, but only now do the presents arrive. Everyone starts looking for their own present. Some people go to church at Christmas, but most don't. It's not really a religious holiday anymore."

*And what do Argentineans do on New Year's Eve?*  
"It's pretty much the same thing, except there are no presents. The family's together, we eat and drink a lot and drink champagne. At midnight, there are firework shows all over the city. From one or two in the morning, young people like me go to clubs and bars. Unlike in

the Netherlands, our celebration lasts another day. We sleep for a bit and then continue partying."

*What's the main difference between Christmas in the Netherlands and in your home country?*  
"There aren't that many major differences. In the Netherlands, Christmas lasts an extra day and the New Year's celebration a day less."

*What's your holiday-season advice for other foreign students?*  
"I'd advise them to travel. Exchange traditions, get to know new cultures."



Corina Popa (31) from Romania, master program Architecture

## "If the New Year starts with a party, the rest of the year will also be a party"

*What are your plans for Christmas and New Year's Eve?*  
"I live in Utrecht and that's where I'll be during the holidays. I'll probably celebrate with my husband and some friends. I have to admit I don't like Dutch Christmas as much as I do the Romanian version. I think in the Netherlands the focus is on Sinterklaas rather than on Christmas. Although we do celebrate Sinterklaas (Saint Nicholas) in Romania, it's not as elaborate. Christmas is our most important holiday. We're most likely to celebrate New Year's Eve with friends in Utrecht."

*How do you celebrate Christmas in Romania?*  
"We have a huge dinner with Romanian treats such as sarma: cabbage or grape leaves stuffed with spiced minced meat, rice and mint. It's a typical winter dish. The whole atmosphere is different at

Christmas. People are buying presents, there are stalls selling fragrant food and drinks, and everyone looks happy. Christmas is an intense experience in Romania. It even smells like Christmas during the holidays because of the pine trees and the delicious food."

*And how do you celebrate New Year's Eve?*  
"There's a Romanian expression that goes: 'If the New Year starts with a party, the rest of the year will also be a party'. In other words, it's very important to celebrate the New Year. I usually celebrate with friends and family. We don't go to parties, we just organize one at home. Romanians love fireworks. Some years ago, we were at my aunt's for New Year's and we ended up having an actual fireworks competition with the neighbors. Each rocket was more impressive than the one before. It was

a wonderful sight, until a rocket changed direction and we all had to run for cover."

*What's the main difference between Christmas in the Netherlands and in your home country?*  
"The importance of Christmas. To Romanians, it's much more important than to the Dutch."

*What's your holiday-season advice for other foreign students?*  
"I've always wanted to see the Christmas fair in Maastricht, but for some reason I never do. The Düsseldorf fair is supposed to be really good as well. Generally speaking, I'd advise everyone to have a good time. People who'll be alone for Christmas should go to the Bunker, I'm sure they'll have something planned."



### Holiday events in Eindhoven

**December 16: Christmas at Tiffany's.** Christmas party with an optional fancy dinner at Ketelhuus, Strijp-S. Classy, jazzy party that requires getting dolled up. Admission is 15 euro, or 45 euro including dinner. Dinner starts at 9PM, party starts at 11PM. Tickets on sale at Magda's, Bergstraat 41.

**December 23: Radio 538 Christmas party at Klokgebouw.** Radio 538 kicks off Christmas with the '53N8MIX'. Hosts are Armin van Buuren, Sander van Doorn, and Jochen Miller. Admission is 35 euro, tickets through <http://538ticketshop.nl>.

**Kerstwintercircus.** Christmas Winter Circus. Every year between Christmas and New Year's, the Kerstwintercircus performs at the Parktheater. Expect acrobats, clowns and funny animals. Shows daily. Tickets are 22.50 euro for children and 27.50 euro for adults. Check [www.kerstwintercircus.nl](http://www.kerstwintercircus.nl).

**December 24: Neon Glitter Kerstbal.** Glitter-and-glamour Christmas party at Effenaar, with 80s and 90s hits in the main area, and 70s tunes in the small area. Admission 14 euro, tickets via <http://www.effenaar.nl/tickets> or at Effenaar ticket booth. Starts at 11PM.

**December 31: New Year's Run at Gennep parks.** For those who want to end the year with a modest run. Distances vary: 2, 5.5, 8 or 14 kilometers. The first run starts at 11AM.

