# NEWSLETTER

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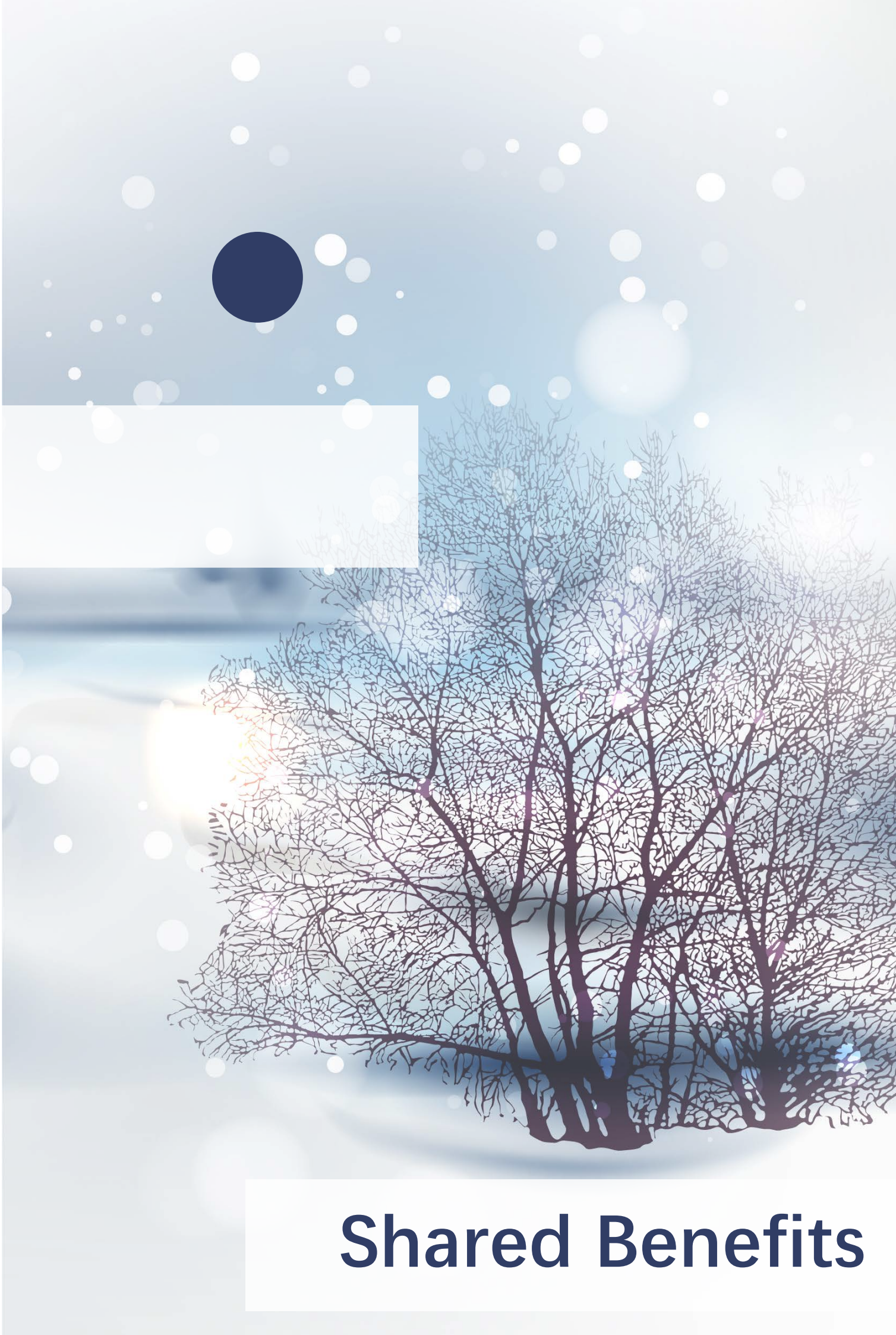
Exchange·Promotion·Development


Regional Centre for Space Science and Technology Education
in Asia and the Pacific (China) (Affiliated to the United Nations)
联合国附属空间科技教育亚太区域中心（中国）


Contribution
Consultation



# Shared Benefits


》The cover picture is selected from works of
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# Innovate the Talents Cultivation Mechanism, Contribute to the Construction of the "Belt and Road" Initiative

From ancient times to the present, Chinese nation, who is famous for its broad mind and the idea of united world and harmony among nations, has developed confidently and magnanimously the communication and cultural exchanges with extraterritorial nations. The camel bell rings on the continental Silk Road and the waves of the maritime Silk Road played together a brilliant symphony that resounded miles away. In 2013, President Xi Jinping proposed the conception to build "Silk Road Economic Belt" and "21st-Century Maritime Silk Road" in the hope of creating an all-facet new opening-up structure of China. With the "Belt" on the land and the "Road" on the sea, China hopes to enjoy a land-sea correspondence and forge a road of mutual respect, mutual trust, win-win cooperation and mutual cultural learning.

Now, one of the important topics of international cooperation is how to make use of the space information technology to contribute to human beings. Space information technology can play the role of information connection bridge in the construction of "Belt and Road" thanks to its exclusive features: cross-region, all-weather and wide-coverage. The "Space Information Corridor" was proposed to build a cooperation passage up high in the sky so that the "Belt and Road" construction can have a three-dimensional structure.

As the talent cultivation base of space information technology, with the mission of "Promoting the peaceful use of space technologies for the benefit of all humankind", the Centre enhances the central position of talent cultivation, improves exactly the education and teaching work of space science and technology, makes grand efforts to cultivate high-quality space science and technology leading talents with solid foundation, strong professional capability and international horizon. The main education and training fields of the Centre include Global Navigation Satellite System (GNSS), Remote Sensing and Geographic Information Systems (RS&GIS), Satellite Communications, Micro-satellite Technology, Space Law and Policy. We have cultivated two hundred and sixty (260) master participants and sixty (60) doctoral participants for the Member States and other developing countries. More than thirty (30) Space Technology Applications short training programs have been held, with over one thousand and five hundred (1500) participants.

