

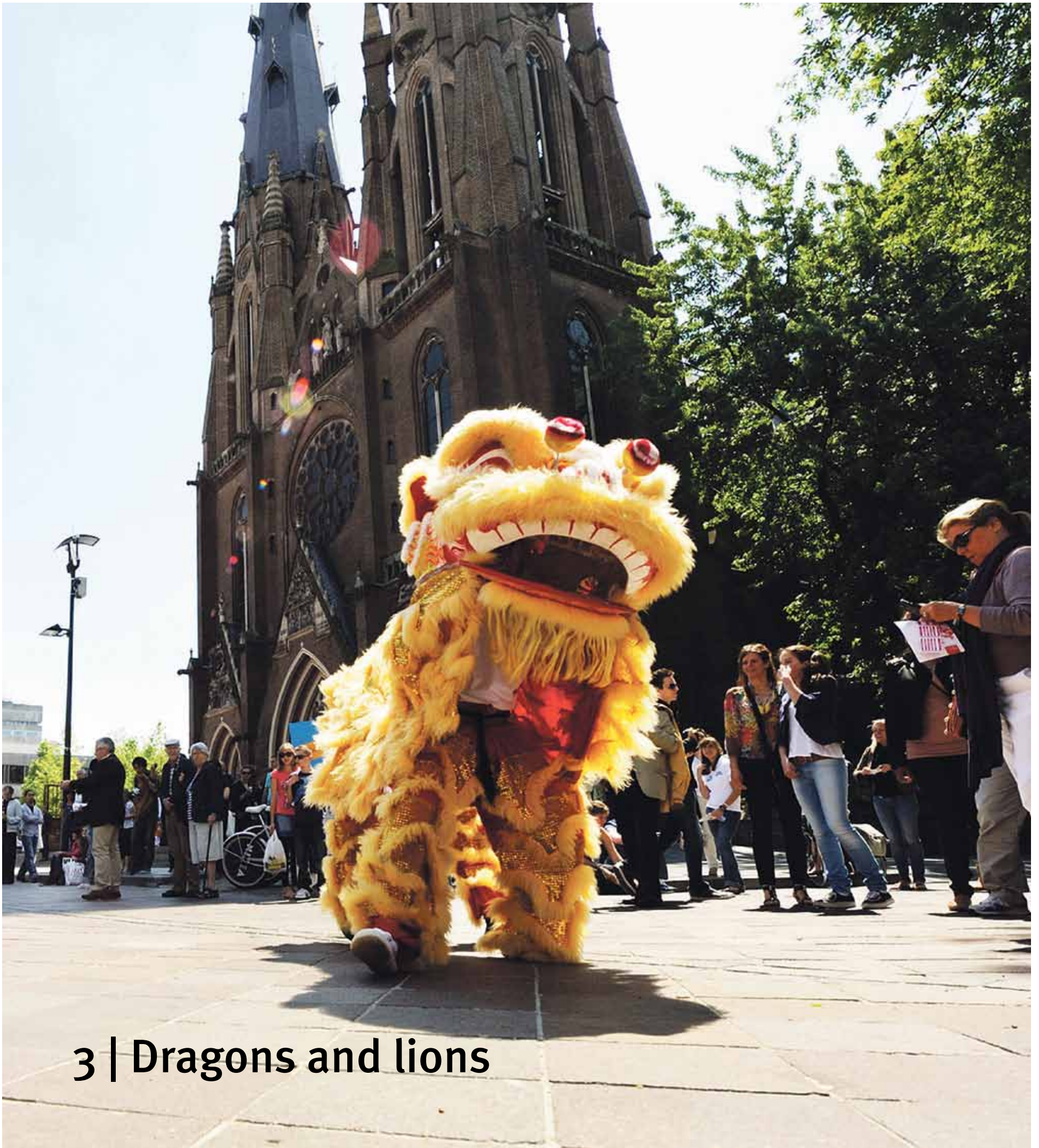
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Cursor

