

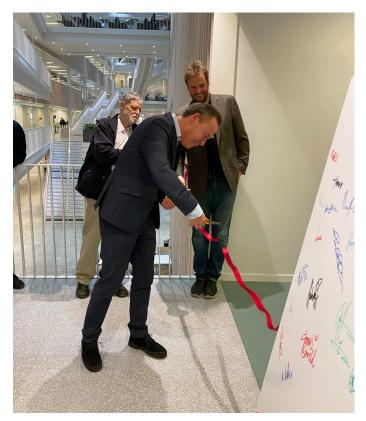
SCHOOL OF ENGINEERING SCIENCES IN CHEMSTRY, BIOTECHNOLOGY AND HEALTH

## **CBH** News

Nr 19, December 2019

#### 2019-12-05

ast week the UKÄ carried out their second visit here at KTH and we want to say thank you to all who participated in interviews and preparatory meetings. In their interviews with the KTH quality coordinator and in the last talks with the President, Dean and Vice Dean, the assessment panel said that they were very pleased with all the interviews and that the conversations had all been pleasant and informative.



The assessment panel now takes with them all the impressions of the interviews and continues the work of analyzing how KTH>s quality assurance works and what may need to be further developed. KTH will receive their first assessment in February 2020. Then we will check that the factual content is correct. The final assessment will then be finished in mid-March.

Last Thursday I participated in the opening of Makerspace in Flemingsberg. You-ve probably heard of Hewlett & Packard>s garage in Palo Alto, which was the starting point for what would later become known as Silicon Valley. In the same spirit, KTH Flemingsberg has built up a new Makerspace with the intention that the school>s students should be able to take their initiatives one step closer to a possible realization together with teachers, researchers, industry and KTH resources such as KTH Innovation.

It was wonderful to experience the enthusiasm of the students in different grades when they have the opportunity to produce their own printed circuit boards and 3-D-printed demo products, all the way to a working prototype. The project is led by Anders Cajander, whose commitment has spread throughout the entire Makerspace environment. It will be really exciting to

follow the development and a big thank you to Anders with coworkers for this venture.

> Mikael Lindström Head of School



Do you have news tips? Send them to CBH News! All news tips for CBH News should be sent to <u>cbh-nytt@cbh.kth.se</u> All contributions must be in by 12.00 on Monday the same week as CBH News is published in order to be admitted. See the current deadline at the last page

# Servicegruppen startar med Edge

During the autumn, the service group and the infrastructure group has run tests of the new customer management system, Edge. From December 2nd, they will work in the new system.

This means that all request concerning the two groups should be sent to <u>service@cbh.kth.se.</u>

This may cause a bit longer handling times the first week and they hope that everyone will show some patience.

# Information from the finance unit

Don't forget to certify all your invoices before you go on Christmas leave! We monitor the invoices during the Christmas holidays.

The final date for financial certification of invoices is 3/1 at 15:00, in order for the invoices to be posted in 2019.

# Introduction for new employees improved

The HR department have come up with new guidelines and materials for the introduction of new co-workers at the CBH School.

The aim is to save money and time for the employer and the employees alike, to improve the general wellbeing, and reduce the risk of new co-workers leaving CBH too quickly.

"Since we are located at four different sites we have been working in different ways. Now we will offer workshops and checklists for new co-workers and scholarship holders. Those responsible for newly recruited employees will be offered support in the form of a checklist as well," says HR administrator Erika Gren.

Read more about the new guidelines



Winter finally made a proper entrance last week and covered the buildings of KTH in beautiful white snow. Photo: Jon Lindhe

#### Manage your agreements before Xmas

The National holidays occur on weekdays this year. This means KTH's Civil Law and Contracts Unit is open until 20 December 2019 and re-opens again on 7 January 2020. Please send your agreements that will require legal review and signature before Xmas as soon as possible.

Kindly let us know if your matter is urgent and provide us with any deadlines and we will get back to you as soon as possible. We prioritize cases based on their urgency, whereas official deadlines from external funding entities go first. Note that many of the University Administration's officers and signatories will also be on leave.

Contact the Legal Department at <u>avtal@kth.se</u> if you have any questions.

Read more at KTH's internal page

## New members are sought for JML

If you belong to the faculty / are assistant professor and have a commitment and interest in JML issues, you are warmly welcome to report your interest in this important work for the school.

The group is led by the Head of School who is also the school's JML manager. The group also includes the administrative manager, HR, student representatives and safety representatives, but it is precisely teacher representatives that we are now looking for, since some members have received other assignments.

If you would like more information about the group's work, please contact Administrative Manager Marie Larson.

Read more about Gender Mainstreaming of KTH

# One year rule applies to receipts

Travel officer Therese Feierbach reminds everyone that a one year rule applies to all receipts.

This means that receipts older than a year will not be valid in order to get your travel expenses reimbursed.

The rule takes effect on January first, 2020.