In the future, the Centre will further consolidate the cooperation mechanism of government, production, education and research, reform the traditional cultivation mode, better satisfy the real needs of talent cultivation and improve the quality. We will enrich and practice the UGII Model: based on the university as the main institution, with the policy support from the government, enjoy the full use of related international organizations and wide participation of related international companies. Internally, gather powers and resources, exploit Beihang University's discipline and research advantages to the full. Externally, further promote the communication, make the full use of opportunities like BeiDou System which serves the "Belt and Road" Initiative, develop all-dimensional and multi-formed space science and technology cooperation.

The world aerospace science and technology is in the ascendance. The talent internationalization will definitely meet new developing opportunities. "The strength of action improves, the depth of knowledge increases." The Centre will continue to concentrate on the cultivation of international science and technology talents, build new international cooperation platform with all the partners, and contribute to the motivation of joint development of aerospace worldwide.

# 1.Special Focus

## ※ Editor's note:

All this time, the Centre, based on "Programme on Space Applications" has been continuously expanding training topics to build its international education brand. Furthermore, the Centre contributes a lot in strengthening culture construction: holding activities like "Journey of Chinese Aerospace Technology and Culture" which have become the highlights of the Centre and gained wide appreciation and recognition from participants and personage of various communities. This column concentrates on the educational development of the Centre, demonstrating highlight activities and showing stories of talent cultivation in space science and technology.

# 2018 New Participants

## ※ Orientation

On September 14th, 2018, the welcome meeting for MASTA & DOCSTA participants was held in Room 505 of International School, Beihang University.

At first, Mr. Weng Jingnong, Executive Director of the Centre, gave a general introduction of the Centre as well as its development history and organizational framework. He expressed his welcome and expectations to the new participants, and encouraged them to make good use of the Centre as a platform, to inspire action through learning and seek knowledge by action, and finally become space technology professionals with both ability and integrity.

After that, the participants made self-introductions. Coordinator Ms. Cui Yizhuo introduced the training plan, course arrangement and practical activities of MASTA and DOCSTA Programs. She also organized the election of class leaders and established class WeChat groups to better solve the problems that the participants might meet during the life at Beihang.

From 17th to 18th, the Centre also organized meeting for 2018 participants and their supervisors. The majors were introduced in details by the professors from different majors. The participants got a better understanding of their majors and had a clearer view of their research directions through the communication with their supervisors.

In September 2018, the Centre has enrolled fifty-six (56) participants majoring in GNSS, RS&GIS, Micro-satellite, Space Law and Policy in total, with forty-four (45) in MASTA Program and twelve (11) in DOCSTA Program. The participants were mainly recommended by APSCO and related departments of RCSSTEAP Member States. Being the professionals or the backup talents in related fields of their home countries, these participants are from fourteen (14) different countries including Bangladesh, Bolivia, Brazil, Ethiopia, Indonesia, Iran, Mongolia, Nigeria, Pakistan, Peru, Sudan, Thailand, Turkey and Venezuela.




## ※ MASTA&DOCSTA

# The Second Advisory Committee Meeting

## ※ Presentations&Discussions

On November 22nd, 2018, the Second Advisory Committee Meeting was held at the Conference Center of the New Main Building, Beihang University. Ms. Simonetta Di Pippo, Director of the United Nations Office for Outer Space Affairs (UNOOSA); representatives from Bolivia, Brazil, China, Indonesia, Pakistan and Peru; Special Guest Mr. Sergio Camacho, former Director of UNOOSA; Academician Xu Huibin, President of Beihang University; Ms. Yu Qi, Director General of Department of International Cooperation, CNSA; Mr. Zhao Zhonghe, Division Director for Department of Civil-Military Technology Integration of Ministry of Industry and Information Technology of the People's Republic of China (MIIT) attended it. The meeting was hosted by Mr. Weng Jingnong, Executive Director of the Centre, Dean of International School, Beihang University.


The meeting consisted of two (2) parts: expert report and free discussion. At the meeting, Ms. Simonetta Di Pippo, Director of UNOOSA, representatives of Member States, CNSA and other UN Regional Centres, domestic experts of space technology application made reports respectively. Ms. Simonetta Di Pippo, Director of UNOOSA, introduced the major movements in Outer Space and explained the programmatic documents on the latest space activities. Mr. Anwar Ali Gaho, representative of the Member States, introduced Pakistan's current situation and needs in space technology. Ms. Jiang Hui, Division Director of Department of International Cooperation, CNSA, elaborated how the Belt & Road Spatial Information Corridor contribute to the space capacity building of developing countries for the Sustainable Development Goals (SDGs), and proposed the main goals for the next five (5) years. Mr. Weng Jingnong, Executive Director of the Centre, Dean of International School, Beihang University, introduced the latest developments and capacity building of the Centre. Mr. Liu Wenlong, Professor of School of Space and Environment, Beihang University, introduced the advantages of School of Space and Environment, scientific achievements and International Space Science Institute (ISSI) teams. Mr. Huang Hai, Professor of School of Astronautics, Beihang University, introduced the training of Small Satellite Technology talents and the progress of APSCO-SSS Project.














Ms. Simonetta Di Pippo, Director of UNOOSA, thanked the Chinese government and Beihang University for their contributions in promoting the development of the Centre and cultivation of talents. She hoped that through international initiatives such as UNISAPCE+50 and the "Space2030 Agenda" for Sustainable Development, international cooperation and the common interests of all human space would be strengthened. Ms. Yu Qi, Director General of Department of International Cooperation, CNSA, praised the important role played by Beihang graduates in the international academic and communication arena. She also hoped that the Centre could provide a broader and more professional academic exchange platform for students from all over the world, helping them light their dreams. The representatives fully affirmed the work of the Centre. They were grateful to the Centre for its intellectual support to the Member States in education and training. They also hoped to work together to build Alliance of Regional Centres (ARC) and make space technology education benefit more countries.

Academician Xu Huibin, President of Beihang University, mentioned that it had been four (4) years since the establishment of the Centre. Rapid development as well as encouraging achievements had been made, which wouldn't be achieved without the support of UNOOSA, the Chinese Government, the Member States of the Centre, other UN Regional Centres and partners. In the future, the university will continue to provide support in team building, education and teaching, facility construction, and capacity building. "Distance cannot separate true friends who feel so close even when they are thousands of miles apart". He hoped that the cooperation would be further enhanced, to discuss, build and share together. It is glad to jointly promote the construction of a community of human destiny in outer space, and make greater contribution to the sustainable development of space science and technology.

