



清华大学  
Tsinghua University

# TSINGHUA UNIVERSITY 2016







We are committed to cultivating global citizens who will thrive in today's world and become tomorrow's leaders.

# Letter from the President

The Tsinghua story began in 1911 with an international program to help Chinese students study abroad. Drawing on a rich local tradition of academic excellence, we have become one of the leading world universities in just over 100 years.

Today, we are among the most selective universities in the world, a trusted global partner for thousands of researchers and academics, a first port of call for world business and political leaders, and a bridge to China for international students who recognize that personal knowledge of the world's second largest economy and oldest continuous culture is essential preparation for leadership across disciplines.

Our campus, set in former imperial gardens of the Qing Dynasty, is home to over 40,000 students drawn from 120 countries. Our alumni include a roll call of China's political, business, scientific and innovation leaders, whose names were interwoven with the development of China in the past century.

The reemergence of China as an economic, scientific and cultural powerhouse has shifted the dynamics of global learning, presenting the world's best and brightest with unprecedented opportunities for advancing human knowledge in partnership with Chinese thinkers and researchers. In this new world, institutions of higher education are the engines of collaborative teaching and learning. That's why Tsinghua University is evolving, advancing and expanding.

The 21<sup>st</sup> century requires problem solvers with broad perspectives and an international outlook. Success is no longer just about being the smartest, honing your expertise in a single area and looking at problems within your field of vision. Interconnectedness is a new reality. The global challenges we face require strategic cooperation, mutual understanding, and leadership built upon hands-on experience.

We are committed to cultivating global citizens who will thrive in today's world and become tomorrow's leaders. Through the pursuit of education and research at the highest level of excellence, Tsinghua is developing innovative solutions that will help solve the most pressing problems in China and beyond.

We look forward to seeing you on campus.



*Dr. Qiu Yong*

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President





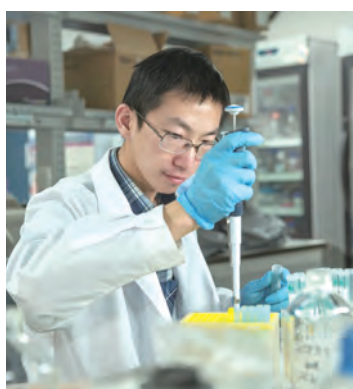
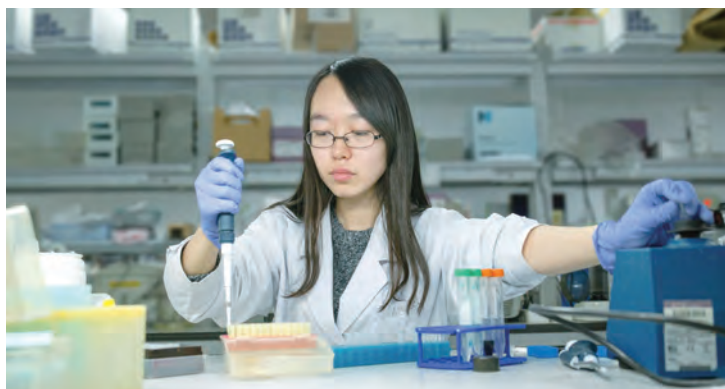
# Cutting-Edge Research

**T**singhua has been a driving force for research excellence, technical innovation and public service for over one hundred years. Today, our academic community is made up of the highest achieving students and faculty from a wide range of cultures and backgrounds. We foster an environment that enables Tsinghua people to reach their full potential in serving the nation and the world.

We have established close collaboration with more than 20 provinces and 80 cities in China and hundreds of universities, research institutions, and enterprises abroad. Many of our research findings have been successfully applied to industry. Among them are soil-improvement technology widely used in provinces covered with alkaline soils, large forging presses essential for heavy industry, and economic development models for central business districts. With many such effective transfers from theory and knowledge to industry and products, Tsinghua University continues to provide innovative solutions to complex and challenging real-world problems. Our efforts will form part of our better tomorrow.

**WORLD-CLASS  
RESEARCH  
PLATFORMS**

Tsinghua National Laboratory for Information Science and Technology  
China National Center for Protein Sciences (Beijing)  
Beijing National Center for Electron Microscopy  
Beijing Electron Spectroscopy Center  
State Key Laboratory of Chemical Engineering  
State Key Joint Laboratory of Environmental Simulation and Pollution Control  
State Key Laboratory of Low-Dimensional Quantum Physics  
State Key Laboratory of Membrane Biology  
State Key Laboratory of Precision Measuring Technology and Instruments  
State Key Laboratory of Integrated Optoelectronics  
State Key Laboratory of Microwave and Digital Communication  
State Key Laboratory of Intelligent Technology and System  
State Key Laboratory of Hydrosience and Engineering  
State Key Laboratory of Tribology  
State Key Laboratory of Automotive Safety and Energy  
State Key Laboratory of Control and Simulation of Power System and Generation Equipment  
State Key Laboratory of New Ceramic and Fine Processing







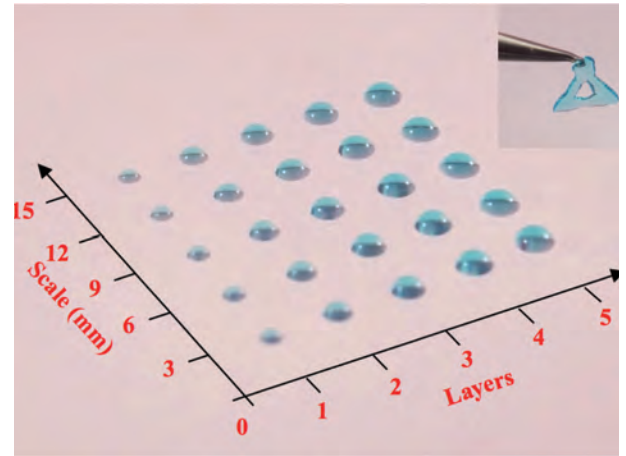
**A**t Tsinghua University, scientific research has always aimed to meet the strategic demands of national development and human welfare. Promoting both basic and applied research, we have made significant contributions in areas such as information, energy, materials, architecture, environment, chemical engineering, aerospace, manufacturing, and life sciences. Some highlights of our recent research accomplishments include the first experimental observation of the quantum anomalous Hall effect, the high-resolution three-dimensional structure of a yeast spliceosome, the successful completion of a radiation experiment in a high temperature gas-cooled reactor demonstration project, and the launch of three experimental satellites. Our faculty and students are engaged in inspirational research that will not only advance the frontiers of knowledge, but also better shape the world around us.



## New 3D Bio-Printing Material

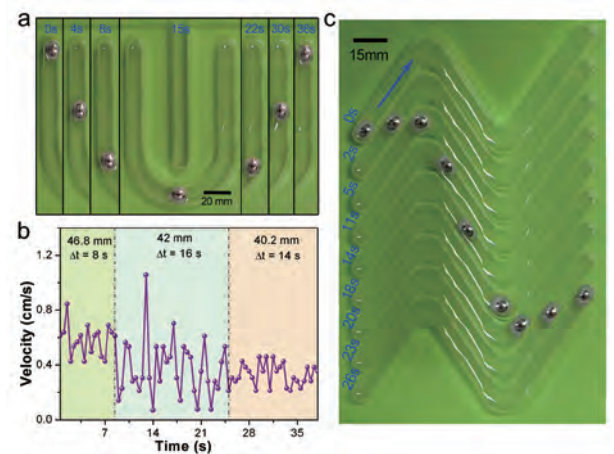
A research group led by Professor Liu Dongsheng at Tsinghua's Department of Chemistry, in partnership with a team from Heriot-Watt University in the UK, created a DNA hydrogel that will be able to meet the needs of 3D bio-printing with living cells.

The scientists demonstrated that live mouse cells infused into the gel remained functional after the printing process. This study was first published on *Angew. Chem., Int. Ed.* and was reported by *Nature Research Highlights*, in which the material was described as "a promising material for printing three-dimensional tissues such as artificial organs."