**December 31: Douze New Year's Eve.** New Year's party at the Beursgebouw with a French glitter, glamour and love theme. Dress code: Wear a moustache. Tickets 39.50 euro, available from <http://douzenye.nl/tickets>. Starts at 9PM.

**January 1: Oud & Nieuw Festival.** New Year's festival at Effenaar. The music venue turned forty this year, so the party will feature a retrospective on forty years of pop music. Small stage: Aux Raux, The Kik, and several DJs. Admission is 20 euro, tickets via [www.effenaar.nl](http://www.effenaar.nl). Starts at 12.30AM.

**January 1: FYWFE + TAC = NYE 01012012.** New Year's party at TAC (Temporary Art Center) in collaboration with FYWFE (Fuck You We're From Eindhoven) as an alternative to hyped mass events. Local artists and international guest DJs play styles ranging from techno to funk. Admission 13.50 euro, tickets available from the Eindhoven Winkel, Catharinaplein 29. Starts at 1AM.



# Meet and research

**The Green Strip | Monique van de Ven  
Illustrations | MTD Landschapsarchitecten**

**A green pedestrian area for students, staff and guests, free of bikes and cars offering a location for various activities, and at the same time visualizing what TU/e stands for. In a nutshell, that's the Green Strip, TU/e's new central area that should also serve as a stage for research, innovation and experiments. The first phase should be completed by September 2012.**

It's actually the biggest project you can do on campus, says Ing. Boudewijn Elmans of DH, the Green Strip's project manager. Not so much with regards to money, but rather the parties involved: "Everyone on campus is involved". The Green Strip is part of Campus 2020, the large-scale university-grounds renewal plan. The first phase of the new area should be completed by September 2012, along with the surrender of the Meta Forum (former W-hal) - the first project of Campus 2020.

It's a project under pressure, says ir. Frank Meijer of MTD Landschapsarchitecten, the Den Bosch bureau responsible for the Green Strip design. Time-wise, but budget-wise, too. There's a 2.4-million euro budget for

the realization of the area - and that doesn't include costs for the architect, possible fees, required research, and VAT. Despite all this, Meijer and his colleagues started on the project with much enthusiasm. He recalls their first visit to campus, and especially his surprise upon seeing the university buildings.

**"System of TU/e buildings is pure gold"**

"Not in terms of being ugly or beautiful, but as far as their order and identity was concerned. That system of buildings is pure gold; it's your heritage, your image."

The campus is a "fantastic, impressive unity," Meijer continues, "but it's a system that's been designed for different times, when only six cars were parked on campus. Today's reality no longer matches the design's intentions. The concept has come to suffer from the infrastructure. By means of the Green Strip, we want bring back the coherence that once was."

That coherence involves a more prominent role for the Dommel as well, which is now "a sad, excluded river, while in fact, it's inextricably linked to university grounds and TU/e's image", says Meijer.

Stroll, meet, work, teach, research, have lunch or drinks, play sports, organize or attend events: "It's going to be an enormously cheerful world", Meijer of MTD assures us. With his design, the Den Bosch bureau wants to invite people on campus to use the Green Strip for all kinds of purposes, not force them. The plan's connecting thread is the scenic walk: a system of footpaths on the sunny side of the area connecting all major entrances and services. The paths are slightly elevated, so its edges may be used as seats. Located in the heart of the green zone is the Meta Forum, the new W-hal harboring the Department of Mathematics & Computer Science

and all central student services. On the south side, the hall is open on both sides, which makes for a covered square of approximately eighty by ninety square yards. The square is supposed to become a bustling hotspot, both socially and by means of the Living Lab, TU/e's display window for research and experiments that's aimed at showing what the university stands for.

If it's up to the landscape architects, the Green Strip will not only be off limits for cars, like TU/e had in mind, but a no-go area for bicycles as well. The designer realizes it's a rather drastic measure, "but is consistent. After all, if something belongs to everyone, it belongs to no one".

