



# ASPIRE League

Asian Science and Technology Pioneering  
Institutes of Research and Education



## ASPIRE League Outline

The Asian Science and Technology Pioneering Institutes of Research and Education (ASPIRE) League is a consortium of five leading science and technology universities in Asia.

It aims to form a hub for innovation in Asia through the advancement of science and technology and the development of human resources, thereby contributing to the realization of a sustainable world.

The ASPIRE League pursues its objectives through research collaboration and student exchanges.

## ASPIRE League Leadership (as of January 2017)



Prof. Nancy Ip  
Vice President for Research  
and Graduate Studies  
HKUST



Prof. Sung-Hyon Myaeng  
Associate Vice President of  
International Office  
KAIST



Prof. Er Meng Hwa  
Senior Advisor  
NTU, Singapore



Dr. Toshio Maruyama  
Executive Vice President for  
Education and International  
Affairs  
Tokyo Tech



Prof. Shi Yigong  
Vice President  
Tsinghua

## ASPIRE League History

### 2009

- Five leading universities in science and technology in Asia — HKUST, KAIST, NTU, Tokyo Tech and Tsinghua — agreed to establish the Consortium of the World-Leading Technical Universities in Asia. (July)
- A Joint Declaration was signed by the Consortium of the World-Leading Technical Universities in Asia and the IDEA League, a network of leading universities of science and technology in Europe. (October)

### 2010

- ASPIRE Forum "Science and Technology for a Sustainable World" held at Tokyo Tech (July)
- In order to further the aims set out by the Consortium of the World-Leading Technical Universities in Asia, the five universities agreed to rename the consortium as the Asian Science and Technology Pioneering Institutes of Research and Education (ASPIRE) League. (July)

### 2011

- ASPIRE Forum "Sustainability for the Globe: Energy and Environmental Issues" held at KAIST (July)

### 2012

- ASPIRE Forum "The Next Generation of Green Technology" held at KAIST (July)

### 2013

- ASPIRE Forum "The Development and Utilization of New Energy" held at Tsinghua (July)

### 2014

- ASPIRE Forum "The Role of New Materials Technology in New Energy R&D" held at Tsinghua (July)
- ASPIRE Undergraduate Research Academy "Sustainable Energy and Environment (water, energy, climate change)" held at NTU (July)
- ASPIRE E-Olympics held at KAIST (August)

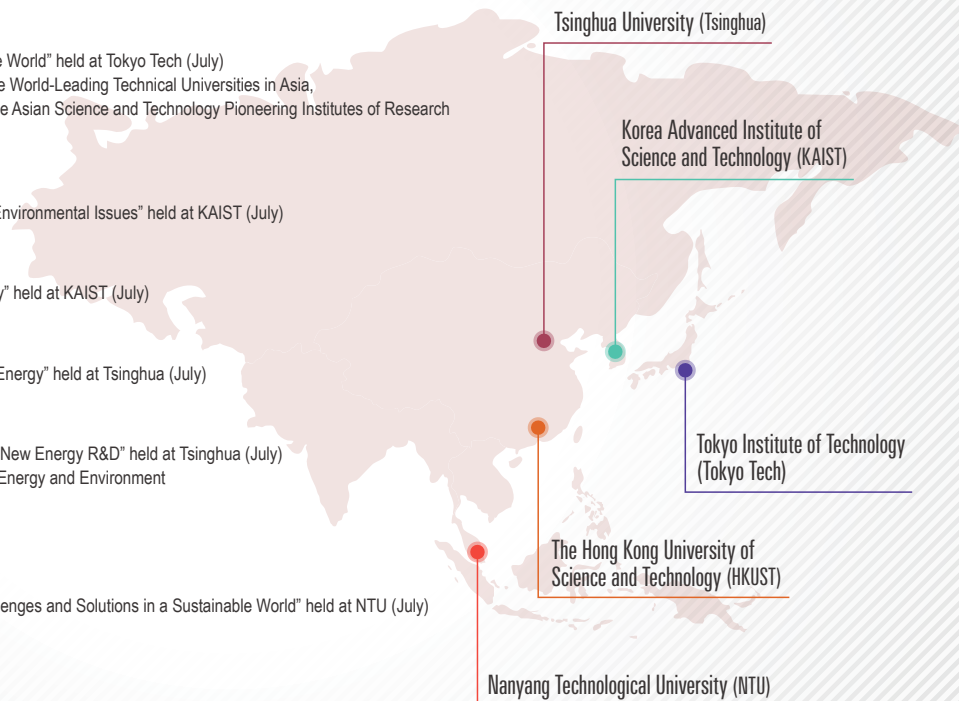
### 2015

- ASPIRE Undergraduate Research Academy "Energy Challenges and Solutions in a Sustainable World" held at NTU (July)
- ASPIRE Forum "Smart Green Cities" held at HKUST (July)

### 2016

- ASPIRE Forum "Developing Sustainable Urban Environment and Low Carbon Economy" held at HKUST (July)
- ASPIRE Undergraduate Research Academy "Energy Challenges and Solutions in Today's Context" held at NTU (July)

## ASPIRE League Member Universities



# ASPIRE League Activities

## Student Exchanges

Fostering the young talent that will be able to tackle important issues in today's global society is one of the League's objectives. In pursuit of this common goal, member universities are encouraged to provide educational opportunities to the students of other member universities. The League offers various academic and cultural exchange opportunities, such as the ASPIRE Undergraduate Research Academy (UGRA) and the ASPIRE E-Olympics.



