



SCHOOL OF ENGINEERING SCIENCES IN CHEMISTRY, BIOTECHNOLOGY AND HEALTH

CBH News

Nr 3, February 2019

2019-02-18

KTH's President and Deputy President visited the CBH School last week. The visit was very appreciated and this year, we wanted to demonstrate education for tomorrow's research and entrepreneurship.

Master's students within medical engineering demonstrated in a very inspiring way an interdisciplinary project where sensors placed on the legs register how close to perfect a cyclist pedals.

At the school's Greenhouse Labs, we got to meet exciting companies where our technical doctors work. A rewarding last hour was spent on hearing about a dedicated programme development within the Biotechnology programmes (MSc in Engineering and Master) in order to face the future.

The President has chosen to establish and appoint a new Deputy President for Education (Professor Leif Kari) for the strategic development of KTH's courses and study programmes, so that they can continue to be relevant, attractive and high-quality. A Deputy President for Education will have the task of looking at how our programmes shall be developed to meet tomorrow's needs. It is about content, quality, infrastructure, and the educational mission is considered as important as the research mission.

In times when there is much discussion about ranking and there are different measurements, **QS Rankings by Faculty** shows that KTH, within Engineering & Technology, has advanced from position 41 to 36.

Engineering & Technology: **36** (2018: 41; 2017: 36; 2015: 29; 2014: 33; 2013: 27)

Within **QS Rankings by Subject**, KTH is ranked in 15 different subjects. As many as eight subjects are found among the top 50, an improvement with three subjects since 2018. Four subjects are counted among the top 30: Electrical Engineering (ranked as No 19), Architecture / Built Environment (ranked as No 23), Mechanical Engineering (ranked as No 26) and Materials Science (ranked as No 26).

As many as ten subjects are found among the top 100. Nine subjects have improved their ranking, six subjects have the same position as before and no subject has moved backwards.

Many congratulations to Chemical Engineering which now again is among positions 51-100. Chemical Engineering: **51-100** (2018: 101-150; 2017: 101-150; 2016: 51-100; 2015: 51-100; 2014: 51-100; 2013: 101-150; 2012: 101-150; 2011: 51-100)

This is KTH's best ever overall achievement in this ranking and an impressive result in terms of existing resources.

Mikael Lindström
Head of School



Do you have news tips?

Send it to CBH News!

All news tips for CBH News should be sent to

cbh-nytt@cbh.kth.se

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.

CBH's administration on Campus Valhallavägen has relocated

The administration's new location on Teknikringen.

School Management and Communications:

Teknikringen 30, floors 6 and 7

Course and Teacher Support:

Teknikringen 28, floor 5

Noden:

Teknikringen 28, floor 5

Finance:

Teknikringen 42, floor 4

HR:

Teknikringen 42, floor 4

Study Counselling and Internationalisation:

Teknikringen 50, floor 3

Infrastructure:

Teknikringen 50, floor 3

JML Workshop for teachers with KTH Equality Office

On April 12th, 2019 there will be a workshop for teachers on Campus Flemingsberg concerning Equality, Diversity and Equal Treatment (JML).

The workshop is held in Swedish by KTH Equality Office, between 9:00 and 12:00 in room T67. It will focus on inclusive treatment of students and on attitudes among staff.

The JML workshop is mandatory for teachers teaching in grade 1 **in Flemingsberg**. Other teachers are also welcome to join.

CBH's JML group are planning to organize further workshops on different themes during the year.

Electoral register for Faculty Council elections established

The electoral register for the election of members representing teachers and researchers in the Faculty Council of KTH has now been established.

The decision shall be announced at each school and is now announced on the CBH School intranet pages:

[Established electoral register](#)

Apply for a grant from KTH Opportunities Fund

Take the opportunity to make the most of your time at KTH and apply for a scholarship today!

Funded by engaged KTH alumni dedicated to supporting students, KTH Opportunities Fund is a chance for you to realize your dream project, as part of your degree studies at KTH.

There will also be information meetings at KTH's campuses. The first one is at KTH Library (Salongen) on February 26th. Join us at 14.00 for some coffee, sandwiches and a presentation.

