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# NEWSLETTER

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*Exchange · Promotion · Development*



*Promoting the peaceful use of space  
technologies for the benefit of all humankind*

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RCSSTEAP

**Regional Centre for Space Science and Technology Education in Asia and the Pacific (China)**  
(Affiliated to the United Nations)

联合国附属空间科学与技术教育亚太区域中心（中国）

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## Preface

On the occasion of the end of this year, looking back at 2016, a myriad of thoughts crowded my mind.

This year, we aimed high, carrying on the mission of promoting the peaceful use of space technologies for the benefit of all humankind;

This year, we kept down to the earth, promoting further development of the Centre and completing the targets successfully;

This year, we witnessed the growth of the Centre together!

The Centre has made a breakthrough in 2016. This year, seventeen (17) MASTA graduated in Satellite Communication, GNSS, Micro-satellite and three (3) DOCSTA graduated in Space Technology Applications and they received their shining diplomas; This year, forty-nine (49) new students were admitted into the Centre, and added new vitality to the Centre; This year, the Centre, continues to expand its channels of cooperation, organized seven (7) short training programs with International Alliance of Satellite Application Service, APSCO, UN-SPIDER Beijing Office and other partners as well as the UN Regional Centres, facing to a number of cutting-edge areas such as remote sensing technology, satellite navigation, space law and policy, BeiDou technology and application, in which three hundred and one (301) students from forty-three (43) countries have participated.

The Centre has expanded its influence with initiative in 2016. This year, the First Advisory Committee Meeting of RCSSTEAP was successfully held, representatives from ten (10) Member States gathered at Beihang University, sought common development; this year, the former Director of UNOOSA Mr. Sergio Camacho and many other well-known experts at home and abroad were invited to the Centre to give lectures, promote course construction as well as internationalization of education; this year, the Centre has cooperated with more than thirty (30) well-known universities, research institutions and enterprises to maximize the advantages of industry-university-research cooperation; this year, representatives of the Centre attended five (5) meetings held by UNCOPUOS

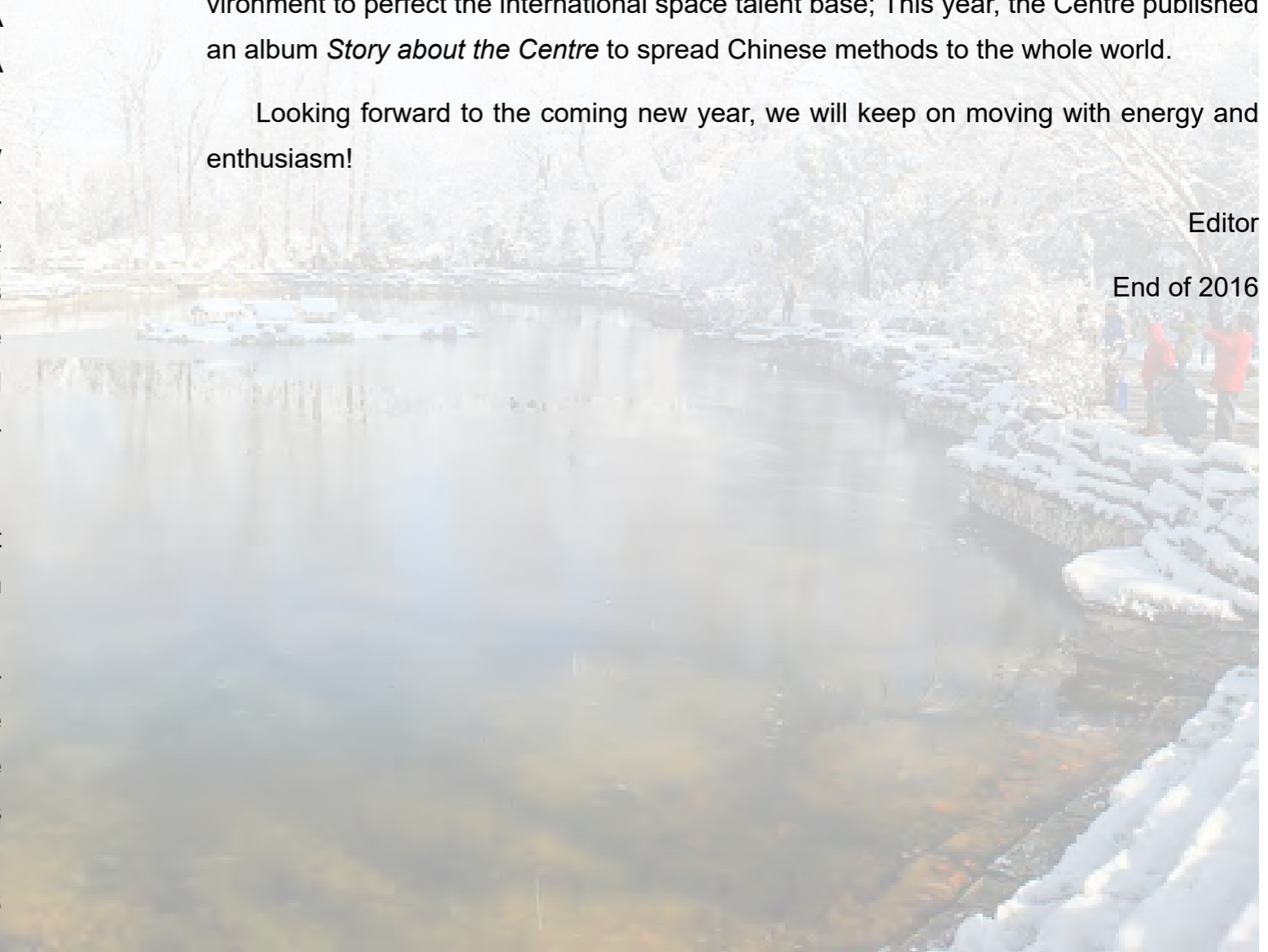
and actively communicated with representatives from the Member States of RCSSTEAP and the other UN Regional Centres to get a better understanding of their needs and would like to strive for providing demand-oriented training; this year, representatives of the Centre visited CSSTEAP in India and ARCSSTE-E in Nigeria respectively, promoting resource sharing and cooperation among the UN Regional Centres

The Centre has strengthened its brand building in 2016. This year, the Centre has continuously forged its brand to enlarge international influence by *Newsletter*, official website, and WeChat public platform, etc. This year, the Centre has improved office environment to perfect the international space talent base; This year, the Centre published an album *Story about the Centre* to spread Chinese methods to the whole world.