## ASPIRE Forum

The ASPIRE Forum is the annual gathering of vice presidents, faculty, staff, and students of member universities. The Forum consists of a symposium, a student workshop, and a meeting of the vice presidents. Researchers from the member universities give presentations at the symposium. The theme of the symposium varies each year, but it generally focuses on issues in science, technology, and sustainability. The student workshop is organized to facilitate the sharing of ideas and to deepen understanding of common issues in Asia.



## Research Collaboration and Satellite Laboratories

Research Collaboration is one of the key activities of the League. The ASPIRE grant and satellite laboratories represent one unique model of this collaboration. Offered for research involving Tokyo Tech and two or more member universities, the grant has supported 20 collaborations since 2011 and encouraged participants to open their labs to one another as satellite labs.



# Message from the Chairperson

**Professor  
ER Meng Hwa**

**Senior Advisor  
Nanyang Technological University,  
Singapore**



Since its inception in 2009, the ASPIRE League has been promoting intellectual discourse and research collaborations among its five member universities. Strong commitments from member universities have seen the League's academic activities grown in both depth and scope. These include the annual ASPIRE Forum where the Vice Presidents, professors and postgraduate students come together to share research insights and findings, ASPIRE League Research Grant activities, and also a three-day enrichment programme, Undergraduate Research Academy, for the undergraduate students who are doing a research project related to energy and sustainability. Such convictions and collaborative efforts from member universities have allowed the League to achieve its aim of being a regional hub for academic excellence and innovation as witnessed by the increase in joint publications and citation impacts among the five member universities. Moving forth, I am confident that all member universities will continue to strive for excellence and remain committed to the League to become a reputable platform for academic exchanges and research collaborations in Asia and beyond. I look forward to working with member universities to advance the common objective of the League.

# The Hong Kong University of Science and Technology

The Hong Kong University of Science and Technology (HKUST) is a research-focused university with a key mission to develop science and technology to contribute to the Hong Kong economy. Established in 1991, HKUST has made huge strides in academic excellence and scientific research and now counts among the leading universities in the world.

The University has 4 schools. HKUST's chosen fields in science, engineering, business and management, and humanities and social science have anticipated the key areas that position us well to tackle society's grand challenges. HKUST's research platforms, e.g. Robotics Institute, Big Data Institute, Energy Institute, Institute for Emerging Market Studies and Institute for Public Policy play a pivotal role in fostering collaboration and interdisciplinary research, while the Institute for Advanced Study serves as the University's highest platform for intellectual enquiry. In Mainland China, the University has 3 bases in Nansha, Shenzhen and Foshan, under the Fok Ying Tung Graduate School, to support and promote HKUST's research and technology initiatives, and to collaborate with Mainland partners and institutions.

At HKUST we are passionate about moving the boundaries of knowledge forward, through research and technological innovation with global impact. As educators, we are dedicated to providing a holistic education to nurture well-rounded students, equipped with creative, critical and innovative thinking and a strong entrepreneurial spirit, and to provide them with the foundations to thrive in a changing world.



香港科技大學

THE HONG KONG UNIVERSITY OF  
SCIENCE AND TECHNOLOGY





# Korea Advanced Institute of Science and Technology

KAIST is the first and foremost science and technology research university in Korea, founded by the government in 1971. KAIST aims to competitive research convergence based on scientific and technological innovations and globalization. As evidence of its groundbreaking research achievements, KAIST was ranked 6th on the Most Innovative University Rankings for 2016 by Reuters, which was the highest ranking of a non-US institution.

KAIST has three campuses: the Yuseong Main and Munji campuses in Daejeon and the College of Business in Seoul. KAIST focuses on core technologies such as biotechnology, information technology, nanotechnology, urban space and systems, and EEWS (energy, environment, water and sustainability). Enjoying its ideal location in the Daedeok Innopolis, a district in Daejeon known as Korea's Silicon Valley, KAIST engages in numerous research collaboration with neighboring research institutions, internationally-renowned universities, and industry in order to stimulate the creative economy.

KAIST offers interdisciplinary academic and research programs in the following colleges: Natural Sciences, Life Science & Bioengineering, Engineering, Information Science & Technology, Innovation, Business, and Cultural Science.

