



# KTH welcomes students from Zhejiang 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
-



# Stockholm: cost of living

Many cities in China are more expensive than Stockholm in world-wide comparison

| Rank 2016   | City             | Country        |
|-------------|------------------|----------------|
| • 7         | <b>Shanghai</b>  | <b>China</b>   |
| • 10        | <b>Beijing</b>   | <b>China</b>   |
| • 11        | New York City    | United States  |
| • 14        | <b>Shenzhen</b>  | <b>China</b>   |
| • 17        | London           | United Kingdom |
| • 18        | <b>Guangzhou</b> | <b>China</b>   |
| • 29        | <b>Nanjing</b>   | <b>China</b>   |
| • 30        | <b>Tianjin</b>   | <b>China</b>   |
| • 31        | <b>Shenyang</b>  | <b>China</b>   |
| • 33        | <b>Qingdao</b>   | <b>China</b>   |
| • 34        | <b>Chengdu</b>   | <b>China</b>   |
| • <b>84</b> | <b>Stockholm</b> | <b>Sweden</b>  |

















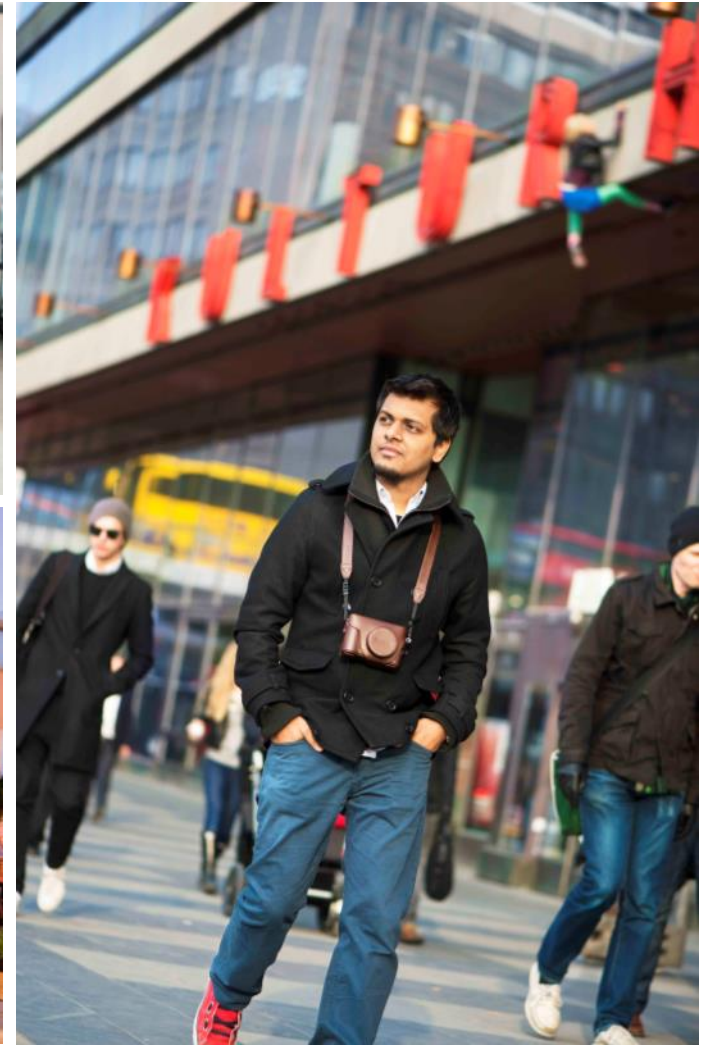








# Stockholm student life, part of the city





# Examples of social activities for international students:

Picnic in the summer

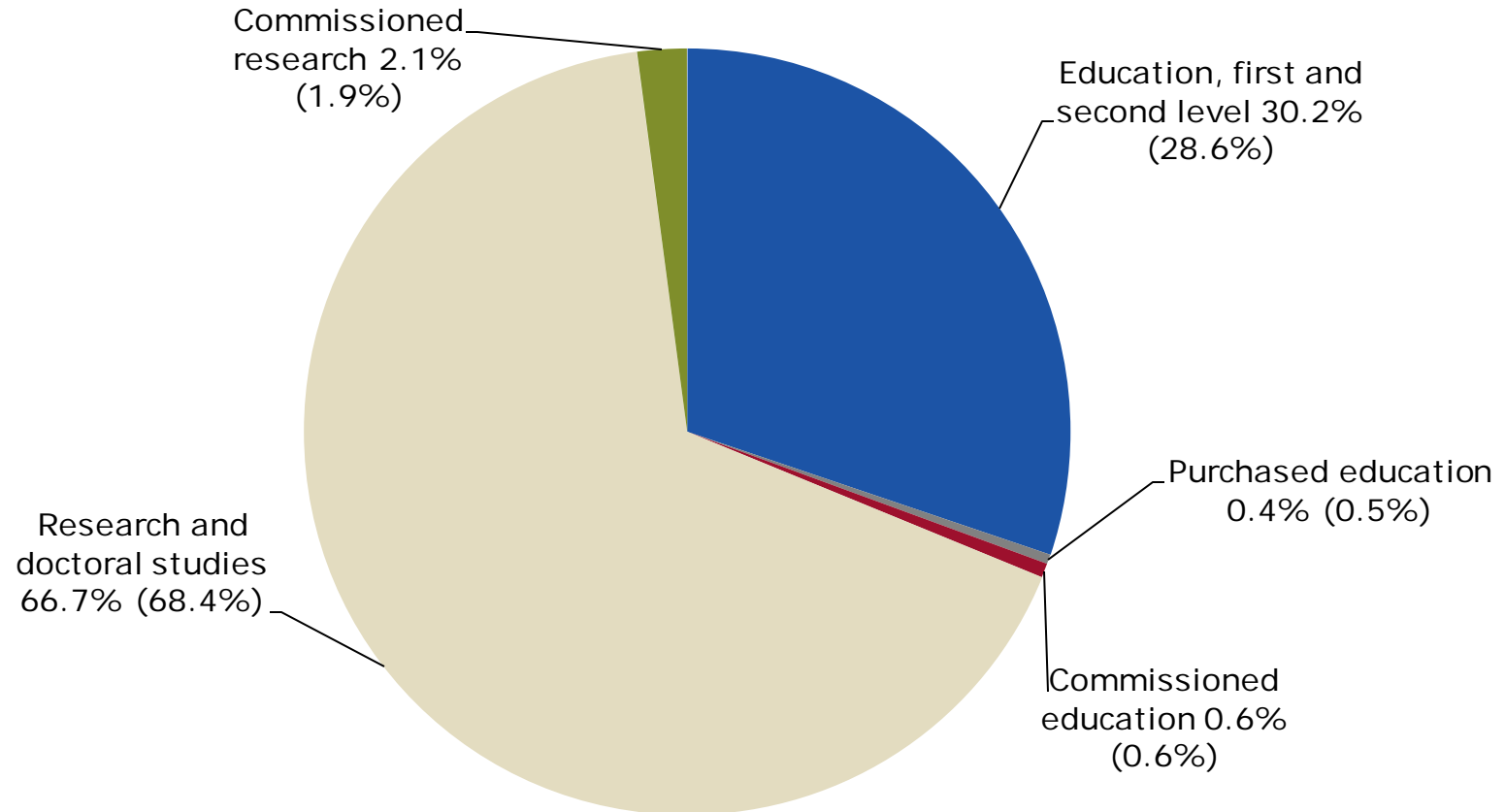


Ice skating in the winter



# KTH - Research-based operations

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



- Figures for 2014 (2013)

