

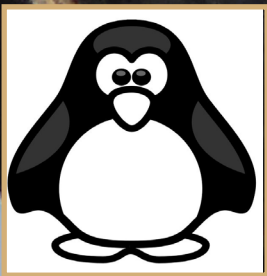
Aeroplane

VLAAMSE TECHNISCHE KRING

Edition 2: April 2016



VTK: 95 years old



Coloring



Last month in engineering



Calendar April-May

VTK: lustrum 95

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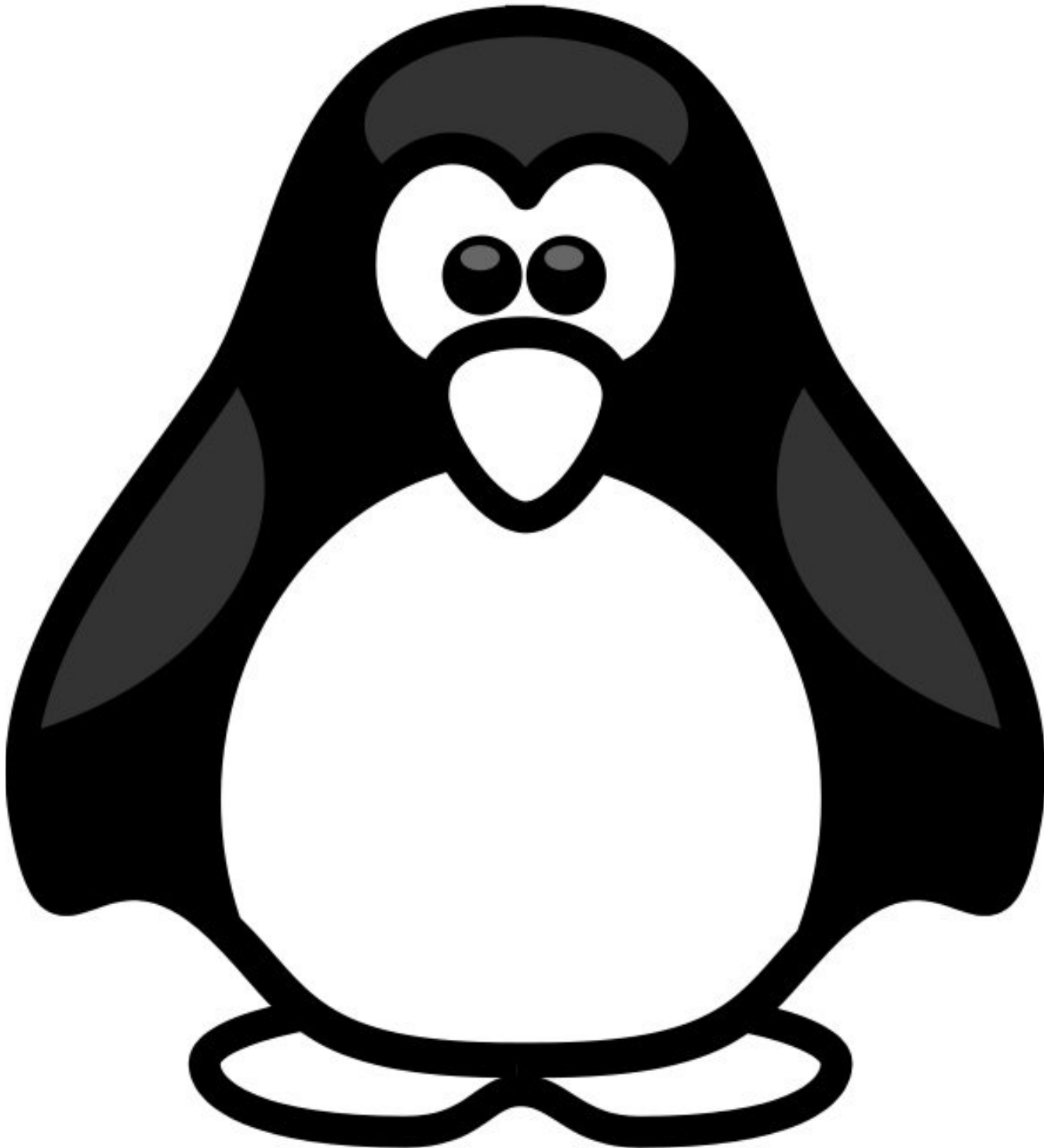


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Coloring



Word from the president

My dear fellow engineers (or soon to be anyway),

It's been a while since you last heard from me (4 months and 10 days, for the nit-pickers amongst us, on time of writing) and a lot has happened since. Normally I always try to be optimistic and joyful in these short texts, but for once I would like to make an exception.