Before the meeting, Mr. Xu Huibin and Ms. Simonetta Di Pippo made a short meeting. They exchanged views on international space development trends, space technology applications, personnel training and international cooperation. During the talks, Mr. Xu also consulted with Ms. Simonetta Di Pippo about the selection of outstanding students of Beihang University to work as interns in UNOOSA.

## ※ Technical Visit

From November 22nd to 23rd, representatives of the Member States were invited to visit the National Satellite Meteorological Center (NSMC), Air&Space Museum, the newly constructed Beihang Small Satellite Ground Station and Space Technology Application (STA) Library at the Centre, which enhanced understanding and promoted exchanges and cooperation of the participants.





## ※ Feedback

During the meeting, the representatives wrote down their suggestions for the future development of the Centre through questionnaires, which would provide strong information support for its greater progress.

• Like to recommend some graduate students of the Centre to be part of the staff because they know very well the different needs and opportunities for the benefit of the Centre. Excellent, perfect, well prepared.

• Pakistan is facing disaster like situation due to climate change effect. We need to have short courses in disaster management tools and awareness program in the shape of short courses as following:

1. Imagery intelligence projects&analysis;

2. GIS applications & software tools;

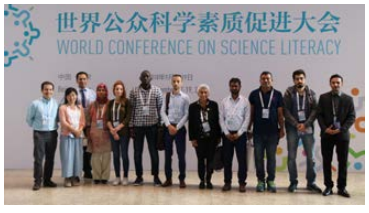
3. Environment monitoring courses.

• Recommend short course to enhance the national capacity in space technology application directly related to achieve SDG target.

• Exchange of professors from different Centres could improve the links of the cooperation and the development of projects.

• Recommend short-term training courses on remote sensing with applicants in drought, detection of forests, floods and natural disasters.

• It will be an effective use of the countries of ARC and share new ideas and to find out of box solutions for the problems being faced by common man.




# 2.RCSSTEAP Meetings

## ※ Editor's note:

In order to follow the development of the space science and technology closely, and to promote the improvement of the Centre, representatives of the Centre participate in the conference of the Committee on the Peaceful Uses of Outer Space (COPUOS) actively, promote the establishment of Alliance of Regional Centres (ARC), and provide suggestions on peaceful use of outer space. Meanwhile, the Centre tries to offer the participants more opportunities to attend international conferences on Space Technology, speak up on the international stage to open up their horizon, which will help to expand the influence of the Centre in return.

## ※ World Conference on Science Literacy 2018, Sept. 17th-19th, Beijing, China

From September 17th to 19th, 2018, the 1st World Conference on Science Literacy, organized by China Association for Science and Technology, was held in Beijing. The theme of the conference was "Promoting Public Science Literacy, Building a Community with a Shared Future for Mankind",and the objective was to facilitate the in-depth discussion about a multilateral negotiating, constructing, sharing and promoting mechanism that could call on the scientific professionals all over the world to handle the upcoming challenges and opportunities of future society in terms of promoting public science literacy, so that all human beings could enjoy the intellectual results and the scientific-technological civilizations. The Keynote Speeches, Plenary Forums, Panel Discussions and Parallel Sessions were launched on the topics of "Science Literacy and Overall Development of Human Beings", "Science Literacy and Sustainable Development", "Science Literacy Promotion and Scientists' Responsibilities" and "Science Literacy Promotion: Innovation and Development". Mr. Weng Jingnong, Executive Director of the Centre and Dean of International School, and more than ten (10) participant representatives were invited to attend the conference.



As one of the important Parallel Session of the conference, "Space Exploration and the Future of Mankind" Forum, organized by Chinese Society of Astronautics, was held on September 18th. Mr. Li Guoping, Director General of the Department of System Engineering, China National Space Administration, Dr. Li Yinghui, Deputy General Designer of China Manned Space Engineering Astronaut System and the Director of the National Key Laboratory of Space Medicine & Application of the Chinese Astronaut Scientific Research and Training Center, Mr. Steven Richard Eisenhart (USA), Senior Vice President - Strategic & International Affairs, Space Foundation, Prof. Zhao Yun, Professor and Head of Department of Law, University of Hong Kong, Dr. Mamoru Mohri, Chief executive Director of the National Museum of Emerging Science and Innovation (Miraikan) and the first Astronaut in Japan, were invited to deliver speeches. Mr. Weng Jingnong, Executive Director of the Centre and Dean of International School, reported the keynote speech "Sitting on the Earth and Going into Space: Viewpoint on Space Exploration". Images were prepared to show the myths and tales, the astronomical observation instruments and the China modern space engineering programs in the two periods of human's space exploration. The speech demonstrated the space exploration achievements of the Chinese nation, introduced the human's intellectual and technical results in an artistic way, and looked into the bright future of the space exploration. It was expected to promote the public space science literacy and improve the popularization of the Space Science.

During the break of the conference, the participants actively consulted the speakers for advice, and expressed their wish to get more opportunities to know deeply about the latest information about the Space Law, broaden their knowledge view, and contribute to the sustainable development of the space exploration and the popularization of the Space Science.

## ※ Space Settlement Design Competition China Finals (ISSDC), Sept. 30th-Oct. 3rd, Beijing, China

From September 30th to October 3rd, 2018, International Space Settlement Design Competition China Finals (SSDCC), hosted by International Teenager Competition and Communication Center (ITCCC), jointly organized by Science and Technology Daily/China Science and Technology Network (CSTNET), co-organized by Regional Centre for Space Science and Technology Education in Asia and the Pacific (China) (Affiliated to the United Nations) (RCSSTEAP), was held in Beijing. Two hundred and forty (240) students from more than twenty (20) high schools across the country gathered here to start their journey of designing their own space city. Participants from the Centre, ELYAS FADAKAR KASARI from Iran and GABRIEL ANDRES JAIMES ILLANES from Bolivia were invited to serve as finals referees.

The challenge was mainly for high school students all over the world. The contestants formed "companies" and participated in the bidding. According to the bidding plan given by the "Party A"- the organizing committee, the contestants used a variety of scientific and technological knowledge to design an excellent immigration city program in preset locations in the solar system including the earth's orbit, the moon, Mars and its orbits, Mercury and its orbits, and asteroid belts.

On October 3rd, after twenty-four (24) hours of restless design and five (5) hours of intense English report and answer, the students ushered in the birth of their champions.