Looking forward to the coming new year, we will keep on moving with energy and enthusiasm!

Editor

End of 2016





## Special Focus

### The First Advisory Committee Meeting

#### Overview

The First Advisory Committee Meeting of Regional Centre for Space Science and Technology Education in Asia and the Pacific (China) (affiliated to the United Nations) (RCSSTEAP for short) was held in the conference room No. 8 of the conference center in New Main Building of Beihang University. The meeting was chaired by Mr. Xu Huibin, Director of the Advisory Committee of RCSSTEAP and President of Beihang University. Delegates from the ten (10) Member States of the Centre including Algeria, Argentina, Bangladesh, Bolivia, Brazil, China, Indonesia, Pakistan, Peru and Venezuela, Mr. Egemen Özalp, Deputy Secretary General of Asia-Pacific Space Cooperation Organization, representative from China National Space Administration (CNSA), Mr. Huang Haijun, Vice President of Beihang University and Mr. Weng Jingnong, Deputy Director of the Centre and Dean of International School, Beihang University attended the meeting.

At this meeting, Mr. Huang Haijun, Vice President of Beihang University and Mr. Weng Jingnong, Deputy Director of the Centre gave reports on progress and future plans of the Centre. It was noted at the meeting that a new school named School of International Space Science and Technology (Asia-Pacific School for short) with enrollment of four-year undergraduates taught in English was approved to be built in Beihang University. It would be a great opportunity for the Centre to develop undergraduate talents in space technology applications. In addition, the Centre would initiate the UN Regional Centre Alliance. Textbook Editorial Board was also in the plan, which sought to contribute to the development of the UN Regional Centres with providing a series of textbooks. The alliance of the first-class universities in the field of space technology applications in the Member States would better encourage the talent cultivation in



space technology applications. Last but not least, a forum on space technology applications would be held in South Hemisphere in 2017.

The representatives of all the Member States appreciated the laudable efforts of the Centre, Beihang University and the Chinese Government. They also gave their remarks on the progress report of the Centre and provided some suggestions.

Mr. Xu Huibin, Director of the Advisory Committee and President of Beihang University, then declared the conclusion of the First Advisory Committee Meeting of RCSSTEAP by appreciating all delegates and representative for their suggestions, remarks and contributions. He



said that future plans would be perfected so as to optimize the working routine and encourage understanding, exchanges and cooperation among all the Member States. He stated that in the future, the Centre would continue to adhere to the vision of openness, innovation and inclusiveness as well as improve space education quality, strengthen the mode of cooperation and expand the areas of cooperation.

This meeting encouraged understanding, exchanges and cooperation among the Member States and urged them to make efforts for space technology talent cultivation in developing countries, seeking to make new contributions to the peaceful exploration and uses of outer space.



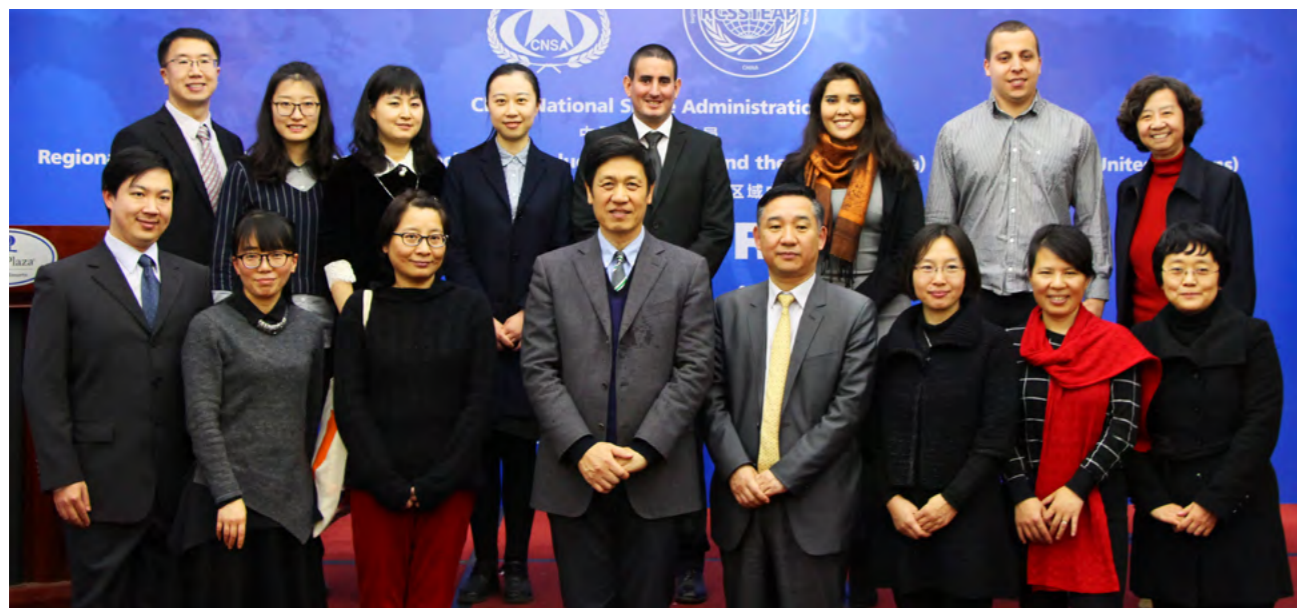


### 2017 New Year Reception

On December 5<sup>th</sup>, the three days event packed meeting started with a New Year Reception jointly hosted by China National Space Administration (CNSA) and the Centre. The banquet was held at Park Plaza, a beautiful hotel with a state of the art environment. The hall was filled with many gorgeously dressed dignitaries from all walks of life.

Mr. Huang Haijun, Vice President of Beihang University announced the start of the reception and also introduced the guests and delegates present at the august gathering. Mr. Tian Yulong, Secretary General of CNSA, Mr. Xu Huibin, Director of the Advisory Committee of the Centre and President of Beihang University, and Mr. Jose Raimundo Braga Coelho, President of Brazilian Space Agency addressed the guests and delegates.

The guests expressed their thanks to the Centre for its positive contribution to space experience sharing and aerospace capability development in different countries, and hoped that it would strive for further progress.



