



# KTH welcomes students from ZJU



Introduction presented by:

Urban Westergren, professor  
School of Information and  
Communication Technology

Deputy director of international  
affairs with China

---



# 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 top 5 of technical universities in Europe
-



# Short facts about KTH

- World-Wide QS subject rankings
    - Electrical Engineering: 16
    - Architecture and Built Environment: 21
    - Mechanical Engineering: 25
    - Civil and Structural Engineering: 37
    - Materials Science: 39
-

# The Kingdom of Sweden

- About 9.8 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

- A **safe and clean** multi-cultural European capital with communities from China, India and other countries
  - Quick access to city, campus and nature with excellent transportation, by bicycle or boat
  - **Swedes speak good English**, very limited need to learn any Swedish while studying in Stockholm
-



# Stockholm: a dynamic environment, modern, historic, clean air and water



# Stockholm: cost of living

9 Cities in China more expensive than Stockholm  
in world-wide comparison

Rank 2015	City	Country
• <b>6</b>	<b>Shanghai</b>	<b>China</b>
• 7	Beijing	China
• 12	London	United Kingdom
• 14	Shenzhen	China
• 16	New York City	United States
• 15	Guangzhou	China
• 21	Shenyang	China
• 24	Qingdao	China
• 26	Nanjing	China
• 27	Tianjin	China
• 29	Chengdu	China
• <b>106</b>	<b>Stockholm</b>	<b>Sweden</b>







