Contribution
CONTENT

Preface 01

1. Special Focus 02
   ——China Space Forum 2018 02
     - Overview 02
     - Representatives of the Centre Invited to Attend the China Space Forum 2018 03
     - Participant Feedback 04
   ——Exclusive Interview 07
     - Dr. Li Xinjun, Secretary General Asia-Pacific Space Cooperation Organization (APSCO) 07
     - Dr. Gao Jun, General Manager of China Aerospace Science and Technology Consulting Co. Ltd. (CASTCC) 10

2. Meeting & Visiting 11
   - MASTA 2018 and DOCSTA 2018 participants visited APSCO Headquarters 11
   - Participants of the Centre Visited Miyun Data Receiving Station of Institute of Remote Sensing and Digital Earth, CAS 13

3. Education and Training Programs 14
   - 2018 Education and Training Programs 14
   - 2019 Degree Programs 15
   - 2019 Admission Brochure 16
4. Activities

- Ms. Surucchawadi Seweewanlop won First Prize in "FLTRP Cup" English Public Speaking National Round Competition 2018  
- The 15th CASC Cup Manfred Lachs Space Law Moot Court Competition of China Institute of Space Law  
- Awarding Ceremony of Beihang University Foreign Students Scholarship 2018  
- Exotic Scenery of the Member States  
- Role models around us

5. Capacity Building

- STA Library  
- APSCO Ground Station Network System

6. The year of 2018 in numbers

Additional Words
Down to the Earth while Aiming High

How time flies! The year of 2018 has come to an end without being noticed. This year is a bumper year for world space development and capacity building: United States of America strongly supported the reform in aerospace field and formulated the first space strategy in history; UK has actively expanded its external market while improving its industry chain in aerospace; China has completed thirty-nine (39) launches and succeeded in making the first-ever soft landing on the moon’s far side; Bolivia launched the communications satellite “TK-Sat-1” and was ready for further space exploration; Nigeria researched the satellite images obtained worldwide, and was committed to the application of space technology in agriculture; Brazil successfully launched the rocket VS-30/V14, and mentioned that they were ready to launch the CBERS-06 at the Brazil–China Space Cooperation 30th Anniversary Reunion ...

The world’s space industry is developing at a tremendous pace, and the journey of human exploration of the outer space is constantly moving ahead. In December 2018, the 6th China Space Forum was held in Beijing. Space experts, scholars and entrepreneurs from domestic and abroad gathered there to discuss the current situation and future trends of space technology. Forum organizer China Aerospace Science & Technology Consulting Co., Ltd. (Aerospace Consulting) has reached a cooperation agreement with Euroconsult, the world’s leading satellite market consulting and analysis organization, to jointly build a high-end international exchange platform in aerospace industry. All the ongoing changes put higher demands on talent training.

The development of a country depends on talent; the development of space technology applications also relies on talent. Since its establishment in 2014, the Centre has taken the training of international talents in aerospace as the core target to aid the development of the aerospace industry, and has made significant progress in the continuous exploration of capacity building and resource sharing. From the Inauguration Ceremony and the First Meeting of the Governing Board in 2014, to the Second Advisory Committee Meeting in 2018, the Centre has improved its job and made breakthrough progress in the process of continuous exploration and learning. The construction and development of the Centre in the past four (4) years is inseparable from the dedication of all the staff of the Centre, and also inalienable to the support of the United Nations Office for Outer Space Affairs (UNOOSA), the Chinese government, the Member States and its partners.

"No pains, no gains," we must "aim high" to seek development, but also work hard with "down to the earth" attitude. In the future, the Centre will pay more attention to the needs of international talent, closely combine the new achievements and discoveries in the application of space technology, and adopt a "pragmatic" attitude towards work and an entrepreneurial passion of "seizing every minute" to provide more high-level talents for the Member States and other developing countries, and also make a contribution to "UNISAPCE+50" and the "2030 Sustainable Development Agenda". Achievements belong to the past and we must strive to create the future. The azure starry sky above our head is calling us to pick up our sleeves and work hard to create a grand blueprint of brilliant achievements!

The editor

By the end of 2018
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” and “Poster Design of China Space Day”, 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.

China Space Forum 2018

※ Overview

The China Space Forum has eight (8) panel discussions, it also organized the display of innovative achievements of commercial aerospace enterprises. Geared to the needs of the global aerospace industry, China Aerospace Science & Technology Consulting Co. Ltd. (CASTCC) joined hands with Euroconsult, to invite the departments in charge of national space, world-class satellite developer, satellite operator, service provider, the investment and financing institutions and research institutions as well as the emerging enterprises etc., to host forum jointly, to construct platform for commercial space cooperation, communication and display, and make it a global commercial space pageant.
Representatives and Participants of the Centre Invited to Attend China Space Forum 2018

China Space Forum was held in Beijing from December 5th to 6th, 2018. Mr Weng Jingnong, Executive Director of the Centre, Dean of International School, Beihang University and thirty-three (33) participants from the Centre were invited to attend it.

The forum had many sessions and programs including theme report, high-end dialogue, technology release and product exhibition, etc. It displayed the latest information and achievements of commercial aerospace policy trends, major projects and hotspots in domestic and abroad in recent years.

The forum discussed the overall situation of commercial aerospace development; demonstrated the overall idea of the construction and application of the “One Belt, One Road” initiative; presented the current status and future trends of satellite remote sensing, satellite communications and related fields; combed more than twenty (20) commercial aerospace constellations and trends of China’s micro-nano satellites and industrial development and focused on strengthening the risk control of commercial aerospace development.

Eight (8) panel discussions were hosted during the forum. Among them, “International cooperation and policy interpretation of aerospace” was attended by Ms. Jiang Hui, Division Director of Department of International Cooperation, CNSA; Mr. Weng Jingnong, Executive Director of the Centre, Dean of International School, Beihang University; Mr. Nasir Mahmood, Director General of Department of External Relations and Legal Affairs of APSCO and other three (3) distinguished guests. The discussion explored major topics such as international cooperation and policy, sustainable development of space technology, international cooperation in space projects, orderly development and utilization of space resources and environment and space technology, culture and education. Mr. Weng Jingnong introduced the latest progress of the Centre in China in the fields of international talent training, resource sharing and capacity building in aerospace. He hoped that the younger generation would be able to “excel the last one just as in the Changjiang River the waves behind drive on those ahead” and make greater contributions to the international cooperation, the development of aerospace and help achieving the "Space2030 Agenda."
※ Participant Feedback

The China Space Forum provided a valuable platform for the participants to exchange ideas and gain knowledge about the cooperation and development of China’s aerospace. Some of the participants gave their opinions regarding the forum:

“...it let me understand how an evolving industry is changing the market and business models. I also understand that a full solution for micro-satellite products requires the satellite design, satellite manufacturing, launch service and on-orbit operation. The current requirements also need short-cycle solutions. It means that the process from the demand of the product should be less than one year. The solution also involves a package price which includes all services such as design, manufacture, launch and operation. And I also understand that telecommunications and space technologies industries complement each other for emerging developing projects. It is the first time I hear about the satellite’s insurance. So, technology not only opens opportunities for science but also for finance and risk management.”