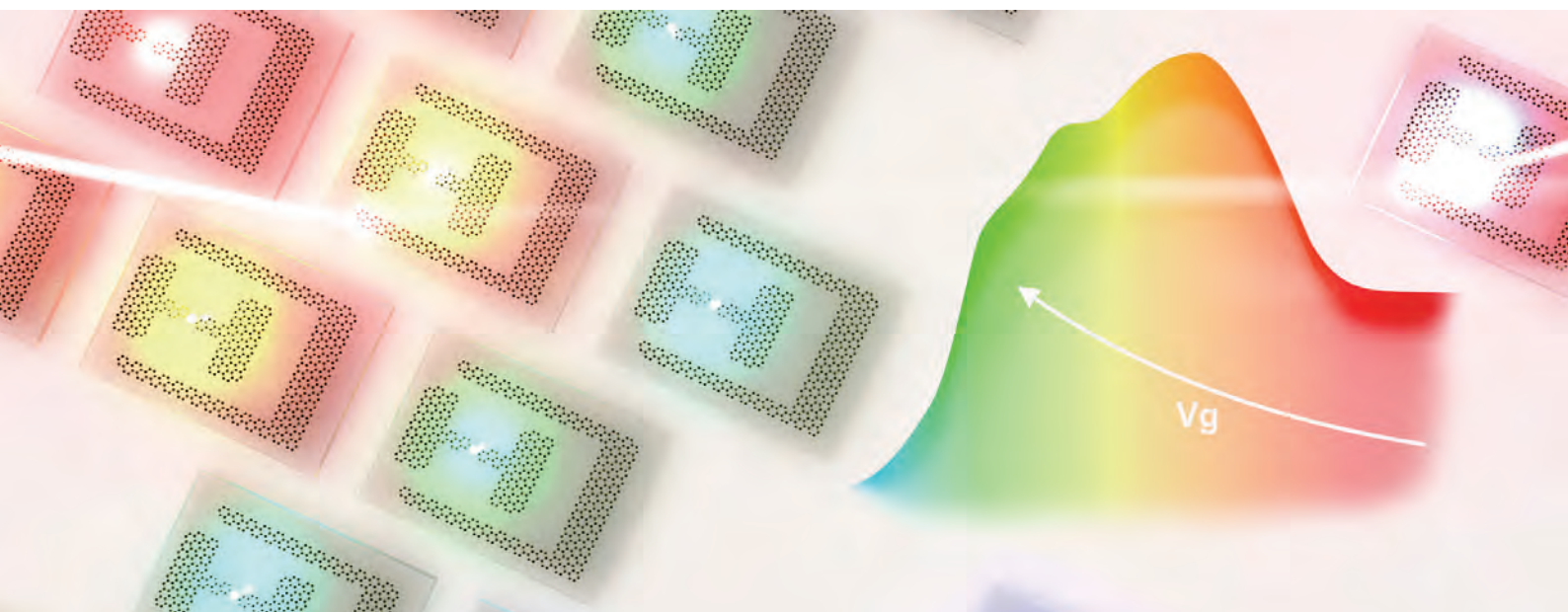
## Self-Fuelled Liquid Metal Mollusk

A research team led by Professor Liu Jing at Tsinghua's School of Medicine observed an extraordinary self-propulsion of new synthetic motors made of liquid metal objects on a scale of millimeters and centimeters. Such motors were seen to swim at a high velocity of up to 5 centimeters per second for more than one hour without the assistance of any external energy. This discovery may eventually lead in the near future to the envisioned dynamically reconfigurable intelligent soft robots or machines.



## A New LED

Professor Ren Tianling's research group at the Institute of Microelectronics revealed a new graphene-based light-emitting device (LED) that consists of a wavelength far greater than traditional LEDs. This breakthrough will contribute to a revolution in display, illumination, and communication technologies.



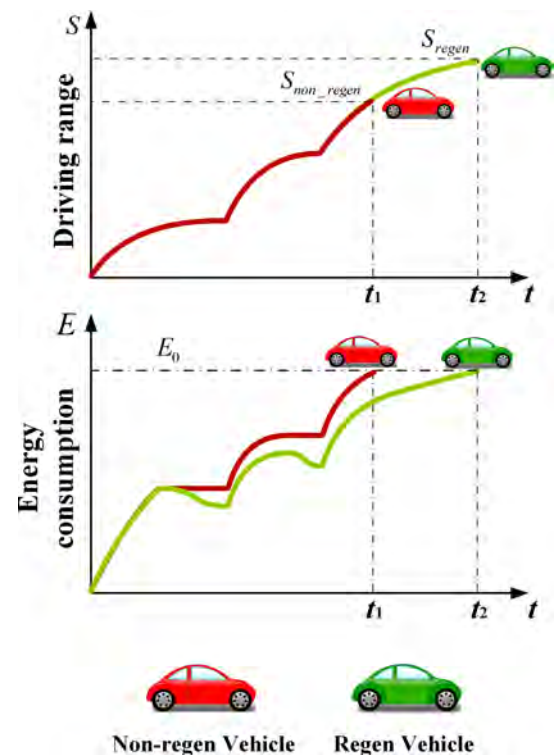
## Core Technologies and Their Applications for the International Standardization and Industrialization of the DTMB System

DTMB (Digital Television/Terrestrial Multimedia Broadcasting) is the Chinese Digital Television Terrestrial Broadcasting standard with home-built core technologies. Tsinghua DTV Technology R&D Center, led by Professor Song Jian, has put tremendous effort into developing core technologies with superior system performance, which can support high-definition, standard-definition DTV programs under both fixed and mobile reception conditions. Through years of diligent work, the team has helped to promote the DTMB system to be the international standard of the International Telecommunication Union (ITU) and to be adopted by more than 10 countries and regions worldwide.

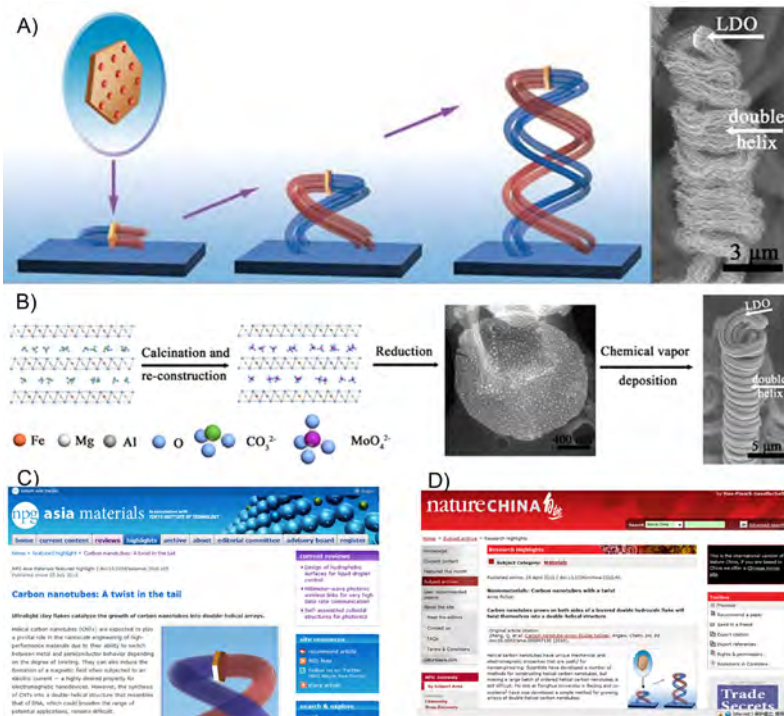


## A New Regenerative Braking System

A research group led by Professor Zhang Junzhi at Tsinghua's Department of Automotive Engineering has created a regenerative braking system for electric cars that can achieve both functions through a single pressure modulating module: pedal feel simulation and frictional pressure control. Such a braking system converts a car's kinetic energy into electrical energy and back into the battery, providing the same driving feel of conventional cars. This achievement helps to significantly extend the mileage range of electric cars.





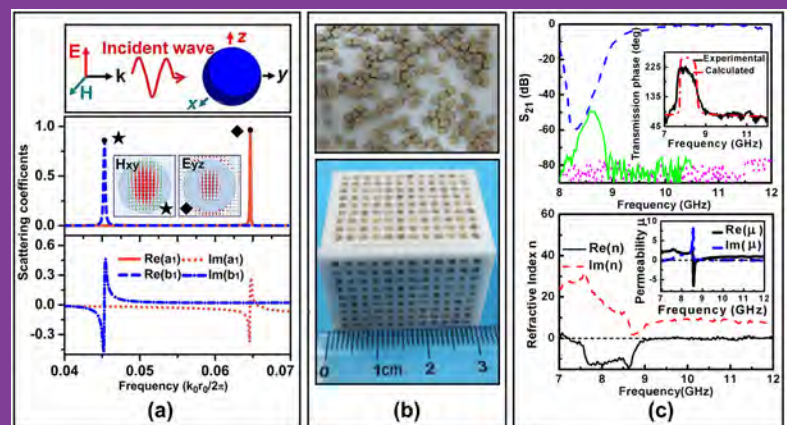


## The Principle of Aligned Carbon Nanotube Mass Production

The fabrication of high quality, super-long, aligned carbon nanotubes (CNTs) is the first step towards investigating their macroscopic properties. Since 2007, Professor Wei Fei and his colleagues have investigated the principles and methods of horizontally/vertically aligned CNT mass production and have already scored many innovative achievements. Half-meter long horizontally aligned CNTs were fabricated, the world record for the longest CNTs. The confined growth of vertically aligned CNTs was proposed and mass production of aligned CNTs was carried out, a breakthrough for the bulk growth of very high quality CNTs. These achievements are expected to fill the lack of mass production of nanomaterials and significantly promote their bulk applications.