# 世界瞩目的科研实力



Two presidents: 美国总统、KTH校长  
一同观摩KTH有关燃料电池研究的最新进展

Picture taken September 4, 2013



# Four campuses close to industry



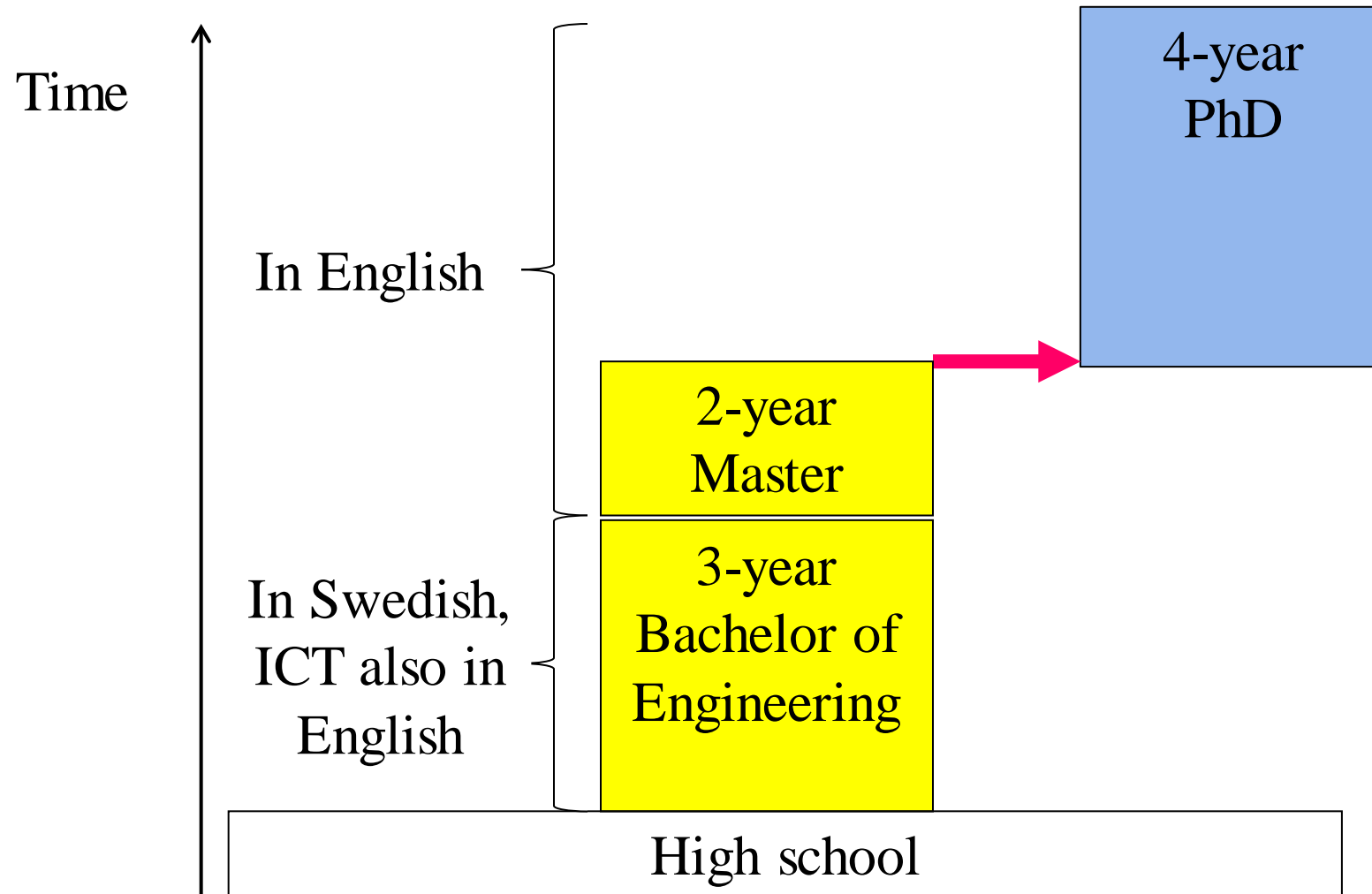




# Education in close collaboration with industry

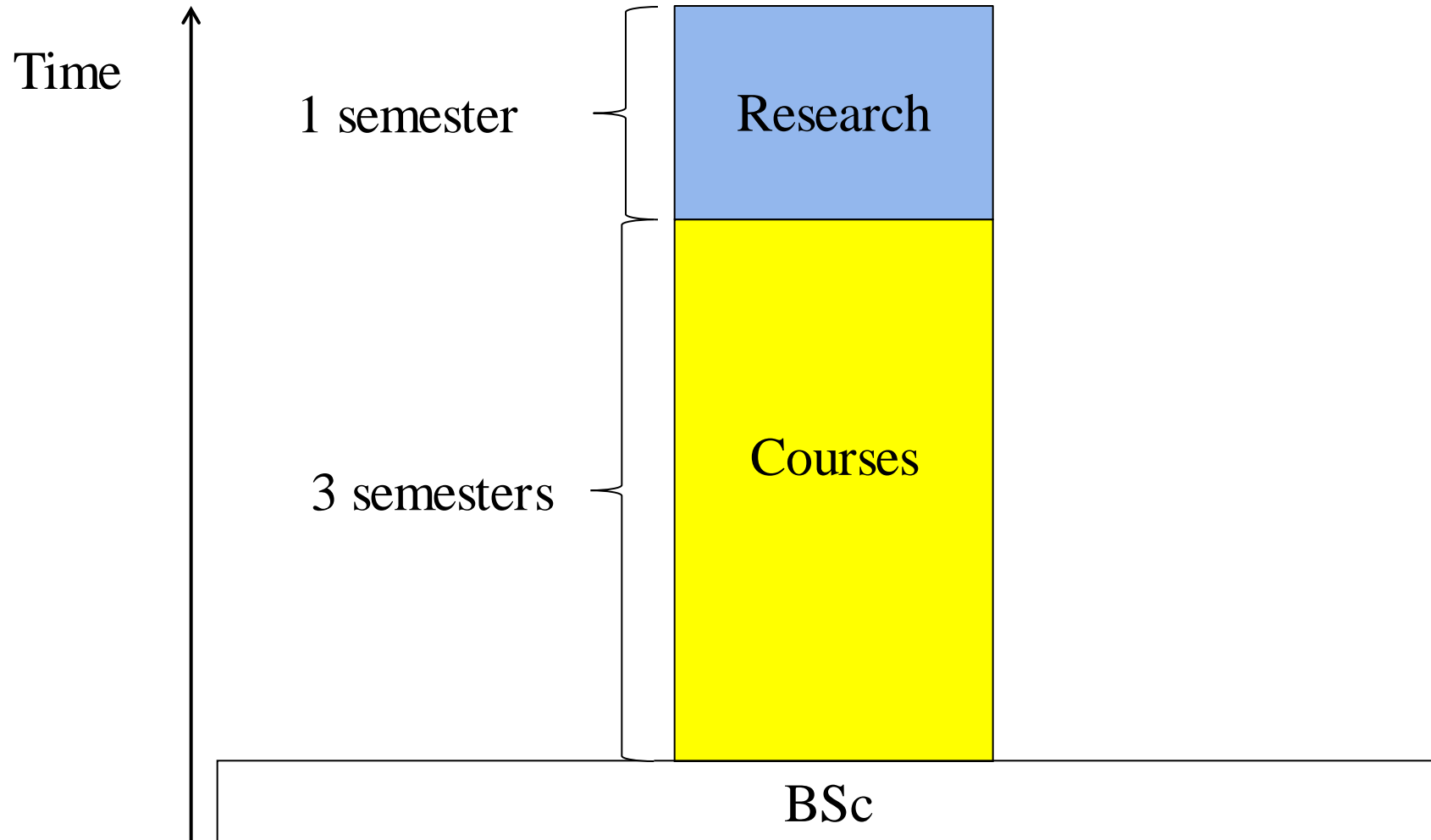
- KTH has four campuses in and around Stockholm city
  - Each campus closely integrated with local industry
  - Campus in Kista is surrounded by the world's largest collection of ICT businesses, more than 1000 companies, such as Ericsson, IBM, Intel, Sun, Compaq, Huawei, ZTE, and many more
  - Final 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
-



# 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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## ZJU-KTH partner program

