

# KTH Royal Institute of Technology



Information about master studies at KTH:





# KTH welcomes students from Southeast University!



Introduction presented by:

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# KTH Royal Institute of Technology

One of the top technical universities in Europe





# Short facts about KTH

- Established 1827 in Stockholm, Sweden – home of the Nobel Prize
  - 14,000 students including 2,000 PhD students, 5,000 employees of which 600 members of faculty
  - People from more than one hundred nations
  - World-leading research and education in ICT, Energy & Sustainability and Life Science, among other fields
  - Ranked as #29 in the world in Engineering and Technology in QS University Ranking
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# Short facts about KTH

- World-Wide QS subject rankings
    - Electrical Engineering: 26
    - Architecture and Built Environment: 23
    - Mechanical Engineering: 39
    - Civil and Structural Engineering: 41
    - Materials Science: 39
-



# The Kingdom of Sweden

- About 10 million inhabitants, ~2 million of whom live in the capital of Stockholm
- Has a pleasant climate thanks to the warm Gulf stream in the north Atlantic sea
- Combines a beautiful natural setting with modern technology and vibrant cities
- Home of the Nobel Prize, and many famous export companies

Do you know which?



# Sweden makes a lasting impression

Swedish entrepreneurship and ingenuity has helped shape the worlds of communication, furniture, fashion, music and much more. And no matter what the industry, there always seems to be that engineering approach.



# Stockholm – a city of islands





## Stockholm: an international city

- The safest city in Europe according to The Economist in 2015, nr 4 in the world
  - A multi-cultural European capital, communities from China, India and other countries
  - Quick access to city, campus and nature with excellent transportation: public, by bicycle or even by boat
  - **Swedes speak good English**, very limited need to learn Swedish while studying in Stockholm
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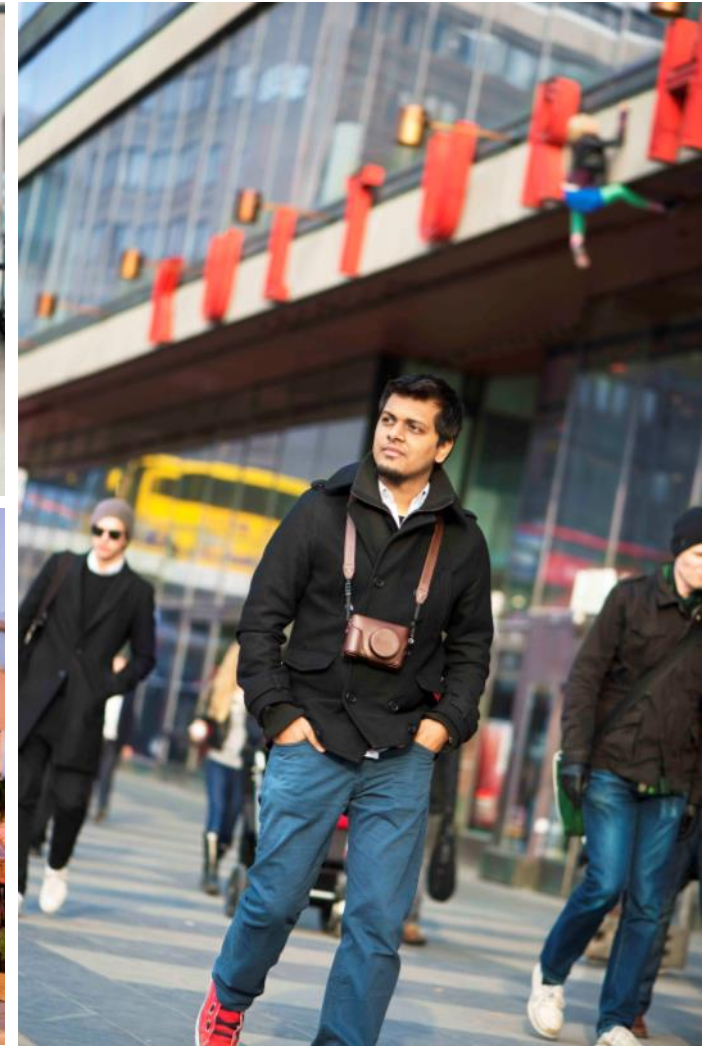