## Ceramic Electromagnetic Metamaterials

A research group led by Professor Zhou Ji at Tsinghua's School of Materials Science and Engineering has developed a new series of metamaterials based on ceramic dielectrics. Metamaterials are artificial materials engineered to have abnormal electromagnetic properties, such as negative permittivity, negative permeability, and negative refractive index. Normally metamaterials have been constructed by metallic resonance units (meta-atoms). Ceramic metamaterials as developed successfully have solved key issues in metallic metamaterials, such as high loss, anisotropic, and untunable, and are expected to be applied in the next generation information technology.



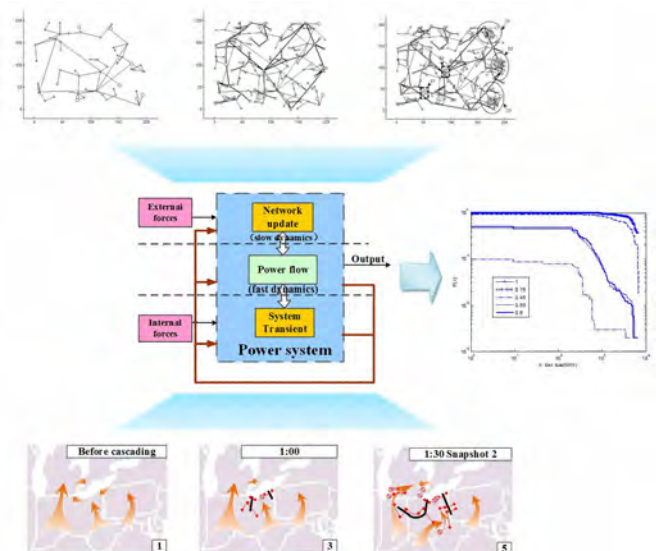
## AMiner — Mining Deep Knowledge from Big Scholar Data

Professor Tang Jie's research group has invented a novel author-centric academic search and mining system — AMiner (<http://aminer.org>). The system aims to gain a deep understanding of the large and heterogeneous networks formed by authors, papers, venues, and knowledge concepts. It has been in operation since 2006 and has collected more than 100,000,000 expert profiles, 210,000,000 publication papers, and 7,800,000 knowledge concepts, and has attracted more than 8 million independent IP accesses from 220 countries or regions in the world. The system has been widely used for expert recommendations, collaborative suggestions, knowledge trend analysis, and community evolution.

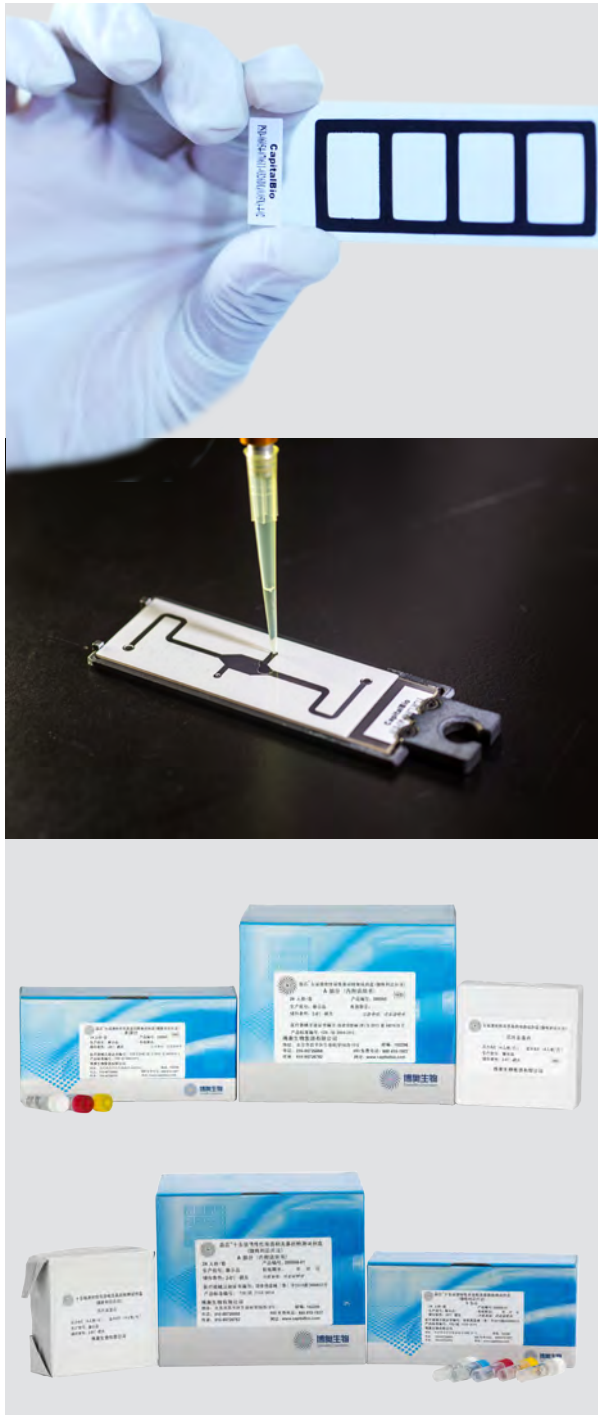


## Mechanism of Power System Cascading Failure and Blackout Blocking Method

The development of China's electric power system calls for advanced methodology to maintain reliable operation in case of a severe emergency. Based on power system dynamics, self-organized criticality theory and complex network theory, the project team led by Professor Mei Shengwei established a systematic catastrophe analysis theory for complex systems with multiple timescale dynamics and multi-source stochastic disturbances, and developed practical catastrophe blocking methods and achieved breakthrough innovations through in-depth research over more than a decade. The key technology has been implemented into the public safety platform of the State Council, cascading the failure blocking system of Henan UHVAC and UHVDC power grid.