ZJU 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

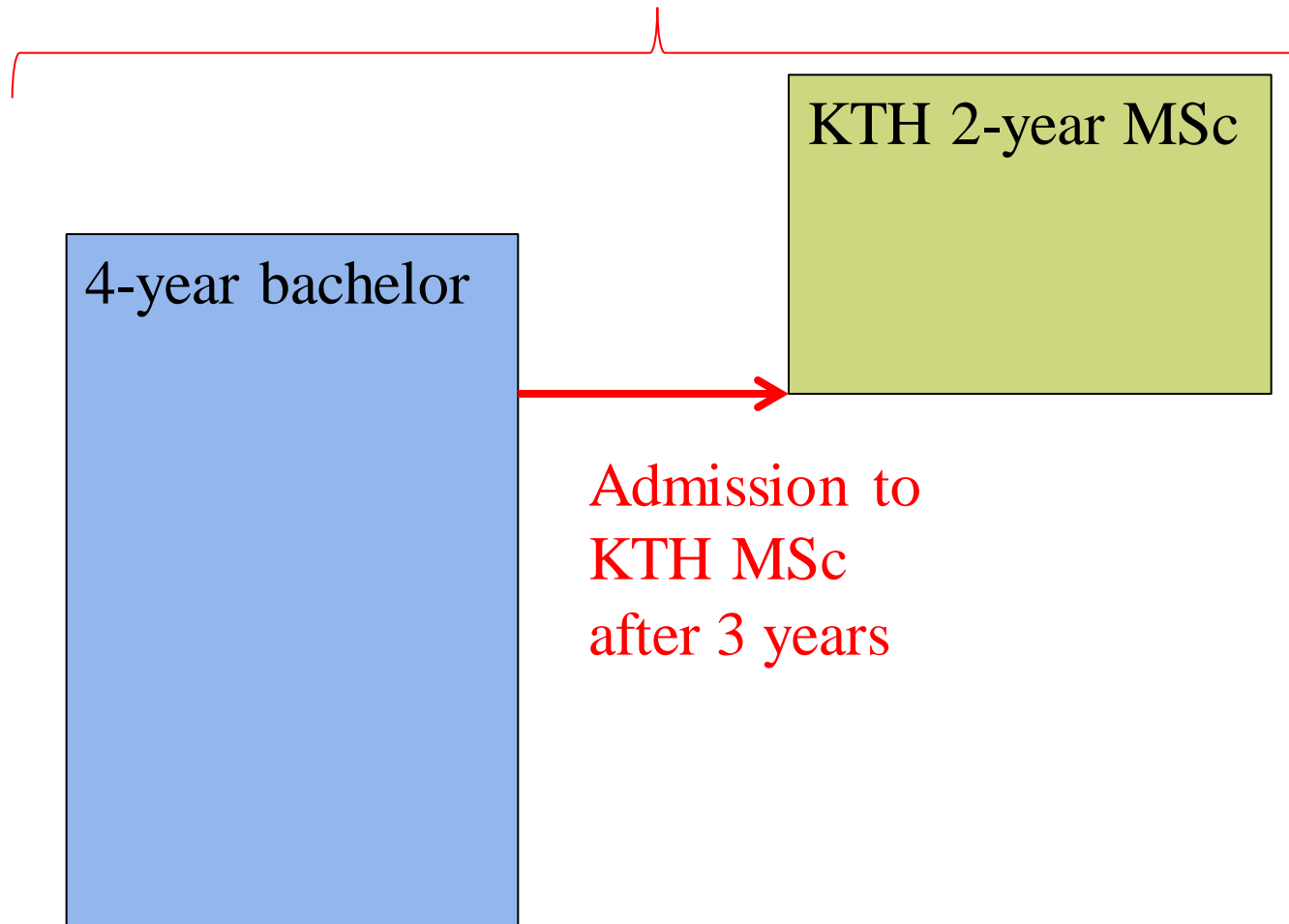
The applications can be directed to all KTH MSc programs, the normal prerequisites are required for each program