### Forum on Space Technology Applications

On the morning of December 6<sup>th</sup>, 2016, the Centre held a forum on Space Technology Applications in Beihang University. The forum was hosted by Mr. Huang Haijun, Vice President of Beihang University. Mr. Egemen Özalp, Deputy Secretary General of the Asia-Pacific Space Cooperation Organization (APSCO), Mr. Weng Jingnong, Deputy Director of the Centre and Dean of International School, Beihang University, representatives from China National Space Administration (CNSA), delegates from the

Member States, professors and students of the Centre attended the forum.

Ms. Jiang Hui, representative from CNSA, gave the first Keynote Speech on China's Space Activities towards the Year 2030. Then the delegates from Algeria, Bangladesh, Bolivia, Brazil, China, Indonesia, Pakistan, Peru and Venezuela all gave excellent reports on the situations, demand and plans of space technology and its applications in their own countries. It was a great chance for sharing ideas among the Member States.





## Visit to High School affiliated to Beihang University and Air&Space Museum

On the morning of December 7<sup>th</sup>, delegates from the Member States were invited to visit the High School affiliated to Beihang University and Air&Space Museum.

The High School teacher Mr. Du Wei explained the development of the School history with pictures of different statuses. He showed the paintings drawn by students about different themes. Then, he took them to the education practice base. The delegates carefully listened to the teacher's explanation there and had an unforgettable experience of Flight Simulator. They also visited different parts of the education

practice base and many airplane models which were made by the students. During the visit, they also communicated with the students, and praised the concept of implanting space enthusiasm from young people and spoke highly of the rapid development of China's aerospace industry.

Afterward, the delegates visited Air&Space Museum, in which four sections representing the rapid development of China's aerospace industry. The delegates saw it as a rewarding visit and hoped they could have more chances to visit more places in China in the future.



## Special Focus——

### International Training Course on “Navigation and Positioning Satellite System Design”

#### Overview

From October 31<sup>st</sup> to November 8<sup>th</sup>, 2016, International Training Course on “Navigation and Positioning Satellite System Design” was successfully held at Beihang University. It was co-organized by RCSSTEAP, APSCO, Beihang University and China Aerospace Science and Technology Corporation (CASA).

The one week training focused on design of navigation and positioning satellite system. It aimed at improving the ability of satellite technology application in the Member States of APSCO and other developing countries, as well as promoting communication and cooperation among different countries.

It is worth to say that fourteen experts from China Academy of Launch Vehicle Technology, China Academy of Space Technology, Beijing Satellite Navigation Centre, and Beihang University have contributed to this hands-on training program. More than thirty (30) participants from twelve (12) countries (Algeria, Bangladesh, China, Indonesia, Iran, Laos, Mongolia, Mozambique, Pakistan, Peru, Thailand, Turkey) participated in the training. The participants mainly included technicians from the Member States of APSCO and international graduates in related majors at Beihang University.



#### Opening Ceremony

On 31<sup>st</sup> October, 2016, the opening ceremony was held in International School, Beihang University. Mr. He Linshu, Chief Expert of the Centre, Professor from Beihang University of Astronautics, Mr. Yang Dongkai, Professor from School of Electronic and Information Engineering, Beihang

University, Mr. Mohammad Ebrahimi Seyedabadi, Director General of Department of Education and Training and Database Management of APSCO, participants and volunteers were all present at the opening ceremony. It was hosted by Ms. Guo Yuanyuan, Program Director of the Centre.

Experts



Fourteen (14) experts from China Academy of Launch Vehicle Technology, China Academy of Space Technology, Beijing Satellite Navigation Centre, and Beihang University were invited to contribute to this hands-on training program. The courses covered many great professional fields including the development of launch vehicle, aerospace and social development in China, outlook of big data in space, design and applications of satellite navigation systems, to name a few.



**Beihang University**  
Chen Pei



**Beihang University**  
Cong Li



**Beihang University**  
He Linshu



**Beihang University**  
Jin Tian



**Beihang University**  
Lu Hui



**Beihang University**  
Wang Zhipeng



**Beihang University**  
Weng Jingnong



**Beihang University**  
Wu Falin



**Beihang University**  
Zhang Bo



**Beijing Satellite Navigation Centre**  
Han Chunhao



**China Academy of Space Technology**  
Zhao Jun



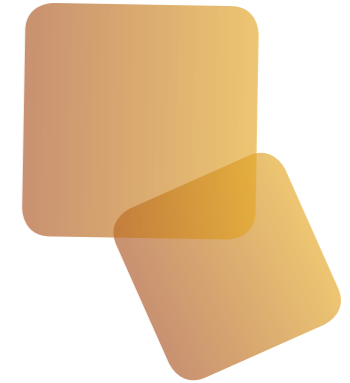
**China Academy of Launch Vehicle Technology**  
Cheng Qifeng



**China Academy of Launch Vehicle Technology**  
Li Hongbo



**China Academy of Launch Vehicle Technology**  
Shen Lin

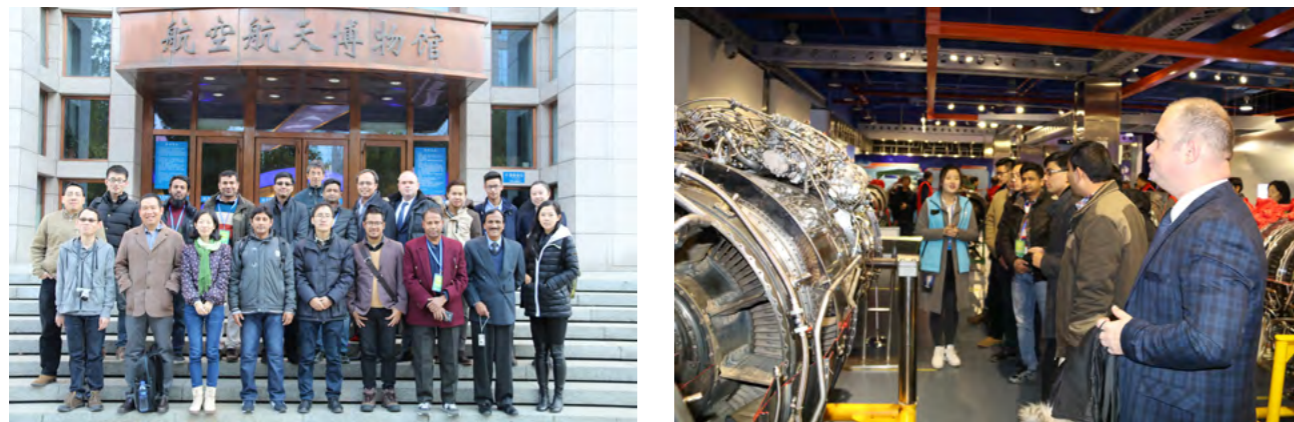




### Professional Visit

On the morning of November 8<sup>th</sup>, a professional visit was organized by the Centre. More than 30 participants of this program visited Beijing Air and Space Museum located at Beihang University.