## ※ 2018 Zhejiang Lab International Young Talent Forum, Oct. 20th-21st, 2018, Hangzhou, China

From October 20th to 21st, 2018, Zhejiang Lab International Young Talent Forum was officially opened in the China Artificial Intelligence Town (Hangzhou). Ms. Yang Fan, Student Adviser of the Centre, attended the forum with ten (10) participants.

Zhejiang Lab, founded in September 2017 in Hangzhou, Zhejiang Province, is the only new research institution in China with mixed ownership. Based on big data and cloud computing, the lab conducts major frontier basic and key technology research, and promotes organic interaction and deep integration of cutting-edge basic and applied technology research.

During the two-day forum, more than one hundred and fifty (150) young scientists from thirty-six (36) countries exchanged and discussed the cutting-edge hot spots in the fields of artificial intelligence and network information.

Prof. Zhu Shiqiang, Director of Zhejiang Lab gave a welcome speech and introduced Zhejiang Lab to the participants. Mr. Zhang Dan, Chief Scientist of the Robot Research Center of BBS Zhejiang Lab and academician of the Canadian Academy of Engineering, made a keynote report titled Advancing and Integrating the Performance of Robotic Systems for the 21st Century Manufacturing, introduced the world's latest research results of parallel robot. Mr. Lu Hua, Associate Professor of computer science at Aalborg University in Denmark, presented Location Intelligence 2.0: A Data-Driven, AI-Enhanced Approach. Dr. Zhang Ji, Associate Professor of University of Southern Queensland (USQ), gave a speech about Outlier Detection from Big High-dimensional and Distributed Data Sources.

During the forum, five (5) sub-forums in five research areas were opened, including Sensing, Robot, Artificial Intelligence-Algorithms, Artificial Intelligence-Applications and Chip. In the group discussion, the delegates enthusiastically and actively interacted and communicated with the academic team, the industry leaders and the team of Zhijiang Lab.



## ※ The 13th Meeting of the International Committee on Global Navigation Satellite Systems (ICG-13), Nov. 4th-9th, Xi'an, China

From November 4th to 9th, 2018, the 13th Meeting of the International Committee on Global Navigation Satellite Systems (ICG-13) was held in Xi'an, China.

Over four hundred (400) representatives from sixteen (16) countries, including representatives from global or regional satellite navigation system providers like China, United States, Russia, European Union, Japan and India, representatives from ICG Member States like Italy and United Arab Emirates, ICG associate prospective members or observers from International GNSS Service (IGS), Asia-Pacific Space Cooperation Organization (APSCO) and Fédération Aéronautique Internationale (FAI), and specially-invited observers from Australia, Pakistan and Regional Centres affiliated to the United Nations were in attendance to discuss about the development of the global satellite navigation. Mr. Weng Jingnong, Executive Director of the Centre and Dean of International School, Beihang University, and Mr. Jing Guifei, Dean of BeiDou Belt & Road School, Beihang University, were invited to attend it.


During the opening ceremony, Mr. Wang Zhaoyao, Chairman of China Satellite Navigation System Committee, read out the congratulatory letter from Mr. Xi Jinping, President of People's Republic of China. Mr. Hu Heping, Shaanxi Party Secretary and Chairman of the Standing Committee of Shaanxi Provincial People's Congress, Mr. Xiang Libin, Vice-President of Chinese Academy of Sciences, and Mr. Luc St-Pierre, Chief of the Space Applications Section of UNOOSA delivered speeches one after another.

The Working Group C Session "Information Dissemination and Capacity Building" was hosted jointly by Ms. Sharafat GADIMOVA from ICG Secreariat, UNOOSA, and Mr. Weng Jingnong from Beihang University. During the session, Mr. Weng Jingnong delivered a report on "Update of GNSS&BDS International Education and Training Activities". He mainly introduced the newest results of satellite navigation education and training capacity building done by BeiDou International Exchange Centre, Beihang University, since ICG-12 meeting, including the progress of Postgraduate Degree Programs and Short Training Programs, and the development of resource sharing, teacher/student exchanges, international communication, application demonstration verification,joint actions, etc. He hoped that the technologies like Internet, Cloud Computing, virtual reality and artificial intelligence could be used to promote the education and pedagogy reform, and improve the globalization and public service of BeiDou System.

Mr. Jing Guifei reported about "Research and Practice on GNSS Education Capacity Building", suggesting to divide the education capacity building into six (6) grade I evaluation indicators as teacher team building, teaching activities, infrastructure construction, educational environment, information dissemination and funding support, and twenty (20) grade II evaluation indicators. He also introduced the practical results that Beihang University

had achieved under the guidance of this capacity building evaluation, and hoped to promote research of this subject through BeiDou International Exchange Centre and RCSSTEAP, bringing in more content concerning capacity building such as system, service and application, and creating a capacity building index that covered all the ICG work.

During the meeting, the representatives of the Centre fully discussed the topics related to capacity building with other delegates. Many suggestions were proposed: developing the cooperation through RCSSTEAP platform; improving consultation, contribution and shared benefits among Regional Centres; achieving the win-win and suitable development in the aspects of talent co-cultivation, teacher/student exchanges, expert visits and joint actions; further promoting the capability to cultivate international satellite navigation talents; perfecting the course and practice system construction, redacting BeiDou textbooks.

ICG-13 is the second ICG meeting held in China after ICG-7 which took place in Beijing in 2012. In form of opening ceremony, plenary session, providers' forum meeting, working group session, this international navigation grand meeting generated discussions around themes such as the compatibility, mutual operation and globalized applications of global satellite navigation system, and provided a good exchange platform for experts from different countries. During the same period, Ancient Chinese Navigation Technology Exhibition and BeiDou System Construction and Applications Exhibition were held to show the world the series of navigation and location, time service and astro observation technologies in ancient China like compass, and the modern achievements of BeiDou System construction and applications.

BeiDou System entered the global networking intensive launch period from 2018. Seventeen (17) BeiDou No.3 group satellites have been successfully launched so far. By the end of the year, two (2) networking satellites will be launched to create the basic system and benefit the "Belt and Road" countries and regions.