# Stockholm student life, part of the city



# Examples of social activities for international students:

Picnic in the summer



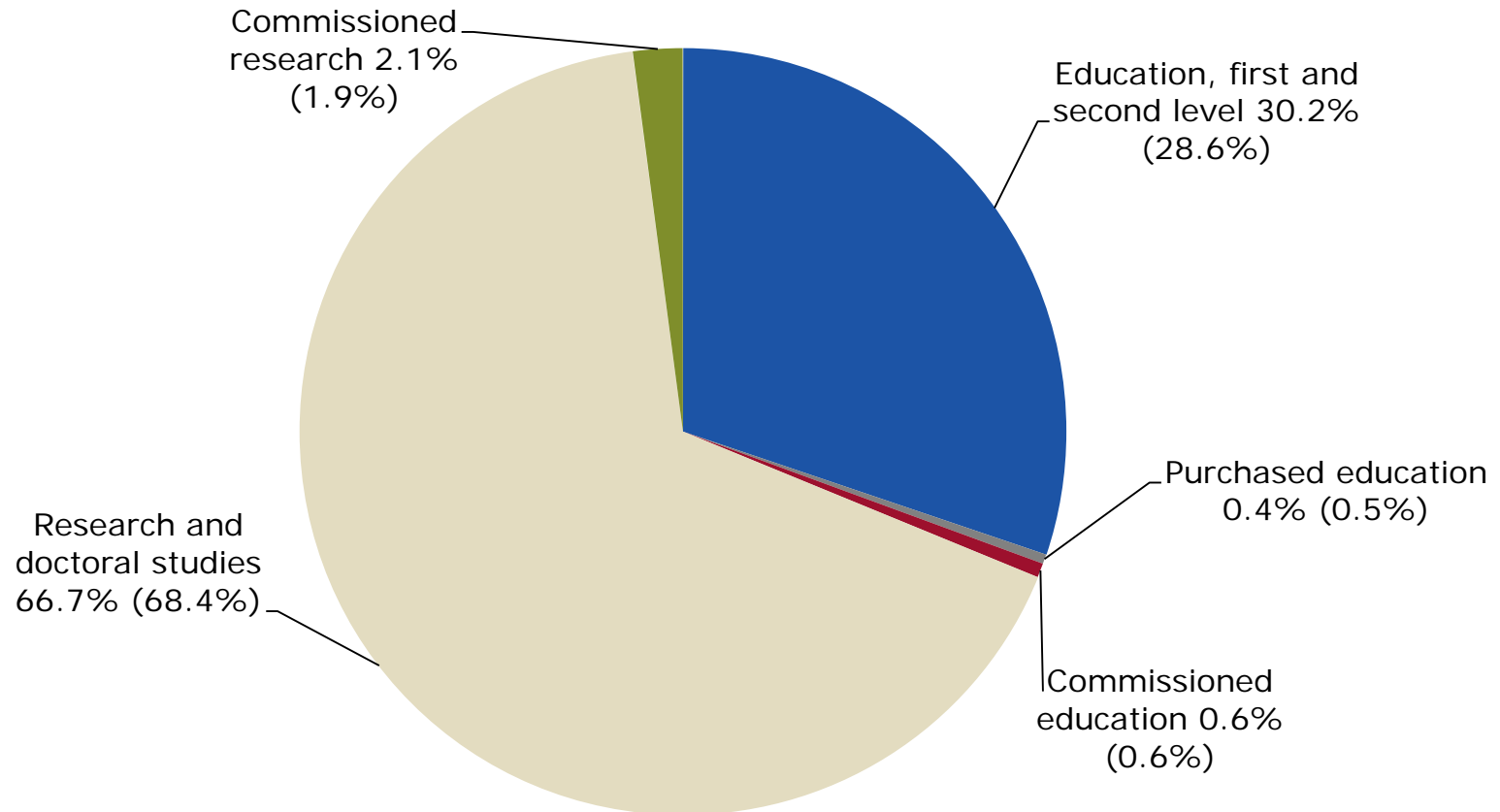
Ice skating in the winter





# KTH - Research-based operations

- Total Revenue SEK 4,243 (4,038) million



- Figures for 2014 (2013)