Read more how to manage your business trips here

#### Different opening hours during Xmas

During the Christmas holyday the opening hours of KTH's central service functions will be changed.

The reception at Brinellvägen 8, KTH-switch/ Service number 9200 and the KTH Post will, for example, be closed on 23 December until 1 January 2020. In addition, all entrance doors on the KTH Campus Valhallavägen will be closed 23/12 2019 through 6/1 2020. Card and pin code will be required to enter during this period.

All opening hours during Christmas Holiday 2019/2020

# Removing unknown bicycles at campus

In order to keep KTH campus tidy and make space in the bicycle stands, Akademiska Hus will remove unused bikes as from the 13th of december 2019.

If your bike has been tagged, please remove the tag before the 13th or your bike will be taken away. Confiscated bikes can be retrieved at Drottning Kristinas väg 25 up until 31 march 2020.

# The work with unified operational support

The President previously decided to initiate a project regarding the creation of common processes and seamless operational support functions in the spirit of "One KTH".

As there is no complete final report, due to the project being put on hold in summer 2019 while waiting for a new University Director, a new start has to be made while the conditions in the original decision remain.

The results produced so far will be important input for the oncoming processes. The review of the operational support system for "One KTH" will continue under the management of University Director Kerstin Jacobsson. A time plan for this has not yet been decided.

#### Read more at KTH's internal pages

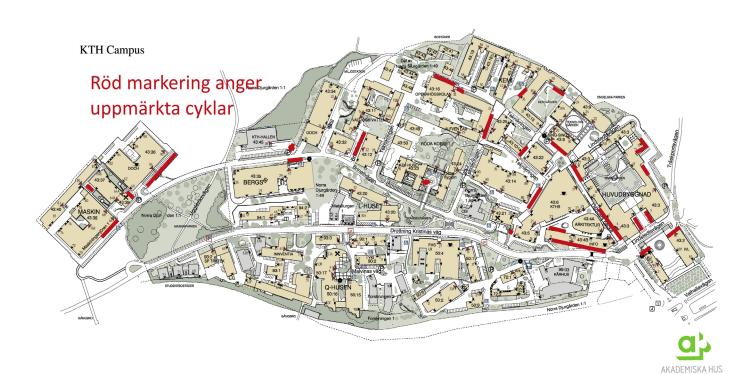


Photo: Akademiska Hus

### Education

### **Students testing ideas in new Makerspace**

A 3D studio, fine mechanical crafting tools and a social meeting point give KTH Flemingsberg's students new opportunities to take their ideas to the next level.

HP, Google and Apple – all of these enormous companies once started in ordinary garages, where each of their founders had a place to develop new ideas. These spaces for creativity are sources of inspiration as KTH now has inaugurated their own Makerspace.

KTH Flemingsberg's Makerspace has different kinds of equipment in several rooms. For example, an embedded studio for IT tasks, a crafting studio for fine mechanical work, and a 3D studio with 3D printers and a station for circuit board production. The aim is to create a social meeting point for students, teachers, researchers and industry, where students can take their projects to a new level.

What the students might do in the Makerspace depends on their previous experiences. Students who want to take part in the Makerspace have to start on introduction level, and work their way up. The person with the highest authority in the Makerspace is the manager, Linus Remahl.

– For instance, I can help the students with creating circuit boards. The machine I work with then is the most expensive we have invested in. We have also got an older machine from the 90's, but the new one is almost fully automatic and doesn't damage the drill heads as often happens during the circuit board production.

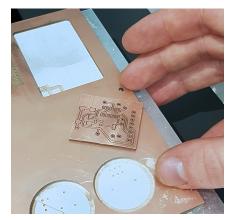


Electrodes are connected between Viktor Stedt's arm and a prosthesis made of wood. When he strechtes his arm, the prosthesis does the same. Photo: Kenneth Carlsson

About a hundred invited guests participated in the opening ceremony. It started with a few words from Sebastiaan Meijer, deputy head of the CBH school, followed by a short background presentation by the project coordinator Anders Cajander. Mikael Lindström, head of the CBH school, then declared the Makerspace inaugurated. Several students presented their projects on site, which made it obvious that the Makerspace had already been in use for some time.

- We wouldn't be able to do these 3D printed objects

without the Makerspace. It is a great resource to have Linus here, who can provide us components. We bought the majority of the components ourselves, but the help with missing parts has saved us a lot of money, says Jonathan Kardelind.



*In the 3D studio, students can get help with creating circuit boards.* 

Together with fellow students

Henrik Malmberg, Viktor Stedt and Paolo Cruz, he has created a myoelectrical prosthetic arm. The prosthesis is crafted in wood and merged with 3D printed plastic components. The prosthesis is linked to Viktor Stedt's arm by electrodes. When he stretches his biceps, the prosthetic arm follows.

- The time spent from idea to a functioning prosthesis wasn't long. We worked with the design for about a month. We have been in the Makerspace the last month, doing soldering and printing. It is truly inspiring to construct something in the computer and then print it in 3D, says Jonathan Kardelind.

