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Preface

Time flies. It has been three (3) years since the establishment of the Centre.

The Centre focuses on education, promoting the development of space technology applications. In the fields of GNSS, RS&GIS, Satellite Communication, Micro-satellite Technology, Space Law and Policy, the Centre has enrolled one hundred and thirty-three (133) master and doctoral students. The Centre has held fifteen (15) short training programs on space technology applications with six hundred and forty-seven (647) participants from fifty-four (54) countries. In 2017, the Centre organized Southern Hemisphere Space Technology Application and Education Forum with Brazil, one Member State of the Centre; held Journey of Chinese Aerospace Technology and Culture 2017 along with APSCO, under the support of the Ministry of Industry and Information Technology; and held Poster Design Contest for China Space Day 2017, etc. The Centre integrates classroom teaching with extracurricular practice, combines space technology with cultural arts, which helps the participants to gain better understanding, inspires them to explore and innovate.

The Centre strengthens cohesion inside and cooperation outside, aiming to build up a first class educational platform on space technology. The Centre has invited Mr. Sergio Camacho and Ms. Mazalan Othman, Former Directors of UNOOSA, and other famous experts at home and board, more than one hundred and fifty (150) in total, to give lectures at the Centre. It provides more than one hundred (100) English-taught courses. It upgraded educational environment by renovating facilities including GNSS Lab, Satellite Navigation Smart Classroom, Space Technology Application Library, Visiting Professor Office and Discussion Room. It deepened the cooperation with space industries to provide participants of the Centre with more internship and hand-on opportunities. Great achievements and advance concept of the Centre earned praise from many UNOOSA officers and experts.

The Centre insists on innovation and development, increasing the brand influence of the Centre. The Centre has set up official website and WeChat Platform. It also compiled books like Visual Identity Guidance, Newsletter, Story of the Centre, Collection of Selected Paintings on China’s Space Exploration, the UN Regional Centre in China, Journey of Chinese Aerospace Technology and Culture 2017, using different ways to convey the story and spirits of the Centre.

There are challenges, achievements, surprises and gratefulness along the way here. We thank the hard-working staff, cooperative partners, and the strong support of Chinese Government and Beihang University. All of your efforts are crucial to the development of the Centre.

In the future, persisting on the vision of “Openness, Inclusiveness, Innovation”, we will make more innovation and development, and catch up with the idea of “remain true to our original aspiration and keep our mission firmly in mind” to start a bright new era.
Special Focus——

The 3rd Meeting of the Governing Board

On November 29th, 2017, the 3rd Meeting of the Governing Board of Regional Centre for Space Science and Technology Education in Asia and the Pacific (China) was held at the Conference Center of New Main Building, Beihang University. The meeting was hosted by Mr. Tang Dengjie, Chairperson of the Governing Board of the Centre and Administrator of China National Space Administration (CNSA). Mr. Luc St-Pierre, Chief of the Space Applications Section of UNOOSA, nine (9) Governing Board Members/representatives from Algeria, Argentina, Bolivia, Brazil, China, Indonesia, Pakistan, Peru and Venezuela, representative from Royal Thai Embassy, Mr. Xu Huibin, Director of the Advisory Committee of the Centre and Dean of International School, Beihang University were in attendance.

At the meeting, the Governing Board elected its new Chairperson, confirmed the adjustment of four (4) Governing Board Members, reviewed and approved Rules of Procedure of the Governing Board (2017) and Working Rules of the Advisory Committee, Biennial Work Report 2016-2017 of RCSSTEAP and Biennial Work Plan 2018-2019 of RCSSTEAP, and finalized the time and venue of the next regular Governing Board Meeting.

Mr. Luc St-Pierre, Chief of the Space Applications Section of UNOOSA, delivered a speech on “Capacity-Building for the 21st Century” at the meeting. In the report, he mainly talked about the work plan and development vision of the 21st Century’s capacity-building, which provided excellent ideas for promoting space capacity-building and guidelines for the future development of the Centre. In addition, he gave high praise to the Centre, appreciating the innovative ideas, excellent training programmes and various outreach activities. He also hoped that the Centre would deepen the international cooperation, promote the establishment of Alliance of Regional Centres (ARC), encourage resource sharing and peaceful use of space technology, and become the model of the Regional Centres.

The representatives of the Contracting Parties fully affirmed the Centre’s work report and plan, and appreciated the Centre for its contribution to space education and international cooperation. They considered it as an important platform of information sharing and competence improving in the field of space science and technology. It was grateful for the high attention paid by the Chinese Government, strong support of Beihang University and hard work of the staff. They also expressed their willingness to be involved in the work of the Centre. They hoped that China would help more developing countries to cultivate high-quality and professional talents in the field of space science and technology through the platform of the Centre, promoting space development for the benefit of all humankind.

Mr. Xu Huixin, Director of the Advisory Committee of the Centre and President of Beihang University, thanked the support of UNOOSA, Chinese Government and the Contracting Parties. He said, as the year 2018 marked the 50th anniversary of the first United Nations Conference on the Exploration and Peaceful Uses of Outer Space, the Centre should take this as a new start, seizing the opportunity of the “Belt and Road Initiative”. The Centre will continue exploring and forging ahead with further cooperation and innovation. The Centre will
focus on team building, education and training, capacity building, visibility promotion to achieve sustainable development, seeking to make a greater contribution to the peaceful exploration and uses of outer space. It will integrate leading subjects of Beihang University with the good educational resources at home and abroad to encourage better development of the Centre and to better serve the demand of other countries on exploring and using of the outer space.

At the end of the meeting, Mr. Tang Dengjie, Chairperson of the Governing Board, appreciated the supports of UNOOSA, the Contracting Parties, the partners and Beihang University. He hoped that the Centre would enhance the exchange and cooperation with UNOOSA, the Contracting Parties and the other Regional Centres, encourage space technology sharing and capacity building, and promote the establishment of ARC to contribute to space capacity-building in developing countries. He also expressed sincere hope that the Contracting Parties would continue to support and participate in the construction and operation of the Centre, and together with the Centre to make more contribution to the peaceful exploration and uses of outer space.

This meeting has promoted the in-depth exchange and cooperation among the Member States, encouraging better development of the Centre.

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Reception for the 3rd Anniversary of RCSSTEAP

On the evening of November 28th, Reception for the 3rd Anniversary of RCSSTEAP was held by China National Space Administration (CNSA) and the Centre at Park Plaza. Mr. Tian Yulong, Secretary General of CNSA, Mr. Xu Huibin, Director of Advisory Committee of the Centre and President of Beihang University, Mr. Tao Zhi, Director of the Centre and Vice President of Beihang University, Mr. Fang Jiancheng, Vice President of Beihang University, representatives from the Member States of the Centre (including Algeria, Argentina, Bangladesh, Bolivia, Brazil, Indonesia, Pakistan, Peru and Venezuela), Embassies in China, international organizations, government departments, partners of the Centre, teachers and students of the Centre, representatives from International School, News Division, Youth League Committee of Beihang University, and staff of the Centre, about one hundred (100) people in total, were in attendance. All the guests spent a wonderful night together at the reception.