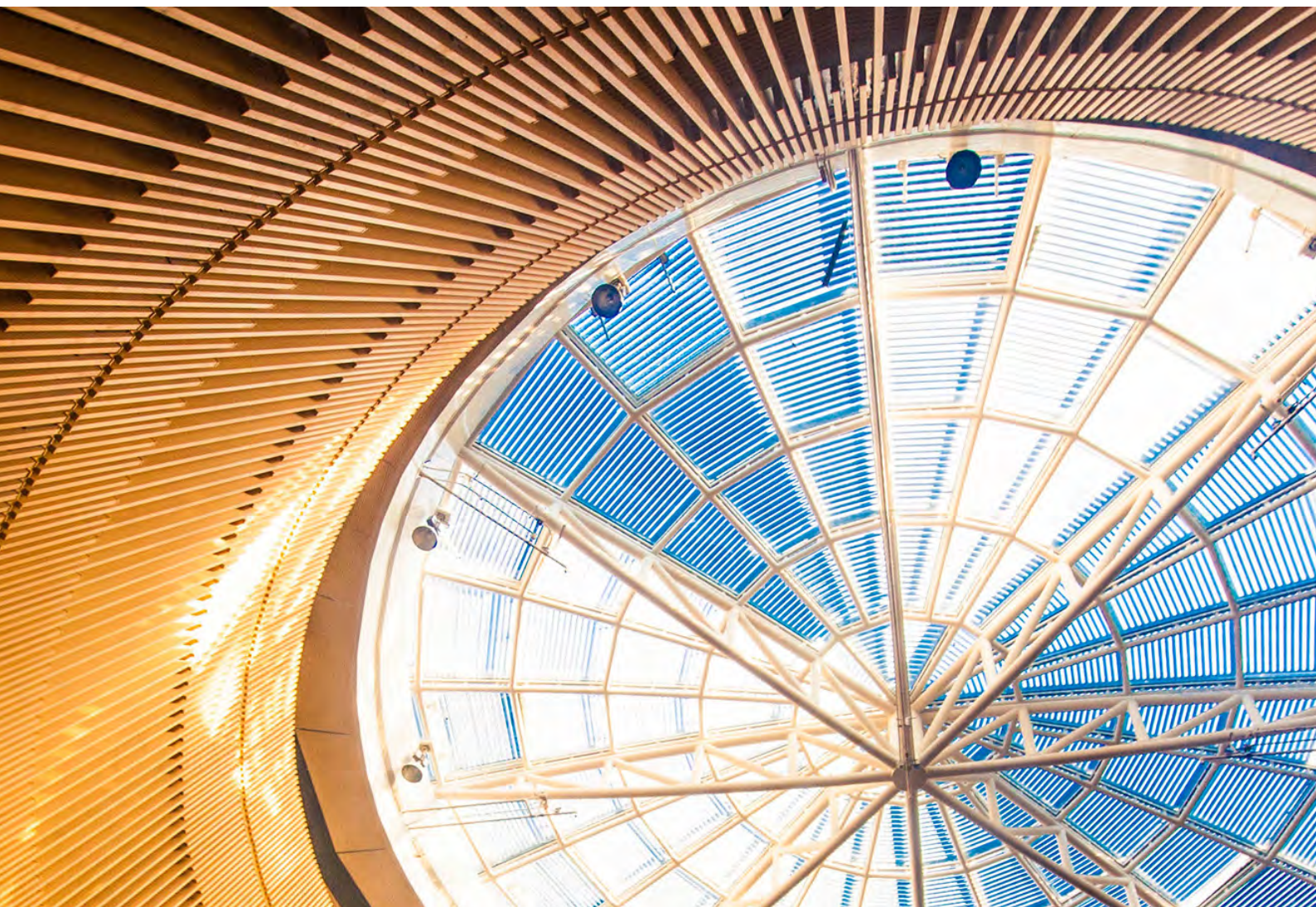




## Hereditary Deafness Gene Mutation Detection Chip

A national engineering research center, led by Academician Cheng Jing and Professor Xing Wanli, have created a diagnostic biochip for detecting gene mutations for hereditary deafness. This biochip-based assay was certified by the CFDA, and applied for clinical diagnosis and neonatal deafness gene mutation screening, which has now become the world's first mass genetic screening of newborn children for a genetic predisposition to deafness, with more than 1,400,000 newborns screened up to now. In addition, a series of biochip-based systems, in the form of a microarray or microfluidic chip, were developed for the prevention, diagnosis and prognosis of various diseases, as well as for the analysis of genes, proteins and cells. Additionally, a full line of instruments for biochips has been manufactured. It is believed that by integrating individual chips, micro-total analysis systems will be eventually created to dramatically facilitate the whole process of diagnostics in the near future.





Since the founding of Tsinghua University, studies in arts, humanities, and social sciences have constantly instilled into our university a stimulating and vibrant culture. Our School of Economics and Management, School of Journalism and Communication, and Academy of Arts & Design are among the best in the nation. In 2014, Tsinghua University started 699 new research projects in humanities and social sciences.







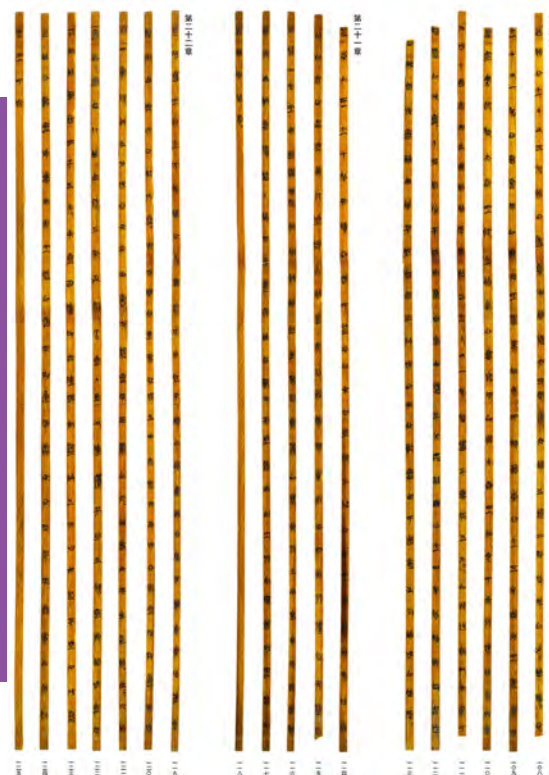
### *China Pavilion at Expo 2015 Embraces Tradition and Progress*

Designed by Tsinghua University's Academy of Arts & Design, the China pavilion at the 2015 World Expo was a perfect manifestation of Chinese philosophy, characterized by integration of "heaven," "earth," "people," and "harmony." With more than two years of design and almost one year of construction, it displayed the unique beauty of Chinese culture through innovative technology and modern design. This is the first time China participated in a Universal Exposition with a self-built pavilion.

The predecessor of the Academy of Arts & Design of Tsinghua University was the Central Academy of Arts & Design, which was established in 1956 and merged into Tsinghua University in 1999. With its profound artistic tradition and the firm support from science and engineering research on our campus, the Academy enjoys the unique advantage of close collaboration between arts and technology.

### *Tsinghua Bamboo Strips Reveal Chinese Classics*

In 2008, Tsinghua University rescued and added into its collection a massive number of Warring States bamboo strips. Over the past seven years, a research team led by Professor Li Xueqin, an eminent historian and paleographer at Tsinghua University, has worked on the strips intensively and continued to reveal the stunning classical world of ancient China. On the 2,500 bamboo pieces, some of which are fragments, are inscribed texts related to the classics (Jing) and histories (Shi). As carriers of the core of ancient Chinese culture, the Tsinghua bamboo strips have already inspired strong interest among researchers both in China and abroad.



Dr. Chen Xu, Chairperson of the Tsinghua University Council, met with Dr. Laurie Leshin, President of Worcester Polytechnic Institute (WPI), on October 13, 2015. The two institutions share a bond through Mr. Mei Yiqi, who studied at WPI and later served as President of Tsinghua from 1931 to 1948.

## Global Learning

Building on its heritage as a university that deeply values global learning, Tsinghua is where the world's researchers, business leaders and policy makers go to learn of — and from — China. The university remains a pivotal institution in the ongoing development of China's economy, research, and leadership, and is an invaluable bridge for those seeking a deeper understanding of this nation. In addition to ample study-abroad opportunities for its Chinese students, Tsinghua offers many global programs for international students to come to Beijing and to be immersed in learning and culture.



## Schwarzman Scholars

Launched in 2013, the Schwarzman Scholars is a groundbreaking scholarship program designed to respond to the geopolitical landscape of the 21<sup>st</sup> century. The program will support up to 200 of the world's best and brightest students every year to develop their leadership skills and professional networks through a one-year Master's Degree in Global Affairs. Immersed in an international community of thinkers, innovators and senior leaders in business, politics and society, students will live and study together at Tsinghua on the campus of Schwarzman College, a newly-built, state-of-the-art facility. The first cohort of students will enroll by the fall of 2016.

Students will share a core curriculum and take a set of concentration courses falling into one of the three broad fields: Public Policy, Economics and Business, and International Studies. The program also provides scholars with unparalleled learning opportunities with elites from China and the world through high-level interactions at lectures, cultural exploration programs, a mentor network, and intensive deep-dive travel seminars. All courses will be taught in English.





### *Global Innovation Exchange (GIX)*

Global Innovation Exchange (GIX) is an institute dedicated to educating the next generation of innovators and a first-of-its-kind partnership between Tsinghua University and the University of Washington, with foundational support from Microsoft.

Based in a new facility in the Seattle area, this partnership represents the first time a Chinese research university has established a physical presence in the United States. GIX will open its doors in the fall of 2016 with a dual degree master's program in Connected Devices, and will grow with additional degree and certificate programs and fields of study. Within a decade, thousands of learners will be studying at GIX, focusing on issues like mobile health, clean energy and smart cities.

GIX will bring together students, faculty, professionals and entrepreneurs from around the world to collaborate on real-world technology and design projects. GIX also extends beyond the walls of its Seattle facilities, attracting participants and encouraging collaboration that is unbound by geography or discipline. Through project-based learning that addresses real-world issues, students, researchers and industry professionals will create solutions to global challenges.



### *Tsinghua-Berkeley Shenzhen Institute (TBSI)*

Tsinghua-Berkeley Shenzhen Institute (TBSI) was co-established in 2014 by Tsinghua University and UC Berkeley with support from Shenzhen Municipal Government. Our vision is to build a unique interdisciplinary and international platform of research and education for future industrial scientists and entrepreneurs.

Addressing societal needs and global challenges, TBSI is organized in three trans-disciplinary centers: Environmental Science & New Energy Technology, Precision Medicine & Healthcare, and Data Science & Information Technology. The headquarters of TBSI are located in the Nanshan Intelligence Industrial Park, with offices and laboratories in the Graduate School at Shenzhen, Tsinghua University, and the University of California, Berkeley.

TBSI recruits top students from both China and abroad. With a superior scientific research environment, TBSI encourages innovation and creation in multi-disciplinary research. Advised by professors from both



universities and industrial mentors from the Industry Advisory Board, TBSI students will gain precious study experience in a unique culture different from both Tsinghua and UC Berkeley, and foster their ability to innovate through "industry-university" partnerships on this "big trans-disciplinary platform".