June 14, 2012 | year 54



Biweekly magazine of the Eindhoven University of Technology
For news: www.tue.nl/cursor and follow tuecursor on [Twitter](#) and [Facebook](#)



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Harry, un ami

In 2000, the French film 'Harry, un ami qui vous veut du bien' (Harry, he's here to help) was released, a somewhat sinister production directed by Dominik Moll in which one Harry wants to take on someone else's identity. In that respect he's nothing like our Harry, who - as far I have been able to tell - has always been himself. Still, I've always regarded the film's title one that fits our secretary, who'll be saying goodbye to TU/e tomorrow. Harry, a friend who's here to help. All staff and students we've interviewed about Harry over the past weeks for his farewell file seem to feel the same way. Everyone seems to regard him as a friend. He's commended for his openness, his energy and effort, his genuine involvement, and his humor and his sense of perspective, of course.

He held the position of university secretary for nearly a quarter century, and in that era he's done a lot to make sure our university functioned at its best. He's played the part of lightning rod, catalyst, peacemaker, the one who does the dirty work, and stand-up comedian, all in TU/e's best interest. Cursor's editorial staff has tried to capture his many talents in a special file on the former secretary, which also focuses on the man behind the board member, of course. Today is the day we'll release his file into the wild. It can be found all over campus, displayed in special trays. It's been an absolute pleasure to put together, and for all who hold Harry dear, reading the special edition will hopefully be the same.



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◀ Rewwwind 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?

Special edition Cursor for 'our dear Harry'

14 June, 2012 - University secretary Harry Roumen has been around at TU/e ever since 1964. In light of his farewell tomorrow, Friday, June 15, Cursor will put 'Mr. TU/e' in the

limelight with a 'file' on his career and person. The 48-page special will be distributed on campus in special displays today.

European grant for artificial matrix tissue cultures

12 June, 2012 - Dr. Patricia Dankers will be receiving a 1.4-million-euro ERC Starting Grant. The researcher from Biomedical Engineering and the Institute for Complex Molecular

Systems (ICMS) wants to use the grant for the development of new biomaterials that are indistinguishable from natural materials, intended for growing tissue for medical use.

Nano branch TU/e cashing in at NWO

12 June, 2012 - TU/e has pocketed two of seven 'NWO Large' grants. With a total of 3.5-million euro in grant applications by prof.dr. Bert Koopmans and prof.dr. Paul Koenraad (both from Applied Physics' nano cluster), TU/e

will soon be boasting a facility for the atomic-scale production, analysis and manipulation of devices and structures, and a 3D microscope for nanostructures, respectively.

'Samba students' will arrive at TU/e shortly

6 June, 2012 - Soon, the first crop of twenty-five Brazilian talents will be starting on a program at TU/e, thanks to a scholarship program initiated by the Brazilian government. In the years

to come, more of these 'samba students' will follow, in an effort by Brazil to acquire more high-quality and innovative knowledge in the field of Science & Technology.



Foto | IEC Archive



Photo | Bart van Overbeeke

◀ Flashback

TeMa field 1986 versus 2012

This weekend, June 15-17, student volleyball association Hajraa will be hosting their 34th outdoor tournament. 390 teams have registered, some 300 of which are expected to pitch their tents on campus.

The black-and-white picture was taken from the roof of Potentiaal during the 1986 Hajraa tournament. The Paviljoen can be seen at the top. Street Het Eeuwsel runs from the left-hand corner to center right. The IPO building is almost done, but is still in scaffolding. Today, De Lismortel goes on in western direction. Arno Senders, real-estate advisor at DH, remembers that road being brand new when he first started at TU/e back in 1988. "After the construction of Traverse, the construction period was completed at once, including a road and a parking lot." That's when the TeMa field became too small for the Hajraa Outdoor Tournament in its current form. Once again, the campsite will be located on the fields near the firehouse and Fontys buildings S1 and S2. (NS)

≡ Clmn Language and personality



People have become used to their native language so they don't see how it influences their personality until they come to a foreign country where they have to adapt themselves. As a consequence, their habits change dramatically. For example, my ignorance of the Dutch language developed my imagination. Very often I see a text in the streets of which I recognize only a few words. Being curious, I try to guess and reconstruct the meaning of the entire text by applying my experience, intuition and knowledge of other languages. I never used my imagination so intensively before and it has boosted my creativity in other areas such as writing academic

reports. Furthermore, living here has increased my attentiveness to details. When I hear people speaking Dutch I don't understand the meaning of most of the words. Instead, I pay attention to changes in intonation, pauses, mimicry and gestures. Recognizing those will help developing my empathy and it can teach me to read between the lines.