The reception was hosted by Mr. Weng Jingnong, Executive Director of the Centre and Dean of International School, Beihang University. Mr. Tian Yulong, Secretary General of CNSA, Mr. Xu Huibin, Director of the Advisory Committee of the Centre and President of Beihang University, Mr. Luc St-Pierre, Chief of the Space Application Section of UNOOSA, Mr. Lansari Abdeldjelil, Director of International Cooperation of Algerian Space Agency (ASAL) made speeches respectively.

Mr. Tian Yulong, Secretary General of CNSA, said in his speech that, Chinese Government insisted on peaceful use of the outer space all the time and was glad to help the other developing countries in space capacity building by sharing its own experience, achievements and infrastructures in space field. The UN Regional Centre at Beihang University made fruitful and brilliant achievements in space science and technology education, talents cultivation and capacity building in the past three (3) years. In the future, Chinese Government would continue supporting the development of the Centre and strengthening cooperation with the United Nations and the Contracting Parties in cultivating innovative talents for promoting the peaceful use of space technologies for the benefit of all humankind.

Mr. Xu Huibin, Director of the Advisory Committee of the Centre and President of Beihang University, made a speech on behalf of the Centre...
and Beihang University. He thanked UNOOSA, Chinese government, the Member States, the other Regional Centres and the partners for their strong support. He said that the Centre would further deepen international cooperation and promote information sharing with a more positive and open attitude, seeking to make a greater contribution to the sustainable development of space science and technology for the benefit of all humankind.

Mr. Luc St-Pierre, Chief of the Space Application Section of UNOOSA, said in his speech that although RCSSTEAP was the latest one among all the six (6) Regional Centres, it had achieved the outstanding results. He thanked Chinese Government and Beihang University for their significant support and hoped the Centre could continue improving itself and become the backbone in space science capability building of the whole world.

Mr. Lansari Abdeldjelil, Director of International Cooperation of Algerian Space Agency (ASAL), also thanked Chinese Government for its strong support and the Centre for its efforts in promoting space education and capacity in the Member States as well as the other developing countries. He also mentioned that they would give full support to the Centre and promote international cooperation in space science and technology.

Then, the Award Ceremony was held. Outstanding Partnership 2017, Outstanding Teacher 2017 and Outstanding Volunteer 2017 were awarded. International Alliance of Satellite Application Service, Prof. Jin Tian, GNSS expert of the Centre and associate professor of School of Electronic Information Engineering, Beihang University, and Muhammad Arsalan, a Pakistan student in MASTA Program were awarded the honors.

2018 will be the 50th anniversary of the first United Nations Conference on the Exploration and Peaceful Uses of Outer Space. It marks a new era of international cooperation. All the guest thanked the Centre for its remarkable contribution in sharing aerospace experience and improving capability in aerospace for different countries, and gave their best wishes to the Centre.

**Technical Visit**

On the morning of November 30th, China National Space Administration and the Centre organized a technical visit to Chinese Academy of Space Technology and China Centre Resources Satellite Data and Application. Experts from these two institutions warmly welcomed the representatives and made wonderful presentations on the aspects of the development history, research fields and main achievements in space technology of their institutions. Then, the representatives visited the exhibition halls and operation rooms, from which they had a close look at many satellite and spacecraft models like DFH-4 Satellite, FY Satellites, Gaofen Satellites, BeiDou Navigation Satellite System, Lunar Probe, reentry capsule of Shenzhou-8, and viewed live satellite data and pictures, having a more intuitive and in-depth understanding of China Aerospace development.

At the end of the visit, the representatives thanked the Centre for arranging such a great technical visit for them to learn about the current development and future vision of China’s space industry. They all spoke highly of the high speed development of China Aerospace, and showed their great interest in working with China to promote the peaceful use of space technology for the benefit of all humankind.
RCSSTEAP (China) Activities

Representative of the Centre Attended United Nations/Russian Federation Workshop on Human Capacity-Building in Space Science and Technology for Sustainable Social and Economic Development

From October 30th to November 11th, 2017, United Nations/Russian Federation Workshop on Human Capacity-Building in Space Science and Technology for Sustainable Social and Economic Development was held at Samara National Research University, Samara, Russian Federation. Nearly one hundred (100) people from thirty-eight (38) countries, such like scientists, government officials, scholars of universities and research institutes, were invited to attend it. Ms. Simonetta Di Pippo, Director of Office for Outer Space Affairs (UNOOSA), Mr. Rene Pische, Head of Permanent Mission, European Space Agency, Mr. Dmitry Azarov, Samara Region Governor, Russian Federation, Mr. Evgeniy Shakhmatov, Rector of Samara National Research University, attended the opening ceremony.

Mr. Weng Jingnong, Executive Director of the Centre was invited to attend the workshop. As a panelist, he shared his opinions about the theme and proposed that all the countries should share responsibility and resources, seek common development and promote the sustainable development of human society to meet the new space era.

Mr. Weng Jingnong was also invited as a session chair at the session of “New Methodologies and the Way Forward for Capacity Building”. In addition, he gave a report entitled “Alliance of the UN Regional Centres”, which gave a detailed introduction of Alliance of the Regional Centres (ARC for short) from the aspects of its vision, mission, organizational structure, logo design, work plan, future development, etc. At the same time, it was proposed that all the six (6) Centres should pursue further cooperation and take advantage of the resources of all the sixty-six (66) Member States to actively promote the development of the UN Programme on Space Applications and make contribution to the 50th anniversary of the first United Nations Conference on the Exploration and Peaceful Uses of Outer Space (UNISPACE+50).

During the workshop, Mr. Weng Jingnong communicated with Ms. Simonetta Di Pippo, Director of UNOOSA, Mr. Lorant Czaran, and the directors of the other Regional Centres. The proposed framework of ARC was approved and the joint publication was discussed. It was planned to publish “Regional Centres: History and Future” for the celebration of UNISPACE+50. On behalf of UNOOSA, Mr. Lorant Czaran reaffirmed the proposal of ARC, and expressed that full support would be given for its future development. It is hoped that ARC would be a key alliance in encouraging space science and technology capacity-building in the world.

The workshop, co-organized by the United Nations Office for Outer Space Affairs and Samara National Research University, provided a good platform for experts from various countries in the field of space science and technology applications through two (2) keynote addresses, one (1) high level panel, nine (9) Sessions and three (3) penal discussions. The outcomes and recommendations emanating from the workshop will be of particular importance as they provide inputs to a report on “Capacity building for the 21st Century” for consideration in June 2018 at UNISPACE+50, a high-level segment of the United Nations Committee on Peaceful Uses of Outer Space, celebrating the 50th anniversary of the first United Nations Conference on the Exploration and Peaceful Uses of Outer Space. It also actively promoted the implementation of the 2030 Agenda for Sustainable Development.