Applications are made at [universityadmissions.se](http://universityadmissions.se), deadline January 15, 2018



# ZJU - KTH 3+2 program

KTH MSc in 5 years from start of bachelor studies





## ZJU - KTH 3+2 program

ZJU 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 ZJU bachelor majors and KTH master programs (see lists below)

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



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# ZJU-KTH 3+2 2017

|   |   |
|---|---|
| ZJU Bioengineering                      | KTH Industrial and Environmental Biotechnology  |
|   | KTH Medical Biotechnology   |
|   | KTH Sustainable Technology  |
| ZJU Chemical Engineering and Technology | KTH Chemical Engineering for Energy and Environment   |
|   | KTH Macromolecular Materials  |
|   | KTH Molecular Science and Engineering   |
|   | KTH Nanotechnology  |
|   | KTH Sustainable Technology  |
| ZJU Civil Engineering                   | KTH Real Estate and Construction Management<br>(Students must have completed KTH courses Engineering Economics, 2 credits; Engineering Project Management, 2 credits; Real Estate Economics and Evaluation, 2 credits; Civil Engineering Construction 3 credits, or equivalent) |
|   | KTH Civil and Architectural Engineering   |
|   | KTH Environmental Engineering and Sustainable Infrastructure  |
|   | KTH Transport and Geoinformation Technology   |
|   | KTH Sustainable Technology  |





# ZJU-KTH 3+2 2017

|  |  |
|--|--|
| ZJU Earth Science  | KTH Environmental Engineering and Sustainable Infrastructure   |
|  | KTH Sustainable Technology   |
| ZJU Automation (track electrical engineering and track automation) | KTH Electromagnetics, Fusion and Space Engineering (Only students from track electrical engineering are eligible and then depending on student's course selection) |
|  | KTH Electric Power Engineering (Maximum of 5 students)   |
|  | KTH Engineering Design (Only students from track automation are eligible and then only for track: Mechatronics)  |
| ZJU Electronic Information Engineering                             | KTH Nanotechnology   |
| ZJU Microelectronic Science and Engineering                        | KTH Embedded Systems (only for track: Embedded Platform)   |



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# ZJU-KTH 3+2 2017

|   |  |
|---|--|
| ZJU Electronic Science and Technology           | KTH Electric Power Engineering (Maximum of 3 students)   |
|   | KTH Information and Network Engineering  |
| ZJU Energy and Environmental System Engineering | KTH Electromagnetics, Fusion and Space Engineering (Eligibility depending on student's course selection) |
|   | KTH Sustainable Energy Engineering   |
|   | KTH Sustainable Technology   |
| ZJU Industrial Engineering                      | KTH Engineering Design   |
|   | KTH Integrated Product Design  |
| ZJU Information Engineering                     | KTH Information and Network Engineering  |
|   | KTH Communication Systems  |
| ZJU Material Science and Engineering            | KTH Nanotechnology   |
|   | KTH Engineering Materials Science  |



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# ZJU-KTH 3+2 2017

|   |   |
|---|---|
| ZJU Mechanical Engineering and Automation           | KTH Production Engineering and Management                               |
|   | KTH Engineering Design  |
|   | KTH Integrated Product Design   |
|   | KTH Engineering Mechanics (Maximum of 4 students )                      |
| ZJU Mechanical Design, Manufacturing and Automation | KTH Sustainable Energy Engineering                                      |
|   | KTH Production Engineering and Management                               |
|   | KTH Engineering Design  |
|   | KTH Integrated Product Design   |
|   | KTH Vehicle Engineering   |
| ZJU Mechatronics Engineering                        | KTH Engineering Design (Students only eligible for track: Mechatronics) |
|   | KTH Integrated Product Design   |
| ZJU Ocean Engineering and Technology                | KTH Sustainable Technology  |
| ZJU Marine Sciences                                 | KTH Sustainable Technology  |