## ※ APSCO 10th Anniversary High-Level Forum, Nov. 14th, Beijing, China

On November 14th, 2018, the opening ceremony of APSCO 10th Anniversary Conference was grandly held in Beijing. Chinese President Xi Jinping sent a congratulatory letter to celebrate the 10th Anniversary of APSCO. Mr. Miao Yu, Director of Ministry of Industry and Information Technology, attended the opening ceremony and read out the congratulatory letter. President Xi Jinping pointed out in his congratulatory message that the outer space was a common wealth of mankind, the exploration, exploitation and the peaceful use of outer space was the common pursuit of human beings. China would continue to support actively the work of APSCO, promote the advancement of Space career and the development of economic society according to the principle of consultation, contribution and shared benefits, contribute the wisdom and efforts to the construction of a better world.


The conference, on the theme "Community of Shared Future through Space Cooperation", aimed to further improve the role of platform that APSCO plays, facilitate pragmatic cooperation and open sharing, promote continuously the development of Asia-Pacific Space career. The conference consisted of series of activities like opening ceremony, Space Agency Heads Panel and other panels. The International Symposium on "Developing Next-Generation Aerospace Innovative Talents through Space Cooperation" was held in the same time. More than one hundred (100) representatives from related government departments, institutions of higher learning, research institutes, industry associations and companies at home and abroad attended the conference. Mr. Xu Huibin, Director of the Advisory Committee of the Centre and President of Beihang University, was invited to be present.

After the opening ceremony, President Xu Huibin renewed the cooperation agreement between Beihang University and APSCO with Mr. Li Xinjun, Secretary General of APSCO. The signing ceremony was witnessed by Mr. Miao Yu, Director of Ministry of Industry and Information Technology, Zhang Kejian, Vice-Director of Ministry

of Industry and Information Technology and Director of Space Agency and representatives of other Asia-Pacific Member States.

During the Conference, President Xu visited the APSCO 10th Anniversary Achievement Exhibition and exchanged ideas with representatives from space institutions and universities of related countries.

On the APSCO 10th Anniversary High-Level Forum held afterwards, Mr. Huang Haijun, Vice President of Beihang University, and Mr. Weng Jingnong, Executive Director of the Centre and Dean of International School, Beihang University, delivered reports named respectively "Beihang Global Campus and International Space Education"and "Story about APSCO Education and Training Center (China)". They mainly introduced the international development of Beihang University, degree and non-degree programmes of space education, academic exchanges, cooperation with APSCO and APSCO-SSS Project led by Beihang University. Participant representatives of the Centre were also invited to the forum in the afternoon.

During the 10th Anniversary dinner party, Beihang University was conferred Best Space Education Cooperation Institute, which was to commend the unique contribution Beihang had made to APSCO during the past ten (10) years in the cultivation of talents. Mr. Gustavo Adolfo Henriquez Camacho, Secretary General of Peruvian Space Agency who graduated from Beihang University (supervised by Prof. He Linshu), shared his experience and feelings as an international participant at Beihang. His story was interesting and won frequent applause of the audience.






## ※ Brazil-China Space Cooperation 30th Anniversary Reunion, Nov. 22nd, Beijing, China - Common goals make distance disappear

On the morning of November 22nd, 2018, Brazil-China Space Cooperation 30th Anniversary Reunion was held in Beijing. Special guest Ms. Simonetta Di Pippo, Director of the United Nations Office for Outer Space Affairs (UNOOSA), Mr. Sergio Camacho, former Director of UNOOSA, Mr. Weng Jingnong, Executive Director of RCSSTEAP, Dean of the International School and representatives of Brazilian participants from the Centre and Beihang University were invited to participate in the reunion.

During the reunion, the participants watched the video of the 30th anniversary of China-Brazil space cooperation, reviewed the profound friendship established by China and Brazil during the cooperation, and issued souvenir medals to the personnel and units that contributed to the cooperation between China and Brazil in designing and launching the CBERS. Party representatives, Mr. José Raimundo Braga Coelho, Director of the Agência Espacial Brasileira (AEB) and Mr. Zhang Kejian, Director of the China National Space Administration, delivered speeches after the award ceremony.

China and Brazil will stand on a new historical starting point, continue to work and cooperate with each other sincerely, continue to enhance and expand the international influence of the CBERS and continue to create history of space cooperation between the two countries. In the meantime, China and Brazil will inherit the friendship they have established during the past thirty (30) years and write new chapters of China-Brazil space cooperation!



# 3.Education and Training Programs

## ※ Editor's note

Educational training is the core of the Centre's work, which includes degree programs and short training programs. In 2018, the Centre provides four (4) educational fields for postgraduates: Remote Sensing and Geographic Information System (RS&GIS), Global Navigation and Satellite System (GNSS), Micro-satellite Technology, Space Law and Policy.

In order to share the resources, promote the efficiency, and enjoy a win-win cooperation, the Centre, with its partners and other Regional Centres, jointly hold the short training programs and science education for young people.

## ※ Ms. Mazlan Othman Gave Lectures at the Centre

At the invitation of the Centre, Ms. Mazlan Othman, Malaysian astrophysicist, academician of the Malaysian Academy of Sciences, Fulbright Scholar of the Institute of Space Law of the George Washington University (GWU), and former Director of the United Nations Office for Outer Space Affairs (UNOOSA), visited the Centre from September 16th to 19th. She gave lectures on "Hot Issues on Space Law and Policy", which attracted Chinese and foreign teachers and students from different schools.

This lecture mainly focused on the hot issues of outer space. It also introduced the work process of UNOOSA and the programmatic document on sustainable development of UNOOSA. The students who participated in the lectures said that the lectures were rich and diverse in content. Ms. Mazlan Othman explained profound theories in simple language, which enabled the participants to have a deeper understanding of the frontier issues such as international space cooperation.

During the visit, Ms. Mazlan Othman visited the Centre and had in-depth exchanges with Mr. Weng Jingnong, Executive Director of the Centre and Dean of the International School, Beihang University, on the construction and training programs of "Space Technology Application". Ms. Mazlan Othman actively affirmed the initiative of Alliance of UN Affiliated Regional Centres for Space Science and Technology Education (ARC) and hoped that the Regional Centres would use ARC as a link to build platforms and share resources to better contribute to the enhancement of space technology application capabilities in developing countries.

During her stay in Beijing, Ms. Mazlan Othman also had extensive exchanges with Mr. Wu Yanhua, Deputy Director of China National Space Administration (CNSA), and Mr. Wu Zhijian, Chairman of China Space Foundation, on issues of international space development, international cooperation, space education and aerospace science.