# World-class research



**Two presidents view KTH research on fuel cells**

**Right: President Gudmundson of KTH**

**Left: President Obama of USA**



# Four campuses close to industry



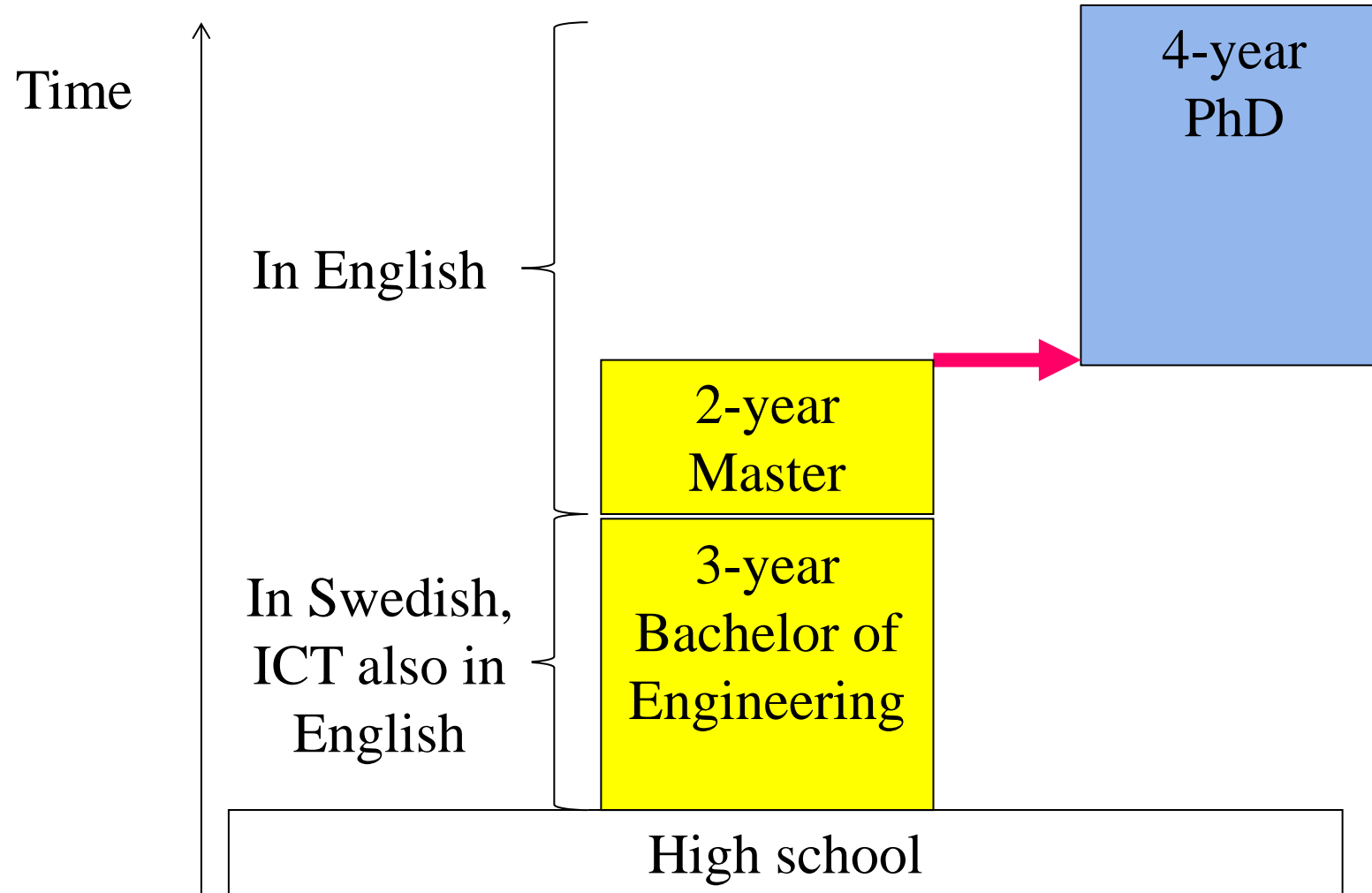


# Education in close collaboration with industry

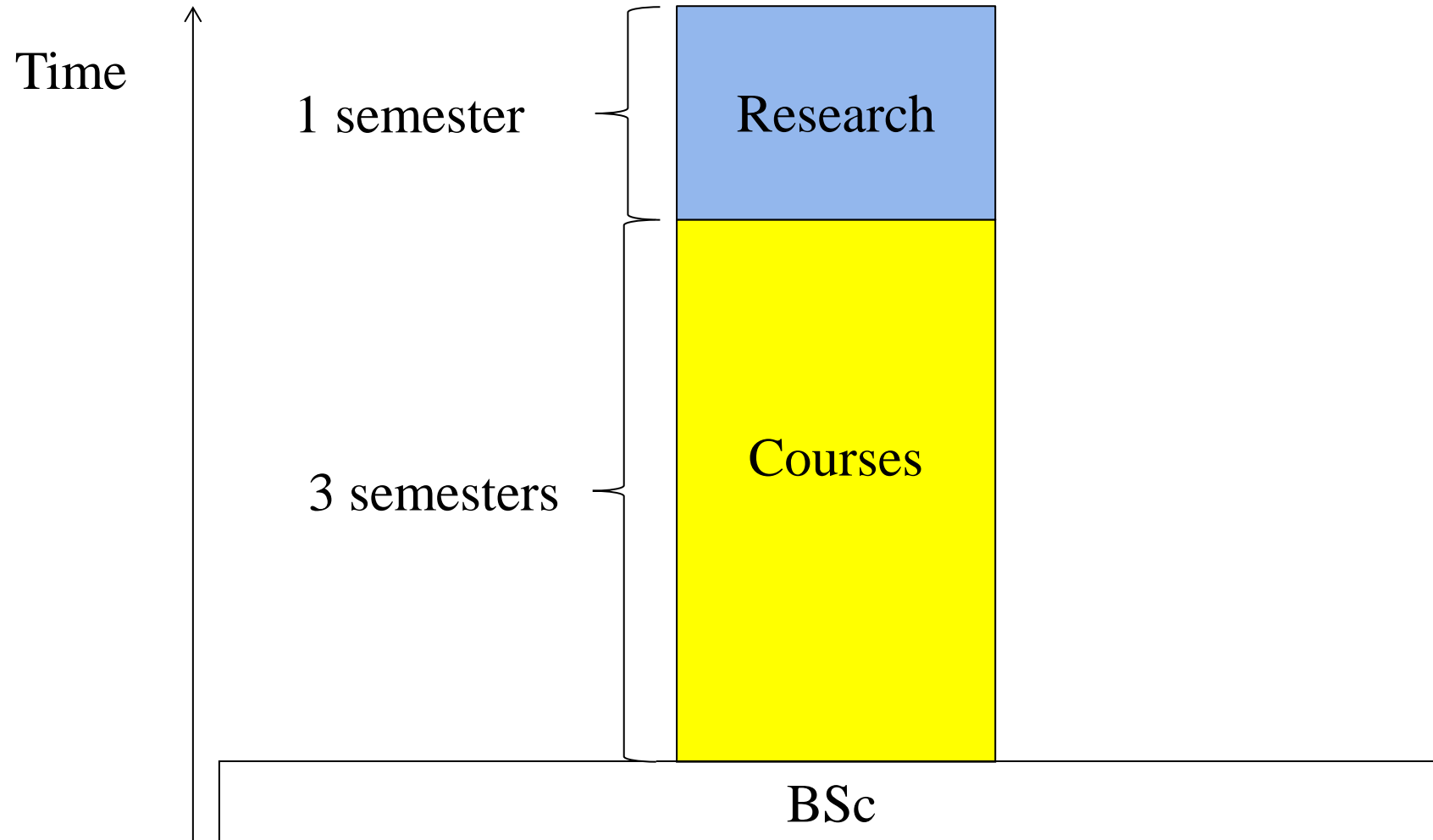
- KTH has four campuses in and around Stockholm city
  - Each campus closely integrated with local industry
  - Campus in Kista is surrounded by the world's largest collection of ICT businesses, more than 1000 companies, such as Ericsson, IBM, Intel, Sun, Compaq, Huawei, ZTE, and many more
  - Final thesis can be written at a company, often leading to the first job after graduation
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# Structure of education at KTH