**"If something belongs to everyone, it belongs to no one"**

Meijer compares the campus to an onion: the inner ring is meant for pedestrians, the middle ring for cyclists, and the outer ring for cars. "That doesn't mean we're trying to push all cars and bikes away and remove that type of activity from campus", he stresses. "If the



Green Strip is to be a success, it's vital to properly facilitate them, too." Handling bicycle and car traffic is a major challenge, and the landscape architects realize that. It shows from meetings with the so-called user group, including representatives from all walks of the TU/e community. "Excluding all bicycles and cars from the campus' core is drastic, but deep down people understand and realize you have to be consistent in a zone like this". Work on the first phase of the Green Strip - roughly from the intended pond near the Hoofdgebouw right up to the Ceres building - is expected to start in April. This phase should be completed by September, along with the new Meta Forum.

## "More life on campus with scenic walk"

It's in no way the only project he's working on, but as far as impact is concerned, it certainly is the biggest. DH's project manager Ing. Boudewijn Elmans is currently overflowing with Green Strip meetings: with users, board members, architects, the city, the district water board and other parties involved.

Although the Green Strip is aimed at pedestrians, cyclists and drivers that are kept out of the zone are an important discussion topic just as well. TU/e has let itself in for trouble with its green plan, Elmans realizes, if only because the university will have to do without some 300 parking spaces (of a total of approximately 2100) as soon as work on the first phase starts.

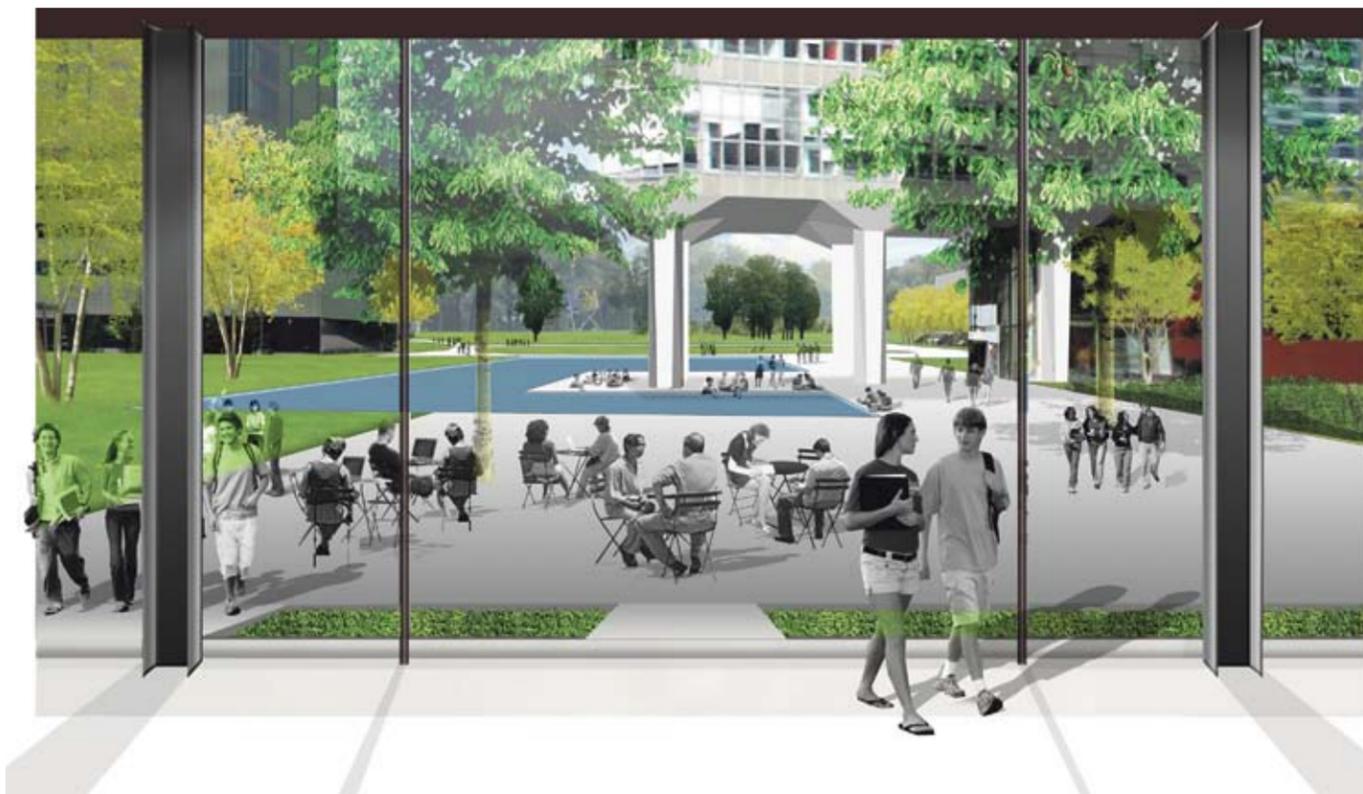
People are frantically looking for solutions to the imminent parking problem. For example, extra parking space at Impuls and Laplaceplein is currently looked into, as is the use of two sites (belonging to the city) across the Dorgelolaan.