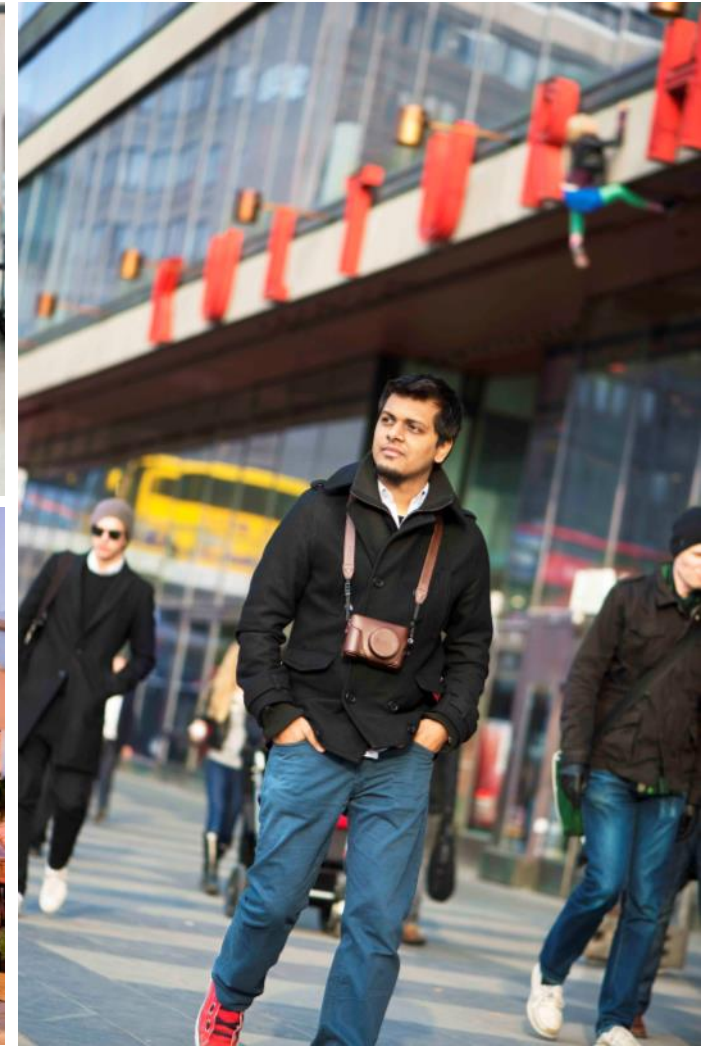








# Stockholm student life, part of the city



# Examples of social activities for international students:

Picnic in the summer

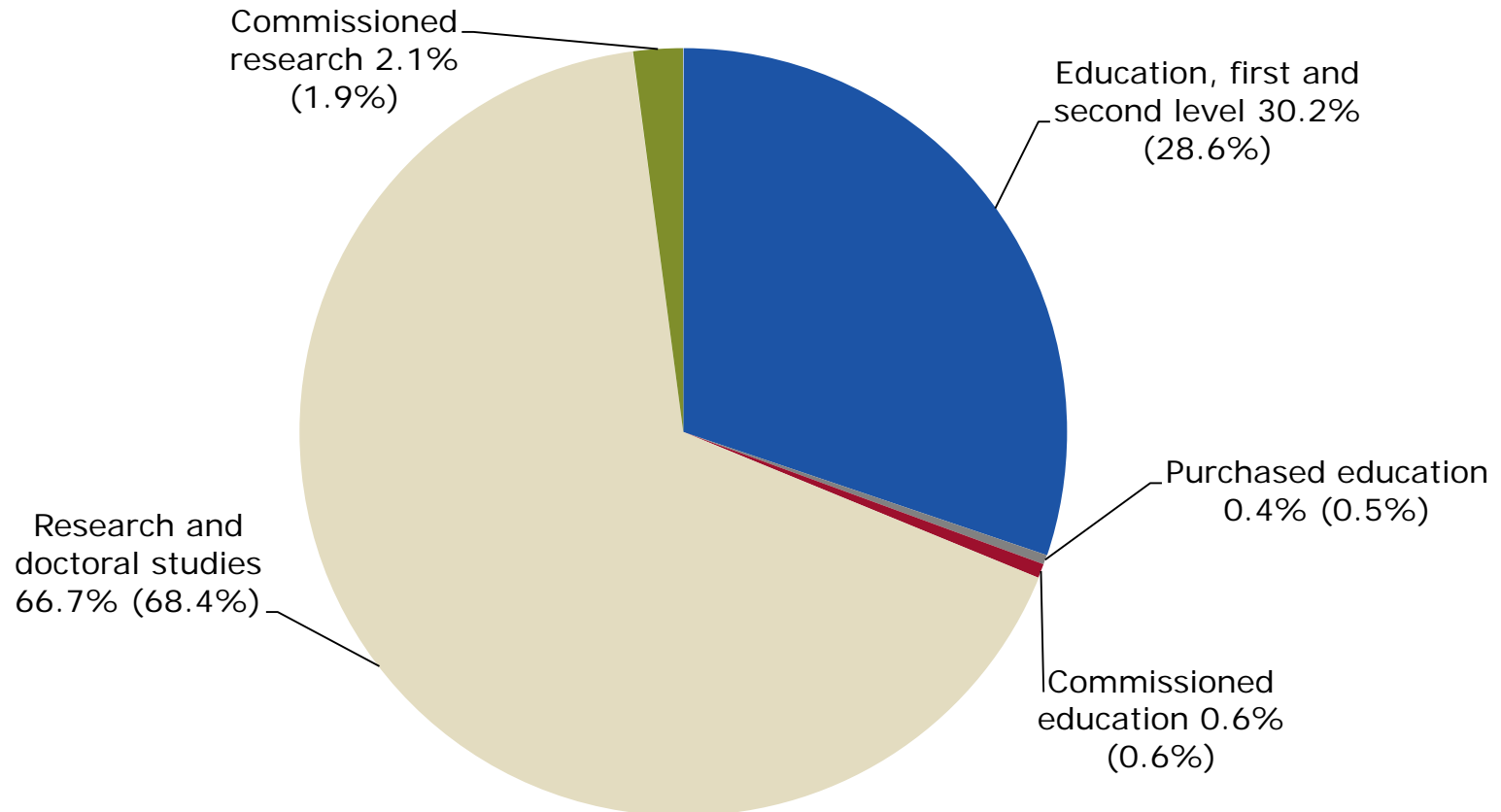


Ice skating in the winter



# 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

# Five campuses close to industry

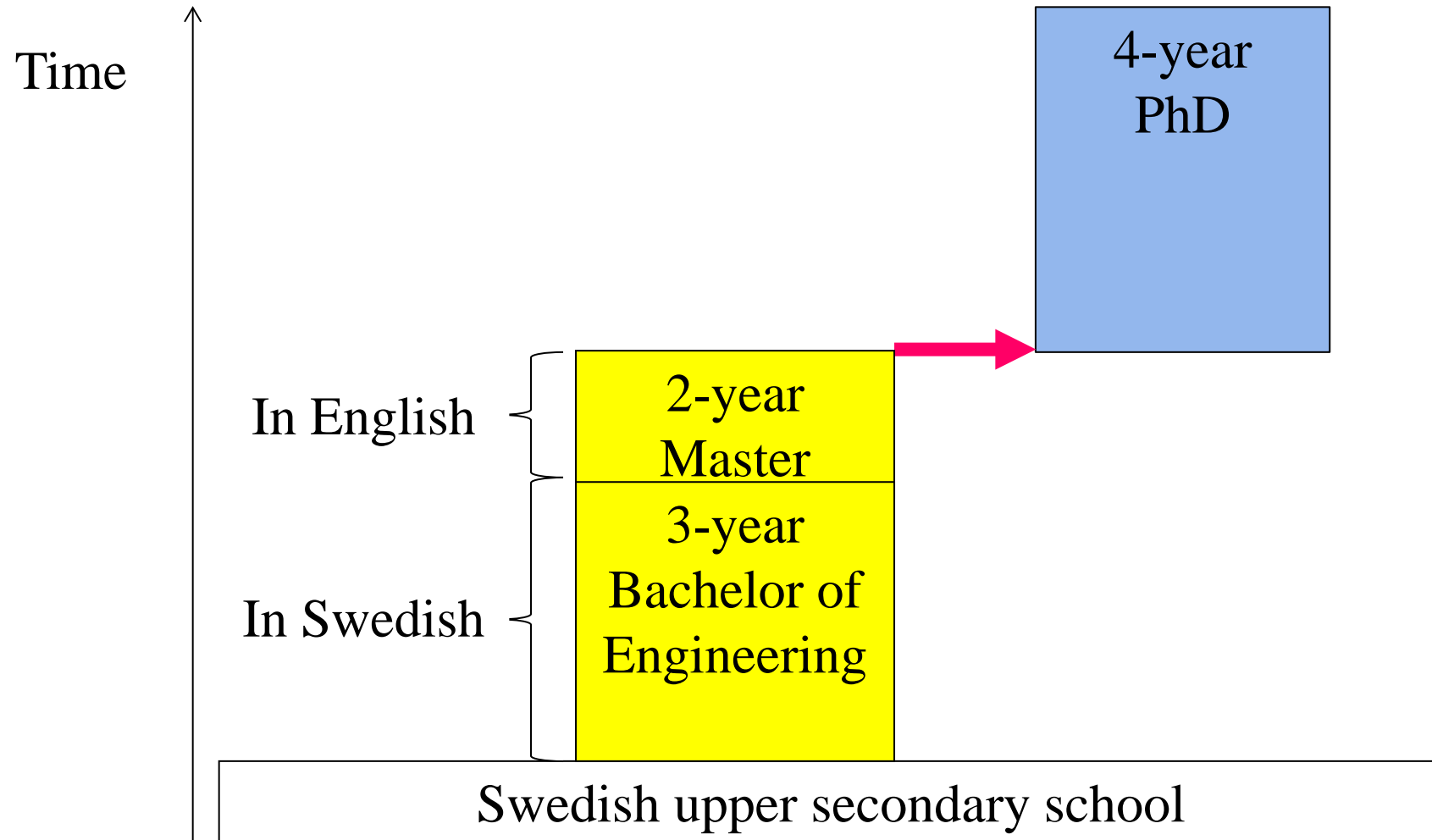




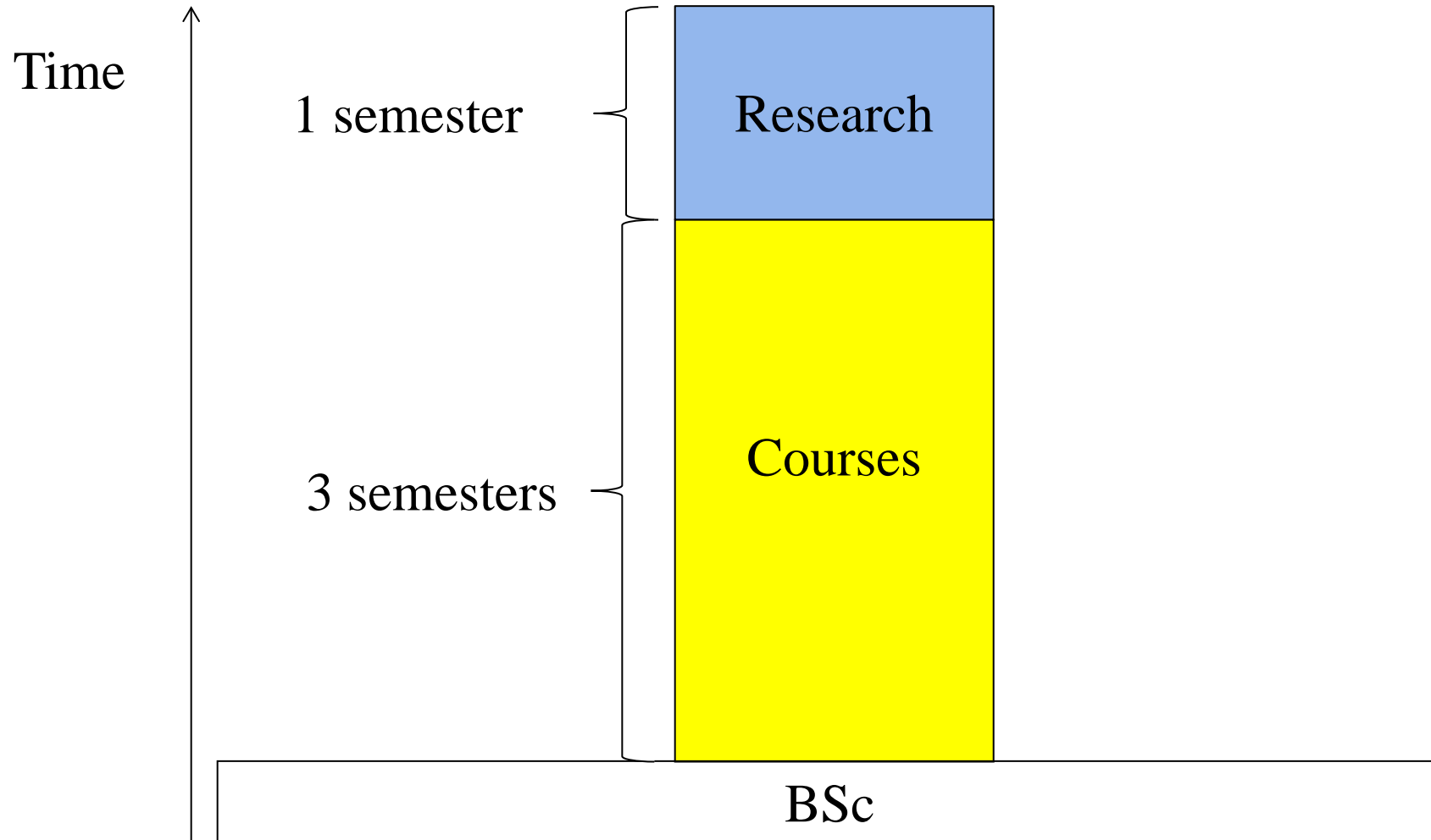
# Education in close collaboration with industry

- KTH has five 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
-

# Structure of education at KTH



# Structure of MSc education at KTH





# MSc programmes 2015/2016

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

- Architecture and Civil Engineering, 9 programmes
- Electrical Engineering, 11 programmes
- Engineering Physics and Mathematics, 6 programmes
- Energy and Sustainable Development, 10 programmes
- Industrial Management and Innovation, 3 programmes
- Information and Communication Technology, 10 programmes
- Life Science Technology, Chemistry and Chemical Engineering, 7 programmes
- Materials Science and Engineering, 3 programmes
- Mechanical Engineering, 9 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 SEK145k (about RMB 110k, 11万人民币) 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)
-



# 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 7300 (ca RMB 6000) per month for ten months of the year

Recommended student budget for one month in Stockholm is SEK 7-10000 (approx RMB 6000-8000)

# 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 (except for 3+2 partner students in mapped transitions)
- English proficiency has to be shown (TOEFL 90, IELTS 6,5 etc), but there is flexibility for interviewed students from partner universities, interviews in December 2015
- 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





## ZJU-KTH partner program

ZJU students can apply during the last year of their BSc studies and be interviewed by KTH in December 2015: increases chances of scholarship

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, 2016, application fee should be paid before the interview