# Structure of MSc education at KTH







# MSc programmes 2017/2018

## **9 subject areas, 60 programmes:**

- Architecture and Civil Engineering, 9 programmes
- Electrical Engineering, 10 programmes
- Engineering Physics and Mathematics, 6 programmes
- Energy and Sustainable Development, 10 programmes
- Industrial Management and Innovation, 3 programmes
- Information and Communication Technology, 9 programmes
- Life Science Technology, Chemistry and Chemical Engineering, 7 programmes
- Materials Science and Engineering, 3 programmes
- Mechanical Engineering, 10 programmes

# Fees and Scholarships

- There are application and tuition fees for non-EU/EEA/Swiss citizens for 1st and 2nd cycle studies (BSc and MSc)
- The tuition fee is SEK155k (about RMB 120k\*, 12万人民币) for one year of full-time master study, architecture 70% higher and bachelor 20% lower
- Scholarships are available, for example:
  - KTH Scholarship (covering the tuition fee)
  - SI: the Swedish Institute
  - Joint programs: Erasmus Mundus and EIT (European Institute of Innovation and Technology)

\* Assuming exchange rate RMB 1.0 = SEK 1.3

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# Living in Sweden

When applying for a residence permit, you must prove to the Swedish Migration Board that you will have a guaranteed sum of money at your disposal throughout the entire period of your studies. The amount is SEK 8064, about RMB 6200\*, per month for ten months of the year.

Minimum budget per month:

- Food: RMB 1600
- Accommodation: RMB 2900
- Local travel: RMB 450
- Phone/internet: RMB 250
- Other: RMB 1000

\* Assuming exchange rate RMB 1.0 = SEK 1.3



# Joint MSc programmes: two degrees

## European Institute of Innovation and Technology (EIT)

- Combines education, research and business
- Master's programmes in ICT and Sustainable Energy
- Includes studies in two European countries
- Scholarships included

## Erasmus Mundus

- EU programme at Master's and PhD levels
  - Includes studies in (at least) two European countries
  - Scholarships covering tuition and living are available
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# Application requirements and process

- Completed Bachelor's degree is required
  - English proficiency has to be shown (TOEFL 90, IELTS 6,5 etc), but there is flexibility for interviewed students from partner universities
  - There are programme-specific requirements (see [www.kth.se/en/studies/master](http://www.kth.se/en/studies/master))
  - Apply at [www.universityadmissions.se](http://www.universityadmissions.se)
  - Online application period: October 16 to January 15
  - Results of admission distributed April 6, 2018
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## SEU-KTH partner program

SEU students can apply during the last year of their BSc studies and be interviewed by KTH in December 2017