In the future, TBSI will play an exemplary role in the cultivation of innovative talents, the promotion of international educational cooperation and the establishment of an ecosystem for transformational technology research addressing global challenges.

# 2013

May 22

Tsinghua joined edX as a Charter Member.



September 26

Online Education Office of Tsinghua University was established.



October 10

Tsinghua initiated xuetangx.com.



October 17

*Principles of Electric Circuits*, the first Tsinghua MOOC, was released simultaneously by edX and xuetangx.



## Online Education

Since 2013 Tsinghua University has been working with leading universities and organizations in the world to make some of our best educational resources available online, offering 108 courses in science, engineering, humanities, law, medicine, history, philosophy, economics, management, education, and art. xuetangx.com, a MOOC provider initiated by Tsinghua University, offers over 800 online courses from 63 universities to 2.19 million registered users in 137 countries. As a member of edX, Tsinghua has launched on its platform 22 courses in English.

Blended learning is playing a pivotal role in Tsinghua's education reform. By the end of 2015, more than 40 undergraduate and graduate courses were carried out through an integration of online and offline teaching. In May 2015, Tsinghua announced China's first master's degree program based on blended learning.

# 2014

April 29

The PRC Ministry of Education Research Center for Online Education was launched in Tsinghua.



教育部  
在线教育研究中心  
MOE Research Center for Online Education

# 2015

March 7

Tsinghua launched the first blended-learning Master's Degree Program in Data Science and Engineering in China.

清华大学 数据科学与工程专业  
全国首个基于混合式教育模式的工程硕士学位

May 16

Tsinghua University and Fudan University jointly launched the first blended-learning Minor Program in Finance.



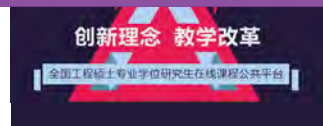
May 24

Tsinghua announced to launch 20+ MOOCs on entrepreneurship.



July 7

The National Educational Guidance Committee for the Master of Engineering Management announced the launch of the Project for MEM Online Course Production and Application and its inaugural 32 courses on xuetangx.com.



November 28

MOOCAP Council was established at Tsinghua and MOOCAP courses would be launched.





## *XIN Center*

Co-established in 2014 with Tel Aviv University (TAU), the XIN Center was created to foster interdisciplinary collaboration between scientists and research teams of multiple universities. "XIN" stands for Cross Innovation. The joint research center serves as a platform not only for cultivating next generation of innovation leaders, but also for transferring cutting-edge laboratory research to commercial products.

## *C-Campus*

C-Campus is the joint online platform where the students and professors of Tsinghua University are able to connect with its global university partners. The "C" stands for many words, including cloud, cooperation, cyber, cross culture, and creativity. Through the joint online space, C-Campus allows real-time, cross-border interaction between students and professors of different universities by enabling sharing of excellent coursework, research resources, and academic activities.



Currently, more than 2,500 international students are pursuing Bachelor's, Master's or Doctoral degrees at Tsinghua. Among all Chinese universities, we are proud to enroll the largest number of international graduate students — many of whom join us from top global institutions like Harvard University, MIT, Oxford University, and the University of Tokyo.

As the world becomes more connected, the education, skills and mindset demanded by and of graduates are changing. To serve the needs of global leaders in the 21<sup>st</sup> century, we have embarked on a mission to implement comprehensive curriculum reforms between now and 2020 centered on faculty and education.

We believe that progressive thinking and action will best position our students to thrive as they move forward and join more than 200,000 Tsinghua alumni in contributing to a better world.



## JOINT MASTER'S PROGRAMS

Program	Field of Study
Tsinghua-Chiba University Joint Master's Program	Architecture
Tsinghua-Polito Joint Master's Program	Architecture
Tsinghua-TUB Joint Master's Program	Architecture Mechanical Engineering
Tsinghua-RWTH Aachen University Joint Master's Program	Mechanical Engineering Industrial Engineering Automotive Engineering Thermal Engineering
Sino-Franco Advanced Master's Program	Environmental Management Energy Management
Tsinghua-Yale University Joint Master's Program	Environment
Tsinghua-UNC MEM-EMBA Joint Master's Program	Industrial Engineering
Tsinghua-National Tsing Hua University Joint Master's Program	Industrial Engineering Materials Science and Engineering Engineering Physics
Tsinghua-CMU Joint Master's Program	Computer Science
Tsinghua-USC Joint Master's Program	Information Science and Technology
Tsinghua-KU Leuven Joint Master's Program	Microelectronics
Tsinghua-TU Delft Joint Master's Program	Microelectronics
Tsinghua-KTH Joint Master's Program	Nuclear Science and Engineering Nuclear Waste Reprocessing
Tsinghua-Tokyo Tech Joint Master's Program	Biological Engineering Nanotechnology Social Science





## IUP Chinese Language Program

Established in 1963 and housed at Tsinghua since 1997, the Inter-University Program for Chinese Language Studies (IUP) is the premier U.S.-sponsored advanced Chinese language program. Available to intermediate and advanced students, the program operates year-round on Tsinghua campus with a maximum of 60 students and a maximum of a 1:3 teacher-student ratio. IUP, a cooperative program between Tsinghua and a consortium of 14 leading American universities, currently offers a 32-week academic year program, a 16-week semester option, and an 8-week summer intensive program.

The 14 leading American universities that participate in the program are: University of California-Berkeley, University of California-Los Angeles, University of Chicago, Columbia University, Cornell University, Harvard University, Indiana University, University of Michigan, Princeton University, University of Pennsylvania, Stanford University, University of Virginia, University of Washington, and Yale University.

Program	Field of Study
Tsinghua-Tohoku University Joint Education Program	Physics Materials Science Mechanical Engineering Electrical Engineering Environmental Science and Engineering Engineering Physics
Tsinghua MBA-Columbia University MSOR Joint Master's Program	Business Administration Operational Science Business Analytics
Tsinghua-HEC Paris Joint MBA Program	Business Administration
Tsinghua-HEC Paris Joint Master's Program	International Finance Management
Tsinghua-INSEAD Joint MBA Program	Business Administration
Tsinghua MBA-MIT Sloan MSMS Joint Master's Program	Business Administration Management Studies
Tsinghua-Johns Hopkins University Joint Master's Program	International Relations International Finance Business Management Public Management
Tsinghua-Politecnico di Milano Joint Master's Program	Interior Design
Tsinghua-HKUST Joint Master's Program	Environmental Science and Engineering Management Science and Engineering Materials Science Chemistry

## ***Master's Programs in English***

Among our graduate programs, all of which are open to international students, are 13 Master's programs taught wholly in English. These specially-designed programs are structured for students who are skilled in English and are eager to learn in a global setting. The degrees include Law, Architecture, Journalism, Engineering, Management and Public Health.

### **Master's Program in Architecture**

The Master's Program in Architecture offered in English aims to integrate critical understanding of regional conditions with a global and multi-disciplinary network, and to establish a learning environment through international dialogue.

### **Master's Program in International Construction and Project Management**

The International Construction and Project Management (ICPM) program aims to broaden and deepen students' knowledge of contemporary issues in the leadership, strategic management, and delivery of international projects to provide value to stakeholders and society as a whole. It is also devoted to cultivating highly qualified, technically oriented project management professionals.

### **Master's Program in Advanced Computing**

Through our master's program in Advanced Computing, you will meet and befriend some of the brightest, most dynamic people in the world. Current students on this two-year, 24-credit program come from all over the world, including Asia, Africa, Europe, and North America.

### **International Master of Public Health Program (IMPH)**

As an interdisciplinary and cross-cultural degree focused on global public health, the International Master of Public Health Program aims to build a new generation of global public health leaders in the developing world.

### **Master's Program in Automotive Engineering**

Tsinghua University, a leader in automotive engineering teaching and research, has extensive relationships with industry and an international educational platform that can provide outstanding students from around the world with exceptional interactive learning opportunities. The program consists of both coursework and research, with an emphasis on comprehensive academic ability which culminates in a master's thesis.

### **Master's Program in Global Manufacturing**

The two-year, professionally-oriented master's program in Management Science and Engineering was founded in 2009 for students seeking for a global vision in management science and engineering, with a special focus on the manufacturing industry in China.

### **Master's Program in Environmental Engineering and Management**

The Environmental Engineering and Management Master's Program focuses on environmental problems in a global context. It aims to cultivate talents to obtain related knowledge and methodology, to acquire the ability to analyze and solve practical, real-world problems, and to foster innovation with an international vision.

