

# **ACNET-EngTech**

# Newsletter



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# News and Upcoming Events

### **Global TJU, Connecting You with the World**



Tianjin University launched the Global TJU Program in September in a bid to promote international communication and cooperation. The opening ceremony was held on September 29th and also marked the celebration of the university's 126th birthday. Representatives from foreign embassies in China, TJU global strategic partners and overseas students attended the event or shared their views via video link.

Professor Hu Wenping, executive vice president of Tianjin University, extended his warm welcome and sincere thanks to all the guests present. Hu said that although the COVID-19 epidemic had suspended normal virtual international cooperation and exchanges, advanced Internet Plus technology overcame the restrictions of physical space and personnel flow and helped to realize cross-border transmission and multicultural exchange.

Professor Hu noted that the pandemic has underscored how closely bound the world has become as well as the significant role that cross-cultural understanding plays in solving the major challenges facing mankind.



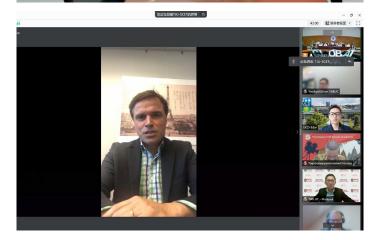


Regarding the training of talents, he proposed that educational institutions not only cultivate students' knowledge and skills so that they may participate in global affairs but also help them to acquire a sense of global ethics and a willingness and ability to engage in global practice.

Hu added that by strengthening cooperation between Tianjin University and the world, students will be provided with more opportunities for overseas exchange and a high-quality international platform for them to 'see the world'. He urged every student studying at TJU to develop a global vision.

Baba Ahmad Jidda, Ambassador of Nigeria to China, Robert Emond, Counsellor of Science, Technology and Innovation from the Canadian Embassy in China, Yaya Sutarya, Education, Culture, Research and Technology Attache from the Embassy of the Republic of Indonesia, Jean-Francois Doulet, Higher Education Counsellor from the Embassy of France in China, and Kevin Chan, Vice President of Clariant's Catalyst Business, Greater China delivered speeches respectively, congratulating Tianjin University on the successful opening of the "Global TJU" series of activities and expressing their willingness to achieve win-win progress through in-depth cooperation with Tianjin University in education and scientific research.









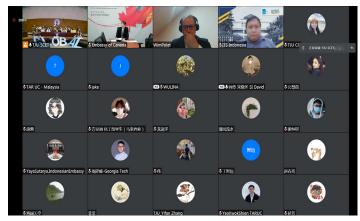




At the ceremony, many TJU students, who are now on exchange programs and studying abroad, were invited to share their cross-cultural experiences. They spoke highly of the overseas exchange opportunities provided by the university, which not only expand their global horizons but have also brought them unforgettable experiences and friendships. In addition, they encouraged more students to enrich their college experience and actively participate in the visiting programs. The overseas students also sent their best wishes for the university's 126th birthday.



Representatives from more than 17 partner schools and institutions, such as the City University of Hong Kong, Johns Hopkins University, University of Glasgow, Korea University, Mahidol University, ITS Surabaya-Indonesia, Tunku Abdul Rahman University College, and The University of Edinburgh, attended the opening ceremony and introduced their cooperation programs with Tianjin University. Students both online and offline were able to consult with the representatives about their respective programs on the spot.





Up to now, Tianjin University has signed agreements with 252 universities, research institutions and companies in 50 countries and regions around the world. It has more than 200 overseas programs for students, including exchanges, winter and summer programs, scientific research internships, and internship training bases.

The Global TJU Program will subsequently hold special presentations on cooperation projects, high-level international academic reports, the sharing of overseas study experiences, and language ability improvement lectures.



# TJU-SB RAS Workshop on the Green Chemical Industry and Green Energy Held

From June 28 to 29, the School of Chemical Engineering and Technology (SCET) held the Tianjin University-SB RAS Workshop on the Green Chemical Industry and Green Energy both online and offline.