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# ZJU-KTH 3+2 2017

|  |   |
|--|---|
| ZJU Pharmaceutical Engineering                               | KTH Sustainable Technology  |
| ZJU Polymer Science and Engineering                          | KTH Macromolecular Materials  |
|  | KTH Nanotechnology  |
|  | KTH Sustainable Technology  |
| ZJU Science and Engineering of Novel Energy                  | KTH Electromagnetics, Fusion and Space Engineering<br>(Eligibility depending on student's course selection) |
|  | KTH Sustainable Energy Engineering  |
|  | KTH Sustainable Technology  |
| <b>New from 2015:</b><br>ZJU Biomedical Engineering          | KTH Medical Engineering   |
| <b>New from 2016:</b><br>ZJU Computer Science and Technology | KTH Computer Science  |



## ZJU-KTH exchange program

ZJU 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 ZJU about exchange studies

# After graduation

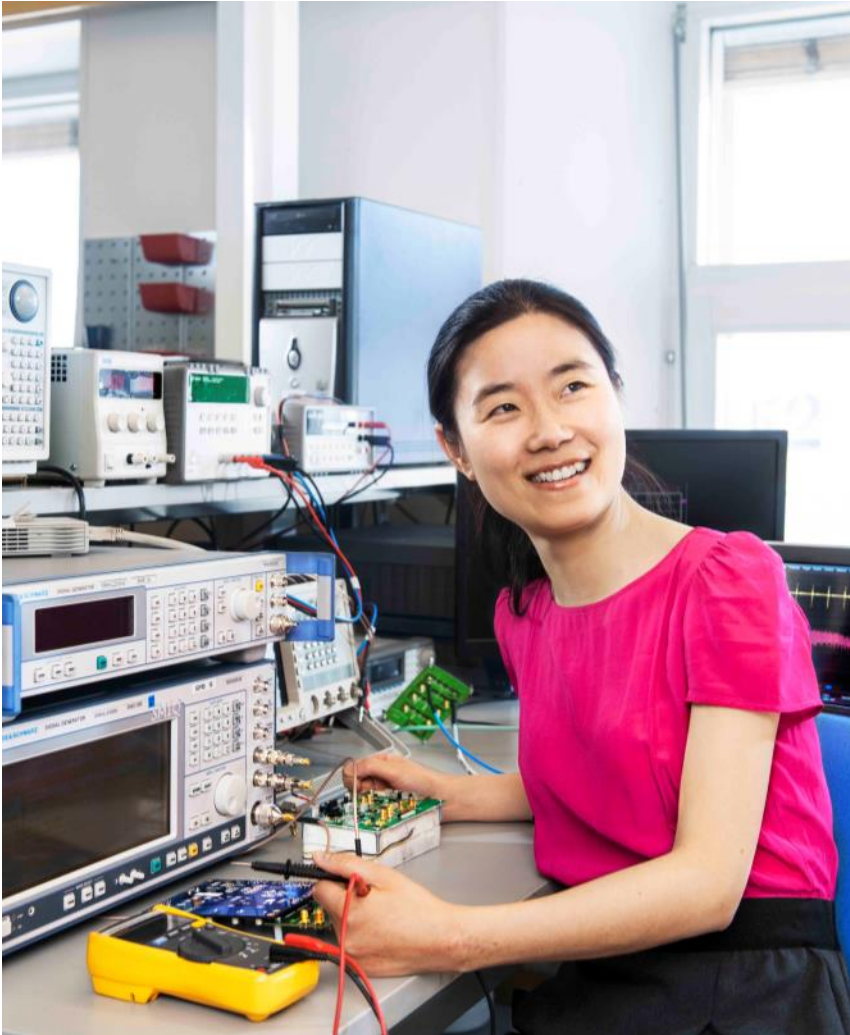
- After a KTH MSc degree:
    - 6 months residence permit to look for a job or a PhD student position
    - KTH PhD student positions are publically announced at the web site, KTH MSc students may have an advantage
    - In 2014, 10 former KTH MSc students from China enrolled as KTH PhD students with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



# 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 – CSC Program

## KTH 公派项目

- Thanks to an agreement between KTH and the Chinese Scholarship Council (国家留学基金委), a number of scholarships can be offered to Chinese citizens applying to KTH. The scholarships available are aimed for PhD students.
- Every year,
  - 50 scholarships for Full PhD (48 months);
  - 20 for Guest Doctoral Studies (up to 24 months)