## 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 2015

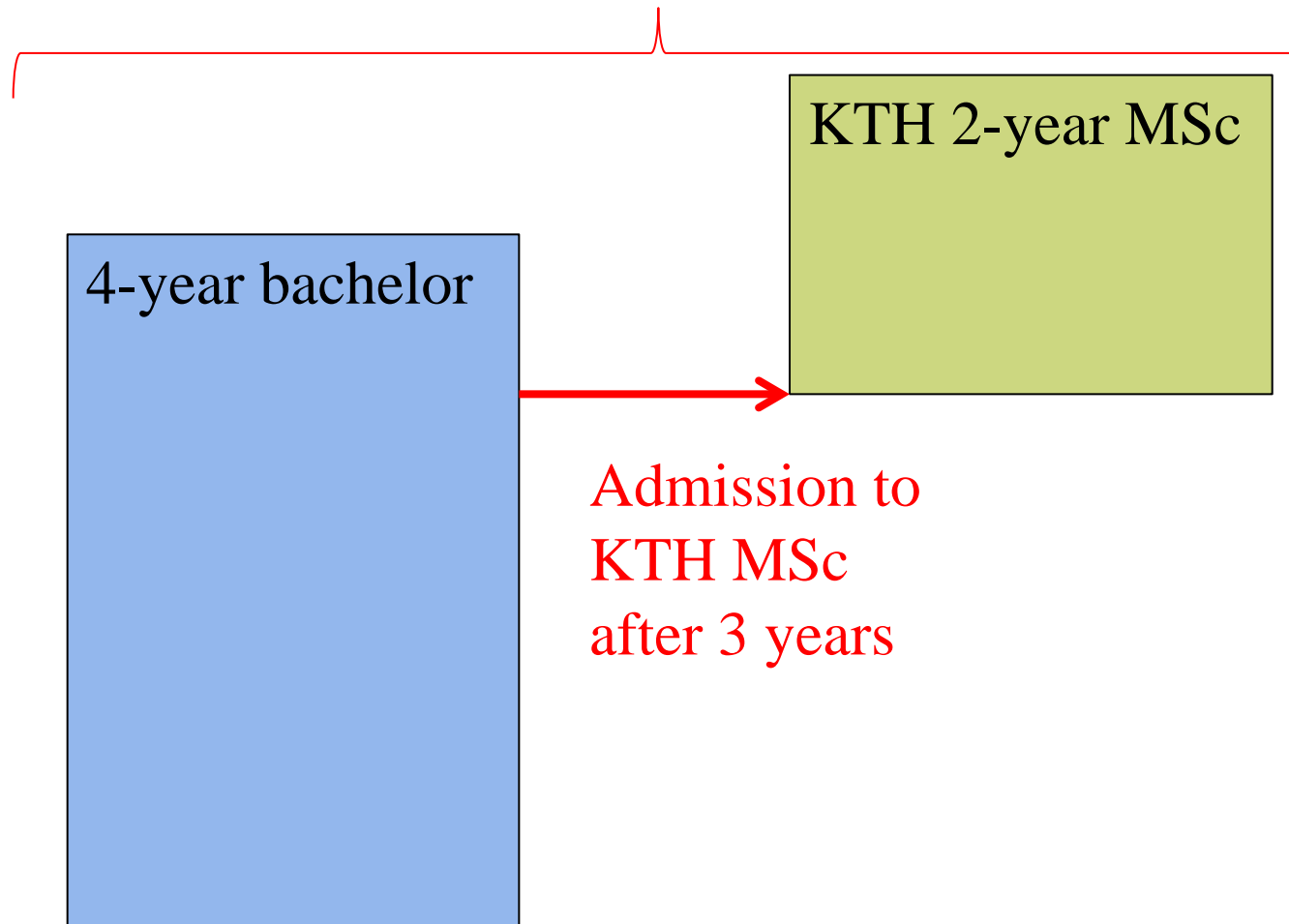
Language requirements may be slightly lowered after a successful interview

Applications must follow the mapping agreed between 22 ZJU bachelor majors and 26 KTH master programs (see list below)

Applications are made at [universityadmissions.se](http://universityadmissions.se), deadline January 15, 2016, application fee should be paid before the interview

# ZTU-KTH 3+2 program

KTH MSc in 5 years from start of bachelor studies





## Possible transitions, 22BSc-26MSc

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 (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

## Possible transitions, 22BSc-26MSc

ZJU Earth Science	KTH Environmental Engineering and Sustainable Infrastructure
	KTH Sustainable Technology
ZJU Electrical Engineering Track Electronic Automation respective Control	KTH Electrophysics (Only students from track electronic automation 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 electronic control are eligible and then only for track: Mechatronics)
ZJU Electronic Information Engineering Track Integrated Circuit and Power Electronics	KTH Nanotechnology
	KTH Embedded Systems (Only students from track Integrated Circuit are eligible and then only for track: Embedded Platform)