They're also thinking about creating extra parking space near De Hal, which would require a new

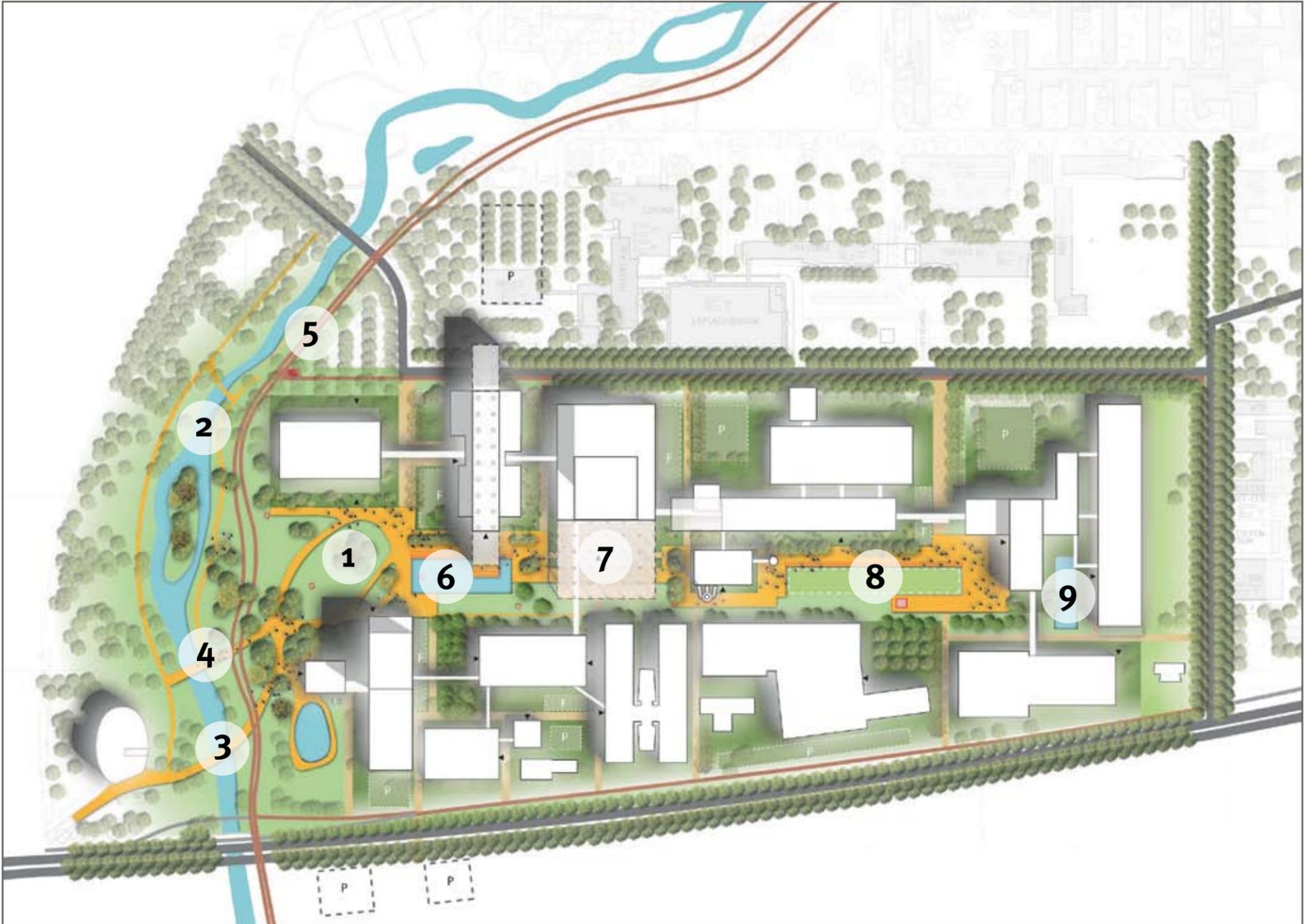
frontage road alongside the Doregloalaan. However, the Department of Chemical Engineering that is residing in the nearby Helix, is skeptical. "The building harbors all kinds of vibration-sensitive research setups, so we're still looking into the feasibility of a road like that", Elmans says.