— Marcelo Fernando Condori Mendoza (Bolivia), RS&GIS

“The forum discussed that the remote sensing data usage customers can broadly be categorized in three (3) categories: Governments, Commerce and Individuals. In recent years, the data is required to be customized based on the demands of the users. Data delivery should be improved and it should be user-friendly and customized according to user requirements. In other words, it is necessary to add value-added services to remote sensing data to promote the remote sensing industry and business.

On the contrary to user requirements, there is a limit of data for satellites, which is a hindrance to meet user needs. Therefore, technological limitations should be researched and overcame so that satellites can handle more data to meet user requirements.

The forum highlights following problems currently being faced by the satellite remote sensing industry:

1. Users need more data in remote sensing applications, so it is necessary to develop high spectrum satellites. The inspection of purity of river water and identification of green mountains are the examples of high data usage applications. 2. Market requirements of remote sensing is huge, but the scale of company is small. More companies are needed for developing satellites as the cost of development is very high. 3. Sometimes user requirements are difficult to meet as they want a product which can works in orbit. It is difficult for one single company to build satellite, launch vehicles and facilities. It needs a lot of finance, so government support in terms of subsidies is required for commercial satellite companies. 4. 90% of satellites work in day light with limited capacity so we need to develop technology which can improve the capacity and enable them to work without sun light. IR satellites can be used without sun light but they have limitations: they can’t work in the cloud. We need technological advancement to make breakthrough with this problem.”

— Mustafa Danish (Pakistan), DOCSTA
“China Space Forum is a perfect opportunity for us as people and students from developing countries can learn about the details of development path that China has been through and also learn from China’s experience for future cooperation between the two countries. I thank the Centre for providing this great opportunity for us.”

—— Amir Hossein Alikhah Mishamandari (Iran), Micro-satellite Technology

“In my opinion, the China Space Forum was very useful for all MASTA & DOCSTA students who participated in it, during which the organizers and sponsors of this event announced the progress made in the past three years as well as future plans in Telecommunications, Remote Sensing and GNSS areas. Another important aspect that could be evidenced is the high degree of efficiency and quality of the launchers and spacecraft that have been implemented so far.

It should also be noted that these rockets and space vehicles are providing important services that are very useful not only to China but also to many developing countries around the world, such as disaster management and mitigation, satellite navigation systems and maps geo-referenced etc. They were able to play their roles probably all due to the space technology carriers of China.”

—— Sustach Garcia David (Bolivia), RS&GIS

“The China Space Forum was very interesting. It covered a wide range of topics, such as current Chinese High-Resolution Earth Observation capabilities, nano and micro-satellite development in China, space insurance industry, Chinese government and private sector strategies for international cooperation on space industry, Telecommunication trend on HTS, GNSS application trends and the emerging industry of China’s private companies for launching vehicles. It gave me a good understanding about current and future space industry in China.”

—— Elyka Abello (Venezuela), Micro-satellite Technology

“It was a very interesting forum because addressed topics related to the technologies and commercial trend of the space sector in China, regarding Communication Satellite, Remote Sensing Satellite, GNSS, Micro-satellite and rockets. Also we had the opportunity to know more in deep the China private space sector ecosystem and commercial activities of thereof. Also we knew more about the futures blueprint to leverage the ‘one belt and one road’ initiative using the space technologies. Thanks for gave me the opportunity to participate in this forum.”

—— Burguillos Fajardo Carlos Alberto (Venezuela), DOCSTA
"This forum discussed technological achievements and innovative ideas, explored the path of development and improve the integration of industrial resources and the rapid development of the commercial aerospace industry. They focused on commercial launch services, satellite development, space information applications, investment and financing and other fields, and comprehensively displayed the results of the latest developments from the domestic and foreign commercial aerospace industries. The forum has become an important milestone in China's commercial aerospace development and provides a platform for exchange and cooperation to comprehensively display the development of the commercial aerospace industry."

— Ednofri (Indonesia), DOCSTA

"It is a great pleasure for me because I learned something new from China Space Forum. In this program, they discussed about their satellite history and how to expand their satellite activities in the whole world. This forum mentioned the application of satellite of different sectors from 2003 to 2018 such as remote sensing, scientific exploration, technology development, communication, and comprehensive application. They also explained nano and micro-satellite launches and other applications. Most of the important issues in the program ‘One Belt and One Road’ initiative are essential for every country for their economic development."

— Md. Rejaun Nabi (Bangladesh), RS&GIS

"China Space Forum was very interesting because it discussed technological achievements and innovative ideas. It was a great opportunity for us as students from developing countries to learn about the details of development path that China has been through. Also we had the opportunity to know more in deep the China private space sector ecosystem and commercial activities of thereof."

— Mehran Farhadi (Iran), RS&GIS

"China Space Forum (CSF) strategy is reflected in its pursuit of space power. Indeed, China Space Forum has received high-level authorization from China’s leadership. This forum is an important component of realizing the Chinese people’s mighty dream of national rejuvenation. The importance of this Space Forum is rooted in the role high technology plays in China’s development. According to one researcher, ‘Building China as a strong space power is the only way that China can rejuvenate to be wealthy and powerful.’ According to this view, space technology still has huge demand for a high quality strategic industrial country."

— MD. Masudul Haque (Bangladesh), GNSS

"The China Space Forum 2018 discussed more details about satellite marketing, remote sensing technique and the ‘One Belt and One Road’ initiative which protected by United Nations. This type of Forum enables students to understand China's achievements in space missions, to perceive the profound heritage of China’s space structure, and to increase understanding of Chinese technology, China's vision, China's approach and Chinese style, also strengthen international exchange and cooperation in the space industry and promote China's space technology to the world. China has already started joint work with other countries, and I believe that there will be more countries interested in working together. These kind of cooperations can help achieving a more ambitious goal."