### **Master's Program in Chinese Law**

The Master's Program in Chinese Law is offered for international students, scholars, and legal professionals who are interested in studying the Chinese legal system to enhance their scholarship and practice in international law.





### Tsinghua-MIT Global MBA Program

The Global MBA Program is a full-time MBA program offered by Tsinghua's School of Economics and Management in collaboration with MIT Sloan. It is tailored for future leaders who aspire to propel their careers onto the global stage while maintaining a focus on China. The program is distinguished by its world-class learning experience, high-caliber global student body, and unrivaled access to the best resources in China.

### Master of Public Administration in International Development (MID)

Launched in 2007, the Master of Public Administration in International Development degree program at Tsinghua University is designed to deliver a strong academic and practical foundation for students to become active global citizens and specialists in Chinese development.

### International Master of Public Administration (IMPA)

Launched in 2008, the International Master of Public Administration (IMPA) program is tailored for students from developing countries. It enables students to apply public administrative theories and tools, gain a better understanding of China's development practices and build leadership skills necessary for problem-solving in developing and transition countries.

### Master's Program in Chinese Politics, Foreign Policy and International Relations (CPFP)

In 2010, Tsinghua University's Department of International Relations launched a master's degree program in English. The program aims to enable a better understanding of Chinese politics, China's role in international relations, and China's foreign policy through inter-disciplinary and inter-cultural dialogue.

### Master's Program in Global Business Journalism

With China playing a pivotal role in the global economy, a soaring demand is there for trained professionals who have a grasp of the exciting development of the world's fastest-growing economy. Tsinghua's Master of Global Business Journalism Program is designed to offer you the opportunity to meet this growing need.

# Innovation & Entrepreneurship

Innovation and creativity is always an important part of Tsinghua education. Student organizations and clubs like x-lab and Maker Space have been acting as a bridge between students, professors and alumni. They cultivate students' entrepreneurial spirits by holding salons and consultancy meetings. A series of competitions, including the "President Cup" Innovation Challenge and the "Challenge Cup", attracts students to put their hands on innovation projects and think creatively. Meanwhile, Tsinghua University has launched an Innovation and Entrepreneurship Certificate Program with the aim of enhancing students' entrepreneurial skills with specially-designed courses. Our university encourages students with these programs to constantly push themselves out of their comfort zone and commit themselves to the transformation of their knowledge into technology, and of technology into products.



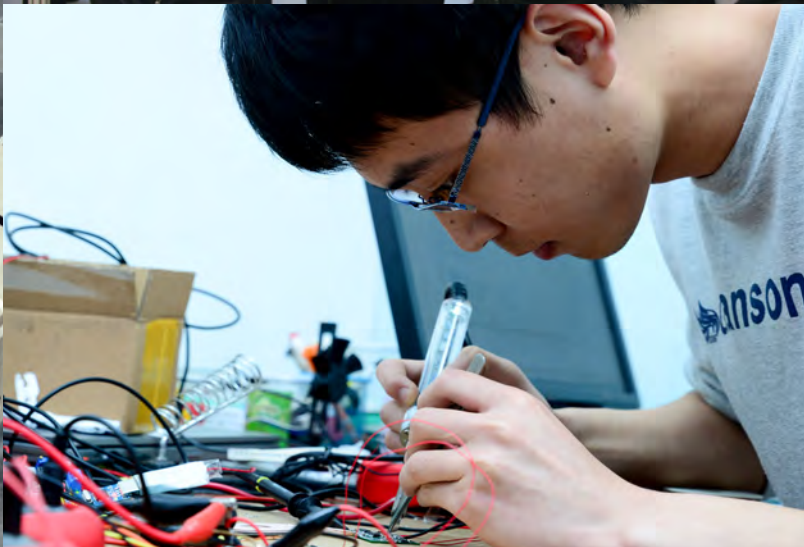
## *x-lab*

The spirit of interconnectedness runs through our x-lab initiative, where we promote entrepreneurship by bringing together our Tsinghua community, experienced entrepreneurs and experts, and investors. Our x-lab teams create projects that span many industries, including healthcare, manufacturing, social innovation, education, environment, and energy. x-lab currently supports over 600 projects in different stages of development by students, alumni, and faculty, with over 250 registered companies employing a total of over 5,000 people.

## *i.Center*

In response to the growing enthusiasm towards innovation and entrepreneurship, our newly-built i.Center is a creation space that provides the tools and resources needed for autonomous discovery. The 16,500-square meter center is filled with hundreds of milling machines, 3D printers and 3D scanner tools for students to use, creating a favorable environment for innovation as well as offering great services for interdisciplinary integration.





### *Student Supercomputing Team*

Tsinghua University's student team "Diablo" won a championship in the 2015 Student Cluster Competition (SC15), held at Austin, Texas, USA. In just one year, Tsinghua has peaked at the three leading international college student supercomputing contests: ASC15 in China in May, and ISC15 in Germany in July.



# University Life

At Tsinghua, students enjoy vibrant communities and a thriving environment around them. Regardless of your background, you can always find a place to fit in. With 245 student organizations and more than 32,000 members, our campus activities range from Tai Chi, Taekwondo, and ball games to swimming, sailing, dancing and opera. The Chinese Tea Taster Club and Chinese Literature Society have also been popular among students who are keen to understanding more about the Chinese culture. At Tsinghua, there must be an extracurricular program of your interest, or you could try create one. Throughout the semester, there is a whole range of student-organized entertainment events. Students may participate in festivals or compete at a high level in tournaments against other universities.



## *Folk Arts*

Without a doubt, opportunities for cultural exploration abound in Beijing. While students can immerse themselves in the Chinese community, they also thrive in this multi-cultural environment. The full spectrum of student activities reflects the diversity of our students' backgrounds.

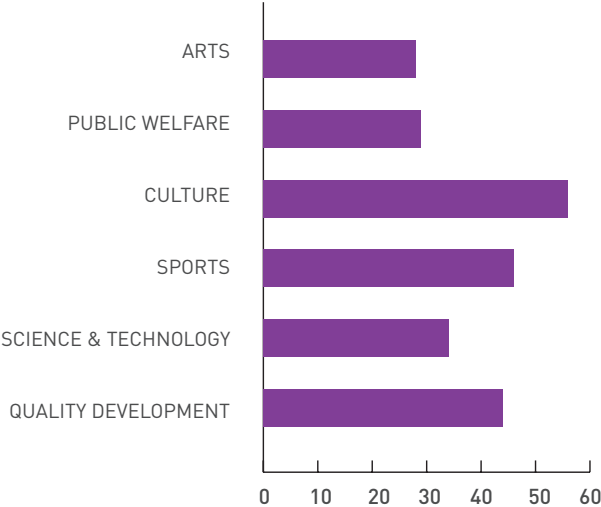
## *Student Festivals*

For many Tsinghua graduates, student festivals are part of their fondest memory of campus life. At the festivals, original songs, theatrical performances and DV works all showcase the wisdom, passion and performing talent of our students.

## *Sports*

The athletic spirit is an essential part of our campus culture. From gyms and pools to fields and tracks, from early morning to late evening, you can see students practicing sports. We are proud that our students depart the campus healthier and stronger than when they entered.





245

Student associations

32,000+

Registered association members

# Global Citizens

At Tsinghua, students have the opportunity and responsibility to participate in transforming local communities and addressing important social issues around the world. As well as nurturing personal growth and leadership, Tsinghua University encourages students to be active in serving and impacting local and global communities. Our students engage in various volunteering programs on a global scale, including providing services to the educational development of children in underdeveloped regions, setting up solar panels to resolve low voltage problems in rural villages, preserving intangible cultural heritage and offering health support for orphans suffering from AIDS.







### *RISE Tsinghua*

RISE Tsinghua is a student-run organization formed in 2011. The organization consists of master's students primarily from the School of Environment. Here local and international students work together towards the common goal of improving conditions in rural China. In the past years, RISE has successfully spread its biosand filter technology in underdeveloped rural areas in Ningxia, Gansu, and Shanxi.

### *Social Surveys*

In every summer or winter vacation, our students go to various communities to conduct surveys. From medical care in rural areas and educational opportunities for migrant children to the financial difficulties of small enterprises and folk art in danger of extinction, our students investigate issues of great social concern and offer innovative solutions to the challenges that we face today.



### *The Educational Poverty Alleviation Project*

The Educational Poverty Alleviation, initiated by Tsinghua University in 2003, is a public project aimed at advancing China's poverty-stricken areas through education.

Every weekend, Tsinghua student volunteers — Chinese and international students mingled — travel to neighboring counties to teach children living in poverty yet eager for knowledge. Every summer, a team of volunteers comprising 180 Tsinghua students and 150 university students recruited from foreign countries is dispatched to rural counties throughout China for service work, with the aim of promoting communication with local teachers and students.