The previous text was written 2 days after the Paris attacks and this one is written 4 days after the Brussels attacks. Now, I won't be talking about how terrible these attacks are and not forgetting the even more gruesome tragedies happening in Turkey, Syria or all over the world. No, I want to talk about the need for international friendships and bonds in dark times like these.

I'm terribly sorry that these events in Brussels must happen whilst you should be having the time of your life, here, in Leuven. But I'm so incredibly thankful that you're here with us. I'm thankful because it's through the international friendships we grow, through the different cultures we encounter and through all the people we have the fortune to meet, that we can counter these acts of senseless violence, this reckless hate. It's through these international experiences that we grow to understand each other and breed the tolerance that's so needed in our ever more global and complex society.

So thank you friends, thank you for being here with us in these dark times. Thank you from the bottom of my heart. I truly hope that you have the time of your life here and I'm certain that we, at VTK, can aid in that "process".

And now I finally get back to the usual, joyful and meaningless blabber! I hope to see you at one of our countless parties, events or evenings. So that we can party, together, for a more tolerant and loving world.

My promise from the previous Aeroplane still stands by the way: If I meet you at one of our events, make sure to say hi and I'll buy you one of our marvellous Belgian beers!

See you soon!

Lucas

Word from the vice-president



Dear international friends,

For some of you, the adventure is sadly almost over.. After the exams, you return home to your family, friends, maybe girl- or boyfriend, your mother's cooking, ...

You will probably be very happy you're back, but I hope, deep down, you will still remember our little Belgium fondly and miss it :) Someday you will return to Leuven (and I don't mean for the retakes ;)) and recall all the beautiful and/or drunk memories, so make sure you have enough of them!

It's a scary time, but please, grab any chance to do something crazy, make new friends & enjoy life. Keep your head high and remember we stand together.

Vale,

Eline

VTK: 95 years old?!

Maybe you have noticed it already: VTK celebrates its 19th lustrum this academic year! “What is a Lustrum?!” you’re probably wondering. A Lustrum is a special anniversary celebration that takes place every five years. And since VTK was founded in 1920... Yeah, you get the picture. 95 years is a long time, so let’s look back at how VTK was established, in which circumstances and in which form.

The beginning of organised student life

Student associations or fraternities have always been part of the Leuven student community. At the end of the 19th Century, a lot of new student organisations were founded and most of them grouped students by city or region of origin. At that time, the education in Belgium was dominated by the French language. At secondary school and at university, the official language was French. Flemish students called their regional organisations called ‘Club’ or ‘Gilde’, or sometimes ‘Kring’. Around 1900, they organised themselves more strictly in Clubs, which grouped students by city or region, and 5 Gildes which grouped the clubs of one province (one Gilde per province). In some of those clubs, the language was also French, but most of them spoke proudly Flemish and wanted their language to get the same status as French. However, in the Société Générale des Étudiants, the central representative body of the students of Leuven, they were not allowed to speak Dutch. In 1902, this resulted in a scission into the Fédération Wallonne and the Vlaamsch Verbond, which later evolved to KVHV (Catholic Flemish High-students Union).

It was a blooming period for the Flemish student life in Leuven. A lot of famous students and persona from the Flemish movement were active in Leuven back then, e.g. Jef Vanden Eynde, an eternal student who never graduated, called the Prince-Student of Leuven, co-founder of the Vlaamsch Verbond. He introduced in Leuven the colourful student traditions that were used in the German “Burschen” life, like bands and caps (instead of the calotte of the Walloon catholic students), and invested all the money he inherited in promoting ‘order, style and culture’ among the students. Not only students were active in these associations, also a lot of Flemish-minded professors encouraged the activities and participated in the lectures and song nights organised by the students.



Figure 1: Jef Vanden Eynde, the Prince-Student, wearing band and hat in German fashion

Faculty Associations

After World War 1, the student life in Leuven was completely shaken up. The German hats disappeared and were replaced by a Bordeaux “flatte”, based on the French barrette. These “flatte” were the symbol of the Flemish students. In the 20’s, the clubs founded an umbrella organisation, called the Seniorenkonvent. Each Gilde set new, colourful beer hats and the clubs remained very important for the Flemish, student life.

At the same time, a new fashion of student organisations appeared. With the help of their professors, Flemish students founded associations per faculty. These associations did not as much

serve to organise recreational activities, but rather wanted to complement the French education with lectures in Dutch by fellow Flemish students, alumni or professors. VTK, one of the first of those associations, was founded in 1920. Only VRG (Flemish Law Society, 1885, current faculty association of the Law Faculty) and LBK (Agricultural Circle, 1887, current faculty association Faculty of Bio-Engineering) were earlier, both founded to improve the situation of Flemish students, respectively to teach them a Flemish legal language and to help the poor Flemish farmers and agriculturalists. Both of them had a professor as a chairman. From the early beginning VTK was completely presided by students, but received a lot of support from the Flemish professor. Just like VRG and LBK, VTK was a study circle that organised lectures complementary to the education and also focussed on the social problems related to their area of study. It lasted until the 30's before other faculty circles followed, with Ekonomika in 1930 and Germania, the circle of Germanic language students, in 1931.