— Nusrat Jahan Ety (Bangladesh), Micro-satellite Technology
Exclusive Interview

※ Editor’s note

“Going out of the Centre to run Newsletter” is a new initiative for our publication as the year of 2018 is drawing to a close. Start with this issue of Newsletter, we will occasionally present you the column of “Exclusive Interview”, interviewing influential experts and scholars from higher authorities and partners to provide a good communication platform for relevant policies, industry development trends, suggestions and feedback. The interview guests in this issue are: Mr. Li Xinjun, Secretary General of Asia-Pacific Space Cooperation Organization (APSCO) and Mr. Gao Jun, General Manager of China Aerospace Science and Technology Consulting Co., Ltd. (CASTCC).

※ Dr. Li Xinjun, Secretary General Asia-Pacific Space Cooperation Organization (APSCO)

Born in Hunan Province of China, Secretary General of Asia-Pacific Space Cooperation Organization (APSCO). He graduated from Beihang University (BUUA) in 1984 with major in Manufacturing Engineering, and pursued ‘Master of Engineering’ in the same field from 1984 to 1987 and then completed his ‘Doctor of Engineering’ in 2006 from the same University. Dr. Li Xinjun has a vast training experience to his credit and his training accomplishments including Training Courses on: Reliability Technology; Higher Education Management; Higher Education and Administrative Management from University of Illinois Urbana Champaign (UIUC), USA and Space System Engineering, etc.

Reporter: The Centre and APSCO have been working together for a long time, regarding the progress we have made for the past years, what aspects of the Centre’s work you think are worthy of your recognition? What suggestions and comments do you have for the future work of the Centre?

Dr. Li Xinjun:

The cooperation between the Centre and APSCO has several things in common: Firstly, they are both based on the teaching and research resource of Beihang University, especially International School. This is also an excellent resource provided by the host country. Secondly, in the past ten years, APSCO and the Centre, as brother units, have a lot of cooperation activities in teaching and training. Both sides have played a big role in assisting the capacity building of the Member States. Thirdly, our working relationship is quite harmonious and thus we share high efficiency in cooperation.

Talking about my highest comment about the Centre’s work, it should be the timeliness of publicity. The Centre was always able to pass on their work in time using the Internet, publications, etc., and that is what APSCO needs to learn and
improve. Our Member States are developing countries and even underdeveloped countries, the timely dissemination of the information is far more effective than the simple specific activities. While doing the substantial work, we also need to let the outside world know about our efforts and our initial intentions—that is, to help the underdeveloped and developing countries with sincerity. The “One Belt and One Road” initiative is based on the concept of “common development” and “peaceful development”. In this sense, propaganda is particularly important. This is also an important aspect of the Centre’s work.

Both the Centre and APSCO are non-profit organizations. China is willing to let developing countries and fraternal countries to get board on the high-speed train of the reform and opening up to provide them with economic assistance, but talent is the core and education and training is the fundation of any countries. We have an old saying: “Give a man a fish and you feed him for a day. Teach him how to fish and you feed him for a lifetime.” The most important thing for a country with independent sovereignty, is to rely on its own ability to develop. This is why we help the developing countries with sincerity. The most fundamental thing for the less developed countries is the concept of “common development”. Only when every country has developed will the world be able to live in peace. “China will never seek hegemony no matter how strong it develops”, said by President Xi Jinping at the 40th Anniversary of Reform and Opening-up. The work being done by the Centre and APSCO is also the basis for not seeking hegemony – that is, to share the ability, technology and experience we have without reservation.

Reporter: In terms of the cooperation between the two parties, what do you think that the Centre and APSCO should do to achieve sustainable development?

Dr. Li Xinjun:

There are different models for sustainable development. As a non-profit organization, sustainable development lies first and foremost in the hard work and dedication of the staff. Without the belief of employees, our work cannot be sustained. Secondly, everyone will not have enough faith and confidence to do their jobs well without the full support of the government and university. How can a big rising country pursue the concept of peaceful development? We must share and impart our knowledge, experience, technology and existing results sincerely. These are more powerful than direct material and financial support, and also can show more respect for the recipient countries. With these two foundations, international community will have a higher level of recognition and cooperation with China’s peaceful rising.

Our first working philosophy is to provide support for capacity building in developing countries. This is also the most fundamental concept. The second is to maximize resource sharing to improve the efficiency of space activities. The purposes and methods of APSCO’s development of space cooperation is different from that of European Space Agency (ESA): ESA is developed countries gathering together to play advanced technology and focus on how to expand and explore outer space capabilities; we are thinking how the resources of space can bring benefits to the human beings living on this planet based on the earth we live on. What we considered is not only how to promote the development of economic society through space technology, but more importantly, how the development of space technology can benefit the land under our feet. In fact, aerospace is a high-input and high-risk area. A country that launches or owns one or two satellites cannot solve too many problems. That is to say, it is not necessary for every country to launch satellites, but they can apply satellite technology in areas like navigation, communication, earth observation, weather forecasting, etc. through international cooperation. That will save a lot of money and energy and have direct effect and value to the economic development of the regions and corresponding countries.

Therefore, it is the most important for countries with space capabilities to share resources. In particular, space resources is different from other resources. You can use it or not, it will not change either way. This kind of resource sharing will not only not affect our own interests, but also greatly improve the efficiency of space activities through the network of ground station systems.

At present, there are one to two thousand in-service and scrapped satellites in operation in outer space. If there will be tens of thousands of satellites operating in space in the future, that would be a disaster for the space environment. Therefore, organizations and institutions like us must help developing countries to master the ability to use aerospace, to formulate and abide by the corresponding rules, etc., only such development can be called sustainable development. And the sustainable development of an organization will ultimately be positioned as a sustainable development for all mankind.
Reporter: What do you think about the development mechanism and capacity building of the Centre and APSCO?

Dr. Li Xinjun:

Firstly, we must improve the training quality. We need to build a high-quality brand of well-known education and training activities based on the needs of participants and the Member States. Secondly, we must strengthen cooperation in order to build a high-level platform. This year marks the 10th anniversary of APSCO. We not only need to cooperate with Beihang University, but also invite other universities and well-known international institutions to cooperate together. Who is the organizer of the training? It’s not important. What is important is the quality and level of the products created by our cooperation and what kind of talents we cultivate. Nowadays, APSCO has signed cooperation agreements with the International Astronautical Federation (IAF) and the European Space Agency (ESA). These cooperations will play an important role in carrying out activities jointly and sharing the resources of superior experts. Thirdly, create diverse education and training activities. On the one hand, we will attract participants to take part in international activities which meet their desires; On the other hand, earn a stronger sense of identity with our work from international community. For example, use Internet for remote training, use centralized training of superior resources and expand on-site training. Fourthly, pay attention to the details of our work and organize activities with sincerity. It is necessary not only to make the trainees feel respected, but also to make them feel beneficial, which will help the development of the individual and their corresponding career in the future. It is even more important to establish our own circle of friends so that developing countries can truly unite and respect each other and achieve common development.