During the visit, the participants were very interested the different models in the museum. They listened carefully to the instructor and discussed with her. The participants finally said that they had a more profound understanding the great scientific principles, long history and rapid development of aerospace through this visit.



### Feedback

On the morning of November 8<sup>th</sup>, the participants evaluated the training conditions and contents by completing the questionnaires. They thought that the teachers were excellent and it was a great chance for them to update their knowledge and innovate their thinking patterns. They also spoke highly of the organization and program management of the Centre and hoped they would have more opportunities to participate in training programs in relevant fields.

- I am very impressed by the teachers' methods of giving lectures, especially with examples. That is awesome.
- Excellent, perfect, well prepared.
- Very well organized.
- It is fruitful.
- Outstanding and I appreciated this chance.
- First of all, I do not have enough knowledge of Satellite Navigation and Positioning System Design. So, I learned all kinds of knowledge from this training.
- Additional hand-on experience can be added.
- It encouraged new ideas and enhanced my technical knowledge in this training.

### Closing Ceremony

On November 8<sup>th</sup>, the closing ceremony of the training program was held in Beihang University. Firstly, representatives from different countries gave reports on the situations and demand of navigation and satellite applications in their own countries, sharing relevant technologies and their latest developments. Then, Dr. Mohammad Ebrahimi Seyedabad, Director General of Department of Education and Training and Database Management of APSCO, awarded completion certificates to the participants and volunteer certificates to the volunteers involved in the training.





## RCSSTEAP (China) Activities

### Training on the “Belt and Road Initiative” Spatial Information Corridor Engineering Application

From October 14<sup>th</sup> to 16<sup>th</sup>, 2016, Training on the “Belt and Road Initiative” Spatial Information Corridor Engineering Application was jointly held by State Administration of Science, Technology and Industry for National Defense, International Alliance of Satellite Application Service and the Centre in Beihang University. Mr. Xu Chunrong, Deputy Director of Major Projects Engineering Center, Mr. Ouyang Pingchao, Project Manager of Major Projects Engineering Center, Mr. Wei Zheng, Executive Deputy Secretary General of China Association of Remote Sensing Application, Mr. Liu Youfa and Mr. Wang Zhongguo, Vice Director General of International Alliance of Satellite Application Service, Mr. Weng Jingnong, Deputy Director of the Centre, Ms. Tan Yumin, RS&GIS expert of the Centre attended the opening ceremony.

This training program covered a variety of fields including communication, navigation, navigation and remote sensing satellites applications in land surveying&mapping, energy management, resource investigation, agriculture, forestry, tourism, logistics, information and distance education with case studies. A total of forty-five (45) participants from sixteen (16) countries (Algeria, Bangladesh, Croatia, Indonesia, Iran, Laos, Mongolia, Nigeria, Pakistan, Peru, Thailand, Turkey, Ukraine, Venezuela) participated in the training.



### Seminar on Space Law and Policy Program

On October 19<sup>th</sup>, 2016, Seminar on Space Law and Policy Program was held in International School, Beihang University. Ms. Jiang Hui from China National Space Administration (CNSA), Ms. Wang Jilian, General Counsel of China Great Wall Industry Corporation, Mr. Wang Guoyu, associate professor from Beijing Institute of Technology School of Law, Ms. Huang Hui, Vice Dean of the Law School of Beihang University, Mr. Gao Guozhu, expert of the Centre and associate professor from the Law School of Beihang University, Mr. He Linshu, chief expert of the Centre and professor

of School of Astronautics, Beihang University attended the seminar. It was hosted by Mr. Weng Jingnong, Deputy Director of the Centre.

At the seminar, the experts discussed the objectives, curriculum and expected results and put forward a number of constructive suggestions and comments on how to perfect this major. They then reached a consensus on integration of space law resources at home and abroad as well as the establishment of long-term working mechanism. This seminar actively promoted the development of Space Law and Policy Program.



### Representatives and Participants of the Centre Attended the 1<sup>st</sup> BIT International Symposium on Space Law

The Institute of Space Law of Beijing Institute of Technology held its 1<sup>st</sup> Space Law International Symposium on October 29<sup>th</sup>, 2016, as part of activities to celebrate the 10<sup>th</sup> year of its existence. The theme of the International Symposium was “Global Governance of Outer Space: Status quo and Challenges, Foundations and Frontiers”. It

should be remembered that the Institute of Space Law at the Beijing Institute of Technology began its operations in 2006 as part of China’s capacity-building in Space Law.

The Symposium which was held at the Institute’s International Communication and Education Centre, many international scholars,





educators and researchers on Space Law and Policy such as Professors Li Shouping, Sa'id Mosteshar, Prof. Doo Hwan Kim and Professor Joanne Gabrynowicz, to mention but a few. Professor Weng Jingnong, Deputy Director of the Centre and Dean of International School, Beihang University, Professor Gao Guozhu from the Law School, Beihang University and all the Space Law and Policy students from the Centre were in attendance. The students went with very high expectations and the Symposium lived up to its hype. Many topics arising from the uses of outer space and its sustainability discussed. It was quite revealing for the participants from the Centre.

The first keynote speech titled "International Legal Regime Concerning Space Resources Exploration and Exploitation: Lex Lata and Lex

Ferenda" was delivered by Ma Xinmin, Deputy Director, Department of Treaty and Law of the Ministry of Foreign Affairs. In this Lecture, the Speaker shed more light on issues such as setting up an international system for the framework of international management for exploration and exploitation of outer space, fairness in the exploration of outer space by giving the future generation a chance and benefit of sharing for both developing and developed countries. The Secretary General of China Institute of Space Law, Zhang Zhenjun, delivered another keynote speech titled "China's Space Activities under the Rule of Law". In this Lecture, the speaker spoke on some issues such as China's space activities, features of China's space Law, China's capacity-building in space law, trending issues and future perspectives

regarding space Law in China. Dr. Prof. Zhao Yun from the Faculty of Law, University of Hong Kong, delivered the last keynote speech titled "Emerging Approaches in Development Efforts: Chinese Perspective on Space and Sustainable Development".