Finally, I re-evaluated the invaluable value of communicating with the people closest to you. When I was at home I didn't realize its importance and considered it as something obvious and simple. Then, after having touched down in the Netherlands I faced loneliness and a strong lack of informal communication. I never thought that I would miss talking in my native language so much. Only when I lost it I realized that I underestimated the moral support of my friends and family. I would never have felt that way had I not faced such a tough experience, but it's been worth it. I am a different person now, and my personality is ready to learn new lessons by learning new languages.

Sultan Imangaliyev (Kazakhstan) | student of Systems & Control, Department of Mechanical Engineering

Prof.ir. Ton Koonen, professor of Telecommunications - Broadband networks, Department of EE

Will cables and plugs become obsolete in the future?

We see ever less cables and plugs connected to our devices. Laptop, tablet, phone: nearly all communications are airborne. The downside of the increase in data transmission is that wireless networks become congested more and more, resulting in networks going down the moment many people try to make phone calls at once, or the Internet slowing down when you and your roommates want to go online at the same time. Can effective communications even do without cables and plugs? And what about charging all those devices, could that become wireless, too?

“Friend and foe agree we cannot do without wireless communication anymore, and that it will only expand”, says Ton Koonen, professor of Electro-Optical Communication at the Department of Electrical Engineering. “Think of monitoring someone’s health by remote control: blood pressure glucose level, movement – all of that can be monitored with the help of sensors. It’s a positive development, because it means older people can remain independent for a

longer period of time. But it’s also true that wireless networks do tend to congest that way.”

“Our group focuses on fiber studies.

The use of fiberglass was becoming a current topic of debate, because more and more communication is being transmitted through the air these days. However, it seems to be the one solution for congested wifi networks. Users communicate with an antenna, which receives and broadcasts their messages. Said antenna has a limited capacity, so the more users communicating via the same antenna, the smaller their ‘piece of the pie’: a large pie is best shared with six people rather than twenty, which is why it’s better not to use a single network, but a number of smaller ones to increase the capacity. In other words: more pie.”

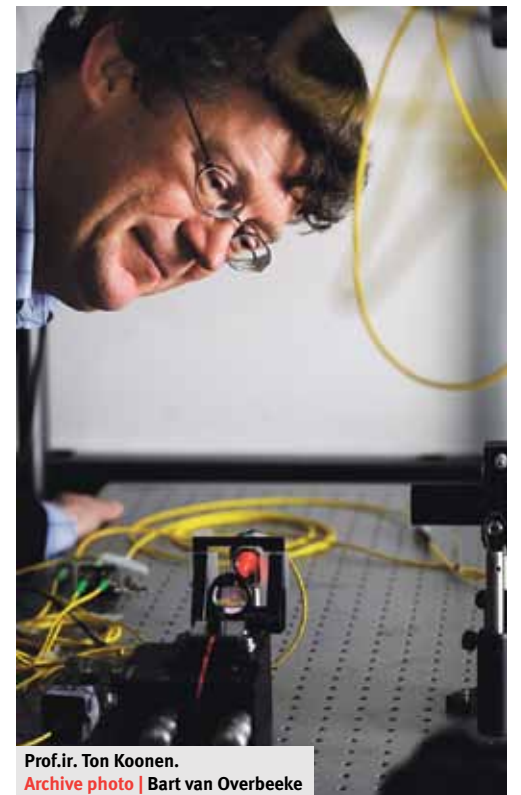
“Still, all those extra antenna stations have to be connected by means of a dense wire network, and they have to be much simpler for them to remain affordable. And that’s exactly where our fiber research comes in. We can concentrate complex radio functions in

one place, and then direct those ready-to-use radio signals to simple antennae through a capillary network of fiber, thanks to the amazing capacity of fiberglass. At the antennae, the light pulses merely need to be converted to electric radio signals by means of photo diodes, so the antennae can eventually be controlled.”