With the support of modern technology such as the Internet and satellites, the project also makes high-quality educational and training resources available to people in remote, impoverished areas. As of 2015, more than 3,600 e-learning centers have been set up by Tsinghua in 1,140 underdeveloped counties, providing 2,000 hours of free e-learning and face-to-face courses for more than 2 million people.







### *From Tsinghua to Africa*

In July 2014, seven graduate students from Tsinghua University went to Kenya to carry out a line of charity events. In Africa, they were teachers sharing their dreams and knowledge, conservationists advocating the need to protect wildlife, and messengers promoting cultural exchanges.

# Schools and Departments

## Academy of Arts & Design 1 6/7-F

Department of Art History  
 Department of Arts & Crafts  
 Department of Ceramic Design  
 Department of Environmental Design  
 Department of Painting  
 Department of Industrial Design  
 Department of Information Art & Design  
 Department of Sculpture  
 Department of Textile & Fashion Design  
 Department of Visual Communication

## School of Aerospace 2 6/7-C

Department of Aeronautics & Astronautics Engineering  
 Department of Engineering Mechanics

## School of Architecture 3 6-F

Department of Architecture  
 Department of Building Technology and Science  
 Department of Landscape Architecture  
 Department of Urban Planning

## School of Civil Engineering

Department of Civil Engineering 4A 5-D  
 Department of Construction Management 4B E-6  
 Department of Hydraulic Engineering 4C 4-D

## School of Economics and Management 5 5-F

Department of Accounting  
 Department of Economics  
 Department of Finance  
 Department of Innovation, Entrepreneurship and Strategy  
 Department of Leadership and Organization Management  
 Department of Management Science and Engineering  
 Department of Marketing

## School of Environment 6 6-F

Department of Environmental Engineering  
 Department of Environmental Science  
 Department of Environmental Planning and Management

## PBC School of Finance 7 6-H

## School of Humanities

Department of Chinese Language and Literature 8A 3/4-C  
 Department of Foreign Languages and Literatures 8B 4-E  
 Department of History 8C 4-D  
 Department of Philosophy 8C 3/4-C

## School of Information Science and Technology

Department of Automation 9A 5-6/E  
 Department of Computer Science and Technology 9B 6-E  
 Department of Electronic Engineering 9C 6/7-D  
 Department of Microelectronics and Nanoelectronics 9D 5-F  
 Institute of Microelectronics 9E 5-F  
 School of Software 9F 6-E

## School of Journalism and Communication 10 4-E

## School of Law 11 5-F

## School of Life Sciences 12 3-D

## School of Marxism 13 3-C

## School of Materials Science and Engineering 14 6-F

## School of Mechanical Engineering

Department of Automotive Engineering 15A 5-G  
 Department of Industrial Engineering 15B 5-F  
 Department of Mechanical Engineering 15C 5-G  
 Department of Precision Instrument 15D 5-F  
 Department of Thermal Engineering 15E 4-E  
 The Fundamental Industrial Training Center 15F 5-G



**School of Medicine**

16 2-D

Department of Basic Medical Sciences  
 Department of Biomedical Engineering  
 Research Center for Public Health

**School of Pharmaceutical Sciences**

17 2-D

**School of Public Policy and Management**

18 5-F

**School of Sciences**

Department of Chemistry 19A 3-C  
 Department of Mathematical Sciences 19B 3-C/D  
 Department of Physics 19C 3-C/D  
 Center for Earth System Science 19D 6/7-C

**School of Social Sciences**

Department of International Relations 20A 3-C  
 Department of Political Science 20B 3-C  
 Department of Psychology 20C 6-E  
 Department of Sociology 20D 3-G  
 Institute of Economics 20E 3-C  
 Institute of Science, Technology and Society 20F 3-C

**Department of Chemical Engineering**

21 6-E

**Department of Electrical Engineering**

22 5-E

**Department of Engineering Physics**

23 6-D/E

**Division of Sports Science and Physical Education**

24 5-C/D

**School of Continuing Education**

25 5-C/D

**Graduate School at Shenzhen**

26 Shenzhen, Guangdong Province

**Art Center**

27 3-C

**Center for Combustion Energy**

28 5-G

**Institute for Advanced Study**

29 3-D/E

**Institute of Education**

30 4-E

**Institute for Interdisciplinary Information Sciences**

31 5-G

**Institute of Nuclear and New Energy Technology**

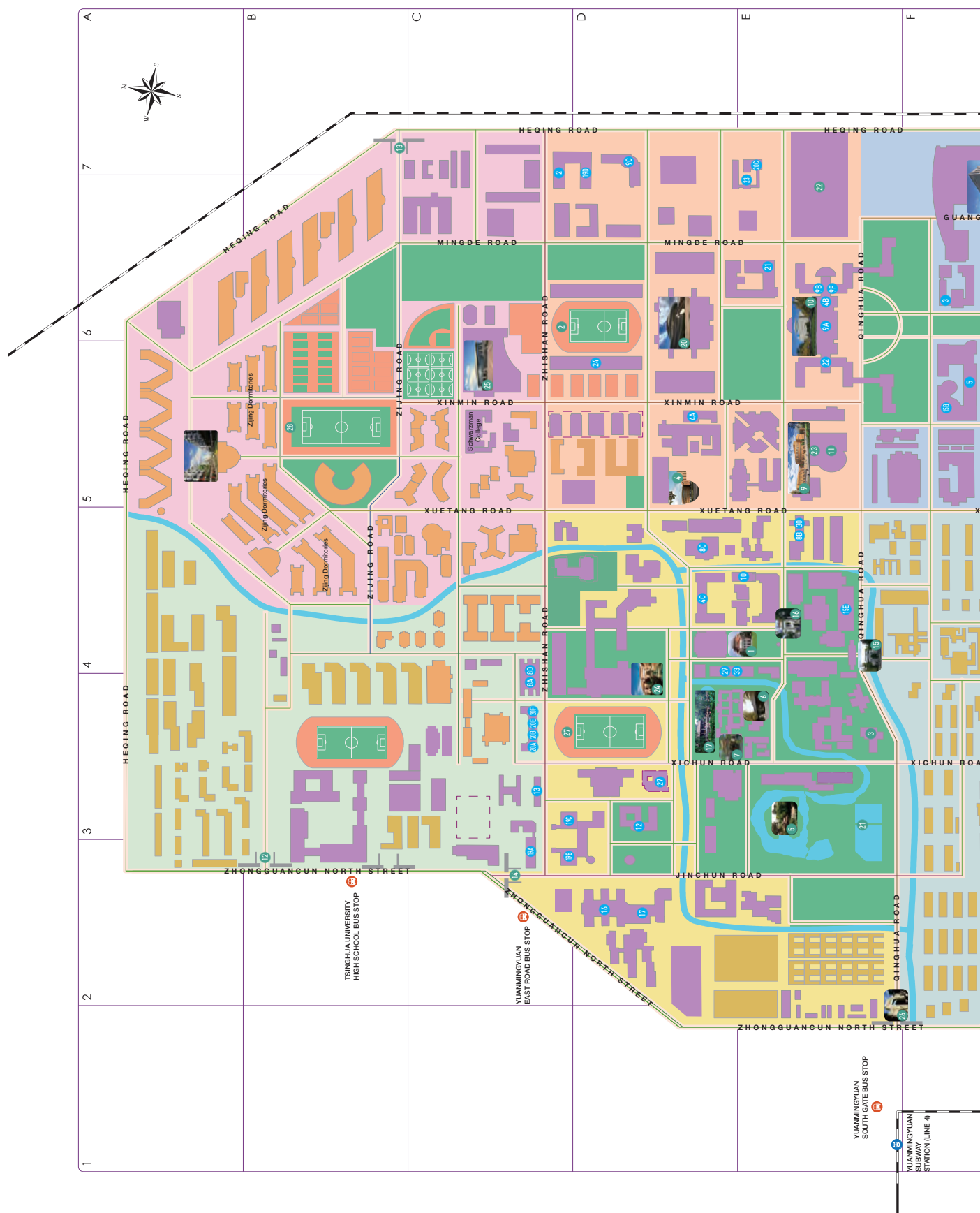
32 5-F/G

**Zhou Peiyuan Center for Applied Mathematics**

33 3-D/E



# Campus Map







Campus Map Key

Auditorium	1	4-D	The Old Gate	15	4-E
East Sports Field	2	6-D	Qing Hua Xue Tang	16	4-E
Information Center	3	3-E	Shui Mu Qing Hua	17	3-D
Humanities and Social Sciences Library	4	5-D	South Gate	18	4/5-H
Jin Chun Yuan	5	3-E	Southwest Gate	19	2-H
Gong Zi Ting	6	3-E	Sports Center	20	6-D
Gu Yue Tang	7	3-E	Swimming Pool	21	3-E
Main Gate	8	6-G	Tsinghua University Art Museum	22	6/7-E
Mong Man-wai Concert Hall	9	5-E	Tsinghua University History Museum	23	5-E
The Main Building	10	5/6-E	The University Library	24	3/4-D
New Tsinghua Auditorium	11	5-E	The University Natatorium	25	5-C
North Gate	12	3-B	West Gate	26	1-E
Northeast Gate	13	7-B	West Sports Field	27	3-D
Northwest Gate	14	2-C	Zijing Sports Field	28	5-B

# Major Events

## 2015

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### January

- ① **January 7** Ecuadorean President Rafael Correa Delgado delivered a speech at Tsinghua University.
- ① **January 9** Tsinghua research achievements won 16 State Science and Technology Awards, the highest honor in science and technology in China.
- ① **January 27** 2015 graduate student spring commencement ceremony was held. More than 1,300 graduate students received degrees.