On March 7th, at 12.00, there will be an information meeting on Campus Flemingsberg, room T54 (Elmqvistsalen). Please see the ad below.

[Find more information on how to apply here](#)



**HAVE YOU HEARD ABOUT
KTH OPPORTUNITIES FUND?**

**We'll tell you all about it on March 7th
at KTH Campus Flemingsberg!**

Funded by engaged KTH alumni dedicated to supporting students, KTH Opportunities Fund is a chance for you to realize your dream project, as part of your degree studies at KTH. You can apply for a scholarship to fund projects, internships and research connected to your studies.

Join us at 12.00 for some **coffee, sandwiches and a presentation at Room T54 (Elmqvistsalen)** on March 7th.

If you're eager to get started, you'll find more information on how to apply on our website:
www.kth.se/opportunitites



Expanded knowledge on silk assembly for development of bioactive silk coatings

Linnea Nilebäck, Protein Science

Fr 2019-03-01, 10:00, Svedbergsalen, Roslagstullsbacken 21,
AlbaNova, Stockholm



What is your dissertation about?

The thesis work investigates how recombinant spider silk proteins can be used to make surface coatings on biomedical materials. When functionalizing the silk with bioactive motifs and domains, the coatings has the ability to interact specifically with cells and biomolecules.

Does it have any connection to KTH's sustainability work and the global sustainable development goals?

Sustainability is about finding long-lasting solutions, and one part of this thesis work has aimed to used alternatives to antibiotics to develop sustainable strategies for treatment of infections without contributing to the spreading of antibiotic resistance.

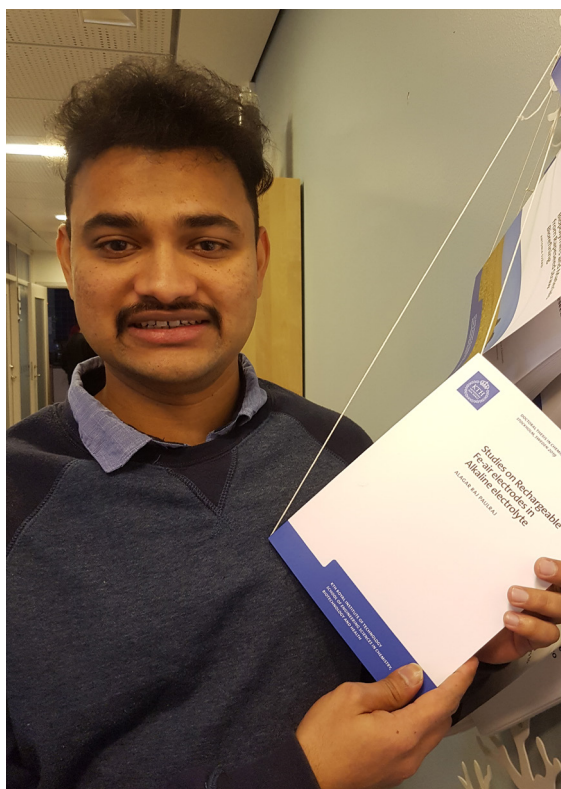
How can your results be used in the future?

Bioactive silk coatings could be used on a wide range of biomaterials and implants to improve their properties, for example to support the healing process and aid the material in being accepted well by the body.

Studies on Rechargeable Fe-air electrodes in Alkaline electrolyte

Alagar Raj Paulraj, Chemical Engineering

Fr 2019-03-01, 10:00, Kollegiesalen, Brinellvägen 8



What is your dissertation about?

This work aims to explore and develop low-cost iron electrodes and electrocatalytic oxygen electrodes for alkaline Fe-air batteries.

Does it have any connection to KTH's sustainability work and the global sustainable development goals?

Yes, The widespread integration of renewable energy requires a low-cost large scale battery. In our research work, we have tried to use electrode material from sustainable elements.

How can your results be used in the future?

In our work, different inexpensive materials are synthesized with a low environmental impact and easy preparation methods. Their performance mechanisms are investigated.

Our work's findings can help to develop a cost-effective material for Fe-air batteries.

The next issue of CBH News will come out in week 10. The deadline for making contributions is on March 4 at 12.00.