Reporter: In the past years, APSCO organized a lot of education and training activities, which has made tremendous contributions to space education. In the future, What is the plan of APSCO to benefit these kind of education resources to more people?

Dr. Li Xinjun:

Talent training of APSCO is providing the basic support for the capacity building of the developing countries. APSCO is different from the Centre because the Centre has the technical resources of Beihang University. APSCO is only an operation management organization, so our education will focus on mainly two aspects:

Firstly, we rely on the universities to run high-quality Degree Education. APSCO is only the organizer, we will not only rely on Beihang University solely in the future, but also rely on university groups to create a university alliance, which could reflect cultural integration and combination of advantages. From the second China Space Day in 2018, universities like Northwestern Polytechnical University, Beihang University and Harbin Institute of Technology (HIT) etc., and dozens of international university research institutions, jointly established the Belt and Road Innovation Alliance. We hope that universities in APSCO Member States can also have the opportunity to participate in such alliances. In order to strengthen the cohesiveness of this alliance, APSCO will set the Small Student Satellite project (SSS project) into a sustainable research project as a bridge and link between all universities, which is mainly composed of college students. We will also enable each university and participating institution to have their own Ground Station Network System, and launch at least one satellite each year. That will not only maintain the function of the satellite constellation, but also serve for the education and scientific research, promote cooperation among universities to train more high-level talents for the Member States.

Secondly, we plan to hold high-level professional and applicational technology training through multiparty cooperation. APSCO can host, co-organize and undertake activities. This requires everyone’s cooperation. With high-quality expert resources, we can have more tailor-made training programs recognized by the international community. What we do is not only knowledge transferring, technology sharing, and resource sharing, but to popularize the concept of peace, synergy and common development through technical training. The Centre and APSCO have a bright prospect of cooperation. I hope we can to do our best to work together in international talents cultivation.

Reporter: Yang Fan
Dr. Gao Jun, General Manager of China Aerospace Science and Technology Consulting Co. Ltd. (CASTCC)

Gao Jun, Male, born in Heilongjiang province in 1969 and earned doctoral degree from Institute of Remote Sensing Application of Chinese Academy of Sciences (IRSA) majored in Cartography and Geography Information System (GIS). He is a researcher on engineering and owns titles include General Manager of China Aerospace Science and Technology Consulting Co. Ltd. (CASTCC), Vice Director of Observation and Application Center for Space Debris of China National Space Agency (CNSA) and Chief Expert on Remote Sensing in China Great Wall Industry Corporation (CGWIC). Now, He focuses on researches on the remote sensing satellite and application, management of system engineering and enterprise.

Reporter: China Great Wall Industry Corporation (CGWIC) is a important partner to the Centre. What expectations do you have for the future development and cooperation of both parties?

Dr. Gao Jun:

On the one hand, we hope to cooperate with the Centre to combine the education and training with customer development. On the other, we will cooperate with other countries’ industrial sectors to carry out activities such as seminars. The content will covering training, education, and research & development as a form of activity with market development and training functions. The training activities of the Centre, such as the lectures given by Dr. Sergio Camacho, former Director of the United Nations Office for Outer Space Affairs (UNOOSA), has achieved remarkable results and we hope the customers of CGWIC will also have the opportunity to participate in these kind of activities.
Reported: The Centre has been practicing the UGII model (hosted by university, supported by Chinese government, work with related international organizations, industry/enterprise participation), and recommended that the government should set up a platform to integrate resources, to establish China Aerospace International Talent Training Center and to establish talent training fund jointly with enterprises. What specific needs does your company have for talents? Do you think it is necessary to set up a special fund for talent training?

Dr. Gao Jun:

From the perspective of consulting, it is necessary to set up a fund for talent training. We also hope that participants from different countries can participate in the field of consulting research. The specific form of the fund, whether to set up the research group or others, needs to be further explored and discussed. We are also seeking funds from the Ministry of Foreign Affairs for the purpose of applying it to the study of space capacity assessments and the promotion of difficult issues in the Belt and Road space information corridor.

The students we trained may become the future government officials, so the participation of overseas consultation is quite beneficiary to them. Because even if their countries lack technical capabilities, they can still manage to conduct comprehensive research on technology and in-depth discussions on development directions with the experience in these kind of oversea consultation. These activities can further expand students' horizons beyond the degree education.

The Centre and the CGWIC need to enhance communication. Our employees should go to the Centre to have classes and deepen mutual understanding of each other; this will also promote cooperation between the two parties. I hope that we will hold small forums and symposiums together to discuss hot issues such as international trends and initiatives in the future.

2. Meeting & Visiting

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, visit various international organizations and research institutions and to speak up on the international stage to open up their horizon and expand the influence of the Centre.

MASTA 2018 and DOCSTA 2018 students visited APSCO Headquarters

In the year of 2018, thirty-five (35) MASTA&DOCSTA2018 participants visited APSCO Headquarters.

The activity was hosted by Dr. Mohammad Ebrahimi Seyedabadi, Director General of Education Training and Database Management Department of APSCO.

In the beginning, Dr. Li Xinjun, Secretary-General of APSCO, warmly welcomed the participants and briefed them on cooperative activities of APSCO and encouraged them to study hard, he also pointed out the importance of space technology for our world. “We have developed the space technology to make our world or human life better”, he said.

Mr. Nasir Mahmood, Director General of Department of External Relations and Legal Affairs, introduced the role, purpose and achievements of APSCO, and also the future plans of APSCO projects and APSCO Education and Training activities.
An orientation tour was organized to APSCO "Exhibition Hall" and other facilities. It was a valuable visit for MASTA and DOCSTA participants to get more knowledge and information about APSCO. Meanwhile, the participants also expressed their enthusiasm on current and future activities of APSCO.
Participants of the Centre Visited Miyun Data Receiving Station of Institute of Remote Sensing and Digital Earth, CAS

On December 2\textsuperscript{nd}, 2018, fifteen (15) participants of the Centre (MASTA&DOCSTA2018) visited Miyun Data Receiving Station of Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences (CAS).