The most interesting and interactive part of the symposium was during the English and Chinese double sessions where the following issues has been dealt with:

- (1) Recognition of Principles, Regulations and Responsibilities for Peaceful, Safe, Secure, Equitable and Effective Use of Outer Space
- (2) Law, Standard, Policy and Strategy

Concerning Space Debris and Space Security

- (3) State's Legislation, Posture and Practice in Outer Space
- (4) China's Space Legislation and the International Regulation of Space

Participants from the Centre left with a lot of space law and policy issues to ruminate upon. The symposium was indeed a great platform for Space Law and Policy experts, researchers, educators and students to learn and share ideas. Students of Space Law and Policy from the Centre in present were thankful for this massive opportunity to learn knowledge and to interact with colleagues from other Institutes.





**Dr. Luc St-Pierre and Dr. Shirish Ravan, Project Managers of Space Technology Applications, UNOOSA, Visited the Centre**

On October 26<sup>th</sup>, 2016, Dr. Luc St-Pierre and Dr. Shirish Ravan, project managers of Space Technology Applications of United Nations Office for Outer Space Affairs (UNOOSA), visited the Centre. Mr. Weng Jingnong, Deputy Director of the Centre, introduced the Centre, main work in this year and plans for the future, etc. Dr. Luc St-Pierre and Dr. Shirish Ravan spoke highly of the pioneering contributions that the Centre has made to the peaceful use of space technologies and appreciated the work plan proposed by Mr. Weng. In the meantime, they hoped that the Centre would keep making full use of their advantages so as to make more contributions to the internationalization of the world space technology education.



**Representatives of the Centre Attended the Eleventh Meeting of the International Committee on Global Navigation Satellite Systems (ICG-11)**

The Eleventh Meeting of the International Committee on Global Navigation Satellite Systems (ICG) was held in Sochi, Russia from November 6<sup>th</sup> to 11<sup>th</sup>, 2016. Mr. Yang Dongkai, senior GNSS expert of the Centre, professor of School of Electronic and Information Engineering, Beihang University and Ms. Guo Yuanyuan, Project Director of the Centre attended the conference on behalf of RCSSTEAP as members of the Working Group on Information Dissemination and Capacity-building (Working Group C).

Representatives of the Centre and other representatives from the United States, Russia, Italy, European Space Agency exchanged ideas and shared experience and achievements of education together and training as well as capacity

building on GNSS. Ms. Guo Yuanyuan, on behalf of the Centre, gave a report on GNSS Education and Training Progress in 2016, which reviewed the achievements of education and training, capacity-building, international exchanges and the likes in GNSS at the Centre. Ms. Shafa Gadimova from ICG Secretariat and other representatives spoke highly of the Centre's contributions.

During the meeting, representatives of the Centre also made an in-depth communication with Professor Andrey Kupriyanov from Moscow State University of Geodesy and Cartography and reached consensus on cooperation between universities and joint organization of GNSS training courses.





## Participants of the Centre Went to Institute of Remote Sensing and Digital Earth Chinese Academy of Sciences for Hands-on Training

On November 21<sup>st</sup>, 2016, 15 participants majoring in RS & GIS went to the State Key Laboratory of Remote Sensing Science for professional hands-on training. It was organized by the Centre as a practical class of "The Principle and Method of Remote Sensing".

The course was lectured by Professor Liu Qinhua from Institute of Remote Sensing and Digital Earth Chinese Academy of Sciences. Pro. LiuQinhua and other researchers gave a vivid and

excellent introduction of infrared photometric methods from indoors to outdoors with hands-on guidance. The participants listened carefully and then operated by themselves actively.

At the end of the class, all the students expressed their thanks to the teachers and said that they had a more intuitive understanding of the theoretical knowledge according to this practice. In addition, they would work harder and strive for more achievements in the future.



## RCSSTEAP Participates in the Symposium on International Space Cooperation in Promoting Economic and Social Development of Developing Countries

The International Academy of Astronautics (IAA) and China Center for Aerospace Science and Technology International Communications (CCASTIC) jointly organized the Symposium on International Space Cooperation in Promoting Economic and Social Development of Developing Countries and IAA Academy Day in Beijing from 25<sup>th</sup> to 26<sup>th</sup> November, 2016.

It was to commemorate the 60<sup>th</sup> anniversary of the establishment of Chinese Space Industry. The anniversary shows that today's top-level activities are built on a long standing and proud tradition.

More than two hundred (200) delegates from government departments, embassies in China, space enterprises, space scientific research institutions of more than ten (10) countries like China, Bangladesh, Belarus, Bolivia, Brazil, Japan, Kazakhstan, Laos, Pakistan, Nigeria, Russia, the United States, Ukraine, Venezuela as well

as international organizations attended this symposium. Mr. Weng Jingnong, Deputy Director of the Centre and Dean of International School, Beihang University, Ms. Guo Yuanyuan, Ms. Cui Yizhuo and all DOSTA and MASTA students from the Centre were in attendance. The students went with very high expectations and the Symposium surpassed the expectations of all. Many topics arising from the Space Science and Technology of Developing Countries, Space Cooperation among Developing Countries, Development Programs and Policy of China's Space Activities were discussed. It was quite educative, informative and revealing for the participants from the Centre.

The series of presentations covered a lot of information such as experience of the years on space science and technology in developing countries, benefits and perspectives of space cooperation, space activities for socio-economic development and international cooperation





on space technologies applications for socio-economic uplift of the developing countries. Mr. Weng Jingnong, Deputy Director of the Centre, gave a report on Practice and Reflection on the Cultivation of Space Technology Talents for Developing Countries. The participants were given ample opportunities to ask questions and give their reflections on the topics discussed at the sessions.

The two days symposium ended on 26<sup>th</sup> November with a visit by the participants to the International Seed Industry Science Technology Park where a video was shown to the participants on how China developed a new technology to improve crop productions. The participants also visited Beijing Shenzhou Lvpeng Agricultural Science and Technology Co., Ltd. where they were shown the technology of breeding vegetables from Outer Space.