As a leading force in a now developed nation, KAIST is currently concentrating on research that is vital to ensure the survival of humanity; an idea factory that is manufacturing a new paradigm of science and technology innovation. KAIST will add to the global pool of knowledge with groundbreaking research on sustainability and develop new engines for economic growth through the convergence of advanced science and technology with business.



# Nanyang Technological University

Nanyang Technological University is a young, research-intensive university on a rapid global rise. NTU is ranked 13th globally and is also ranked 1st among the world's young elite universities.

NTU is home to 33,000 undergraduates and postgraduate students in the colleges of Engineering, Business, Science, and Humanities, Arts and Social Sciences. In partnership with Imperial College London, NTU Singapore has a new medical school, the Lee Kong Chian School of Medicine.

Helmed by Professor Bertil Andersson, winner of the Wilhelm Exner Medal, an honour bestowed on the world's best scientists, the University is a melting pot of international award-winning scientists, young talents and eminent global partners such as BMW, Rolls-Royce and Lockheed Martin.

NTU has several world-class national institutes – the National Institute of Education, S Rajaratnam School of International Studies, Earth Observatory of Singapore, and Singapore Centre on Environmental Life Sciences Engineering – and various leading research centres such as the Nanyang Environment & Water Research Institute, Energy Research Institute @ NTU, and the Institute on Asian Consumer Insight.

NTU is a cosmopolitan university with more than 100 nationalities. Its main Yunnan Garden Campus has been named one of the Top 15 Most Beautiful in the World. NTU also has a campus in Novena, Singapore's medical district.



**NANYANG  
TECHNOLOGICAL  
UNIVERSITY**  
**SINGAPORE**



# Tokyo Institute of Technology

For over 135 years, Tokyo Institute of Technology (Tokyo Tech) has been producing outstanding leaders and excellent research in the fields of science and technology.

After implementing ambitious reforms in its education and research systems in April 2016, Tokyo Tech became the first university in Japan whose Schools offer undergraduate and graduate programs under the same roof, creating more opportunities for cross-disciplinary research and earlier involvement in graduate-level study. With 6 Schools comprised of 20 departments, and the Institute of Liberal Arts, Tokyo Tech has 1,200 faculty members and about 10,000 students, approximately half of whom are graduate students.

The research institutes, centers and laboratories at Tokyo Tech are organized under the Institute of Innovative Research (IIR). This open research environment is intended to foster active and organic cooperation within and beyond the university, thereby creating novel research fields, offering solutions to complex problems, and fostering industrial infrastructures. Research at the IIR builds on Tokyo Tech's internationally recognized contributions in key areas, including materials science, supercomputing, and the life sciences.

Through research collaborations, joint workshops and symposia, and faculty and student exchanges with overseas partners, Tokyo Tech is actively promoting international cooperation in research and education, recognizing that such activities contribute to the development of globally competitive scientists and engineers who possess the cultural awareness, communication skills, and advanced scientific and technological knowledge to solve the world's most urgent problems.



東京工業大学  
Tokyo Institute of Technology





# Tsinghua University

Tsinghua University was established in 1911. Drawing on a rich local tradition of academic excellence, it is a pacesetter for innovation in China. Today, Tsinghua University is 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 an invaluable bridge for international students seeking a deeper understanding of China.

Tsinghua University is a comprehensive research university. Its 20 schools and 54 departments cover disciplines in art, economics, education, engineering, history, management, medicine, law, literature, philosophy, and sciences. The University has now over 46,000 students from 120 countries, including 15,000 plus undergraduates and more than 30,000 graduate students. Situated in northwestern Beijing, Tsinghua University's campus has been named one of the most beautiful in the world.

Among its more than 200,000 alumni are many leaders in various fields. They have made outstanding contributions to China's technology development, economic growth and social progress. They also offer new perspectives and insights on the world's biggest challenges.



清華大學  
Tsinghua University





The Logo is intended to be simple, abstract, attractive, and scalable.

The five spires signify the five member universities of ASPIRE joining hands in a central alliance.

The image symbolizes cohesiveness and inter-connectedness as well as the vision of reaching out to the world in the age of globalization.

### **The Hong Kong University of Science and Technology**

Clear Water Bay, Kowloon, Hong Kong

<http://www.ust.hk/>

### **Korea Advanced Institute of Science and Technology**

291 Daehak-ro (373-1 Guseong-dong), Yuseong-gu, Daejeon 305-701,  
Republic of Korea

<http://www.kaist.ac.kr/>

### **Nanyang Technological University**

50 Nanyang Avenue, Singapore 639798

<http://www.ntu.edu.sg/>

### **Tokyo Institute of Technology**

2-12-1 Ookayama, Meguro-ku, Tokyo 152-8550, Japan

<http://www.titech.ac.jp/>

### **Tsinghua University**

Beijing 100084, China

<http://www.tsinghua.edu.cn/>

### **Contact**

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