## ※ The 2nd GNSS Short Training Program of China-Arab BDS/GNSS Center, Sept. 24th-25th, Sudan

From September 24th to 25th, 2018, organized by China Satellite Navigation Office and supported by Arab Information and Communication Technology Organization, the 2nd GNSS Short Training Program of China-Arab BDS/GNSS Center was held by Beihang University in Sudan.

Mr. Ma Jiaqing, Vice Director of China Satellite Navigation Office, and Mr. Mohammed Bin Omar, Secretary General of Arab Information and Communication Technology Organization, announced the opening-up of the training program. Mr. Yang Dongkai, Professor of School of Electronic and Information Engineering, Beihang University, and Mr. Wu Falin, Associate Professor of School of Instrumentation Science and Opto-electronics Engineering, Beihang University, attended the series of activities. As the representatives of BeiDou International Communication Training Centre, they held the BDS/GNSS educational training jointly with Arab Information and Communication Technology Organization. During the training, six (6) experts from Beihang University, China Agricultural University, Chinese Academy of Agricultural Mechanization Sciences, China North Industries Corp., and ComNav Technology Ltd. introduced the situation and applications of BeiDou System, BeiDou foundation reinforcement system and high accuracy applications, BeiDou high accuracy productions, BeiDou applications and Precision Agriculture, principles of BDS and GNSS Systems, and the technologies based on BeiDou Navigation System like Modern Agriculture Cloud Service. More than one hundred and sixty (160) participants from five (5) Arab League countries attended the training. The reports helped the customers of Arab League to have a better understanding of BeiDou and its applications in Intelligent Agriculture, and served as a good propaganda to promote the generalization of BeiDou Navigation System in Arab region.

China-Arab BDS/GNSS Center was jointly founded by China Satellite Navigation Office and Arab Information and Communication Technology Organization in April 2018 in Tunisia. The objective is to facilitate the implement of China-Arab Talents Project, cultivate the professional and technical talents in satellite navigation filed together with the African and Arab countries, and improve the application of BeiDou System in "Belt and Road" countries.

The activity was widely appreciated and reported by Sudan Daily and Sudanese TV station. The participant representatives showed great interest in BeiDou technology and applications, and expressed their strong wishes to promote the efficiency of agricultural production and develop Intelligent Agriculture by using the BeiDou System.

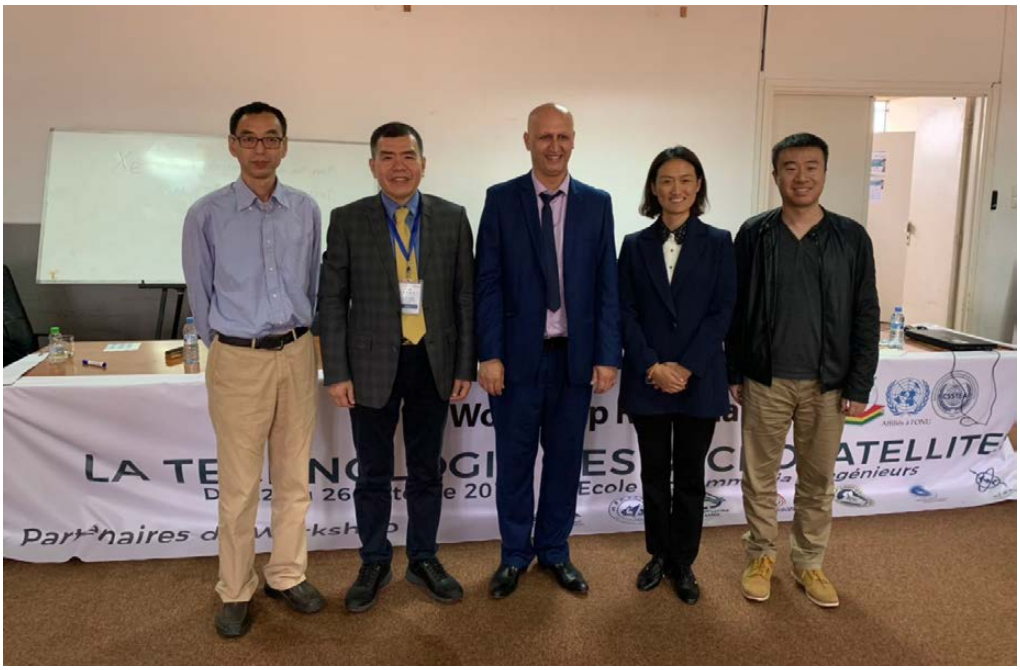
## ※ Micro-satellite Technology Short Training Program, Oct. 22nd-26th, Morocco

From October 22nd to 26th, 2018, Prof. Anas EMRAN, Director of African Regional Centre for Space Science and Technology Education-in French Language (CRASTE-LF) in Morocco, invited four (4) representatives of the Centre, Prof. Huang Hai, Prof. Tang Haibin, Associate Professor Chen Shenyan and Dr. Sun Liang of Beihang University to the capital of Morocco Rabat to organize a Micro-satellite Technology Short Training Program, so as to improve the understanding of micro-satellite technology among young participants from Africa and Arab League, promote the research and development capability of micro-satellite projects, deepen the education and training cooperation between the UN Regional Centres in China and Africa. About thirty (30) professional technicians, researchers, experts and students from Algeria, Cameroon, Central African Republic, Morocco, Niger, Senegal and Tunisia attended the training.


From 23rd to 26th, Prof. Huang Hai detailed the essentials of micro-satellite technology, structure and mechanism design principles, etc. Prof. Tang Haibin mainly talked about Space propulsion technology and Electric propulsion technology. Dr. Sun Liang introduced the pathway, attitude dynamics and control of micro-satellite. Associate Professor Chen Shenyan reported about the finite element method and its application in structure design. During the interactive session, the participants actively joined the discussions, showing a strong desire for knowledge and keen study interest. The representatives from different countries all expressed their strong wish to develop education and training cooperation with the Centre and Beihang University. The training reached remarkable achievements and was widely appreciated.

The representatives of the two (2) Regional Centres further communicated with each other in terms of exchanging students and experts, educational sharing, etc. The objective was to widen fields of the micro-satellite technology and education cooperation between China and Africa, integrate into China-Africa cooperation national strategy, and provide a space science and technology education and training platform of the "Belt and Road" China-Africa cooperation.