Founded in 1942, Samara National Research University was originally named after academician S.P. Korolev. It is one of the fastest-developing Russian institutions of higher education. It was renamed as Samara National Research University in 2016. As of 2013, it has been included in the program for improving the competitiveness of Russian universities among the world’s top science-and-education centers (Project 5-100). The scientific and education activity of Samara University encompasses aerospace technologies, engine-building, and modern methods of information processing, as well as the fundamental technical and natural sciences and the humanities. The university has formulated a world-class, unique research and educational complex, which involves the students directly in all stages of development, creation and testing of spacecraft. Representatives of Harbin Institute of Technology (HIT) also attended the workshop. Nearly twenty (20) Chinese students from Northwestern polytechnical University, Harbin Institute of Technology, Nanjing University of Science and Technology are currently working in Samara National Research University on their PhD and postdoctoral research.
The 1st Ability-Training Workshop

On November 3rd, 2017, the 1st Ability-Training Workshop at the Centre. Ten (10) participants in total attended the it. The workshop was hosted by Ms. Wu Ke, student adviser of the Centre.

Aiming at raising up participants’ awareness of cultural differences and training their intercultural communication ability, the 1st Ability-Training Workshop mainly included several parts, like ice breaker activity, small quiz on Chinese culture, group project, class discussion, etc. Adopted the form of bingo games, the ice breaker activity made participants learn more about each other and invigorate the atmosphere at the same time. In the following parts of small quiz on Chinese culture and group project, all the participants actively engaged in and share their own experiences and thoughts as well. Additionally, the participants worked in groups, completed four (4) posters on cultural difference, and also made wonderful presentations of the cultural differences they had found out.

The 1st Ability-Training Workshop was the first trial of the Centre to held workshops on cross-cultural education, and it achieved the desired aims. Many participants said that, they learn a lot of cultural difference, which made them be aware of that they could adjust to the new culture more easily by noticing the cultural differences between host culture and home culture. This workshop helped the participants get used to Chinese life style and provided as a platform for people from different cultural background to communicate with each other.

The Centre will continue to held workshops of different topics to better serve the participants. It is believed that the series of Ability-Training Workshop will improve participants’ overall competence and satisfy their diverse demands.

The 2nd Expert Group Meeting (EGM) of APSCO Space Education Curricula Development Project

The 2nd Expert Group Meeting (EGM) of APSCO Space Education Curricula Development Project was jointly held by APSCO and RCSSTEAP from November 7th to 9th, 2017 at the Beihang University International Centre for Innovation in Western China (Chengdu). The meeting aimed at discussing the current status of Space Education in the Member States (MS), their demand and requirements.

Twenty-four (24) distinguished delegates, professors and experts from universities of the Member States nominated by their respective countries and officials from APSCO Secretariat attended the meeting. All the Member States, namely Bangladesh, China, Iran, Pakistan, Peru, Thailand and Turkey, actively participated in the meeting. RCSSTEAP prepared the meeting materials including the current education curricula of the postgraduate program on space technology applications at Beihang University and the education curricula recommended by UNOOSA, etc.

The opening session was hosted by Dr. Mohammad Ebrahimi Seyedabadi, Director General of Department of Education, Training and Database Management of APSCO and Prof. Weng Jingnong, Deputy Director of RCSSTEAP and Dean of International School, Beihang University.

The meeting was chaired by Prof. Qamar UI Islam from Pakistan, who was unanimously selected by the participants. Dr. Ebrahimi, DG of DET&DM of APSCO made a presentation on APSCO education and training activities, space curricula program background and expected outcomes of the meeting.
Experts of RCSSTEAP Prof. Tan Yumin, Prof. Jin Tian, Prof. Sun Liang, Prof. Gao Guozhu and Ms. Guo Yuanyuan made presentations on the current education curricula on Space Technology Applications offered by Beihang University. Delegates from the Member States made presentations on the current status of space education in their home countries and their demand and requirements for curricula development. Prof. Weng Jingnong, Deputy Director of RCSSTEAP, introduced newly BeiDou Belt & Road School that established at Beihang University, and proposed to build up APSCO University Alliance to strengthen cohesion among the Member States. Representatives of the Member States made agreement on “Minutes of Meeting” and proposed establishing APSCO University Alliance for future exchange and cooperation among the Member States.

At the end of the meeting, Dr. Mohammad Ebrahimi Seyedabadi, Director General of Department of Education, Training and Database Management of APSCO thanked the chairman of the meeting and all experts from the MS for their active participation, efforts and dedication to the meeting. Chairman of the Meeting gave his concluding remarks and thanked all for their positive contributions. He announced that all participants from the Member States agreed on the Minutes of Meeting (MoM), and the meeting was successfully concluded.

Experts of the MS expressed their appreciation to RCSSTEAP/Beihang University/APSCO Education and Training Center in China for co-organizing the meeting. All the participants expressed their pleasure for sharing information, knowledge and experiences for developing collaboration among the Member States.

Training on China Satellite Service and Big Data Analysis & Application for Remote Sensing

From November 17th to 19th, Training on China Satellite Service and Big Data Analysis & Application for Remote Sensing organized by Earth Observation System and Data Center of China National Space Administration State, International Alliance of Satellite Application Service, Beijing Shine Technology Information Co., Ltd. and the Centre was successfully held at Beihang University. Mr. Wei Zheng, Executive Vice-Secretary General of China Association of Remote Sensing Application, Mr. Wang Zhongguo, Vice Director General of International Alliance of Satellite Application Service, Mr. Weng Jingnong, Executive Director of the Centre and Dean of International School, Beihang University, and Ms. Tan Yumin, RS&GIS expert of the Centre attended the opening ceremony.

This training programme aimed at popularizing China satellite application service and helping the “Belt and Road” countries to foster talents in the fields of space technology, satellite communication, navigation, application of RS data, etc. The training included the topics like space remote sensing technology and its data application, satellite communication, satellite navigation and positioning, application solutions, related equipment and practical cases. Experts and entrepreneurs from Beijing Space View Technology Co., Ltd., Institute of Remote Sensing and Digital Earth, Chinese Academy of Science, EUTELSAT Co., Ltd., and International Cooperation Center, China Satellite Navigation Office were invited to give lectures in the training.

Fifty-one (51) participants from thirteen (13) countries (including Algeria, Bangladesh, Bolivia, Brazil, Hong Kong China, Iran, Malaysia, Mongolia, Nigeria, Pakistan, Peru, Thailand, Turkey, Venezuela) attended this training programme. Many participants said that, this training was informative and enabled them to have a comprehensive view of the latest trends of aerospace industry and was a supplement to the professional knowledge taught in class.
Representatives of the Centre Attended ICG-12

From December 2nd to 7th, 2017, the 12th International Committee on Global Navigation Satellite System (ICG-12) was held in Kyoto, Japan. This conference was jointly organized by Cabinet Office of Japan and Ministry of Foreign Affairs of Japan. About two hundred (200) representatives in total, including representatives of UNOOSA, global and regional suppliers of satellite navigation from China, United States, Russia, European Union and Japan, representatives from ICG Member States, like Italy and United Arab Emirates, prospective members and observers from AIN, APSCO, CGSIC, FAI, FIG, IAG, IGS, and specially-invited observers from Australia, Pakistan and the UN Regional Centres were in attendance. Mr. Weng Jingnong, Executive Director of the Centre, Mr. Jing Guifei, Dean of BeiDou Belt & Road School, Beihang University, Ms. Xiu Chundi, GNSS expert of the Centre attended the meeting as the delegation of the Centre.