The symposium was indeed a great platform for heads of space agencies, university professors, captains of industries, researchers, educators and students to learn knowledge and communicate with each other.



### Mr. Weng Jingnong, Deputy Director of the Centre and Participants from Venezuela were interviewed by Phoenix Satellite TV

In November 2016, Mr. Weng Jingnong, Deputy Director of the Centre and participants from Venezuela were interviewed by Phoenix Satellite TV.

The internationalization of space standards plays a vital role in space industry. Space talents are significant bridges in space international cooperation. Mr. Weng Jingnong said, "China is willing to assume more international responsibilities, share its successful experience of China's space development and try to help the developing countries improve their space application capability. Therefore, we should make good use of the Centre as an exchange platform and constantly improve the scale and level of space education. We will help the developing countries

in space talents cultivation and promote the internationalization of "Chinese Space Standards".

Maria and Aimee are now studying for master's degree and doctor's degree respectively at the Centre. During the interview, Maria mentioned her first training experience in Beihang University 9 years ago. She said, "At that time, I knew nothing about satellite. It was my first time to know what was the satellite, how it worked and saw the complete communication satellite platform. Now, I have the chance to continue my study at Beihang University, I am very grateful for that." They both would like to strive for space development and make contribution to international cooperation in the future.





## The Kick-off Meeting of APSCO Student Small Satellite (SSS) Project



The Kick-off Meeting of APSCO Student Small Satellite (SSS) Project was successfully held during December 12<sup>th</sup> to 15<sup>th</sup>, 2016 at APSCO Headquarters, Beijing, China. More than thirty (30) representatives of technical experts from Bangladesh, China, Iran, Mongolia, Pakistan, Peru, Thailand and Turkey participated in the meeting. Mr. Li Xinjun Secretary-General of APSCO, Mr. Huang Haijun, Vice President of Beihang University and Mr. Xu Yansong Division Director for International Affairs, China National Space Administration (CNSA) addressed the meeting. They all appreciated the delegates' contributions and expressed their high expectations on the project.

At the meeting, all kick-off documents including Project Implementation and Management Plan, Project Deliverable Items and Description Document, Project Financial and Cost

Management Plan, Project Role of the Member States for Implementation of the project were reviewed. Then, the delegates had a intensive discussion on those documents and shared their comments. It laid a good foundation for the implementation of the project and the follow-up work was cleared. Professor Huang Hai from School of Astronautics, Beihang University, was elected as the chairman of Project Management Team (PMT).

Mr. Huang Haijun, on behalf the Leading University, signed a project agreement with Mr. Li Xinjun, Secretary-General of APSCO. Beihang University also signed Memorandum of Understanding (MoU) on SSS-1 Micro-satellite and related ancillary work with APSCO Secretariat and signed MoU with subsystem provider MSs— Iran, Pakistan and Peru.

Finally, the Member States reached a consensus on Minutes of Meeting (MoM). With the agreement of all the Member States and in line with the establishment of PMO, the SSS Project formally kicked-off.

SSS Project is a project led by China with cooperation of seven (7) countries including Bangladesh, Iran, Mongolia, Pakistan, Peru, Thailand and Turkey. It will focus on the completion of three (3) small satellites (1

Micro-sat and 2 Cube-sat) as well as related on-orbit technology demonstration, satellite communication, space science exploration and space remote sensing application, providing a sound platform for the Member States in the fields of space communication and personnel cultivation. Beihang University is the leading university of SSS Project. The Centre will do its best to promote the project combining with its master's degree program of Micro-satellite.



## Meeting on 2017 Degree Programs at the Centre

On January 4<sup>th</sup>, 2017, meeting on 2017 Degree Programs was held at the Centre. Ms. Tan Yumin, expert of RS&GIS, Mr. Huang Hai, expert of Small Satellite, Mr. Jin Tian, expert of GNSS were in attendance. The meeting was hosted by Mr. Weng Jingnong, Deputy Director of the Centre.

First of all, Mr. Weng Jingnong gave a brief introduction of 2017 recruitment plan. As for DOCSTA and MASTA Programs, it is planned to enroll fifty (50) students in Remote Sensing and Geographic Information Systems (RS&GIS),

Global Navigation Satellite System (GNSS) and Micro-satellite Technology, including forty-two (42) postgraduates and eight (8) doctors. Three (3) quotas of Chinese Government Scholarship will be provided to each contracting party by the Centre. Then, they discussed 2017 work plan and provided suggestions on the amendment of 2017 Announcement.

Schedule and process of 2017 enrollment were decided at the meeting.



### New Year Get-together

On the afternoon of January 13<sup>th</sup>, 2017, the participants of the Centre gathered together to bid farewell to the old year and welcome the new one. At the New Year Get-together, Mr. Weng Jingnong, Deputy Director of the Centre, briefly reviewed the main work over the past year and provided suggestions and requirements on the academic progress report and survey report that the participants were supposed to accomplish

during the winter vacation. He also wished them a safe and meaningful holiday. Then, Ms. Guo Yuanyuan, Project Director of the Centre, introduced the course schedule, team pilot projects, practical activities in the coming spring semester. In addition, mascots of rooster were given to the participants as a present, wishing them all the best in 2017.



### The Signing Ceremony of Contract between Beihang University and APSCO on APSCO Student Small Satellite (SSS) Project

The signing ceremony of Contract between Beihang University and Asia-Pacific Space Cooperation Organization (APSCO) on APSCO Student Small Satellite Project (SSS-1 Micro-satellite and Ancillary Work) was held on 17<sup>th</sup> of January, 2017 in Ruxin Conference Room, Beihang University. The signing ceremony was attended by more than forty (40) participants from APSCO, Ministry of Industry and Information Technology (MIIT), China National Space Administration (CNSA) and Beihang University, and addressed by invited VIPs including Mr. Li Xinjun, Secretary General of the APSCO, Mr. Huang Haijun, Vice President of Beihang University and Mr. Tian Yulong, Secretary General of CNSA. The ceremony

cooperation project since the establishment of APSCO and had a great historical significance. This project was not only a great opportunity but also a big challenge. APSCO stood ready to use



this opportunity to share technology, experience, resources and made benefits to all its Member States. He also expressed his thanks to the strong support of CNSA, MIIT and Beihang University and firmly believed that this project would be a successful pilot which combined by Education, Training and Technology Capacity Building for Future development on SSS project.