“Apart from the increased capacity, these smaller fiber-controlled cells have many more advantages. There’s less radio emission, which saves energy and is safer health-wise. Although it’s never been proven radio emission is harmful at the current frequencies, reducing it can’t hurt. This setup will also improve the network’s reliability. Try and make a phone call after the Netherlands won a soccer game – it’s bound to fail. But by using more antennae, there’ll be less interference. And the capillary network allows for transmitting information to a specific cell rather than all cells at once, which is why this capacity-on-demand is much more efficient. We already have some patents on these fiber-controlled cells. Although we’re still in the research

phase, I think it will be implemented fairly soon, actually. Wireless is still on the rise, expansion is still necessary, so something revolutionary has to happen at some point.”

“I’m not so sure about cables and plugs disappearing any time soon. Wireless energy transfer is being researched actively, but the problem lies in the transfer’s efficiency. There are charging plates that allow you to charge your device by means of resonant induction – coils generating magnetic fields. Still, if your phone is more than a few centimeters from the plate, it stops working. The same goes for using infrared laser beams for charging, which I don’t believe is without risk, by the way. The laser beam remains connected to the device that needs charging, even if it’s moving, but it’s said to shut down as soon as it’s



Prof.ir. Ton Koonen.
Archive photo | Bart van Overbeeke

interfered with by something that could be damaged. Still, how does the laser tell the difference between my eye and my hand? And what about my cat’s eye? Wireless charging technology is still in its infancy, but things will definitely be changing in the near future. We’re entering into an era brimming with advanced wireless technology. The time wireless meant transmitting Morse code with lamps on the open sea is long gone...” (NT)

Dragon Parade at opening of Asia Week



1 dragon and **2 lions** with drum and gong participated in the ceremony.

The Chinese dragon was **20 meters** long.

More than **300 people** in the audience witnessed the parade, which took place **1 hour** before the official opening of the Asia Week.

The dancers covered a distance of circa **2 kilometers** from the Stadhuisplein to the city center and back to the City Hall.

The preparations for the splendid display took **1 month**. (TJ)

And how are things

Interviews | Nicole Testerink

More and more TU/e students go abroad for their studies. Conversely, there are also many foreign students coming to TU/e. To follow courses, internships or a doctorate path. What is it like to find your way in a new country? International students tell their stories.

The first few weeks are the toughest. Whilst there may be a helpful secretary of your new Department waiting for your arrival at the airport or the train station, after that you are on your own. Nobody who told you that the Indonesian shop closes at six; where can you get your shopping now? "I really began to wonder why I'd come to Eindhoven", says Karthik Gnanasekaran (25). Two months ago he started his doctoral research at the Materials and Interface Chemistry section of the Department of Chemical Engineering and Chemistry. "The cultural shock wasn't that bad, but the feeling of 'being alone' was quite overwhelming. I arrived in Eindhoven on

a Saturday, on Sunday all the shops were closed and I found myself sauntering through a deserted city. Not very comforting."

"The feeling of 'being alone' was quite overwhelming"

Now, a couple of months later, Karthik already feels more at ease. "In India we like to chat to people; so that's what I did here as well. The Dutch often keep



Photo | Bart van Overbeeke

themselves to themselves, so that it usually takes a little longer before you really make contact. Still, international students in particular are easy to get along with."