At the Session C “Information Dissemination and Capacity-building”, Mr. Weng Jingnong, Executive Director of the Centre, delivered a report on “Capacity Building and Education Cooperation under the Framework of ICG Information Centre” on behalf of the Centre. In the report, he reviewed the establishment of BeiDou International Exchange and Training Center at Beihang University and Regional Centre for Space Science and Technology Education in Asia and the Pacific (China), introduced the achievements of degree programmes and gave out suggestions on information dissemination, resources sharing, faculty and student exchange, application demonstration, joint action and support seeking for cooperation. The areas included publishing GNSS textbooks, building joint lab for teaching and researching, information dissemination and sharing, faculty and student exchange, and short training programmes. He proposed to encourage development of space technology applications in developing countries by promoting the cooperation among top universities and ICG Members in information sharing.

Mr. Jing Guifei, Dean of BeiDou Belt & Road School, did a report titled “BeiDou Belt and Road School (B2ROS), Beihang University”, in which he introduced the vision and framework of the school, academic education and training, S&T cooperation and BDS localization, solid basis in Beihang University, etc. Then, in the discussion part, Mr. Jing Guifei advised that the definition of “Capability-building” of Session C should be clarified. Mr. Weng Jingnong suggested to add the topics of “Capability-building” and “Capability Index” to the list of proposals.

During the meeting, representatives of the Centre fully discussed the topics related to educational training with the other delegates, including giving books as gifts to Ms. Shafa from ICG Secretariat, having a heated discussion with representatives of European Union on sharing BeiDou resources through Navipedia (www.navipedia.net), and confirming the China-Russia training programme with Prof. Andrey Kupriyanov from Moscow State University of Geodesy and Cartography.

Taking advantage of this meeting, representatives of the Centre showed the leading role in many issues related to ICG and improved the influence of China’s international GNSS education and training. It also provided a strong support of pushing China as the host country of ICG-13 by pointing out the emphasis of the next year’s work plan.
On December 28th, 2017, Closing Ceremony of 2017 Student Science and Technology Festival in Fengtai District was held at Donggaodi Youth Science and Technology Museum. Mr. Weng Jingnong, Executive Director of the Centre and Dean of International School, Beihang University, Mr. Gong Haoqin, Art Planning Director of the Centre, Ms. Wang Xin, Brand Design Director of the Centre, and twenty (20) participants of the Centre were invited to attend it.

At the closing ceremony, a video titled “Review on 2017 Student Science and Technology Festival in Fengtai District” showed all kinds of activities and contests in the Student Science and Technology Festival, and students’ enthusiasm of learning and using science knowledge. At the following Award Ceremony, Mr. Weng Jingnong, Executive Director of the Centre and Dean of International School, Beihang University, presented “Outstanding Group Award” and encouraged them to keep working hard and making new progress on youth education of science technology.

After the closing ceremony, representatives of the Centre visited Donggaodi Youth Science and Technology Museum and participated in the carnival activities held at the museum. Mr. Gong Wancong, Adviser of “Fengtai Youth-1/Youth Dream-1” Satellite and expert of Chinese Radio Amateur Club, introduced the ground station at the museum and demonstrated the data and images from satellite.

Then, the participants experienced various carnival activities such as remote controlling robots, car racing simulation, 100-metre racing simulation, aircraft experiencing, astronaut training simulation, etc.

Participants of the Centre spoke highly of both the activities and the equipment of Donggaodi Youth Science and Technology Museum, and said that this visit was of great significance to them as it gave them a vivid introduction of youth education on science and technology in China and inspired their own thoughts on youth science education.
Upon the coming of new year of 2018, the concert on “International Music Education and Communication” was held by Central Conservatory of Music and the Centre at Recital Hall of Central Conservatory of Music on December 29th, 2017. The concert was performed by about ten (10) master and doctoral students of Central Conservatory of Music under the guidance of four professors, named Mr. Tan Longjian, Ms. Liu Yuening, Ms. Zhang Lexin and Ms. Zhao Xiaoxia. Mr. Weng Jingnong, Executive Director of the Centre and Dean of International School, Beihang University, participants of the Centre and undergraduate students of Beihang University, about eighty (80) people in total, attended the concert.

Combining Chinese music and western music together, the concert presented audience with wonderful performances, like Pipa duet, ensemble of Zheng and flute, ensemble of Zheng and piano, and brass ensemble, which received warm responses. At the concert, there were some interactive parts in which master and doctoral students in music and instrument related majors from Central Conservatory of Music introduced structure, playing skills and history of both Chinese instruments (including Pipa, Chinese dulcimer, and Zheng) and western instruments (including French horn and clarinet). In addition, the performers gave a vivid introduction of electronic music, the integration of music and modern technology. All the participants actively engaged in the interaction and learned to play different instruments in person, which led to a lively atmosphere.

After the concert, the students visited the music museum on the campus of Central Conservatory of Music. In the museum, the students earned a more comprehensive understanding of the development of Chinese music and Chinese traditional instruments by various kinds of instruments displayed there. They spoke highly of this activity, as it not only gave them an opportunity to listen to Chinese music, but also helped them better understand Chinese culture and inspired their interest in learning Chinese instrument. Today’s concert, a great festival for New Year celebration, provided a music feast for international students from Beihang University.
Participants Visited Miyun Data Receiving Station of Institute of Remote Sensing and Digital Earth, CAS

On January 14th, 2018, twenty (20) participants of the Centre visited Miyun Data Receiving Station of Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences (CAS).

Under the guidance of Prof. Liu Qinhuo and Prof. Ping Jiahe from Institute of Remote Sensing and Digital Earth, CAS, participants of the Centre visited the ground satellite receiving station and central operation room. Prof. Liu and Prof. Ping introduced operation and management, data receiving, data processing of the station, demonstrated received images and data from different satellites like CBERS, Gaofen-1, and Gaofen-2, etc. The atmosphere was very active, as the participants watched the images and data from satellites with great interest and asked many questions related to receiving and transmitting of satellite data, equipment and facilities. The participants all spoke highly of the well-equipped and advanced facilities in the station and took many photos there.

This technical visit was a complement to the course learning for the participants. They said that the visit made positive effects on their study and research as they gained an opportunity to see professional operations on remote sensing data receiving and image processing.