These circles were ever more independent from the professors, and started organising more enter-

taining activities after or parallel to more serious lectures.

The foundation of VTK

In 1935, during the third lustrum celebration of VTK, some students asked J. Raskin, the first chairman of VTK, to write down his memories about the foundation of VTK. This report was republished in 2010-2011 for the 90th anniversary of VTK. Below, you can find some parts translated (respecting the rather archaic language of those days).



Figure 2: The Calotte, the hat of Belgian, but later particularly Walloon, catholic students



Figure 3: The "flatte", a red-brown student cap worn by Flemish students after WW1

[...]

In the academic year 1919-1920, a dense atmosphere was wrapped around the student world in Leuven; the hard years of war had strengthened the power of will and shaped a new generation of older school boys who were conscious about the seriousness to consider their mission in more detail.

When they marched under the pucker of their old ensigns through the destructed streets of Leuven, under an endless wave of dark red Flemish caps, [...] radiated the firmness from their eyes and it droned of what they wanted: the Flemish university and the Flemish courses in Leuven.

The engineering students shared just as enthusiast in these goals; and even while they were under the pressure of a ruthless study calendar, they would translate their words into deeds, this way worthy of their reputation of positive persons.

[...] there were only two Flemish courses [...]

This was the situation, when in the first months of the academic year 1919-1920, some young students were charmed by the idea of founding, parallel to the existing “Cercle Mathématique”, a Flemish “Wiskundige Kring” [Mathematical Circle, editor’s note]. Where the courses of the Alma Mater would fail short in Flemish technics, the students themselves would defend their cultural interests. So our boys could make it on their own, and that’s what they did.

[...] professor Verriest accepted with exceptional willingness to give his support, but his colleagues, who feared that the new circle would develop to the prejudice of the “Cercle Mathématique”, patronised by them, wished that the Circle would come to be under another name.

The venture would thus be more successful under the name of “Technische Kring” [Technical Circle, e.n.]; immediately a temporary committee was formed that would finish the preparation and that would make propaganda in order to recruit active and passionate members.

[...] The Technische Kring would be officially founded during a ceremonious academic session at the beginning of the next school year, in November 1920. Meanwhile, the temporary committee had realised a voluminous list of members which consisted of almost all Flemish engineering students of all five years of study, as well as the very congenial interest of the Professors Verriest and Van Hecke.

[...] The first thing [the president] did was to wend with the Rector of the University, Monseigneur Ladeuze, as well as with the dean of the faculty of sciences, in order to explain the goal and the planned action of the Technische Kring and to arouse the interest of the academical government.

Monseigneur Ladeuze accepted the proposal with sympathy. In his reply, he lauded the initiative and promised to add the Technische Kring to the category of academical circles which would be patronised by the University [...]

The foundation meeting which took place in November 1920 in the chamber of the Boerenbond, was a solemn and successful happening. At least 50 engineering students had replied to the call and also the professors Van Hecke, Verriest, Coppens, Gillon, De Smet and Canon De Smet were amongst those whom we still remember.

[...] The Technische Kring would create the opportunity to discuss the issues of technology, in which the members were interested, in their own mother language; this way, Flemish students, whose technical training was exclusively in French, [...] would be better prepared to communicate with the technicians and workmen in the industry.

[...] The first meeting would reach a huge success of interest, when the word was given to engineer Paul Steven with as subject: the electrification of the railways. His transparent explanation in Dutch, which was welcomed with enthusiast cheers, was immediately the incentive for some of the attendees to subscribe at their turn for a lecture.

The foundation meeting confirmed the composition of the board as follows:

Honorary President: professor Van Hecke, unanimously welcomed,
president: J. Raskin – vice-president: Jos Verdeyen,
secretary: Jos Mercelis
treasurer: Eugeen Koumans, – librarian: Berten Vallays.

From that moment onwards, the Technische Kring was the favourite meeting place for the Flemish engineering students and each of us thinks back with joy to the pleasant hours spent there.

[...]