## ※ International Training Programme “Space based technology for emergency response”, Oct. 28th-Nov. 1st, Beijing, China

From October 28th to November 1st, 2018, international training programme on "Space based technology for emergency response", co-organized by Regional Centre for Space Science and Technology Education in Asia and the Pacific (China) (Affiliated to the United Nations) (RCSSTEAP), Asia-Pacific Space Cooperation Organization (APSCO) and United Nations Office for Outer Space Affairs (UNOOSA/UNSPIDER), was held at the Centre, Beihang University.

Six (6) experts from UN-SPIDER, Delta State University, National Disaster Reduction Centre of China (NDRCC), Beihang University and International Water Management Institute (IWMI) were invited as lecturers. The objective was to help the participants to improve the disaster reduction ability based on space technology, and facilitate the exchanges and cooperation between different countries.

The training consisted of nine (9) sessions including Remote Sensing, Satellite Data Source, Emergency Response Mapping, etc. Twenty-seven (27) participants from fourteen (14) countries (Bangladesh, Brazil, China, Ghana, India, Iran, Laos, Mongolia, Mozambique, Pakistan, Peru, Thailand, Turkey and Vietnam) attended the training. They were mainly from the Disaster Management Centers or other related institutions of different countries, the Member States of APSCO, and participants of the Centre.


## ※ Mr. Sergio Camacho Gave Lectures at the Centre

From November 11st to 24th, 2018, Mr. Sergio Camacho, former Director of UNOOSA, Secretary General of the Regional Centre for Space Science and Technology Education for Latin America and the Caribbean, affiliated to the United Nations (CRECTEALC), was invited to the Regional Centre, Beihang University, to give lectures on International Cooperation on Space Law and Policy to the participants at the Centre.

The course, providing a good platform for the participants to know about International Cooperation of Outer Space, attracted participants of different directions form different countries. On the class, the participants listened carefully and spoke actively, creating an enthusiastic atmosphere. After the end of the course, they thanked Mr. Sergio Camacho for giving such a wonderful course which enabled them to have a systematic and profound understanding of the working mechanism and process of UNOOSA, the international laws and regulations of Outer Space as well as the hot topics.



During the visit, Mr. Sergio Camacho had a full discussion about how to promote the construction of Space Law and Policy professional course system with the representatives of China National Space Administration, the Centre, Law School of Beihang University. They exchanged ideas about the further cooperation between the Regional Centres in China and Mexico, and reached a consensus. Mr. Sergio Camacho also attended the 2nd Advisory Committee of the Centre as the specially invited representative. During the meeting, he highly praised the work of the Centre, expressed his gratefulness to the Centre for its considerable contributions to the cultivation of Space Science and Technology talents, and hoped to promote jointly Alliance of Regional Centres for Space Science and Technology Education, affiliated to the United Nations (ARC) so that more countries could benefit from Space Technology Education.

Mr. Sergio Camacho was engaged as the part-time professor of the Law School, Beihang University since 2016. He visited the Centre every year to give class to the participants. He said that he was willing to give lectures to the participants of the Centre. They were hardworking and curious in their study, which impressed him deeply. He also hoped that his experiences could help more young students who aspired for jobs related to Space Law to enrich their knowledge in Outer Space Affairs and broaden their international horizon.


# 4. Multicultural Understanding and Communication

## ※ Editor's note:

One world, one family. The Centre has enrolled nearly two hundred (200) students from twenty (20) countries in "Space Technology Applications" program since it was founded in 2014. Participants from all over the world gathered, sharing their cultures, promoting civilization development, and writing a movement of multiculturalism.

## ※ Intercultural Activity

From September to November 2018, the Regional Centre conducted monthly intercultural communication activities in the form of class meetings in order to enable new participants to integrate into Chinese culture faster and better, to deepen their understanding of China in all aspects and improve their intercultural communication ability. The class meeting was hosted by Yang Fan, Student Adviser of the Centre.

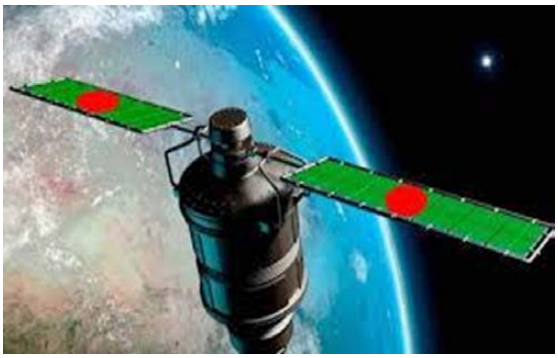
The class meetings had various forms: the participants not only "speak", but also "sing" and "perform". At the first class meeting of this semester, Mr. RATUL, ADIB KHONDOKER, a doctoral participant from Bangladesh played ukulele and sang the song "Somewhere Over the Rainbow", which won a big round of applause; Mr. NAZMUL HASAN SUJAN, a participant from Bangladesh majoring in Micro-satellite and ANA PAULA CASTRO DE PAULA NUNES from Brazil majoring in Space Law and Policy, presented a self-directed love mime, and won the laughter of all the participants.

BEYMAR FERNANDO HUCHANI QUISBERT, RS&GIS participant from Bolivia, South America, presented a wonderful country with cute alpacas, beautiful Lake Titicaca and the lively Oruro Carnival. NAZMUL HASAN SUJAN, Micro-satellite participant from Bangladesh, made everyone feel refreshed by introducing its own country in an all-round way with its history, geographical location, religion, language, animals.

Intercultural communication activities not only bring the participants closer to each other, but also enable them to integrate into the family of the Centre faster and better.







## ※ Participants of the Centre Interviewed by Xinhua News Agency

In September 2018, Ms. ANA PAULA CASTRO, a Space Law and Policy participant, and Ms. LETICIA SANTOS LULA, a Micro-satellite Technology participant, were interviewed by Xinhua News Agency.

Both Ms. ANA PAULA CASTRO and Ms. LETICIA SANTOS LULA graduated from the University of Brasilia. They are backup talents of Brazilian space technology applications. Ms. ANA PAULA CASTRO said with excitement in the interview, "When I found out about the opportunity to study space law, I was very interested, because in Brazil we don't have too many specialists in the area. I think it can open many doors for me, and it could also be a way for me to contribute to the Brazilian aerospace sector." Ms. LETICIA SANTOS LULA said that, "A friend came last year to study ... He had other options in Brazil, but chose to do his master's in China and he told us it was a very good decision." She is willing to stay on in China if the opportunity arises in the future.