Language requirements may be slightly lowered after a successful interview

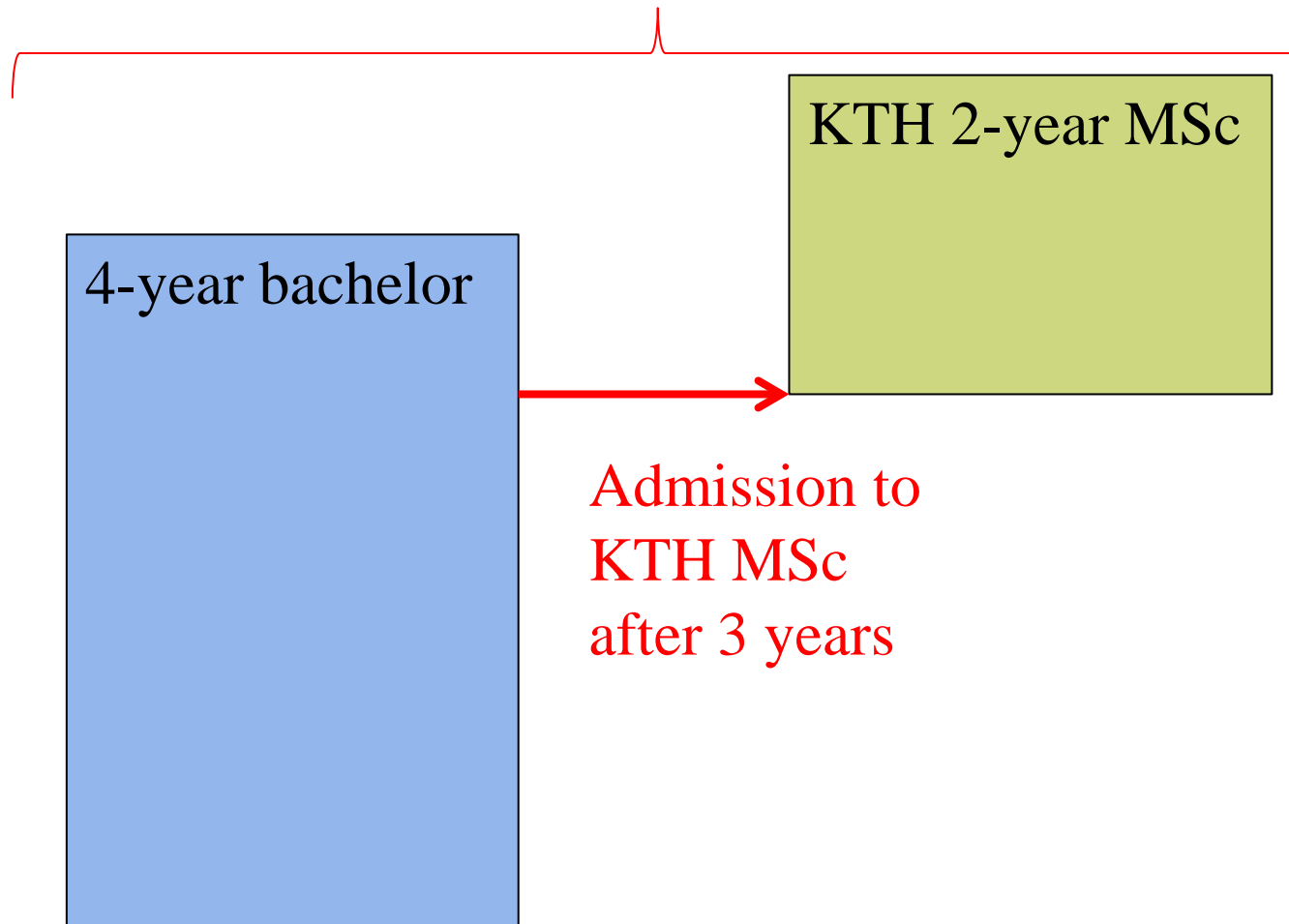
The applications can be directed to all KTH MSc programs (but not joint programs), the normal prerequisites are required for each program