See more:

- [www.kth.se/gongpai-china](http://www.kth.se/gongpai-china)
  - [china.kth.se](http://china.kth.se)
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# 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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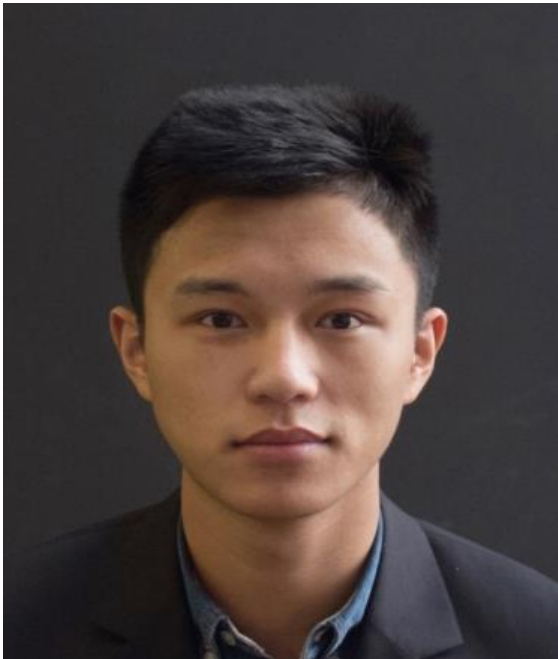
# Things you can do after finishing education at KTH...



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
-



# 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...



## 俞自涛 教授

Professor & Director  
Institute of Thermal Science & Power Systems,  
Zhejiang University

- Postdoc in Energy Technology  
KTH 公派博士后, 2009
- PhD in Engineering Thermal Physics  
ZJU, 2005
- Bachelor & Master in Thermal Engineering  
ZJU, 1995 & 2000

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



## 仇旻 教授

Professor in Photonics, KTH

Director of State Key Laboratory of Modern Optical Instrumentation, Zhejiang University

- PhD in Electromagnetics  
KTH, 2001
  - PhD in Physics  
ZJU, 1999
-

# 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



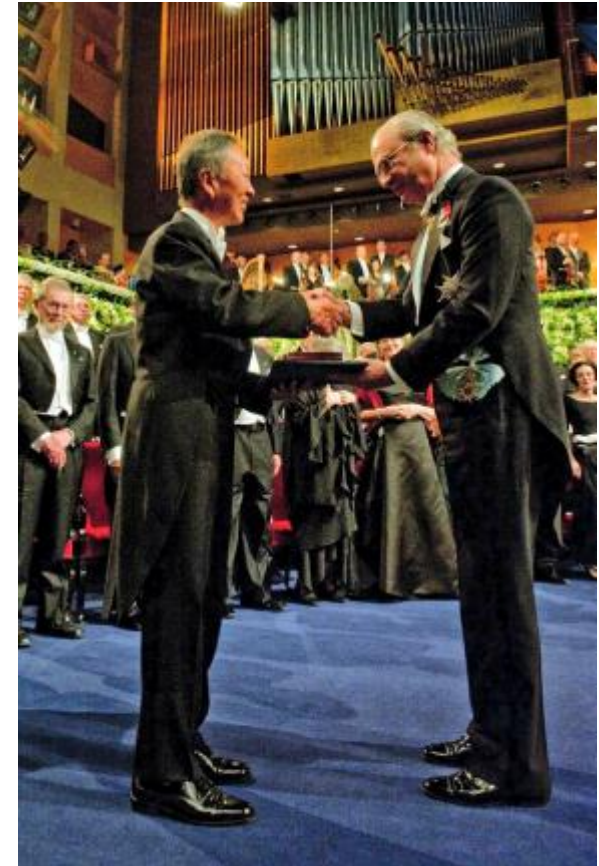
# Things you can do after finishing education at KTH... **collect the Nobel prize!**

## 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...

# 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!