## Possible transitions, 22BSc-26MSc

ZJU Electronic Science and Technology	KTH Electric Power Engineering (Maximum of 3 students)
	KTH Wireless Systems
	KTH Network Services and Systems
ZJU Energy and Environmental System Engineering	KTH Electrophysics (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 and Communication Engineering	KTH Network Services and Systems
	KTH Wireless Systems
	KTH Communication Systems
ZJU Material Science and Engineering	KTH Nanotechnology
	KTH Engineering Materials Science

## Possible transitions, 22BSc-26MSc

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 Engineering Design and Automation	KTH Sustainable Energy Engineering
	KTH Production Engineering and Management
	KTH Engineering Design
	KTH Integrated Product Design
	KTH Vehicle Engineering
	KTH Engineering Mechanics (Students only eligible for track: Fluid Mechanics. Maximum of 4 students)
ZJU Mechatronics Engineering	KTH Engineering Design (Students only eligible for track: Mechatronics)
	KTH Integrated Product Design
ZJU Ocean Engineering	KTH Sustainable Technology
ZJU Ocean Science and Engineering	KTH Sustainable Technology

## Possible transitions, 22BSc-26MSc

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 Electrophysics (Eligibility depending on student's course selection)
	KTH Sustainable Energy Engineering
	KTH Sustainable Technology
ZJU System Science and Engineering Track Automation och Track System Science	KTH Systems, Control and Robotics (Maximum of 3 students)
	KTH Wireless Systems
<b>New from 2015:</b> ZJU Biomedical Engineering	KTH Medical Engineering



## 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)

For more information: contact ZJU about exchange studies



## Questions from ZJU students

You can ask the following ZJU students who are now at KTH studying Systems, Control and Robotics as 3+2 students:

CHEN YANBEI

cybemmas@gmail.com, yanbei@kth.se, cybemmas@qq.com

XU ZIWEI

ziweixu702@gmail.com, ziweix@kth.se, 962069594@qq.com

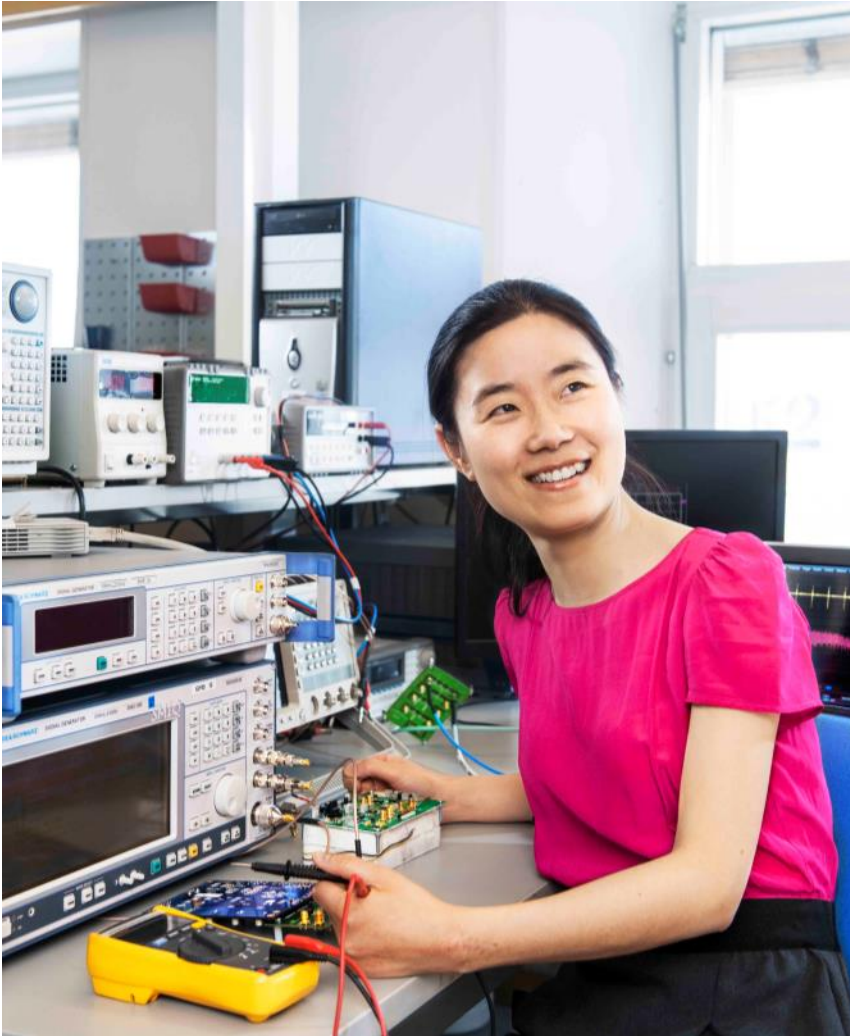
You can also contact He Yingfang at KTH International Relations Office, yingfang@kth.se