During the opening ceremony held on the morning of June 28, Ma Xinbin, Dean of SCET at Tianjin University, presided over the meeting for the Chinese side and delivered a speech. He stressed that China has reiterated its commitment to carbon peak and carbon neutrality at eight important international conferences, and the chemical industry should shoulder the scientific and technological responsibility of reducing carbon emissions, and adjusting and optimizing the energy structure. "The green chemical industry has become the development trend of the global chemical industry. SCET at Tianjin University will focus on the major needs of social development, jointly explore scientific and technological breakthroughs in partnership with Russia, and strengthen the cooperation between China and Russia in the development of the green chemical industry and green energy," said Ma. He also promised to maintain in-depth exchanges and cooperation with Russian researchers.



On the Russian side, the meeting was hosted by Communication Academician A.N. Pavlenko. Academician S.V. Alekseenko delivered the opening remarks. Alekseenko highlighted the basis of friendly cooperation between China and Russia. In the context of global efforts to improve the climate



environment, he hoped that the two sides could continue to deepen scientific research cooperation and talent exchange and jointly promote green and lowcarbon development.

Xia Shuqian, vice dean of SCET at Tianjin University, introduced the school in terms of its history and current developmental achievements.

D.P. Sikovsky, deputy director of the Kutateladze Institute of Thermophysics of SB RAS, and N.Y. Adonin, deputy director of the Boreskov Institute of Catalysis, introduced the research directions and achievements of their respective institutes.

There were two keynote speeches in the opening ceremony. One was by Academician S.V. Alekseenko on "Trends in Energy Development", and the other was by Professor Yuan Xigang from SCET on the "Approach to Reshaping our Process Industry by Distillation Innovation in the Context of Net Zero Carbon Emissions".

The forum on the afternoon of June 28 and the morning of 29 was hosted by Professor Han You, Liu Guozhu and Communication Academician A.N. Pavlenko, respectively. Eighteen scholars from both sides delivered forum reports on new materials, new energy, process enhancement, mass and heat transfer, and conducted in-depth exchanges and discussions.

The Russian Academy of Sciences (RAS) is one of the most important research institutions in the world and also the national academic institution of Russia. Its Siberian Branch (SB RAS) is the largest regional branch of the Russian Academy of Sciences, which has accomplished a great number of scientific research achievements.

The SCET at Tianjin University and RAS have a solid foundation for cooperation in major scientific research and exchanges of scholars and doctoral students at this early stage.



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# About ACNET-EngTech People

# Dalian University of Technology "Schoolfellow Friendship" Initiative 2021 Online Exchange Conference

### **2021 Online Exchange Conference**

### 1. Overview

The "Schoolfellow Friendship" Initiative aims to encourage DUT teachers to invite overseas partners to jointly conduct academic seminars, student forums, international cooperation negotiations, cultural exchanges and other activities in order to maintain long-term interactive relationships. It aims to gradually establish a group of "discipline-to-discipline" talent training bases in Chinese and foreign universities and to develop a group of famous disciplines or research labs through foreign cooperation. In 2021, the initiative is set to be implemented online due to the pandemic.

### 2. Initiative Types and Scope of Funding

The initiative can be carried out in the form of comprehensive cultural experiences, joint classes, and joint research. DUT will pay for the expert consultation (report), service, translation and interpreting, etc. for Chinese and foreign participants

In order to promote exchanges and cooperation between DUT and sister universities in ASEAN, teachers and students from both sides are invited to meet on the cloud, advancing in-depth cooperation between disciplines and enhancing mutual trust and understanding between students.

For details of the initiative, please visit the link below:

http://dutdice.dlut.edu.cn/en/International\_Students/Short\_term/Webinar\_of\_Schoolfellow\_Friendship\_Initiative.htm



# Chinese and Indonesian Universities Hold joint Month-long Marine Course

"The lectures greatly broadened my horizon and showed me a path to global cooperation in ocean exploration and protection. I love the blue oceans and resolve to do more for it in my life," said Afina Dahayu Amadia, a postgraduate studying marine security and virtual reality in the Institut Teknologi Sepuluh Nopember, Indonesia. He just finished an online course on ocean affairs and intelligent ocean that was jointly organized by Tianjin University and the Institut Teknologi Sepuluh Nopember.

The one-month-long course that ended on September 28, was taught by eight experts from both institutions through four online seminars and covered topics in maritime economy and tourism, marine plastic pollution, marine safety and virtual reality, and seabed measurement technology.