During the visit, the participants visited the Satellite Ground Station and Central Operation Room under the guidance of Prof. Liu Qinhuo and Prof. Ping Jiahe. During the visit, participants learned more about operation and management, data receiving and data processing. They also viewed the acquired images and data from satellites like CBERS, Gaofen series, etc. The participants also asked questions related to reception and transmission of the satellite data, the equipment and facilities with great interests.

The visit was very useful and informative for the participants. Some of the participants shared their views regarding the visit:

“This station has two (2) parts to receive the data. First one is indoor part that was formed by some hardware such as big monitors, strong computers, receivers, and some specialists who work on these instruments. Second one is outdoor part that was formed by five antennas in the open area, this part has a direct relation to satellites and in fact it established relation between indoor part and satellites.”

— PEYMAN HEIDARIAN, 2018DOCSTA

“On reception at Satellite Ground Station, we were taken to the main lab where data from different satellite were received. This ground station has the capability to receive foreign satellites data as well like Landsat. After acquiring, satellite data were transferred to relevant department for their use. During the visit, the group had the opportunity to see various equipment used in lab and others facilities at the ground station. Antennas were also observed during the transmission and we were able to see them locking with satellites.”

— HASSAN ALI, 2018MASTA, RS&GIS

The Institute of Remote Sensing and Digital Earth (RADI), Chinese Academy of Sciences (CAS), was established on September 7\textsuperscript{th}, 2012, through the merging of two (2) CAS institutes: the Institute of Remote Sensing Applications (IRSA) and the Center for Earth Observation and Digital Earth (CEODe). As a scientific research institute, RADI was established as a major initiative of CAS “Innovation 2020” Program. The consolidation will pool the advantages of both CAS institutes in the fields of remote sensing and Earth observation to promote the development of cutting-edge scientific research, and to meet national strategic demands.
The strategic objectives of RADI are to explore leading technologies in Earth observation and the mechanisms for acquiring and distributing remote sensing information. RADI will focus on the construction and operation of major Earth observation infrastructure and the air-space-ground integrated Earth observation technology system. RADI will enhance its capacity for providing resource-environment spatial information at regional and global levels by establishing a digital Earth scientific platform, therefore building itself into a comprehensive, world-class research institute.

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 2019, the Centre have three educational fields available for postgraduates: Satellite Communications and Global Navigation Satellite Systems (SC&GNSS), Remote Sensing and Geo-information System (RS&GIS) and Micro-satellite Technology. In order to share the resources, promote efficiency and enjoy a win-win cooperation, the Centre along with its partners and other Regional Centres jointly hold the short training programs and science education for people. Meanwhile, the Centre expands the training oversea by initiating the short training and exchanges to explore new education cooperation.

※ 2018 Education and Training Programs

<table>
<thead>
<tr>
<th>Master’s Programmes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year</strong></td>
</tr>
<tr>
<td>2018</td>
</tr>
<tr>
<td>2018</td>
</tr>
<tr>
<td>2018</td>
</tr>
<tr>
<td>2018</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Doctoral Programme</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year</strong></td>
</tr>
<tr>
<td>2018</td>
</tr>
</tbody>
</table>
Newsletter

Total: 342

※ 2019 Degree Programs

Adhering to the vision of openness, innovation and inclusiveness, the Centre has been taking “Promoting the peaceful use of space technologies for the benefit of all humankind” as its honorable mission in continuously exploring and forging ahead with innovative development since its establishment. It will advance and expand the education programs on space applications in 2019. The Degree Programs are as follows:

Degree Programs

The Centre will recruit fifty (50) candidates in total with forty-two (42) postgraduates and eight (8) doctors. The disciplines/directions/majors include:

1) Satellite Communications and Global Navigation Satellite Systems (SC&GNSS)
2) Remote Sensing and Geo-information System (RS&GIS)
3) Micro-satellite Technology

The Centre will provide each Member State with three full Chinese Government Scholarships.

Website of the Centre: http://www.rcssteap.org

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Number</th>
<th>Countries of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apr. 11-23</td>
<td>GNSS</td>
<td>42</td>
<td>Egypt, Morocco, Tunisia</td>
</tr>
<tr>
<td>Apr. 12-26</td>
<td>Space Cooperation for Global Health</td>
<td>43</td>
<td>Bangladesh, Bolivia, Ethiopia, India, Iran, Italy, Madagascar, Mongolia, Nepal, Nigeria, Pakistan, Peru, Philippines, Russia, Tanzania, Venezuela, Zambia</td>
</tr>
<tr>
<td>Apr. 23-27</td>
<td>BeiDou/GNSS</td>
<td>35</td>
<td>Algeria, Cameroon, Central African Republic, Morocco, Niger, Senegal, Tunisia</td>
</tr>
<tr>
<td>Sep. 24-25</td>
<td>BeiDou/GNSS</td>
<td>165</td>
<td>Egypt, Lebanon, Sudan, Zambia</td>
</tr>
<tr>
<td>Oct. 22-26</td>
<td>Satellite Technology</td>
<td>32</td>
<td>Morocco, Nigeria, Algeria and other Arab league countries</td>
</tr>
<tr>
<td>Oct. 28-Nov.1</td>
<td>Space based technology for emergency response</td>
<td>27</td>
<td>Bangladesh, Brazil, China Ghana, India, Iran, Laos, Mongolia, Mozambique, Pakistan, Peru, Thailand, Turkey, Vietnam</td>
</tr>
</tbody>
</table>
MASTA 2019 Master Program on Space Technology Applications

Application Qualifications

» The applicant should be under the age of 35;
» The applicant should have some professional experiences of working in space technology industry or research institutes;
» The applicant should have Bachelor Degree of relevant discipline or the diploma equivalent to Bachelor Degree;
» The applicant is expected to have good command of English and the ability to take courses in English;
» The applicant is supposed to have research background in relevant areas.

Note: Please notice as a special requirement that selected applicants should come to study at Beihang University with their Private Passports only (not official/service/other types of passport).

Applicants of this program are mostly recommended by organizations. Students who are interested to do self-sponsor, please visit website (http://admission.buaa.edu.cn/) for further information.

Important Dates

» Applicants should mail the required applications documents to the Contact Person at RCSSTEAP (China) by March 15, 2019.
» The results of admission will be notified by stages from May 20 to early August, 2019.
» The Admission Notice and related documents will be mailed to the successful applicants before August 15, 2019.
» The program will start in early September 2019.