The Institute of Remote Sensing and Digital Earth (RADI) is a comprehensive research institute directly under the Chinese Academy of Sciences (CAS). It was established in 2012, through consolidating two CAS institutes: the Institute of Remote Sensing Applications (IRSA) and the Center for Earth Observation and Digital Earth (CEODE). RADI was founded as a major initiative of CAS “Innovation 2020” Program. The consolidation will pool the advantages of both 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.

Three Participants in Space Law and Policy Completed Thesis Defense

On January 16th, 2018, three (3) participants enrolled in MASTA Program in Space Law and Policy in 2016 has completed their thesis defense successfully. Prof. Wu Xiaodan from Law School of Central University of Finance and Economics, student supervisors, Prof. Gao Guozhu, Prof. Yang Caixia, Prof. Bo Shouxing, Prof. Gao Qi from Law School, Beihang University were in attendance and worked as judges in the thesis defense. The thesis defense was hosted by Prof. Gao Guozhu, expert of the Centre in Space Law and Policy.

The three (3) participants in Space Law and Policy demonstrated their thesis from the aspects of research background, goals, content, methodology and results. The teachers then made detailed comments on topics, contents, logic and frameworks, methodology, format, etc., encouraging them to “admire morality and be practical; seek truth and be innovative” and become professionals in international space law to make contribution to the peaceful use of outer space.

The Centre was the first one among the six (6) UN Regional Centres that opened up educational field in Space Law and Policy, which was of great significance in the development of promoting education in space technology applications. In September 2016, the first class of ten (10) graduate students from seven (7) countries (Bolivia, Mongolia, Nigeria, Pakistan, Thailand, Turkey, Venezuela) in Space Law and Policy were enrolled. All of them, recommended by APSCO and other space agencies of the Member States of the Centre, are professionals or reserve talents in Space Law and Policy in their home countries. Three (3) participants were in faster pace, and they graduated after passing this thesis defense. The others will have their thesis defense approximately in June, 2018.
Education and Training Programs

Degree Programs and Short Training Programs in 2017

Master’s Program

<table>
<thead>
<tr>
<th>Year</th>
<th>Research Direction</th>
<th>Number</th>
<th>Countries of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>Global Navigation Satellite System (GNSS)</td>
<td>11</td>
<td>Bangladesh, Bolivia, Mongolia, Pakistan, Peru, Thailand, Turkey</td>
</tr>
<tr>
<td>2017</td>
<td>Remote Sensing and Geographic Information Systems (RS&amp;GIS)</td>
<td>14</td>
<td>Bolivia, Bangladesh, Brazil, Iran, Mongolia, Nigeria, Pakistan, Peru, Turkey</td>
</tr>
<tr>
<td>2017</td>
<td>Micro-satellite Technology</td>
<td>15</td>
<td>Mongolia, Peru, Pakistan, Bangladesh, Brazil, Turkey, Venezuela, Iran, Thailand</td>
</tr>
</tbody>
</table>

Participants in total: 40

Doctoral Program

<table>
<thead>
<tr>
<th>Year</th>
<th>Research Direction</th>
<th>Number</th>
<th>Countries of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>Space Technology Applications</td>
<td>11</td>
<td>Algeria, Bangladesh, Iran, Turkey, Thailand, Pakistan, Venezuela</td>
</tr>
</tbody>
</table>

Participants in total: 11

Short Training Programs in 2016

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Number</th>
<th>Countries of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feb. 22-24</td>
<td>BeiDou Satellite Navigation Technology</td>
<td>51</td>
<td>Afghanistan, Egypt, Kenya</td>
</tr>
<tr>
<td>May 9-11</td>
<td>Positioning and Navigation Technologies</td>
<td>40</td>
<td>Belgium, France, Germany, Italy, Luxembourg, Netherlands</td>
</tr>
<tr>
<td>Aug.14-Sept.1</td>
<td>The First Summer Camp of the APSCO Student Small Satellite Project</td>
<td>47</td>
<td>Bangladesh, China, Iran, Mongolia, Pakistan, Peru, Thailand, Turkey</td>
</tr>
</tbody>
</table>

Participants in total: 301

2018 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 2018. The Degree Programs are as follows:

Postgraduate Degree Programs

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

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

The Centre will provide Chinese Government Scholarship to three enrollees to every contracting party.

Website: http://www.rcsssteap.org

RCSSTEAP
Introduction to RCSSTEAP (China)

Regional Centre for Space Science and Technology Education in Asia and the Pacific (China) (affiliated to the United Nations) (RCSSTEAP for short) was established on November 17, 2014. The Centre is located on the main campus of Beihang University (http://ev.buaa.edu.cn/), Beijing, China.

The Centre, as an education and training entity supported by the Committee on the Peaceful Uses of Outer Space (COPUOS), was established with the missions to promote the peaceful use of space technologies for the benefit of humanity and to sensitize the countries within the region about space science and technology activities by educating and creating awareness through training, workshops, short courses and outreaches. It seeks to contribute to the implementation of “Programme on Space Applications” promoted by COPUOS and to the enhancement of the education and training level as well as application capacity of space science and technology in the Member States of the Centre through capacity building, information communication, training programmes and professional visits.

For the purpose of facilitating the UN Space Applications Programme and satisfying demands of the Asia-Pacific countries regarding space science and technology education, the Centre offers degree and non-degree programmes with academic exchanges and consultation carrying out in the field of space technology applications.

The Centre has established extensive cooperation with space industries. The Centre has internationally qualified academic and administrative staff with excellent facilities for education, accommodation and recreation.

Presently, the Centre has 10 Member States including Algeria, Argentina, Bangladesh, Bolivia, Brazil, China, Indonesia, Pakistan, Peru and Venezuela.

Overview

Space technology and its applications, the most fascinating technical achievement of the human race in the last six decades, has undoubtedly advanced with great stride. The various practical benefits of space technology play a central role in international development efforts.

In order to transform the recommendations of the United Nations Programme on Space Applications (UN-PSA) into a practical and operable program, Beihang University has initiated the Master program on Space Technology Applications (MASTA) since 2006, and the program has been held 10 times with success till now. This program has enrolled totally 215 postgraduate students from 19 countries, among which 128 students have graduated and obtained the Master’s Degree on Space Technology Applications.

MASTA is an elaborately designed and intensive Master program for students who are interested in exploring the mysterious universe. This application-oriented program focuses on both knowledge acquisition and operational training. It aims to deliver “International, Interdisciplinary, Intercultural, Innovative, Identical (5I)” education and provide a powerful platform for scholars and professionals to obtain more opportunities for communicating and experiencing the space technology practice in China.

MASTA is designed to give participants a competitive edge by:

• Broadening their knowledge on space-related issues and activities and encouraging participants to use acquired knowledge and skills through practical, hands-on experience;
• Providing a variety practice opportunities (include watching satellite launching on site, attending international conferences/workshops, etc.);
• Internationally qualified professors and experts from a diversity of academic backgrounds;
• Modularized curricula design and flexible study modes;
• Developing the cross-cultural communication skills with an internationalized atmosphere.