### February

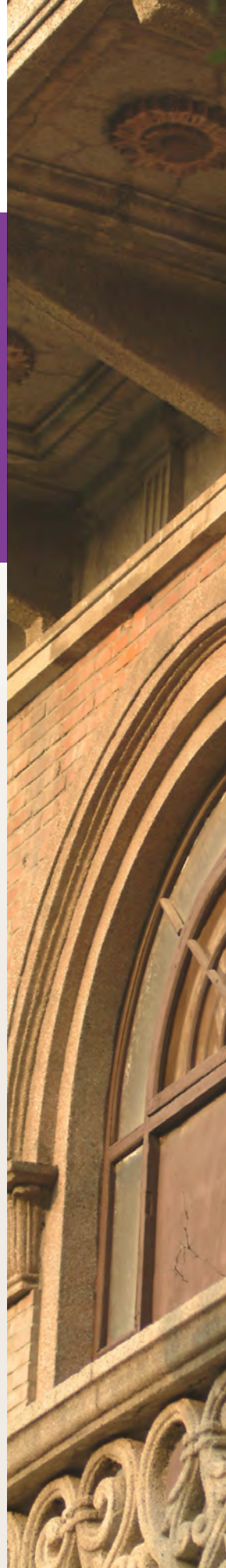
- ① **February 2** 102 Tsinghua professors were included in Elsevier's 2014 "Most Cited Chinese Researchers," a listing of 1,651 most influential Chinese researchers.

### March

- ① **March 5** Registered users of xuetangx.com, a MOOC provider initiated by Tsinghua University, exceeded one million.
- ① **March 26** Dr. Qiu Yong was appointed President of Tsinghua University.

### April

- ① **April 18** Tsinghua University Center for Brain-Inspired Computing Research was established.
- ① **April 24** Tsinghua Energy Internet Research Institute was established.
- ① **April 26** Tsinghua University celebrated its 104<sup>th</sup> anniversary.





**May**

- **May 8** Tsinghua announced its first blended-learning master's program.
- **May 15** Tsinghua announced a new assessment system for student academic performance, replacing numeric scores with letter grades.

**June**

- **June 11** The Innovation and Entrepreneurship Education Alliance of China initiated by Tsinghua University was established.
- **June 15** Indian Prime Minister Narendra Modi delivered a speech at Tsinghua University.
- **June 18** Tsinghua University and the University of Washington launched the Global Innovation Exchange Institute (GIX), with foundational support from Microsoft.
- **June 22** President Qiu Yong delivered a speech at U.S.-China University Presidents' Roundtable held in Houston, Texas.
- **June 27-28** Tsinghua University hosted the 4<sup>th</sup> World Peace Forum.

**July**

- **July 11-12** 2015 summer commencement ceremonies were held. 3,517 undergraduate students and 5,527 graduate students received degrees.

**August**

- **August 19-25** Tsinghua welcomed about 9,000 new undergraduate and graduate students.

**September**

- **September 23** Tsinghua University announced research cooperation with Sichuan Province, the University of Washington, and Washington State on climate-smart/low-carbon cities.
- **September 24** Chinese President Xi Jinping presented a gift to GIX.

**October**

- **October 20** Tsinghua-Berkeley Shenzhen Institute was inaugurated in Shenzhen.
- **October 21** Tsinghua signed with BRE and Evergrande Group an agreement on collaborative research on sustainable urbanization during President Xi Jinping's State Visit to Britain.

**November**

- **November 9** Tsinghua University and the University of Washington announced a dual degree program through GIX.

**December**

- **December 1** Tsinghua University and UC Berkeley announced the launch of the Tsinghua Berkeley Joint Research Center on Energy and Climate Change.
- **December 7** Four professors and seven alumni of Tsinghua were elected to the Chinese Academy of Sciences and the Chinese Academy of Engineering.
- **December 25** School of Pharmaceutical Sciences was inaugurated.

## 2016

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### January

- ② January 8 Tsinghua won 19 awards at the 2016 State Science and Technology Awards Ceremony.
- ② January 10 Tsinghua Strategic Development Committee was established.
- ② January 10 The inaugural lecture of the “Humanities at Tsinghua” series was held.
- ② January 15 Decisive progress was made in reforming Tsinghua’s tenure system with 38 schools and departments adopting the new system.

### February

- ② February 26 Tsinghua University is authorized by the Ministry of Education to confer a new doctoral degree in cyberspace security.

### March

- ② March 20 The world’s first Reactor pressure vessel of high-temperature gas-cooled reactor-pebblebed modules designed by Tsinghua was installed at the Huaneng Shidao Bay Nuclear Power Plant in Shandong Province.
- ② March 26 Tsinghua joined the China-Egypt University Presidents Forum and the Chinese Higher Education Exhibition held in Cairo.
- ② March 29 Tsinghua co-hosted the Inaugural Forum of Presidents of Israel-China Higher Education Institutions held in Jerusalem.

### April

- ② April 7 Reform of the Tsinghua research system was launched.
- ② April 12 Tsinghua Institute for World Literatures and Cultures was established.
- ② April 15 Chinese Premier Li Keqiang visited Tsinghua University.
- ② April 19 New Zealand Prime Minister John Key addressed students at Tsinghua University.
- ② April 22 Chinese President Xi Jinping sent Tsinghua a congratulatory letter on its 105<sup>th</sup> anniversary.
- ② April 24 Tsinghua University celebrated its 105<sup>th</sup> anniversary.



# Tsinghua at a Glance

#1

Global University for  
Engineering

*U.S. News & World Report,  
Global University Rankings  
2016*

#25

World University

*QS World University  
Rankings 2015/16*

#18

World Reputation

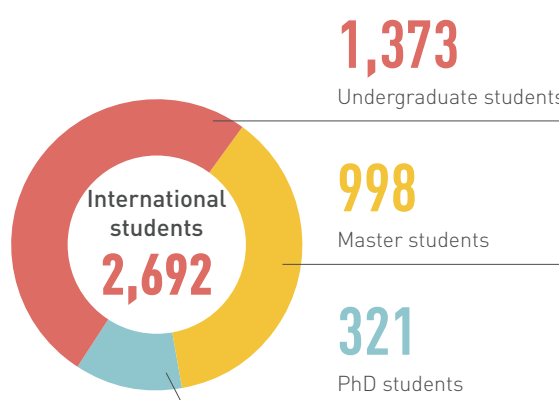
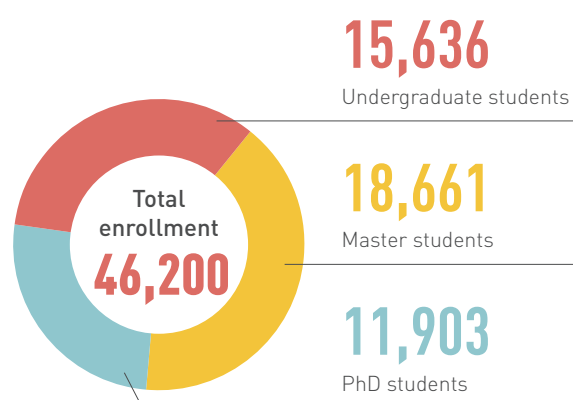
*Times Higher Education,  
World Reputation Rankings  
2016*

#9

Graduate Employability

*QS Graduate Employability  
Rankings 2016*

## Student Profile\*



More than **2,500** students enrolled in study abroad programs

## Faculty Profile\*

3,395

Faculty members

45

Members of  
the Chinese Academy of Sciences

33

Members of  
the Chinese Academy of Engineering

More than **1,500**

Visiting international scholars

\* Data by December 31, 2015.



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international students  
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