Another massive challenge is the hoodwinking of cyclists that are not wanted on the Green Strip. He is aware that the user group, a delegation of TU/e people meddling in the plan, is slightly worried about that challenge. "People completely understand and feel the design. Still, things have to be laid out in a way cyclists still know where they're going, and avoiding the Green Strip should come naturally to them."

Despite the unavoidable logistic problems that will have to be solved at some point, Elmans is mostly excited about the plan. "What is now a high-traffic area will soon be a real pedestrian area that ties in perfectly with TU/e's ambition to turn its campus into a Science Park. The scenic walk will be a gorgeous part of that, which will definitely generate more life on campus."



# in the green heart



**1.** The scenic walk: a slightly elevated walkway (in yellow) connecting entrances to major TU/e buildings and common services.

**2.** The Dommel should become a more prominent aspect of TU/e once again. To that end, MTD plans to remove part of the trees and shrubs to make the river more visible. The district water board is planning to further dig out the river, which is currently being cleaned, and smooth the transition between water and land.

**3.** The Limbopad will be integrated in the green Strip's footpath system. By means of fast, obstacle-free connections, cyclists will be encouraged to enter campus via the Dorgelolaan, for example.

**4.** The old bridge over the Dommel will be reinstated and included in the scenic walk.

**5.** On the west side, the bikeway system around the Green Strip may come to include the Slowlane, a project by Cityregion Eindhoven (SRE). It's an innovative, twenty-mile long 'bicycle highway' that is supposed to connect all economic top locations in and around the city (including TU/e, High Tech Campus, Philips Healthcare, and Eindhoven Airport).

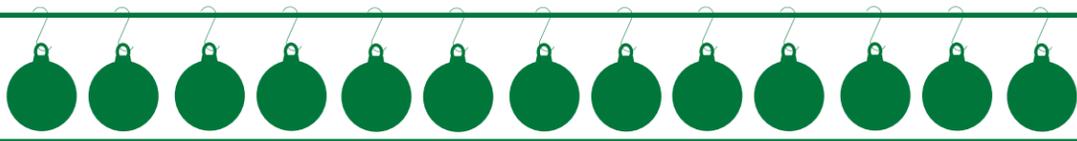
**6.** The Hoofdgebouw will once again come to feature a pond with an edge to sit on.

**7.** The south side of the new Meta Forum will be a covered square, which will be the Green Strip's center, a location for events and a place to visualize TU/e's research.

**8.** Near the water tower and the Ceres building (the former Ketelhuis) an amphitheater will be built for events such as concerts, sports et cetera.

**9.** There are plans for a second pond between the new buildings of Applied Physics and Electrical Engineering; the second project of Campus 2020, which is planned for surrender mid 2014.





## Zhiyuan Zheng | “I like it that my voice reaches a lot of people that are actually invisible”



**Moving from his hometown of Xiamen to the University of Shanghai was already a major step. The cities are 620 miles apart as the crow flies. Zhiyuan Zheng (23) took another big step three years ago when he left for the Netherlands. But as the host of a Chinese radio show in the Netherlands, the student of Industrial Design stays connected with his home country.**

Headphones on, microphone on: Zhiyuan Zheng's voice is on air. He's especially popular with students, but he also reaches other Chinese people in the Netherlands. In Mandarin, he talks about Christmas activities in the Netherlands, the ups and down of Chinese celebrities, or the celebration of the Chinese New Year. He covers quite an array of topics, just as long as they're potentially interesting for Chinese people in the Netherlands. He already had a taste of the joy of working in the radio business when his voice blared through the speakers of his high school. "I like it that my voice reaches a lot of people that are actually invisible." When a fellow Chinese student told him

about CRTV (an abbreviation for Chinese Radio & TV), he didn't need to give it much thought. Well over a year ago, he arranged an interview and not long after that, the Industrial Design student was hired.