In 2019, MASTA Program provides three educational fields: Satellite Communications and Global Navigation Satellite Systems (SC&GNSS), Remote Sensing and Geo-information System (RS&GIS), Micro-satellite Technology. The followings are detailed information of each field.
DOCSTA 2019 Doctoral Degree Program on Space Technology Applications

Application Qualifications

» The applicant should be under the age of 40;
» The applicant should have some professional experiences of working in space technology industry or research institutes;
» The applicant should have Master’s Degree of relevant discipline or have the equivalent educational background of a Master’s degree;
» The applicant is supposed to have research background in relevant areas;
» The applicant is expected to have good command of English and the ability to take courses in English;

Note: Please notice as a special requirement that selected applicants should come to study at Beihang University with their Private Passports only (not official/service/other types of passport).

Applicants of this program are mostly recommended by organizations. Students who are interested to do self-sponsor, please visit website (http://admission.buaa.edu.cn/) for further information.

Important Dates

» Applicants should mail the required applications documents to the Contact Person at RCSSTEAP (China) by March 15, 2019.
» The results of admission will be notified by stages from May 20 to early August 2019.
» The Admission Notice and related documents will be mailed to the successful applicants before August 15, 2019.
» The program will start in early September 2019.

For further information about the Announcement MASTA&DOCSTA2019, please visit our website: http://rcssteap.org/
4. Activities

※ Editor’s note

People of the world are families. The Centre has enrolled students from various countries in “Space Technology Applications” program since it was founded in 2014. Participants from all over the world gathered here to share and exchange their culture, promote civilization development, make incredible progress and compose a movement of multiculturalism.

※ Ms. Surucchawadi Seweewanlop won First Prize in "FLTRP Cup" English Public Speaking National Round Competition 2018

From December 4th-9th, 2018, the “FLTRP•ETIC Cup" National English Speaking Contest, organized by Foreign Language Teaching and Research Press (FLTRP) was held in Beijing. Contestants brought a feast of thought and language to the audience. In this contest, Chinese and foreign students competed with each other. Ms. Surucchawadi Seweewanlop, a Thai participant from the Centre, got into the final phase and won the First Prize.

On the “Improvised Speech” stage of the finals, Ms. Surucchawadi Seweewanlop won the unanimous approval of the guests and the audience with her excellent speaking and witty answers. She used the metaphor of "crossing the river by feeling the stones", vividly portrayed the exploration that China has made as a world power in economic and political reform. She mentioned that in the process of reform and opening up, China did not chose an easy path, but walked step by step with a "down-to-earth" attitude, which laid a solid foundation for China's future development. Although the road of reform was long and tough, but it was in this process that China had explored the path that suited itself. In the process of deepening reform and opening up, China has always insisted on starting from small things and starting from the details. This is also an important reason why China achieved rapid development.

Ms. Surucchawadi Seweewanlop, 2018 MASTA participant in Space Law and Policy, said in the interview: "I can tell you that this was one of the best decisions I took during my time here. I made friends with many speakers, trainers from all over China. This competition was filled with well-trained, hard-working intelligent students from different educational backgrounds. Many people there asked me about my major. When I told them it was ‘international law’. The responses were like ‘Wow, no surprise, cause your contents are the most logical one so far’. I was flattered by the compliments from the others, which encouraged me a lot to keep pushing myself through all of this. This not only motivates me to pursue further on this kind of competition, but also motivates me to keep working on my studies as a law student. Another important life lesson I learned from the judge is that ‘the brave man is not he who does not feel afraid, but he who conquers the fear’. I thank FLTRP, Beihang University and the Centre for giving me this opportunity, and I would like to pass this to everyone that ‘DO NOT STOP CHALLENGING YOURSELF, AND BELIEVE IN YOURSELF’ !"
Full Text of Ms. Surucchawadi Seweewanlop’s Speech:

China’s development is a blessing to the world as a major player on the reform of economic, political progress along with its enjoyment of legally protected rights both domestically and internationally.

What does it tell us that China has reached this world-leading level? It tells us the inspiring story that is China has found a model perfectly suited to its national conditions.

摸石头过河 : crossing the river by feeling the stones

Imagine when we cross the river, we know that there are countless numbers of invisible stones under the river. Of course, when we have to walk across the river, in each step, our feet have to carefully choose which stone is stable enough to support our body, if it is not a suitable stone, we learned the lesson from that step, but with the spirit of the nation, we are still on the path, then we move forward to another stone. Consequently, we learned step by step what is the suitable path for our journey. You might think, choosing a stone is time consuming since there are abundant of stones under the river. We never know which stone is the best one without stepping on it first. Supposed that we have some other options to facilitate our crossing, for instance, a raft, a speed boat or even an airplane. Wouldn’t it be a lot easier and faster to cross the river?

However, in reality, 40 years ago, there was no other options that was capable of producing an effective reform on the nation. Since, a stone can be regarded as a smallest fraction of details in terms of national reformation, if we pay attention to even the smallest factor, it ultimately create a strong, solid, impregnable base for the entire country.

We choose not to seek help from an airplane to cross the river, but rather to build up our own ground base by carefully and gradually cross the river by feeling the stone. We choose to walk slowly but sustainable. We choose to pay attention to smallest thing through deepening of reforms of our political system through the genuine advancement of economic reform. We choose to explore our way forward in a unique pioneering spirit full of scholars. Therefore, China is be able to provide for the long lasting peaceful rule of nation.
※ The 15th CASC Cup Manfred Lachs Space Law Moot Court Competition of China Institute of Space Law

From December 22nd-23rd, 2018, Manfred Lachs International Space Law Moot Court Competition, organized by China Institute of Space Law, was held in Beijing Institute of Technology (BIT). The competition was supervised by Mr. Gao Guozhu and Ms. Gao Qi, Space Law experts of the Centre. In the competition, the team formed by Ms. SURUCCHAWADI SEWEEWANLOP, Ms. AISHIN BARABI, and Ms. ANA PAULA CASTRO DE PAULA NUNES, participants of the Centre, won the Third Prize. Ms. SURUCCHAWADI SEWEEWANLOP along with her Co-counsel, AISHIN BARABI, won the Outstanding Oralists. Mr. Gao Guozhu and Ms. Gao Qi won the "Best Organizers".

By participating in the Lachs Moot, participants of each team developed valuable analytical and advocacy skills while simultaneously learned about the core contemporary issues in International Space Law. These experiences will help them shape successful careers in different areas of legal practice in their lives. Some of the participants shared their views regarding the competition:
"It was a serious commitment since the very beginning stage, teamwork really matters for every single step. Abundant legal researches, finding case studies, finding the legal authorities to support the claims, most importantly, being professional, are the main key for this competition, in which our team was trying hard to achieve. I feel very honored to have participated in the inaugural Space Law Moot Court competition. All facets of the Space Law Moot Court Competition have been helpful while handling issues in multiple disputes and situations around the globe. I’m thankful and grateful for the competition and I hope others will have similarly memorable experiences."