It attracted a number of students and researchers from China, Indonesia, Bangladesh, Pakistan, Thailand and other countries and regions to attend and the total attendance of four seminars exceeded 600 person-time.

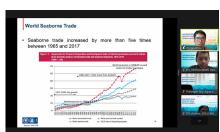
Zhang Zhen, Director of Tianjin University's International Cooperation Office said that the two institutions enjoy an established cooperative relationship. "This year's online course further strengthened the exchanges in terms of marine pollution prevention, marine management, marine intelligent application and marine engineering equipment among ASEAN (the Association of Southeast Asian Nations) and the Belt and Road (B&R) countries."

Maria Anityasari, Director of Global Engagement Department of the Institut Teknologi Sepuluh Nopember thought that the course helped students and scholars from different countries foster a sense of cooperation that push them to jointly face challenges from the ocean.

Tianjin University and the Institut Teknologi Sepuluh Nopember in Indonesia have always maintained a good cooperative relationship. In 2014, ACNET-EngTech was established, and both universities are founding members. Later, the two universities jointly established the Indonesia-China Smart Ocean Center and began extensive cooperation in marine research and education and talents cultivation.









# **CommTECH Course 2022 Online Spring Edition Open for Registration**

**COMMTECH ONLING** is an opportunity for university students, academics, and professionals from all over the world to learn virtually about community and global issues through a variety of insightful but fun activities. The program includes courses & discussion, virtual social engagement, Indonesian language courses and lessons about Indonesian culture.

For the Spring Edition, ITS has prepared a special gift for ACNET-EngTech members! The 2 member universities who have the most applicants will receive one tuition-free program slot, a value of USD 200! We will contact the lucky university after the application period ends.

For further information about the program, please visit the website: https://www.its.ac.id/international/study-at-its/short-program/commtech-camp/commtech-online-edition/





### **Welcome to Tianjin International Engineering Institute!**

At Tianjin International Engineering Institute (TIEI), engineering is in our DNA, and we want you to become the most talented engineers!

Here, you will come into close contact with emerging and innovative industries that have developed integrated concepts in the fields of computer science, electronics, smart building, water engineering and intelligent medicine. Here, you will enjoy international, high-level teaching resources and first-class platforms for learning exchange and experience an effective international learning environment.

Here, you will benefit from an innovative teaching mode, one that encourages interdisciplinary study and emphasizes Industry-Academia-Research collaboration.

Here, you will start your unique and memorable graduate school experience.

Here is Tianjin International Engineering Institute!

Established in May 2014, TIEI combines the French engineer-training mode with the Chinese training system, inseminates this new notion for engineering education into the entire process of graduate training, and is committed to building an open, international and innovative first-class engineering academy. TIEI cultivates outstanding engineering leaders with sustainable international competitiveness, innovation, practicality and leadership, who promote the progression of world engineering technology.

TIEI is the first institute in China that has obtained accreditation from the French Engineering Accreditation Board (CTI) with a new concept that is a major innovation after the previous Sino-French cooperative model. (In 2017, TIEI obtained both the maximum 6-year accreditations of CTI and EUR-ACE.)

The five "smart plus" majors break disciplinary barriers to integrate the essence of engineering education. Here, interdisciplinary studies and innovation are encouraged and give full play to the prestigious specialties of Tianjin University.









With the unique guiding philosophy of "inheritance and innovation, crossover and integration, coordination and sharing", TIEI organically integrates national development strategies with industry hot spots and invites enterprises to fully participate in talent training. TIEI focuses on a solid theoretical foundation, striving to strengthen practice and broaden the horizons of students. TIEI also actively builds an international high-level faculty team to achieve the goal of strengthening well-rounded education and cultivating leaders.



The teaching content is deeply integrated with the education goals, and TIEI has expanded in many aspects with broadened vision in politics, economy, culture and technology. Students at TIEI have international internships and participate in international competitions and research projects at prestigious universities around the world. Such multichannel integration helps students improve their international vision. The 10-month progressive enterprise internships help to realize the seamless connection between school education and enterprise needs.





Upon graduation, students receive a graduate certificate and master's degree from Tianjin University. In addition, each student will also receive a French engineering diploma authorized by CTI, and highly regarded in Europe.