Every Wednesday, Zheng hops on the train to Amsterdam for his show that runs from 9-10PM. The hour is filled with news items, interviews, and information on events. Sometimes listeners join in, and Zheng usually plays some – mostly Chinese – songs. He often thinks of topics to cover during the weekend, and on Wednesdays the editorial staff prepares the items for that day. Every now and then, Zheng reports on location. The fact he's an amateur photographer comes in useful; his pictures are regularly published in the station's magazine as well as on their website.

After 10PM, Zheng edits his show into a ten-minute compilation for broadcast at a local radio station in Shanghai. He doesn't have any siblings – that's the one-child policy for you – but his parents and several friends are among his faithful listeners. He tries to keep in

touch as much as he can, mostly through the Internet. "It's unimaginable that ten to fifteen years ago people had to write letters that took a month to arrive."

Zheng was delighted his father and mother visited him in the Netherlands last summer. "They finally got to see everything I'd been telling them about, and that I'm happy here." They also witnessed his cooking skills. In China he never cooked anything, but coming here he had no choice. His parents are very happy their son moved abroad. "My dad's an architect, and he's well aware of the Chinese system. He knows I have better opportunities in the Netherlands."

Currently, his work for CRTV reflects his life: it's a mix of China and the Netherlands. Zheng came to the Netherlands three years ago because he felt this country had more to offer in the field of Industrial Design. Saying he experienced a culture shock is in order: everything was different. For example, Europe isn't a unity. He hadn't expected Italian or German culture to be so different from that of the Netherlands.

And Zheng discovered strange differences. In the Netherlands, he was suddenly a year younger, since in China you're one year old at birth. He went from being 24 in China, to being 23 here. Another notion that's shared by many foreign students is the bluntness of Dutch students. He wasn't used to that. "In China, students do as they're told, but here people take initiative." By now, he's become rather used to the particular way of communicating. In fact, he's adopted some of it. "Chinese friends can tell I've changed. A good friend of mine who's currently in England also noticed. Three years ago, I was shy and somewhat withdrawn, but now I tend to speak my mind. And apparently, I'm always talking about Dutch design – I point it out, I'm proud of it."

The master student of Industrial Design has immersed himself in Dutch culture to familiarize himself with it, and he's a busy bee. His days are filled with studying, his work for CRTV, social activities and his hobbies. "I've noticed it's easier for me because I've been here since I was a bachelor student.

It's harder for international students who come here to do a master's program only. When they've finally become used to the country, they've often finished their programs. I'm very much in favor of helping international students get accustomed to their new surroundings, and I'd love to contribute to that."

The only thing Zheng can't seem to get used to, is the social drinking habit of Dutch students. "I don't really drink, but whenever a group of students meets it seems alcohol is mandatory. I feel it's harder to really go into things when you drink." In summer, when Zheng's back in China, he can tell he's missed the country. Still, he's not thinking of returning any time soon. He's having far too much fun.

**Interview |** Judith van Gaal  
**Photo |** Bart van Overbeeke

# Plasmas as a genuine experience

PlasmaLab | Frits van Otterdijk  
Photos | Bart van Overbeeke

**While there are plenty of theory books about plasma physics, the opportunities for actually working with plasmas are very few indeed. In order to give students and this opportunity, the Applied Physics Department will on December 22 open PlasmaLab@TU/e. Everybody is welcome to discover the fascinating world of plasmas with the naked eye. “We throw people in at the deep end”, says Hans Oosterbeek, project manager of PlasmaLab.**

Since this summer students have been allowed access to the PlasmaLab on the TU/e campus to experiment with plasmas - generated by a gas discharge, started by a combination of electric power and gas pressure. Not until this month, however, have the ten setups been complete and ready for use. Stainless steel constructions with viewing ports, surrounded by cables and tubes, now dominate the scene in the ‘kopzaal’ of N-laag. PlasmaLab is one of a kind and is intended for all students, pupils and teachers all over the world. “We felt the need to bring to life the subject matter we discuss in our lectures”, says nuclear fusion professor Niek Lopes Cardozo of the FUSION research group. Together with the three other areas of the plasma physics and radiation technology cluster an amount of around 300,000 euro has been invested in an educational project which unmistakably has a soliciting appeal to it. Cardozo: “That’s right. In this way we hope to attract more Master students from abroad as well, both from Europe and from China, for instance. In addition to experiments for students, we provide support and demonstrations.” “Plasmas are easy to make”, says Hans Oosterbeek. “But the setups are complex and rather costly. What with vacuum pumps, high voltage, magnetic fields, gases and cooling equipment, you easily come to ten thousand euro apiece. Which forms the main reason why students have little opportunity to work with plasma experiments in practice. Given the high costs and the aim to allow users to experiment themselves, the execution of the PlasmaLab has been made as robust as possible. All setups have also been fitted with limiters and safety valves so as to protect humans and equipment alike.