Read Kenneth Carlssons' full text on Makerspace

### Peter Dinér praised for green lab courses

Peter Dinér, Associate Professor of Chemistry at the School of Engineering Sciences in Chemistry, Biotechnology and Health (CBH) is the recipient of the KTH's Pedagogical Prize 2019. He is receiving the award, among other things, for having included and integrated the concept of "green chemistry" and sustainable development into the laboratory course components. This work has also resulted in scientific publications in education journals.

"Receiving this award for my teaching work is very enjoyable and I'm very proud. After all, being appreciated as a teacher like this and receiving attention for developing the teaching doesn't happen so often. It will provide a lot of extra energy for some time to come," says Peter Dinér. "Basically, 'green chemistry' means that labs are done according to the '12 principles for green chemistry', which ensure that as little residual products and other environmental impact are generated as possible. This can be exemplified by reducing energy consumption by, for example, minimising the use of heating and cooling in some lab sessions, the use of catalysts or not using hazardous chemicals unnecessarily."

The development work of new "green experiments" has been driven forward together with doctoral students and other students. Peter Dinér describes a project where a group of students used "green chemistry" in their degree project to make the synthesis of lidocaine (a local anaesthetic) greener.

Read Marianne Noréns' complete interview Peter Dinér

#### **Reminder to teachers: Report your results**

Please help us to report as many results as possible before the end of year.

All results with a date from January up until November needs to be in Ladok before the end of year. In order to manage this, your course administrator need the results by December 15th.

For results, with a date in December, we have, as usual, time until the end of January.



### Research

## **Welcome Joakim Lundgren**

Joakim Lundgren is a new visiting professor at the CBH School



He is already familiar to some at the Chemical Engineering department, but this November Joakim Lundgren, Professor of Energy Engineering at Luleå University of Technology, became a new visiting professor at the CBH School.

"It feels really good! Fantastic in every way. It really feels inspiring to get the possibility to work at KTH," says Joakim Lundgren.

The main purpose of the employment is for Joakim to promote increased collaboration and an increased exchange of skills between KTH and LTU, in the areas of energy system analysis and thermochemical conversion of biomass. Initially, he will work in a newly started doctoral project "CO2 separation and conversion to methanol from synthesis gas", participate in acquiring new research funding, and work to strengthen collaboration within the Swedish gasification center (SFC) in connection with planning for a renewed 10-year research program.

Joakim Lundgren is also available as a lecturer in both undergraduate and doctoral courses.

Photo: Jon Lindhe

# New transformative agreement with Elsevier

#### All KTH researcher will be able to publish in Elsevier journals from January 1, 2020.

The Bibsam Consortium is signing a Read & Publish agreement with the scientific publisher Elsevier. This means that KTH researchers will have access to the publisher's 2000 journals once more. In addition, all Swedish research articles will be published open access.

Read the full story

## Wood is the surprising ingredient in electrodes

Wood fibres are being used by researchers at KTH to create a new class of stronger and lower-cost electrodes for even lighter and long-lasting flexible electronics and wearables.

A team at KTH reports that it created the new composite material by combining wood cellulose nano fibrils (CNF) – or extremely small filaments known as nanorods – with MXene, a two-dimensional nanoscale conductive material. The wood fibrils provide mechanical strength otherwise lacking in MXenes, and they allow the electrodes to become flexible.

#### Read more att kth.se

### **KTH Innovation**

### How to stop saying "I don't have time"



Are you struggling to juggle grant proposals, submitting papers, teaching, and finding time to commercialize and communicate your research?

Come for lunch at KTH Innovation the 12th of December and get hands-on tips on how to go from fighting fires to feeling on top of your time. The seminar will be in English.

Read more and register

### New program for advanced technology

For KTH researchers who have developed advanced technology that could create impact on the market, KTH Innovation launches the program Test Drive Deeptech.

In five evening workshops, we'll help you examine your idea's potential and identify the way forward. The program fits you who can address key societal challenges with advanced, cutting-edge technology. Apply by January 26th, 2020. <u>Start your application here.</u>

Read more at KTH Innovations



### **KTH Sustainability**

#### Sustainability pub night Decemeber 12th

Welcome to a pub night on the theme of Christmas and Consumption: How can you slow down consumerism and have a really merry, joyful and sustainable Christmas?

Guest speaker: Åsa Svenfelt, Associate Professor of Sustainable Development and Future Studies and Program Manager for MISTRA Sustainable Consumption and Per Styregård, food writer, author, beverage expert at Dagens Industri.

#### More information and sing up



Photo: Pixabay

### Thesis defences

You can find all thesis defences at CBH on the school's internal pages

Nästa nummer av CBH-nytt kommer vecka 51. Deadline för att lämna in bidrag är 16 december klockan 12.00.

Redaktör: Jon Lindhe, jlindhe@kth.se