— SURUCCHAWADI SEWEEWANLOP, Space Law and Policy

"When I heard about the possibility to be part of the team in this year Moot Competition, I was very excited. Mainly because I have never thought I would have a chance to participate in such competition since there's no Latin and South America round and also because I am an Aerospace Engineer. Personally, the experience was very regarding. The preparation period was very intense and time-demanding, but I have learned so much about Space Law and Policy classes at Beihang University. Even though it was my first time, I could see the level of this year’s competition was very high and we were competing against the best Law Schools of China. I am positive we did our very best and it was a pleasure representing Beihang University."

— ANA PAULA CASTRO DE PAULA NUNES, Space Law and Policy

"World of practice and professional experiences, is always different from academic world and theories. This rule is also applicable in legal majors. As a law student, Moot Court is an opportunity to use your knowledge as a real lawyer to solve legal problems which helps you to deeply understand what you have studied before. Also this competition, like every other competitions, helps you figure out your weaknesses and strengths and gives you courage not only to face your fears and weakness but also to improve your strength. So if you have enough time and courage to participate in Moot Court competition, why not?"

— AISHIN BARABI, Space Law and Policy

The Manfred Lachs International Space Law Moot Court Competition is the annual World Class Moot Court Competition organized by the China Institute of Space Law. The competition consists of four (4) major regions: Asia Pacific, North America, Africa and Europe. The champion teams in each region will represent the region in the global finals. Three (3) judges of the International Court of Justice will present themselves in the finals, and thus the competition became the highest-level Moot Court Competition in the world.
Awarding Ceremony of Beihang University Foreign Students Scholarship 2018

On January 3rd, 2018, “Beihang Government Scholarship - Beihang University Foreign Students Scholarship” Awarding Ceremony was held in the Academic Hall of Beihang University. Mr. Weng Jingnong, Executive Director of the Centre, Dean of International School and participants of the Centre attended the ceremony.

Four (4) participants were awarded with “Distinguished Foreign Student Scholarships of Excellent Study” of Beihang University 2018, here present the list:

<table>
<thead>
<tr>
<th>Student Number</th>
<th>Name</th>
<th>Nationality</th>
<th>Awards</th>
</tr>
</thead>
<tbody>
<tr>
<td>LB1525207</td>
<td>SHERKATGHANAD EHSAN</td>
<td>Iran</td>
<td>First Prize</td>
</tr>
<tr>
<td>LS1725205</td>
<td>MUHAMMAD ARSALAN</td>
<td>Pakistan</td>
<td>First Prize</td>
</tr>
<tr>
<td>LB1425207</td>
<td>SARA POURDARAEI</td>
<td>Iran</td>
<td>Second Prize</td>
</tr>
<tr>
<td>LB1602214</td>
<td>MURTAZA ABID</td>
<td>Pakistan</td>
<td>Second Prize</td>
</tr>
</tbody>
</table>

After the awarding ceremony, participants from International School presented their well-prepared performances, which won the applause of all the audiences.
※ Exotic Scenery of the Member States

In order to enhance the mutual understanding of the Member States, this issue of Newsletter selects the representative constructions of the Member States with the theme of "architecture" and brings you a unique exotic scenery.
Newsletter/Activities

» 孟加拉国
Bangladesh

Laibagh Fort
Shait Gumbad Mosque

» 秘鲁
Peru

City Arequipa
Cusco

» 委内瑞拉
Venezuela

Baralt Theatre
Cathedral Basilica of the Immaculate Conception of Mérida

» 印度尼西亚
Indonesia

Prambanan
Bugis house, South Sulawesi

» 中国
China

Great Wall
National Stadium
※ 4.5 Role models around us

This year, Mr. Sergio Camacho, former Director of the United Nations Office for Outer Space Affairs (UNOOSA), came to the Regional Centre to give courses on “International Cooperation on Space Law and Policy”. The participants of MASTA2018 majoring in Space Law and Policy performed well in the course examination, two (2) of them achieved full marks. We interviewed these two (2) participants in order to better encourage the others, improve their learning motivation and cultivate excellent participants.

My life and study in Beihang has been good so far, some subject results are good, we’ll see what happens in the future. I got full marks in Mr. Sergio Camacho’s course examination, some participants may want to know how I achieved this score. Actually the content contained in his class is very important for me and my future career, it’s about the internal operations of United Nations, how it works and functions, so I was quite committed to the class. I mainly studied his presentations and the sources he provided like the link to the UN website, and the questions were quite straightforward from the presentations he gave us. So I got straight to the point and tried to guess what kind of answers he wants. I couldn’t achieve this score without the help of my friends. For law students, it’s very normal for us to give well-structured answers, and the score will be better once a student is capable of doing that and I am working on it, too.

For Beihang University, I got so much experiences so far and I just participated in the Public Speaking National Round Competition 2018 and the 15th CASC Cup Manfred Lachs Space Law Moot Court Competition, I appreciate that I can have these opportunities because I am international student, I didn’t expect that I would be granted with these kind of opportunities which are high-profile.

Now I am invited by the Director of Beihang Elite Club to join Beihang Debate Tournament which will be held around March 2019, this will be my first time for debate and I wish I could do my best.

——SURUCCHAWADI SEWEEWANLOP
I am an Aerospace Engineer from Institute of Space Technology hailing from Pakistan, Islamabad. I have four (4) years of working experience in Pakistan Space & Upper Atmosphere Research Commission (SUPARCO) before coming to China for Master in Space Law and Policy at Beihang University.

It’s my first time study abroad and the opportunity to interact with people from diversified culture makes this experience more exciting. There is a wide scope of extra-curricular activities with numerous well-equipped sports facilities within the campus. The food here is very different from what I used to eat in my home country but it’s appetizing. China is home to many natural and artificial places that are worth visiting. Being an Aerospace Engineer, studying Space Law and Policy was a great challenge but I was up for it. I wanted to explore China while studying so working smartly was the only option. Surprisingly, it worked and I got full marks in my first ever law exam. I am confident that this way of studying will surely help me throughout my studies in China. I recommend students to come here and relish their stint.

——UMAIR MUZAFFAR
5. Capacity Building

※ Editor’s note

Capacity Building is the process by which individuals and organizations obtain, improve, and retain the skills, knowledge, tools, equipment and other resources needed to do their jobs competently or to a greater capacity (larger scale, larger audience, larger impact, etc). With the goal of strengthening capacity building and cultivating practical ability, the Centre has been constantly improving its own business level, and completed the construction of Ground Station Network System of Beihang University and the update of the STA Library this year.