The main educational fields of MASTA Program include Remote Sensing and Geographic Information Systems (RS&GIS), Satellite Communications, Global Navigation Satellite System (GNSS), Micro-satellite Technology, Space Law and Policy, etc.

This program is carried out according to the regulations and requirements of Beihang University. Referring to the Education Curricula of UN-PSA, the study period is divided into two phases:
(a) 9-month Course Study
(b) 6-12 months Thesis Research (at Beihang University or in applicant's homeland)

The training procedures are as follows.

<table>
<thead>
<tr>
<th>Phase I</th>
<th>Course Study in China: 9 months (at Beihang University)</th>
<th>Leading to Course completion Certificate</th>
</tr>
</thead>
</table>
| Module I | Common Platform Courses                                | • Major courses  
|          |                                                       | • Academic Lectures  
|          |                                                       | • Professional Visits  
|          | Pilot Project or Practical Courses                     |                                        |
| Phase II | Thesis Research: 12 months (in China or home country)  | Leading to Master's Degree in Engineering |
| Literature Survey and Thesis Proposal | Mid-term Assessment | Academic Activities | Thesis Research |

Lectures are conducted in English. The thesis for project practice is required to be written in English. Courses are organized into three modules as given above.

Participants will be awarded the Graduation Certificate of Beihang University and Master's Degree Certificate of the People's Republic of China when fulfilling the required credits and passing the thesis defense.

The faculty for this program consist of professors, experts and senior engineers from Beihang University and some other institutes or academies of China and abroad. The core faculty members have long and varied experience in the field of space science and technology. In addition, they have accumulated considerable teaching experience over the years and are skilled in teaching and advising international students.

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.

Fees
• Tuition Fee: 35000 Yuan (RMB) per year;
• Insurance: 800 Yuan (RMB) per year;
• Accommodation: Double room, 750 Yuan (RMB) per month (not including costs like water, electricity, etc.).

Scholarship and Financial Support
1. The applicants are welcome to apply for the Chinese Government Scholarship (CSC Scholarship) at Beihang University.

   The Full CSC scholarship will cover the following items:
   • Tuition fee for 2 years;
   • Free accommodation during study at the University (not including costs like water and electricity, etc.);
   • Living allowance during stay at the University  (3000 RMB per month or according to the standard of CSC);
   • Medical Insurance only for accidents and hospitalization treatments, according to the standard of CSC.

2. The applicants who fail to get the CSC Scholarship will have chance to get Beijing Municipal/Beihang Scholarship. **Beijing Municipal/Beihang Scholarship will only cover tuition fee.**
Application Procedures and Required Documents

Step 1: Apply online

Make the online application for Chinese Government Scholarship on the website of CSC (http://studyinchina.csc.edu.cn): fill up the Application Form, submit the completed Application Form and supporting documents online, and print the Application Form according to the requirements. Please note that the specialty should be chosen as “Space Technology Applications” and the language of instructions should be chosen as “English”. Please also note that the “Program Category” should be “Type B” and the “Agency Number” of Beihang University is 10006.

Step 2: Prepare documents

1. Application Form for Chinese Government Scholarship;
2. Highest Education Diploma (notarized photocopy or original one) or Certificate of Expected Graduation Date from the university studying currently;
3. Notarized Transcripts or Original Ones;
4. Study or Research Plan (no less than 500 words);
5. Two Recommendation Letters from Professors or Academic Experts;
6. The Results of TOEFL, IELTS or English Proficiency Certificates;
7. Photocopy of Physical Examination Form and the Report on Blood Examination;
8. Photocopy of First Page of Passport (the information page);
9. The List of Application Documents and Post Address confirmed.

Note: All the documents should be in duplicate. And the language of documents should be in English or Chinese or attached with translations in English or Chinese.

Step 3: Submit documents

Mail all required documents to the following address before 15th March, 2018.

Ms. Guo Yuanyuan
Address: International School of Beihang University, No. 37 Xueyuan Road, Haidian District, Beijing 100191, P.R. China.
Tel: +86-10-82339734, +86-13581523872

Important Dates

- Applicants should mail the required applications documents to the Contact Person at RCSSTEAIP (China) by March 15, 2018.
- The results of admission will be notified by stages from May 20 to early August, 2018.
- The Admission Notice and related documents will be mailed to the successful applicants before August 15, 2018.
- The program will start in early September 2018.

Contact Information

- Ms. Guo Yuanyuan, Program Director, RCSSTEAIP(China)
- Address: East Wing of Library, No. 37, Xueyuan Road, Haidian District, Beijing, China, 100191, International School, Beihang University
- Telephone: +86-10-82339734
- E-mail: gyy@buaa.edu.cn
- Website of RCSSTEAIP: http://www.rcssteap.org
- Website of International School, Beihang University: http://is.buaa.edu.cn
- Website of Beihang University: http://ev.buaa.edu.cn/
- Website of China Scholarship Council: http://studyinchina.csc.edu.cn
In 2018, MASTA Program provides four educational fields: Global Navigation Satellite Systems (GNSS), Remote Sensing and Geo-information System (RS&GIS), Micro-satellite Technology, Space Law and Policy. The followings are detailed information of each field.

Global Navigation Satellite Systems (GNSS)

Global Navigation Satellite System (GNSS) provides positioning, navigation and timing services for the whole world. It is the most important spatial infrastructure in the social life and military affairs in modern times. The GNSS would serve people in many areas together with Remote Sensing, Geographical Information System such as disaster management, emergency response, land, aviation and maritime transportation, etc.

The objective of the program is to enable the students to master the GNSS space segment including the satellite constellation, orbit, payload, clock, signal structure and attitude control, the GNSS ground segment including the satellite communication, maintenance, telemetry, ephemeris and almanac, and the GNSS user segment including receiver and navigation applications. The program also provides opportunities for students to touch the frontier technologies on GNSS.

Professionals/Experts (partial)

Yang Yuanyi
Academician, Chinese Academy of Sciences

Renato Filjar
Professor, University of Jica, Croatia

Shen Jun
Chief Scientist, BeiJing UniStrong Science & Technology Co., Ltd.