Applications are made at [universityadmissions.se](http://universityadmissions.se), deadline January 15, 2018, application fee should be paid before the interview



# SEU - KTH 3+2 program

KTH MSc in 5 years from start of bachelor studies





## SEU - KTH 3+2 program

SEU students can apply during the 3<sup>rd</sup> year of their BSc studies and be interviewed by KTH in December 2017

Language requirements may be slightly lowered after a successful interview

Applications must follow the mapping agreed between SEU bachelor majors and KTH master programs (see list below)

Applications are made at [universityadmissions.se](http://universityadmissions.se), deadline January 15, 2018, application fee should be paid before the interview

# SEU – KTH 3+2 mapping

## Possible transitions, work in progress

|                                  |  |
|----------------------------------|--|
| SEU Electrical Engineering       | New from 2017: KTH Electric Power Engineering          |
| SEU Civil Engineering            | New from 2017: KTH Civil and Architectural Engineering |
|                                  | New from 2017: KTH Sustainable Technology              |
|                                  | New from 2017: KTH Communication Systems               |
| SEU Information Engineering      | New from 2017: KTH Communication Systems               |
| SEU Power and Energy Engineering | New from 2017: KTH Sustainable Technology              |





## SEU-KTH exchange program

SEU students can apply for exchange studies at KTH. Deadlines: April 15 and October 15, see: **KTH / Study at KTH / Exchange studies**

Students can study for up to 1 year and do not have to pay tuition fees for exchange studies (which do not result in a degree)

During exchange studies, it is possible to apply, in competition, for admission to a KTH master program which results in a degree

For more information: contact SEU about exchange studies

# After graduation

- After a KTH MSc degree:
    - 6 months residence permit to look for a job or a PhD student position
    - KTH PhD student positions are publically announced at the web site, KTH MSc students may have an advantage
    - In 2014, 10 former KTH MSc students from China enrolled as KTH PhD students
  - After a KTH PhD degree: offer of permanent residence permit in Sweden
  - KTH graduates find positions all over the world
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## Career prospects after a KTH degree

- 2016 statistics for master programs:
    - 40% had a job even before graduation
    - >90% had a job within one year of graduation
    - >30% became PhD students
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# PhD studies



- Three years of full-time research, one year of courses
- Engages more than 2,200 people
- A large proportion international PhD students
- A candidate has to apply for a position
- All PhD student positions are announced on the KTH web site: [www.kth.se/en/om/work-at-kth/vacancies](http://www.kth.se/en/om/work-at-kth/vacancies)
- Employment with a salary if admitted, but competition for positions



# KTH alumni hold prominent positions

- Graduates find careers in international companies like Ericsson, IBM, ABB, Astra Zeneca and Microsoft
  - Many MSc students do the master thesis project at, or in cooperation with, a company.
  - KTH is the leading supplier of CEOs for Swedish industry
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# Things you can do after finishing education at KTH...



Public Relation & China Liaison  
China Euro Vehicle Technology, Sweden  
(沃尔沃-吉利 联合研究中心)

- Master in Industrial Management  
KTH, 2014
- Bachelor in Industrial Engineering  
Zhejiang University, 2012



# Things you can do after finishing education at KTH...



Founder and CEO of Sensory Media Ltd.  
London, UK

- Master in ICT Innovation (EIT)  
University College London, 2014  
KTH, 2013
  - Bachelor in Industrial Design  
Zhejiang University, 2012
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# Things you can do after finishing education at KTH...