# 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
-



# 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, Postdocs and Visiting Scholars.
- 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)
-



# 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. In 2009, more than half of the graduates had accepted jobs before completing their studies
  - KTH is the leading supplier of CEOs for Swedish industry
-

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



Network Engineer  
TeliaSonera, Sweden

- Master in Network Services and Systems  
KTH, 2015
  - Bachelor in Optoelectronic Engineering  
Harbin Institute of Technology, 2013
-

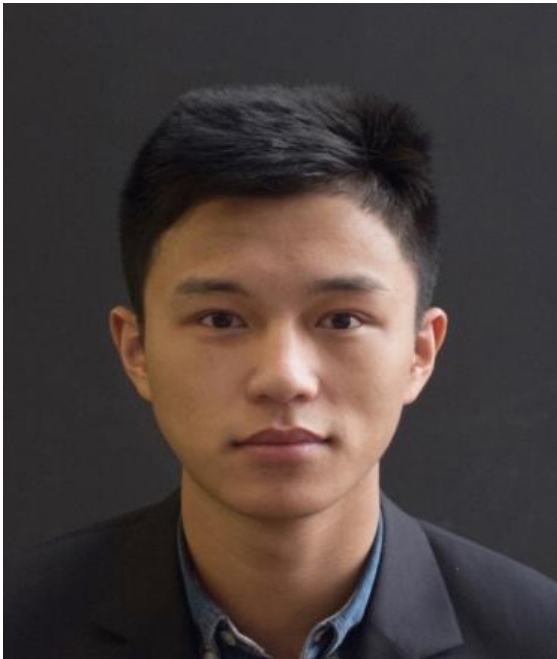
# Things you can do after finishing education at KTH...



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...



- 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...



## 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...

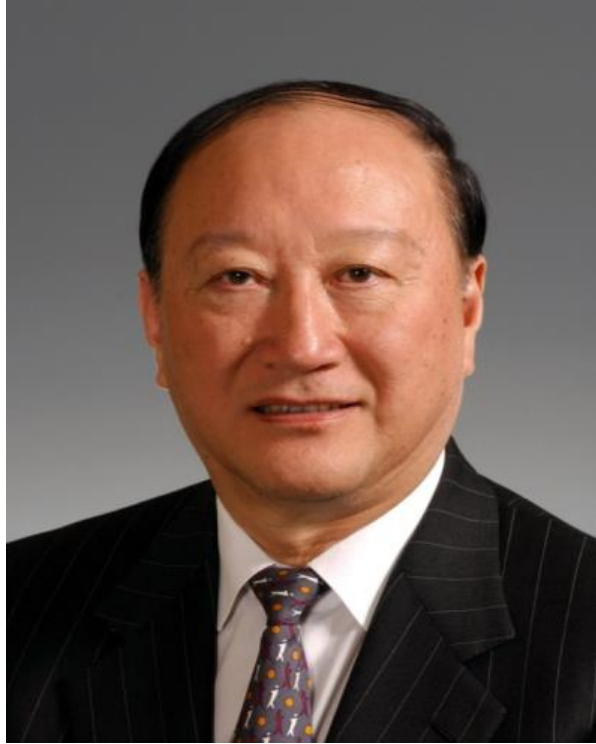


## 顾纯元 博士

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...



## 徐匡迪 院士

- Vice Chairman of CPPCC National Committee  
第十届全国政协副主席, 2003-2008
- Chairman of CAE, 中国工程院院长, 2002-2010
- Mayor of Shanghai, 上海市市长, 1995-2001
- Senior Researcher in Material Sciences  
KTH 公派访问学者, 1986
- Bachelor in Metallurgy  
University of Science & Technology Beijing,  
1959

# 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



Welcome to KTH: launch your career!