Yang Dongkai
Professor, School of Electronics and Information Engineering, Beihang University

Jing Guifei
Professor, Beidou Belt&Road School, Beihang University

Partners

The partners of this program include:

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>Class Hrs</th>
<th>Credits</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Module Ⅰ Platform Courses</td>
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<tr>
<td>PC1-1</td>
<td>Probability and Statistics in Engineering</td>
<td>48</td>
<td>3</td>
<td>Select at least 3 compulsory credits</td>
</tr>
<tr>
<td>PC1-2</td>
<td>Theory of Matrix</td>
<td>48</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PC1-3</td>
<td>Numerical Analysis</td>
<td>48</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PC2-1</td>
<td>Matlab Programming</td>
<td>32</td>
<td>2</td>
<td>Compulsory/Optional</td>
</tr>
<tr>
<td>PC3-1</td>
<td>Space Environment, Orbit and Spacecraft Systems</td>
<td>48</td>
<td>3</td>
<td>Compulsory</td>
</tr>
<tr>
<td>PC3-2</td>
<td>Introduction to Space Technology Applications</td>
<td>18</td>
<td>1</td>
<td>Compulsory</td>
</tr>
<tr>
<td>PC3-3</td>
<td>International Cooperation in the Peaceful Uses of Outer Space</td>
<td>18</td>
<td>1</td>
<td>Compulsory/Optional</td>
</tr>
<tr>
<td>PC3-4</td>
<td>Introduction on Space Life Science and Astrobiology</td>
<td>18</td>
<td>1</td>
<td>Compulsory/Optional</td>
</tr>
<tr>
<td>PC4-1</td>
<td>Introduction to China and Chinese Language</td>
<td>54</td>
<td>3</td>
<td>Compulsory</td>
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Module Ⅱ Major Basic Courses & Major Courses

<table>
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<tr>
<th>No.</th>
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<th>Class Hrs</th>
<th>Credits</th>
<th>Remark</th>
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<tr>
<td>MC3-1</td>
<td>GNSS Reference System</td>
<td>18</td>
<td>1</td>
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<tr>
<td>MC3-2</td>
<td>Principle of GNSS</td>
<td>32</td>
<td>2</td>
<td>Compulsory</td>
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<tr>
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<td>GNSS Receiver Principles and Design</td>
<td>32</td>
<td>2</td>
<td>Compulsory</td>
</tr>
<tr>
<td>MC3-4</td>
<td>GNSS/INS Integration Navigation</td>
<td>32</td>
<td>2</td>
<td>Compulsory</td>
</tr>
<tr>
<td>MC3-5</td>
<td>GNSS Applications</td>
<td>18</td>
<td>1</td>
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<tr>
<td>MC3-6</td>
<td>Satellite Navigation Data Processing</td>
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<td>MC3-7</td>
<td>GNSS Experiment</td>
<td>18</td>
<td>1</td>
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<td>MC3-7</td>
<td>GNSS New Technologies</td>
<td>18</td>
<td>1</td>
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Module Ⅲ Team Pilot Projects

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>Class Hrs</th>
<th>Credits</th>
<th>Remark</th>
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</thead>
<tbody>
<tr>
<td>PPC</td>
<td>Team Pilot Project</td>
<td>12 Weeks</td>
<td>8</td>
<td>Compulsory</td>
</tr>
</tbody>
</table>
Remote Sensing and Geo-information System (RS&GIS)

Remote sensing is the art and science of making measurements of the earth using sensors on airplanes or satellites. These sensors collect data in the form of images and provide specialized capabilities for manipulating, analyzing, and visualizing those images. A geographic information system (GIS) is a computer-based tool for mapping and analyzing feature events on earth. Remote sensed imagery is integrated within a GIS. The potential of remote sensing (RS) techniques, coupled with geographical information systems (GIS), are widely recognized as supporting tools for the planning, monitoring, and management of the appropriate utilization of resources at the country, regional and global levels.

MASTA Students specializing in Remote sensing & Geo-Information System will get training in both the underlying theory and the application of remote sensing, spatial analytical methods, digital cartography, and geographic information systems. Students will be provided with many professional visits to learn how remote sensing and GIS technologies are currently applied in various fields such as natural resource management, environmental monitoring, disaster assessments, and other related fields. Some leading national and international geoinformatics practitioners will be invited to lead training or seminars to highlight industrial, commercial and governmental applications.

Professionals/Experts (partial)

He Linshu
Professor, Beihang University

Liu Qinhuo
Professor, Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences

Liu Yalan
Professor, Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences

Tan Yumin
Associate Professor, Beihang University

Xu Liping
General Manager, Beijing Space View Technology Co., Ltd.

Partners

The partners of this program include:

9-month Course List

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>Class Hrs</th>
<th>Credits</th>
<th>Remark</th>
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<tbody>
<tr>
<td>Module I Platform Courses</td>
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<tr>
<td>PC1-1</td>
<td>Probability and Statistics in Engineering</td>
<td>48</td>
<td>3</td>
<td>Select at least 3 compulsory credits</td>
</tr>
<tr>
<td>PC1-2</td>
<td>Theory of Matrix</td>
<td>48</td>
<td>3</td>
<td></td>
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<tr>
<td>PC1-3</td>
<td>Numerical Analysis</td>
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<td>3</td>
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<td>PC2-1</td>
<td>Matlab Programming</td>
<td>32</td>
<td>2</td>
<td>Compulsory/Optional</td>
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<tr>
<td>PC3-1</td>
<td>Space Environment, Orbit and Spacecraft Systems</td>
<td>48</td>
<td>3</td>
<td>Compulsory</td>
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<tr>
<td>PC3-2</td>
<td>Introduction to Space Technology Applications</td>
<td>18</td>
<td>1</td>
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<tr>
<td>PC3-3</td>
<td>International Cooperation in the Peaceful Uses of Outer Space</td>
<td>16</td>
<td>1</td>
<td>Compulsory/Optional</td>
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<tr>
<td>PC3-4</td>
<td>Introduction on Space Life Science and Astrobiology</td>
<td>18</td>
<td>1</td>
<td>Compulsory/Optional</td>
</tr>
<tr>
<td>PC4-1</td>
<td>Introduction to China and Chinese Language</td>
<td>54</td>
<td>3</td>
<td>Compulsory</td>
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</table>

Module II Major Basic Courses & Major Courses

<table>
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<tr>
<th>No.</th>
<th>Item</th>
<th>Class Hrs</th>
<th>Credits</th>
<th>Remark</th>
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<tbody>
<tr>
<td>MC1-1</td>
<td>Principle of Remote Sensing</td>
<td>48</td>
<td>3</td>
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<td>Physical Principles of Microwave Remote Sensing</td>
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<td>1</td>
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<tr>
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<td>Geographic Information System: Principle, Design and Practice</td>
<td>32</td>
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<tr>
<td>MC1-4</td>
<td>Remote Sensing Image Processing and Software Application</td>
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<tr>
<td>MC1-5</td>
<td>Geographic Information System: Design and Practice</td>
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<td>Compulsory</td>
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<td>Natural Disaster Remote Sensing</td>
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<tr>
<td>MC1-7</td>
<td>Case Studies in the Applications of RS &amp; GIS</td>
<td>18</td>
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</table>

Module III Team Pilot Projects

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>Class Hrs</th>
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<th>Remark</th>
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<tbody>
<tr>
<td>PPC</td>
<td>Team Pilot Project</td>
<td>12 Weeks</td>
<td>8</td>
<td>Compulsory</td>
</tr>
</tbody>
</table>


Micro-satellite Technology

During the past decades, the micro-satellites have been applied widely to perform space experiments, demonstrate new technology and operational missions. Micro-satellite has become one of the key fields in the future space exploration. Because of their simple functions, small sizes, light weight as well as low cost, micro-satellite technology is extremely suitable to be developed in universities. On the other hand, although small or micro-satellites seem function and system sample, such kinds of satellites still consist of subsystems that almost cover all the technology in design and manufacture for normal satellites, therefore it is an efficient way for students to study and develop space technology through special micro-satellite projects. Many universities in the world are now endeavoring in various of micro-satellites. Surrey University in British and Delft University of Technology are examples.