That it often comes down to opening your mouth, is an approach also endorsed by Jun Jia (26, China, a Master student of Sustainable Energy Technology, Mechanical Engineering Department) and Ketan Pol (26, India, doctoral candidate at Mixed-Signal Microelectronics, Electrical Engineering Department). Jun has been in the Netherlands for some ten months now and is positive about his 'integration path': "In my opinion, people here are very open and willing to share experiences with outsiders. I've had few problems adjusting to Dutch customs. My tip is to try and make friends fast; not just within your Department, but outside it as well." Although Ketan has been in the

Netherlands for three years, he has more difficulty integrating. "I have the impression that I've not adapted altogether yet. That may be due to myself more than to the Dutch, though. In order to get to know new people, the best thing is to go downtown, to a café for a few beers and a chat. I dislike crowded and noisy places, however, which makes it rather difficult. Fortunately TU/e has an active sports center, quite effective for slightly more bashful international students."

The Student Sports Center as well as the Common Room, the meeting place for international students in the Bunker, is a place where plenty of new contacts are made and experiences are exchanged. "We offer international students an opportunity for sharing knowledge in a more informal way. Via workshops, and also by means of organizing lots of

parties", says Indre Kalinauskaite (26), who as student assistant at STU is involved with the provision of information to foreign students and who also does the dirty work for the Common Room. "There is a large Dutch student community, and it is often difficult for foreigners to join in. The Common Room is our starting point to try and create a stable international community, for if the group is bigger, mixing becomes much easier. Still, we see that our activities are attracting more and more interested Dutch students, so that's a good sign."

"It's pleasant to meet people who are in the same boat"



Karthik Gnanasekaran. Photo | Bart van Overbeeke



And how are things in Eindhoven?

My name is Yan Li. I came to TU/e in 2008 for a Master's program in Electrical Engineering. I came here because there is a cooperation program running between TU/e and my home university in China. I did my Master's thesis in the Electrical Energy Systems group and continued my PhD in the same group afterwards.

I have really good memories of my Master's program. The assignments from the technical courses are always project-based. And normally it is done together with other students as a team. I like this kind of work, since it gives me a feeling that I am using my knowledge to solve practical problems and I can learn how to cooperate with others. Besides the technical courses, there are also other lectures which help students to develop personal

interests and skills, such as Entrepreneurship, Project Management.

Apart from study, I also enjoyed the leisure time here a lot. The Students Sports Center provides all kinds of activities and I got to know many friends there. The multifunctional design of each hall in the Sports Center impresses me much, because in China we use one place specifically for one sport. For example, badminton has its own court while ping-pong also has its own place. But here they can share the same hall at different times. I found this an efficient use of space. I also like the bicycle lanes here in Holland. Especially in good weather, biking around the city is really nice since there are lots of green trees, flowers, lakes and rivers. The bicycle lane gives me a chance to enjoy nature

and it makes my daily cycling trip from home to university a nice journey. In my leisure time, I also like to travel

around. Studying at TU/e makes for a perfect opportunity for me to travel around Europe. I have been to several

other countries up to now. It is interesting to get to see different sides of the world. Traveling really enriches my life and makes me energetic after long periods of work.

Except for all the good experiences, maybe there is one drawback I noticed during my Master's study. There are many students' organizations and unions at TU/e, but they were all started by Dutch students and most of the members in their network are Dutch students. Many activities are held in Dutch. Maybe our university can encourage these students' communities to pay more attention to international students. Also from the international students' side, in order to integrate more easily as local students, it is better to learn Dutch!



in Eindhoven?

Apart from being a physical meeting place, the Common Room also makes it possible to meet people via social media. "Recently we've started our own Facebook page. That enables students to

"At certain moments you just need that feeling of the 'familiar'"

establish connections even before their arrival in the Netherlands. That in itself already makes people feel better. And not everybody merges with the crowd smoothly during a Common Room party; which is another reason why Facebook is a real boon for more hesitant students.

For international students it is pleasant anyway to meet people who are in the same boat."