Games

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APRIL 2016

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Cantus week

Cantus week

Cantus week

Blacklight party

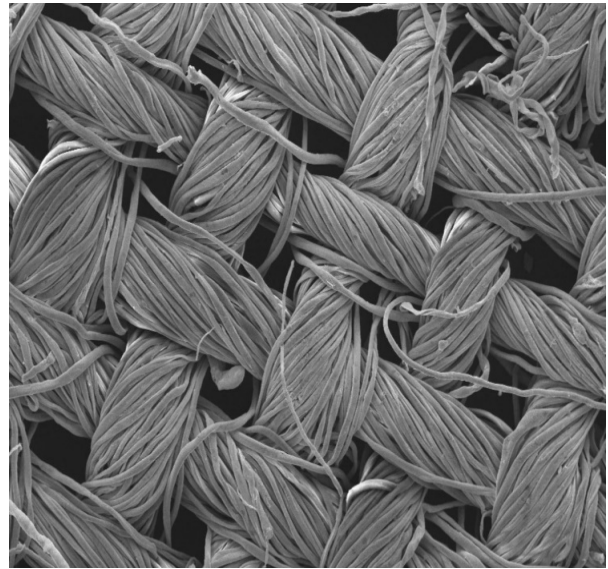
Spartacus run

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| 16 | | 17 | 18 | 19 | 20 | 21 | 22 | |
| 23 | TIME TO STUDY! | 24 | 25 | 26 | 27 | 28 | 29 | |
| 30 | | 31 | | | | | | |

Last month in engineering

FA team at RMIT University in Melbourne, Australia, has developed a cheap and efficient new way to grow special nanostructures onto textiles. These nano-enhanced textiles are special, because they can degrade organic material when exposed to light. When the nanostructures are exposed to light, they can create “hot electrons” that release a burst of energy and degrade the organic matter. The next step for the researchers is to test the textiles with compounds like tomato sauce or wine.



Bad news for all of us Harry Potter fans: ideal invisibility cloaks may be physically impossible. This is the verdict from some researchers that was recently published in an issue of Physical Review A. They concluded, as a result of limitations imposed by special relativity, that even the best invisibility cloaks can only hide an object from some observers, while other observers, moving with respect to the first group would see distortions: the result would be less like Harry Potter and more like the 1987 movie Predator.

As mobile and wearable devices such as smartwatches grow smaller, it gets tougher to interact with the small screens. This could change with a new sonar technology developed at the University of Washington by computer scientists and electrical engineers. The technology tracks finger movements by turning a smartphone or smartwatch into an active sonar system using the device’s own microphones and speakers. Because sound waves travel through fabric, users might even interact with a phone inside a pocket. Early tests resulted in an average finger tracking accuracy of 0.8 centimetres. In a next phase, the technology will be extended to multiple fingers and into three dimensions.

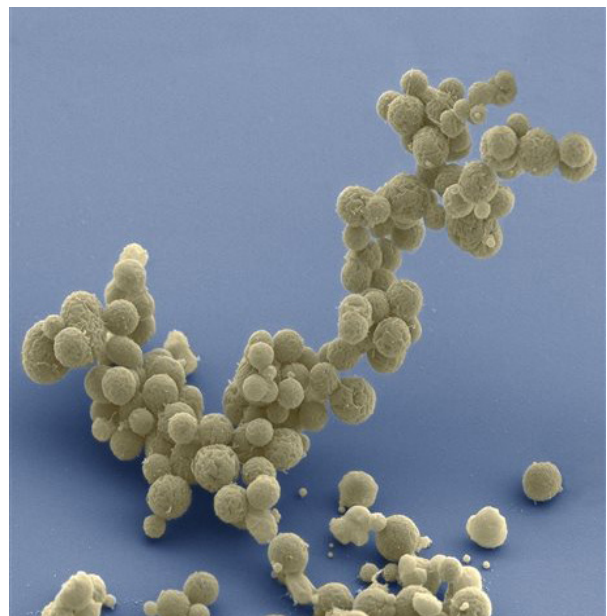


The AlphaGo, a Google developed programme, won a best-of-five competition against South Korean 9th dan Go grand-master Lee Se-Dol. This 3,000-year-old Chinese board-game involves two players that try to seal off the largest territory on a 19 by 19 chequerboard-like grid. This feat is reminiscent of the famous AI victory of IBM's Deep Blue over the world class chess player Garry Kasparov in 1997. But this victory is even more impressive, considering the complexity of the game itself: there are more possible move configurations than there are atoms in the universe. man-like fashion.



An international team of engineers and biologists will study how birds fly so efficiently and then use that knowledge to build unmanned aircraft with shape-shifting wings. These planes should be lighter, faster and much more manoeuvrable than today's stiff-winged planes. The biologists will study the way birds manipulate the airflow with their wings, whilst the engineers will investigate ways to produce morphing wings by testing materials that change their shape in response to electrical or thermal stimuli.

AScientists have deleted nearly half the genes of a microbe, creating a stripped-down version that still functions, an achievement that might reveal secrets of how life works. In addition, it may also help researchers to create new bacteria tailored for making medicines and other valuable substances. The newly created bacterium has a smaller genetic code than any natural free-living bacteria. It has only 473 genes compared to the more than 20,000 genes in human DNA. However, even now, the functions of 149 of those genes are unknown. Hopefully, some of these genes may give us some clues about life.



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