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

Mr. Huang Haijun, on behalf of Beihang

At the beginning of the ceremony, Prof. Huang Hai of Beihang University presented a short report on the project background as well as the current status. Then Mr. Li Xinjun said that the project had been the biggest international





University, expressed thanks to all the people involved in SSS Project. He said that as the leading university, Beihang would do its best and take responsibility to work closely with APSCO Secretariat and all the APSCO Member States to make a success.

Mr. Tian Yulong, as the last speaker indicated once again that Chinese government will continue to support this project. He hoped that this project would adhere to the three principles of being open, cooperative and hoped APSCO could promote its international influence in this way. He also hoped that more and more young generation aerospace researchers and university students could get involved in this project. In the

future the Constellation would include not only three (3) but up to thirty (30) micro-satellites and cube-satellites. He hoped all the countries involved could work smartly and hard to promote this project.

In addition, all the parties agreed to establish a SSS website and publish the progress of the project regularly based on the request by Mr. Tian Yulong.

At the end of the ceremony, Mr. Li Xinjun and Mr. Huang Haijun signed the contract on behalf of APSCO and Beihang University respectively. The signing was observed by the distinguished delegates and the project PMB members.



## Education and Training Programs

### Degree Programs and Short Training Programs in 2016

#### Master's Program

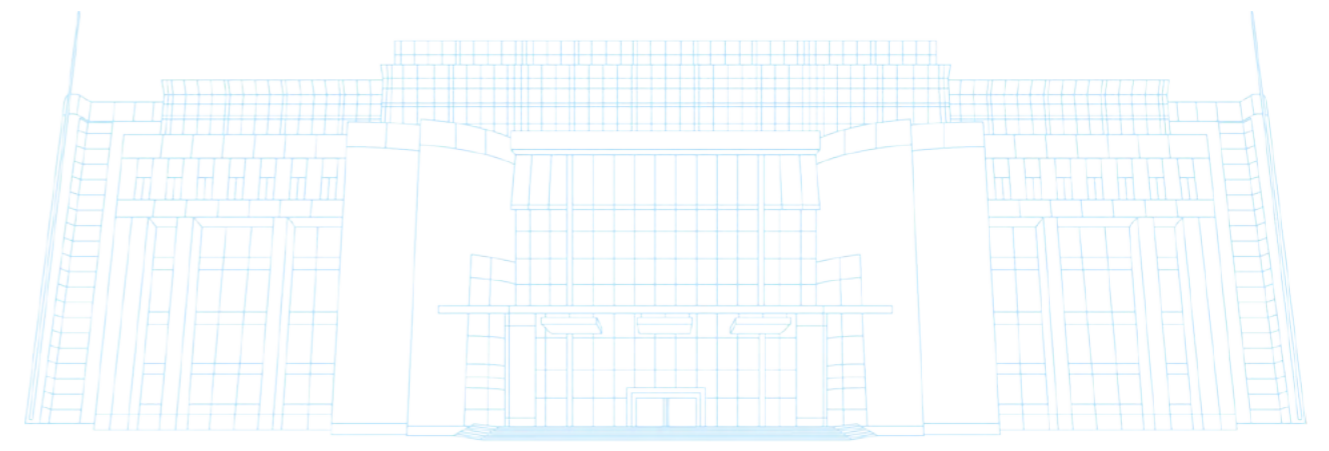
Year	Research Direction	Number	Countries of Participants
2016	Remote Sensing and Geographic Information Systems (RS&GIS)	15	Algeria, Bangladesh, Bolivia, Indonesia, Iran, Mongolia, Pakistan, Peru, Thailand, Turkey, Venezuela
2016	Global Navigation Satellite System (GNSS)	11	Algeria, Bolivia, Brazil, Croatia, Iran, Nigeria, Peru, Thailand, Ukraine, Venezuela
2016	Space Law and Policy	10	Bolivia, Mongolia, Nigeria, Pakistan, Thailand, Turkey, Venezuela

Participants in total: 36

#### Doctoral Program

Year	Research Direction	Number	Countries of Participants
2016	Space Technology Applications	13	Bangladesh, Iran, Indonesia, Mongolia, Myanmar, Nigeria, Thailand, Pakistan, Venezuela

Participants in total: 13





### Short Training Programs in 2016

Date	Topic	Number	Countries of Participants
Mar. 26-30	China Remote Sensing Technology and Data Applications	46	Algeria, Bangladesh, Bolivia, Brazil, Indonesia, Iran, Laos, Mongolia, Mozambique, Nigeria, Pakistan, Peru, Slovakia, Thailand, Venezuela
May. 8-20	International GNSS Seminars "GNSS Courses for curious minds"	31	Algeria, Bangladesh, Bolivia, Brazil, China, Iran, Mozambique, Nigeria, Pakistan, Peru, Saudi Arabia, Thailand, Venezuela
Jul. 11-30	BeiDou Technology and its Applications	37	Cambodia, Egypt, Iran, Iraq, Malaysia, Mongolia, Morocco, Nigeria, Oman, Pakistan, South Africa, Thailand, Uganda, Venezuela, Zambia
Aug. 8-13	Global Navigation Satellite Systems	83	Cameroon, Ghana, Kenya, Libya, Nigeria, Sudan, Tanzania
Sept. 22-27	Space-based Technologies for Flood and Drought Monitoring Risk Assessment	28	Bangladesh, Ghana, Guatemala, India, Iran, Italy, Kyrgyzstan, Mongolia, Mozambique, Nepal, Nigeria, Pakistan, Peru, Sudan, Thailand, Trinidad and Tobago, Turkey, Zimbabwe
Oct. 14-16	The "Belt and Road Initiative" Spatial Information Corridor Engineering Application	45	Algeria, Bangladesh, Bolivia, Brazil, Croatia, Indonesia, Iran, Laos, Mongolia, Nigeria, Pakistan, Peru, Thailand, Turkey, Ukraine, Venezuela
Oct. 31-Nov. 8	Navigation and Positioning Satellite System Design	31	Algeria, Bangladesh, China, Indonesia, Iran, Laos, Mongolia, Mozambique, Pakistan, Peru, Thailand, Turkey

Participants in total: 301

# RCSSTEAP

### 2017 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 2017. The Degree Programs are as follows:

#### 1. Postgraduate Degree Programs

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

- 1) Remote Sensing and Geographic Information System (RS & GIS)
- 2) Global Navigation Satellite Systems (GNSS)
- 3) Micro-satellite Technology

**The Centre will provide Chinese Government Scholarship to three (3) enrollees to every contracting party.**

#### 2. Undergraduate Degree Program

A new school named School of International Space Science and Technology (Asia-Pacific School in short) with enrollment of four-year undergraduates taught in English will be built in Beihang University. It is a great opportunity for the Centre to develop undergraduate talents in space technology applications. It is planned to recruit thirty (30) undergraduate students in 2017.