**“The PlasmaLab can be regarded as a kind of reality check”**

The tests are attuned to the visitors. For secondary-school pupils the focus will be on accessible experiments, always concerning one aspect of plasma physics. Oosterbeek: “You read the instructions, conduct the tests and write a report an hour later. At the lowest level things are one tick away from being a routine experiment. Master students, on the other hand, are given more

complex assignments and less coaching. In a research institute or business lab you will not find people standing by continuously either to help out. We have deliberately decided on reticence so as to approach actual practice. The tests themselves can be roughly divided into four themes: generation, confinement, working with and diagnosing plasmas.” Lopes Cardozo: “You can even expand the experiments in PlasmaLab to a mini research. Some tests, such as the waves in plasma, are rather far-reaching. You can spend days measuring them and conduct whole studies of them. Still, we don’t really expect to open up new horizons with this, for it is primarily an educational lab. Plasma physics is an area of physics which in the Netherlands is only taught in Eindhoven. Although we offer a broad range of lectures, it is only in their research period that our students get “in touch” with plasmas for the first time. The PlasmaLab now enables us to give laboratory courses as well. Students learn the theory and can play with and measure plasmas in practice. Isn’t that great?” Oosterbeek: “It is our goal to throw users of the PlasmaLab in at the deep end. They have to learn how to find their way amongst the gas cylinders and the vacuum pumps. You can give them a whole list of instructions alright, but it is much better to present them with an open question or assignment. Just make a plasma. Afterwards it is ‘hands off’ for us and ‘hands on’ for them. This is the way to give users practical experience, which will benefit them later in the industry or in research.” The Bachelor laboratory course within the Department of Applied Physics is ‘really good’, according to Lopes Cardozo. The Master students have very good experimental skills upon entering the PlasmaLab. “Still, they haven’t explored the world of plasmas on an earlier occasion yet. And plasma is a self-willed medium. You can design a test in which the plasma is expected to do one thing, and suddenly it appears to perform some other tricks of its own accord! That’s when practice does turn out to be far more complex than theory. You can also regard the PlasmaLab as a kind of reality check. We have students make simple calculations during lectures. This generation may be handy with calculators, yet their sense of orders of magnitude is not so well developed. Once they put their hands on the stainless steel in the PlasmaLab, though, they do need to carry out the calculations with great accuracy, otherwise the tests won’t work at all.” There is no clear-cut educational module

for the PlasmaLab yet. The day-to-day course of affairs will be adjusted and fine-tuned gradually. Users who wish to get cracking in the PlasmaLab, will be given a short explanation by a technical assistant beforehand. Depending on the lecturer of the group, one or two PhD students will supervise the tests. Oosterbeek: “We intend to set up a website where people can prepare themselves for what’s to come in the PlasmaLab. This will take some time, because the instructions have to be available at all levels. In addition, we shall make a technical description and construction drawings of the tests. By means of the European Fusion Education Network ‘Fusenet’ we shall make it available to all universities in Europe so that they can build a test themselves as well, if need be.”

**Students learn the theory and can play with and measure plasmas in practice**

Lopes Cardozo suspects that there will be more than enough interest in the PlasmaLab. “We recently had a visitation committee on board. In order to make a good impression, we had asked PhD candidates and graduating students to conduct a number of tests in the PlasmaLab during that visit. They were totally absorbed by the experiments. So much so that they did not even notice that there was a bunch of men in spruce suits coming in. Once the delegation had left again, they did not want to stop their tests. They were enjoying it far too much.” In two years the functioning of the PlasmaLab will be evaluated. That being so, it is clear even now that new setups will be added within that period. Oosterbeek: “The enthusiasm is huge, both among the users and among the developers of the PlasmaLab. With the passage of time it will definitely not become dated or anything. On the contrary, it’s going to be an extremely dynamic lab rejuvenating itself. Which is entirely in keeping with the nature of the beast.”