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# FUDAN'S WORLDVIEW

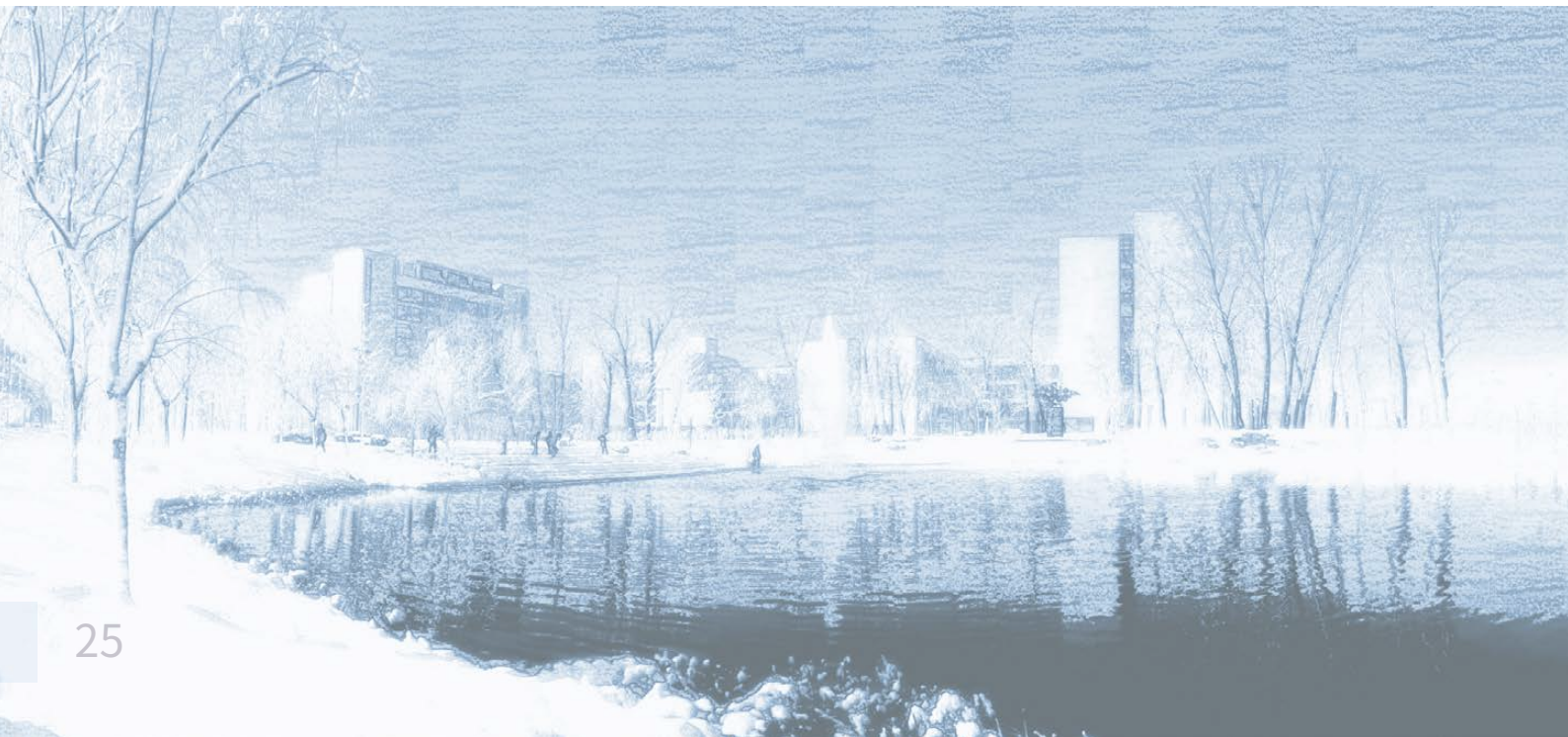
A Shanghai university is leveraging its international partnerships to help promote human progress at home and abroad. **Cao Chen** reports.

## Brazil's students to pursue aerospace courses in China

## UN official lauds Chinese school

## Airbus seeks ideas among innovators

Regional Centre for Space Science and Technology Education in Asia and the Pacific (China) (Affiliated to the United Nations) was established in 2014. It takes "promoting the peaceful use of space technologies for the benefit of all humankind" as its mission and concentrates on building the world first class space science and technology education institution through the integration of world's remarkable educational resources and creative talent cultivation mode, so as to improve the space science and technology education level and space technology application ability of its Member States and other developing countries. From 2015 to 2018, the Centre has enrolled one hundred and eighty-nine (189) international graduate participants from twenty (20) countries. Nineteen (19) short training programs on space technology applications were held, benefiting seven hundred and ninety (790) participants from sixty (60) countries. All those participants are the professional talents or reserve talents of space science and technology relative fields in their home countries.



# Additional Words

This issue records the main work of the Centre from September to November 2018, including the presence of our representatives on the 13th Meeting of the International Committee on Global Navigation Satellite Systems (ICG–13), the visit of Mr. Sergio Camacho and Ms. Mazlan Othman, former directors of UNOOSA, who were invited to the Centre to give lectures, International Training Programme "Space based technology for emergency response", etc.

In November, the 2nd Advisory Committee of the Centre was successfully held. Ms. Simonetta Di Pippo, Director of UNOOSA, representatives of the Member States and Chinese Government were invited to attend the meeting. They reviewed the past achievements and looked forward to the future. Ms. Simonetta Di Pippo expressed her gratefulness to Chinese Government and Beihang University for their constant active contributions to the development of the Centre and the cultivation of talents. She hoped to strengthen the international cooperation through UNISAPCE+50 and Space2030 to consolidate the common benefit of all humans.

Time flies quickly. The Centre has lived four (4) cycles of seasons. Thank you for your concerns and support. Comments and suggestions are welcomed and valued. We will keep our features and bring forth new ideas, so as make *Newsletter* better and better.

Shahe Campus, Beihang University

联合国附属空间科技教育亚太区域中心（中国）
Regional Centre for Space Science and Technology Education in Asia and the Pacific (China)
(Affliated to the United Nations)