Website : <http://www.rcssteap.org>





## Participant Column



Ada and Akande: Aerospace Talents from Nigeria

Ada and Akande are research engineers at the African Regional Centre for Space Science and Technology Education in English (ARCSSTE-E) from Nigeria. Ada was an excellent academical student as demonstrated when he obtained a Master's degree at Teesside University, graduating with a Distinction in Electronics and communications engineering. As for Akande, he had a master degree in Electrical Electronics with Computer & Control Option from University of Ilorin in 2010. They started working at ARCSSTE-E in 2013 as research engineers.

However, they were not satisfied with their achievements and stable condition at that time. They were fond of life with challenges instead of

a stable one and they hoped that learning could go with them all their lives.

In 2014, a great opportunity came. Their outstanding academic performances gave them the opportunity to proceed on a second Master's degree at Beihang University, China, under the prestigious MASTA Program of Space Technology Applications at RCSSTEAP.

Beihang University, the first university in China focusing on aeronautical and astronautical education and research, is the cradle of aerospace professionals. It boasts of excellent teachers, state-of-the-art laboratory equipments, modern machines and devices needed for world class

research as well as superb environment with a history of 60 years. It has always attracted a large number of students at home and abroad including Ada and Akande.

They said that the years here had been very fantastic. The Centre has been doing well in the areas of training and capacity building such that a number of workshops, seminars and conferences have been held in order to educate and assists the postgraduate students in their projects and make them have a better understanding of space technology applications. All those above made them so excited and innovated their thinking patterns. In addition, it was quite an enlightening experience as they had learned about new cultures especially the Chinese culture. Ada said, "According to a Chinese proverb that says 'if you want to travel fast, go alone, but if you want to



travel far, go together'. I have learned the value of team work, mutual respect and cooperation."

In August 2016, an international Workshop on Global Navigation Satellite Systems was jointly organized by ARCSSTE-E and RCSSTEAP. They volunteered to serve as coordinators between the two UN Regional Centres, contributing a lot to the workshop as well as laying a good foundation for the cooperation between the two Centres.

In 2016, they obtained master degrees in Space Technology Applications with excellent academic results after two years of hard work. At that time, they increasingly felt the power of knowledge and would like to continue their studies. Finally, they made a decision to pursue doctoral degree at Beihang University. And due to their great academic achievements, they became





the freshmen in DOCSTA Program at Beihang University in September, 2016.

They cherished this opportunity, and expressed their deeply thanks to Beihang University. They will continue to devote themselves to academic researches, do their best to promote space technology application and try to make a positive contribution to deepen cooperation between China and Nigeria.

When it comes to their plans for the future, Ada said, "I have passions to change people's lives through the use of technology. I would like to see space technology applications (STA) could positively impact the lives of people. I like the

business aspect of STA, too. If I am successful I would like to establish a technology center which could provide a good platform for students to get more hands-on practical experience of technology."

Akande said, "It is the wish of every human being to devote himself to the development of his own country. So I would like to return to Nigeria and use the skills acquired to provide the benefit to my country, ARCSSTE-E Member States even the whole world."

Learning is a lifelong journey. Wish they could achieve more and have a bright future!





# Additional Words

This issue records the main work of the Centre from October 2016 to January 2017, including the First Advisory Committee Meeting of RCSSTEAP, various activities of the Centre, 2017 enrollment plan, etc.

2016 is a critical year for the development of the Centre. Adhering to the vision of openness, innovation and inclusiveness, the Centre has been forging ahead with innovative development. We have lots of stories as well as great gratitude in this year. The Centre is grateful for the continuous support of UNOOSA, Chinese government, Beihang University, partners, the Member States and the other UN Regional Centres.

A big thank for making 2016 a success and looking forward to an exciting 2017!

Editor



# Glance of the Centre

## Name List of the Governing Board Members

No.	Title	Name	Gender	Country	Affiliation & Position
1	Chairperson	Xu Dazhe	Male	China	Administrator of China National Space Administration (CNSA)
2	Member	Houari Karim	Male	Algeria	Director of International Cooperation of Algerian Space Agency (ASAL)
3	Member	Felix Menicocci	Male	Argentina	Secretary General of Argentina National Commission of Space Activities
4	Member	Md. Dilwar Bakhth	Male	Bangladesh	Chairman of Bangladesh Space Research and Remote Sensing Centre
5	Member	Jaime Antonio Mendoza Gonzales	Male	Bolivia	Space Segment Engineer of Bolivian Space Agency (ABE)
6	Member	Jose Raimundo Braga Coelho	Male	Brazil	President of Brazilian Space Agency (AEB)
7	Member	Thomas Djamaluddin	Male	Indonesia	Head of National Institute of Aeronautics and Space (LAPAN)
8	Member	Imran Iqbal	Male	Pakistan	Member of Pakistan Space and Upper Atmosphere Research Commission (SUPARCO)
9	Member	Jose Julio Cesar Humberto Acuña	Male	Peru	Representative of National Commission on Aerospace Research and Development (CONIDA) of the Republic of Peru
10	Member	Victor Cano	Male	Venezuela	President of Bolivarian Agency for Space Activities of Venezuela (ABAE)

## Name List of the Representatives of Observers

No.	Name	Gender	Affiliation & Position
1	Simonetta Di Pippo	Female	Director of the United Nations Office for Outer Space Affairs (UNOOSA)
2	Li Xinjun	Male	Secretary General of Asia-Pacific Space Cooperation Organization (APSCO)

## Director of the Advisory Committee

No.	Title	Name	Gender	Country	Affiliation & Position
1	Director	Xu Huibin	Male	China	President of Beihang University



The 1<sup>st</sup> GB Meeting, Nov. 17, 2014



The 2<sup>nd</sup> GB Meeting, Nov. 28, 2015

## Campus of the Centre



## Secretariat of the Centre