In addition, TIEI has officially become the first overseas institute of Polytech Partner School. The institute is committed to becoming a new platform for cooperation and exchange between educational and business sectors in China and France and also to contributing to the development of Emerging Engineering Education.



TIEI was short-listed for the "International Strategy of the Year" at the Times Higher Education (THE) Awards Asia 2020. Being short-listed for this award indicates that the college's diversified innovation and outstanding achievements in personnel training have gained both international attention and recognition.



In the coming years, TIEI will intensively work on pedagogic innovation with the Emerging Engineering Education initiative and will continuously explore new ways of engineer training. By integrating the competitive advantages of the world's top universities, TIEI will put forth sustained efforts to pioneering a new model of engineering education and to becoming a renowned leading training institute.

Welcome to TIEI for exchange and study!



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# About the Members

### **Dalian University of Technology**

### **Dalian University of Technology**

The Dalian University of Technology (DUT) is a national key university directly administered under the Ministry of Education of China and sponsored by Project 211 and Project 985. In September 2017, after approval from the State Council, DUT was selected into the "Double First-Class" Initiative, Category A. It has formed a multi-disciplinary system which focuses on science and engineering and coordinates the disciplines of economics, management, humanities, law, philosophy and the arts.





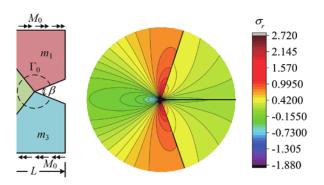
DUT has established long-term stable collaborations with 267 universities and research institutions in 39 countries and regions. During 2016 and 2019, DUT invited 3415 overseas experts for various activities, including both long- and short-term academic cooperation and exchanges. In order to enhance students' international vision and academic capability, the university actively fosters over 150 overseas exchange programs.

DUT adheres to the spirit of "Unity and Progress, Truth and Innovation" by fostering elite talents, promoting science and technology, nurturing a culture of excellence and guiding the social climate. DUT dedicates itself to the creation, discovery, dissemination, conservation and application of knowledge and endeavors to shoulder the social responsibility to serve the country and world.

### •State Key Laboratory of Structural Analysis for Industrial Equipment

Research Fields

- 1) Theories and methods of computational mechanics and engineering science computation
- 2) Modern theories and algorithms of structural optimization
- 3) Development and application of research on large-scale engineering computational software systems
- 4) Experiments, analyses and assessments of major projects and industrial structures and equipment under complex circumstances



Analytical solution for a shell and symplectic singular element for a fracture problem based on the symplectic eigensolution



Prototype monitoring systems of FPSO



High-resolution topology optimization result obtained by the MMC approach (The result can be directly imported to the CAD system.)



Offshore flexible riser and umbilical structures and their dynamic fatigue experimental device



High-performance mesh generation for complex numerical simulation problems



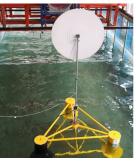
Strength analysis and lightweight design of CZ-5 launch vehicle

### •State Key Laboratory of Coastal and Offshore Engineering

### Research direction 1

Metocean Conditions and Flow-structure Interaction



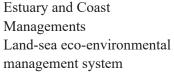


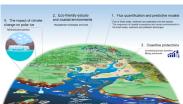
Metocean conditions and its Experiment on the action on a moored ship in deep performance of a water

floating wind turbine in metocean conditions

### Research direction 2







(modified from https://niwa. co.nz/file/31826) Xuelong-2's first voyage to Antarctica

### Research direction 3

Key Coastal and Sea-crossing Infrastructures

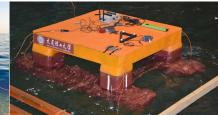


Earthquake engineering of nuclear power plant structures

### **Research direction 4**

Infrastructure Engineering for Marine Resource Extractions





Semi-submersible platform (Newton-Scientific World, 2019: 12)

Model tests of a semi-submersible platform

### Research direction 5

Asset Management Engineering



Port digital twin system



### •State Key Laboratory of Fine Chemicals, Dalian University of Technology

Research Fields

- 1) Dye and its photochemistry
- 2) New fine chemical materials
- 3) Green chemistry technology



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