This was also noticed by Christine Gerpheide (24, United States). In September she started at TU/e on her Master's study of Computer Science and Engineering at the Department of Mathematics and Computer Science. Despite feeling at home here -she would like to stay in the Netherlands after obtaining her Master's degree - she missed the contact with her 'own people'. "Sometimes it's just so pleasant to talk to people in your own language, or to organize a Thanksgiving party with other Americans. And I heard from more international students that that piece was missing. It's so hard to trace fellow countrymen. I had already found another American within the Department, but

surely there had to be more of them at TU/e?" Together with some other international students she decided to set up a website that could facilitate this quest. The project 'lorem' -hello in Latin- enables registered students on the basis of nationality, language or common interests to find each other. Before the autumn the website should be finished, so that many students will register, they hope. "It is definitely not intended to segregate ourselves from the Dutch



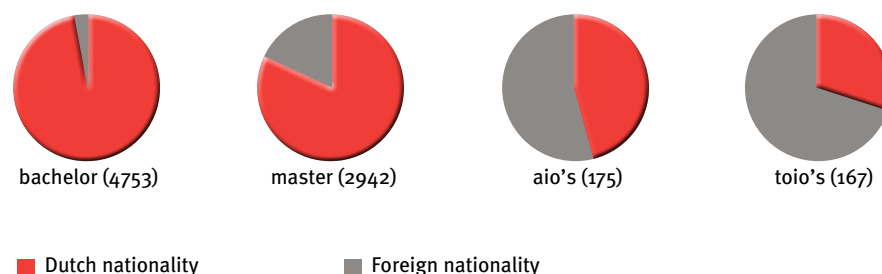
Christine Gerpheide. Photo | Bart van Overbeeke

students. I have a great many Dutch friends, so that's not the aim. It's more a matter of recognition, of sharing the

same roots. At certain moments you just need that bit of the 'familiar', however nice life may be here in the Netherlands."



Indre Kalinauskaitė. Photo | Bart van Overbeeke



The highest percentage of international TU/e students can be found among the tio's (technological designer assistants); in addition, a substantial proportion of the enrolled Master students and aio's (PhD students) are of foreign nationality.

In the academic year 2010-2011 the number of foreign students dropped by 164 in comparison with the preceding year. This was caused mainly by a sharp decrease in the number of foreign toio's (two-year trainee researchers) that had enrolled. The number of foreign registrations for Bachelor's programs stayed the same, while the enrollments for Master's programs increased slightly.



And how are things in Eindhoven?

My name is Siddhesh Patwardhan. It has been almost two years since I left India and came to the Netherlands. Rather than compare cultural differences, I would like to share the experience I have gained in these two years. The most important thing is the satisfaction of living in one of the smartest cities in the world. Now when I look back, I feel reassured about having made the right decision of choosing Eindhoven University of Technology for my Master's education. Though not like most traditionally beautiful cities in the Netherlands, it is lively and vibrant and that has its own charm. I found a wide variety of things to keep me entertained, from something like going crazy "pub crawling" at Stratumseind to all-night-long science and technology competitions. The other crucial advantage of

studying in Eindhoven is the fellow international students. There are so many people from different countries all over the world. I got to learn quite a lot from interacting with people from different cultures. Becoming a volunteer of the "Common room", a meeting place for all international students, was a very useful decision in this respect. I would like to advise new students to enjoy the experience of integrating with people from different backgrounds in addition to brightening up life outside their studies. Of course, working with Dutch colleagues, be it studies, events or competitions, is also very exciting. I really admire the Dutch way of planning things. A very valuable quality which I am trying to learn from Dutch society is the way they manage to find the perfect balance between their work, social, family and personal

lives. It seems to me that this is a special talent only Dutch people are born with. As an Indian, I am obliged to write about food. Though not a good chef myself, I try to make some Indian dishes over here, which is quite fun and most of the ingredients are locally available. My housemate and I always do some experiments and now we have some of our own recipes, some of which were found by accident. I am also learning to appreciate the Dutch lunch, which includes a variety of bread, milk and, of course, hagelslag (chocolate confetti). I am almost at the end of my graduation thesis and so far I have enjoyed my stay in Eindhoven a lot. I won't say I have completely adjusted to the Dutch lifestyle but I feel pretty comfortable living here and would love to stay here even after I graduate.