※ STA Library

Library is a scientific, cultural and educational institution that collects, organizes, preserves, and disseminates the literature. It has the functions of preserving human cultural heritage, carrying out social education, transmitting scientific information, developing intellectual resources and providing cultural entertainment. The Space Technology Application Library of the Centre (STA Library) was established in 2016. After continuous renovation and improvement, it is now a place of cultural construction and inheritance, and also an important part of International Talent Training and Beihang library system. The STA Library has four (4) major areas currently covering following features:

1. Store the academic materials and thesis of the participants of the Centre;
2. Showcase China’s aerospace achievements and Chinese traditional culture and record major events of the Centre;
3. Used for PPT presentation, video display and other functions;
4. A large number of books and thesis are stored for the participants to read and use. The categories include: politics, economy, culture, natural sciences, remote sensing, navigation, communication, small satellite technology, space law, etc.

In the future, the STA Library will be further improved and developed to provide support for International Talent Training and Capacity Building.
※ APSCO Ground Station Network System

1 Introduction

The APSCO Small Student Satellite (SSS) project is the largest basic activity of in-orbital micro/nano-satellite technology demonstration and the hand-on practice space engineering training program for students and faculties from Member States of the APSCO. The multifunctional APSCO ground station network system are the key ground facilities and will serve and benefit for the APSCO SSS project and the space technology education and applications.
Beihang University, as the leading university firstly proposed the APSCO G.S. Network Initiative during the 1st APSCO small satellite technology summer camp held in August, 2017. The initiative was supported by all the representatives from the Member States. It was formally approved by the APSCO Council in September, 2018. The APSCO G.S. network system has the standard network interface, integrating the ground station resources and improving the coverage of the telecommand, telemetry and control and sharing the satellite application data for the APSCO SSS project.

2 Objective

1) Provides (UHF/VHF, S) band ground monitoring and control services for APSCO SSS project and other partners;

2) The APSCO Mission Control Center (MCC) and Data Process and Archive Centre (DPAC), ground station nodes, complete the in-orbit satellite monitoring and control services, receives payload data, and manages the satellite data sharing;

3) Provide international space engineering practice education and training platform for students of the APSCO;

4) Provide aerospace special technical supports and services for international partners.

3 G.S. Network Layout

The APSCO Ground Station Network is the distributed G.S. nodes, function modularization and interface standardization, which has the advantages of multi-function, ease to improve ground station capability. The construction of ground station nodes in the early stage is shown. With the development of the network construction of the small satellite ground station, more and more universities, scientific research institutions and enterprise users will join the network as network nodes.

4 MCC&DPAC

The APSCO Mission Control Center (MCC) and the Data Process and Archive Centre (DPAC) and APSCO ground station nodes will be connected together via Internet to share the payload data and the mission plan. The MCC&DPAC is located in International School, Beihang University (Beijing, N40.153 ° , E116.268 ° , Altitude 80m). The APSCO MCC& DPAC is mainly includes 7 functional modules. Namely, Operation Management Module, Station Network Management Module, Satellite Control Module, Resource Sharing Service Module, Technical
Support Module, Tele-conference Module, and education and training module.

5  Project Progress

The project was formally kick-offed in March, 2018. Under the Vice-President prof. Huang Haijun’s leadership, the project team overcame the difficulties and achieved the objective (Establishing one ground station and one MCC&DPAC in BEIHANG UNIVERSITY). On November 20th, 2018. The Beihang University Ground Station facilities were accepted, which laid down a solid technical foundation for the G.S. network. Moreover, BEIHANG UNIVERSITY project team successfully received the TY-1 CubeSat telemetry data package signals with the support of G.S. facilities on December 7th.

6  Summary

The APSCO Ground Station Network System is based on the obtained small satellite ground stations with the in-depth investigation and analysis of the established facilities of the small satellite ground stations of APSCO Member States. In the future, we will further build networking with other existing university ground stations and build a global small satellite TT&C ground station network.
6. The year of 2018 in numbers

2018 is a year of construction and improvement for the Centre. It is also a year of sowing and harvest.

In 2018, the Centre received eleven (11) visits from overseas and ten (10) visits from domestic universities, research institutes and enterprises.

In 2018, nearly sixty (60) domestic and foreign experts gave lectures at the Centre, including experts from China Satellite Navigation Office, Chinese Academy of Sciences, etc., and other experts from Australia, Croatia, Malaysia, Mexico, the United States, etc.

In 2018, the official website pushed fifty-six (56) pieces of news in total, with a cumulative user visit of 17,092 person-times; the WeChat platform pushed a total of sixty-eight (68) pieces of news, with a cumulative user visit of 5,598 person-times.

In 2018, the Centre enrolled fifty-six (56) participants, including forty-five (45) MASTA participants and twelve (12) DOCSTA participants majoring in GNSS, RS&GIS, Micro-satellite Technology and Space Law and Policy. Twenty-eight (28) MASTA participants graduated successfully in June. Currently, eighty-seven (87) MASTA participants and fifty-four (54) DOCSTA participants are studying at the Centre.

The year of 2018 is coming to an end. We will embrace the new year with a high-spirited and down-to-earth attitude, and going towards the road of characteristics, openness and prosperity!

The editor
By the end of 2018
Additional words

This issue of the "Newsletter" records the main work of the Centre from December 2018 to February 2019, the content includes: the China Space Forum 2018, interviews, participants visiting APSCO Headquarters and Miyun Data Receiving Station of Institute of Remote Sensing and Digital Earth, CAS, etc.

In 2018, the Centre committed to capacity building. With the concept of "Openness, Innovation and Inclusiveness", we overcame the challenges and made great progress in many aspects. But at the same time, we need to improve ourselves and forge ahead continuously to meet new challenges. In the future, the Centre will continue to work hard while be realistic and pragmatic, using the "UGII" (hosted by university; supported by Chinese government; work with related international organizations; industry/enterprise participation) Model of Beihang University on International Education to improve the personnel system of the Centre, and enhance its international influence.

Thank you for your attention and support for the Centre. In 2019, we will continue to forge ahead with a heart full of sincerity, unity and momentum and to join hands with Member States and Brothers Unites. "Down to Earth while Aiming High", the Centre will continue to work for the common and sustainable development of the Member States, and add more luster to the magnificent picture of the peaceful outer space!
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)
(Affiliated to the United Nations)