Process Management Engineer  
China United Engineering Company  
中国联合工程公司, 杭州

- Master in Real Estate Development and Financial Services  
KTH, 2012
  - Bachelor in Architecture  
Huazhong University of Science and Technology, 2010
-

# Things you can do after finishing education at KTH...



- PhD Candidate in Human-Robot Collaboration  
KTH 公派博士生
- Master in System, Control and Robotics  
KTH, 2014
- Bachelor in Control Technology  
Southeast University, 2012



# Things you can do after finishing education at KTH...



- PhD Candidate in Biomedical Engineering  
ETH Zurich, Switzerland
- Master in Medical Imaging  
KTH, 2012
- Bachelor in Biomedical Engineering  
Zhejiang University, 2010

# Things you can do after finishing education at KTH...



- Research Engineer  
BASF Company 巴斯夫, 上海
  - PhD in Chemical Engineering  
KTH 公派博士生, 2014
  - Bachelor & Master in Chemical Engineering  
East China University of Technology  
2007 & 2010
-

# Things you can do after finishing education at KTH...



## 顾纯元 博士

Chairman & President  
ABB North Asia and China

- PhD in Mechanical Engineering  
KTH 公派博士生, 1987
- Bachelor in Power Engineering  
Shanghai Jiao Tong University, 1982



# Things you can do after finishing education at KTH... **go into space!**



## **Prof. Christer Fuglesang**

Professor in Space Physics, KTH

- Mission crew STS-116 & STS-128 Shuttle Discovery, NASA-ESA 2006 & 2009
- Astronaut at European Space Agency 1992-present
- CERN, Switzerland, 1991
- PhD in Experimental Particle Physics Stockholm University, 1986
- Master in Engineering Physics KTH, 1981

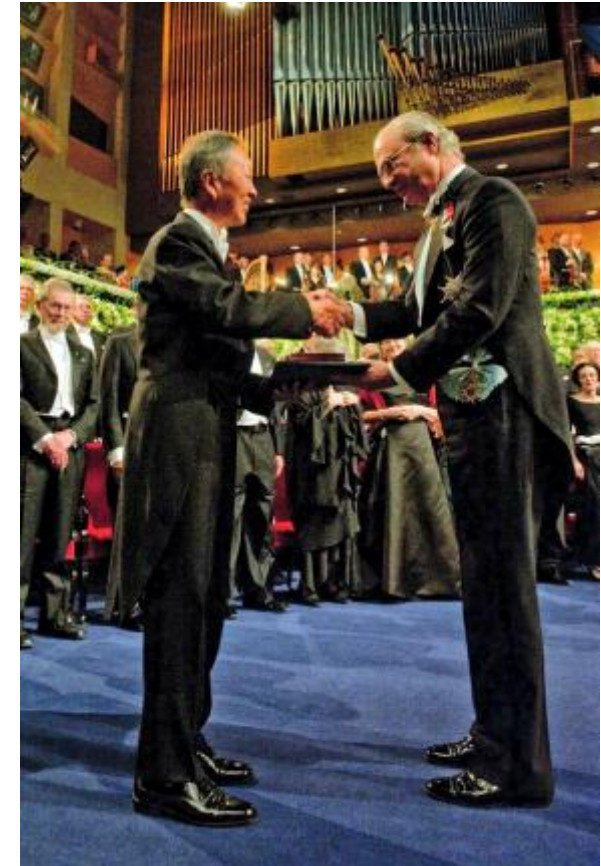
# Things you can do after finishing education at KTH... **collect the Nobel prize!**

## Prof. Hannes Alfvén



- Nobel Prize in Physics, 1970 for Magnetohydrodynamics  
磁流体力学 (等离子物理)
- Professor in Electrical Engineering  
University of California, 1967-1991
- Professor in Electromagnetic Theory  
and Electrical Measurements  
KTH, 1940-1991
- PhD in Electromagnetic Waves  
Uppsala University, 1934

# Nobel Prize ceremony in Stockholm on December 10 every year



... may take a few years after graduation...





ROYAL INSTITUTE  
OF TECHNOLOGY

# The Nobel Banquett



International students from KTH attended the Nobel Banquett in, the Stockholm City Hall, dressed in traditional costumes.





Welcome to KTH: launch your career!





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