In order to enhance student innovation and engineering abilities in spacecraft design, a student micro-Satellite (BUAA-SAT) program is sponsored by Beihang University. The Micro-Satellite Technology program of the Centre is the one branch of BUAA-SAT as the English-taught program for international students. After years work, BUAA-SAT has completed its preliminary design phase. All subsystems have been prototyped and demonstrated. Now the flight model and qualified tests of space environments are conducted. Meanwhile a training platform for microsatellite has been formed at Beihang University, which contains document materials for design, simulation as well as devices and facilities for test.

Professionals/Experts (partial)

Gustavo Alonso Rodrigo
Professor, Technical University of Madrid

Leonardo M. Reyneri
Professor, Politecnico di Torino

Zhang Xiaomin
Vice President, DFH Satellite Co., Ltd.

Huang Hai
Professor, School of Astronautics, Beihang University

Chu Zhongyi
Professor, School of Instrument Science and Opto-Electronics, Beihang University

Niu Jianwei
Professor, School of Computer Science, Beihang University

Partners

The partners of this program include:

9-month Course List

<table>
<thead>
<tr>
<th>No.</th>
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<th>Remark</th>
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<tbody>
<tr>
<td></td>
<td>Module I Platform Courses</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>PC1-1</td>
<td>Probability and Statistics in Engineering</td>
<td>48</td>
<td>3</td>
<td>Select at least 3 compulsory credits</td>
</tr>
<tr>
<td>PC1-2</td>
<td>Theory of Matrix</td>
<td>48</td>
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<td>PC1-3</td>
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<tr>
<td>PC3-3</td>
<td>International Cooperation in the Peaceful Uses of Outer Space</td>
<td>16</td>
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<td>Introduction on Space Life Science and Astrobiology</td>
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</tr>
<tr>
<td>PC4-1</td>
<td>Introduction to China and Chinese Language</td>
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<td>3</td>
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<td></td>
<td>Module II Major Basic Courses &amp; Major Courses</td>
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<td>MC4-1</td>
<td>Orbital Mechanics</td>
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<tr>
<td>MC4-2</td>
<td>Spacecraft Structure and Mechanism Design</td>
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<tr>
<td>MC4-3</td>
<td>Practics of MSC Patran/Nastran</td>
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<tr>
<td>MC4-4</td>
<td>Satellite OBDH System Design and Test</td>
<td>32</td>
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<tr>
<td>MC4-5</td>
<td>Thermal Control Technology of Spacecraft</td>
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<td>Module III Team Pilot Projects</td>
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<td>PPC</td>
<td>Team Pilot Project</td>
<td>12 Weeks</td>
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</table>
Space Law and Policy

Space law plays a critical role in law governing space-related activities. Space law addresses a variety of issues, including the preservation of the space and Earth environment, liability for damages caused by space objects, the settlement of disputes, the rescue of astronauts, the information sharing of potential dangers in outer space, the use of space-related technologies, and international cooperation, a number of fundamental principles, including the notion of space as the province of all humankind, the freedom of exploration and the use of outer space by all countries without discrimination, and the principle of non-appropriation of outer space, and a series of legal systems, including liability system, registration system, etc.

In order to build up sound regulation of national space activities, some countries have promulgated domestic space laws, which is also their first step to participate the international space affairs. Capacity-building, training and education in the field of space law help to promote international development and cooperation in space activities, and provide methodologies for a deeper understanding of the interdependent roles of science, technology and law in this area.

Currently, the Centre is the first one to set up space law degree program and short training programs among all the 6 Regional Centres. In September 2015, the Centre organized the 1st International Training on Space Law and Policy, and received high praise from participants. With the success of the short training program, the Centre opened a new education field “Space Law and Policy” in MASTA Program since 2016, with an enrollment of 10 students from 7 countries, so as to promote the educational and training activities of space law at the regional and global level.

Professionals/Experts (partial)

Sergio Camacho  
Former Director of UNOOSA

Joanne Gabrynowicz  
Professor Emerita, University of Mississippi, USA

Zhao Yun  
Professor, Hongkong University

Li Bin  
Associate Professor, University of Newcastle, Australia

Li Juqian  
Professor, China University of Political Science and Law

Xia Chunli  
Associate Professor, Beihang University

Partners

The partners of this program include:

9-month Course List

<table>
<thead>
<tr>
<th>No.</th>
<th>Item</th>
<th>Class Hrs</th>
<th>Credits</th>
<th>Remark</th>
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<td>Introduction to Space Technology Applications</td>
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<td>PC3-3</td>
<td>International Cooperation in the Peaceful Uses of Outer Space</td>
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<td>PC3-4</td>
<td>Introduction on Space Life Science and Astrobiology</td>
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<td>PC3-5</td>
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<td>National Space Legislation and policy</td>
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<td>Space governance and Peaceful Use of Outer Space</td>
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<td>Long-term sustainability for outer space activities</td>
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<td>AL2-3</td>
<td>Hot Topics on Space Law I</td>
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<td>Module III, Team Pilot Projects</td>
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<td>PPC</td>
<td>Legal practice</td>
<td>4 Weeks</td>
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</table>
Overview

Space technology and its applications, the most fascinating technical achievement of the human race in the last six decades, has undoubtedly advanced with great stride. The various practical benefits of space technology play a central role in international development efforts.

In order to transform the recommendations of the United Nations Programme on Space Applications (UN-PSA) into a practical operable program, Beihang University has initiated the Doctoral Program on Space Technology Applications (DOCSTA) since 2013, and the program has been held 5 times with success till now. This program has enrolled totally 49 doctoral students from 12 countries, among which 6 students have graduated and obtained the Doctoral Degree on Space Technology Applications.

The program is focusing on training the participants in solid theoretical knowledge and systematic expertise in the field of space technology applications. It aims to deliver “International, Interdisciplinary, Intercultural, Innovative, Identical (5I)” education and provide a powerful platform for scholars and professionals to obtain more opportunities for communicating and experiencing the space technology practice in China.

Participants are expected to have the ability of conducting the scientific research, exploring the applications or pursuing the professional careers in the related fields independently.

Candidates are expected to have a profound grasp and understanding of new technology and development in space science technology and applications. They are required to finish the dissertation with high practicability and application prospects.

The faculty and academic staff for this program consist of professors, experts and senior engineers from Beihang University and some institutes or academies. The core faculty members and experts have extensive and varied experience in the field of space science and technology. In addition, they have accumulated considerable teaching experience over the years and are skilled in teaching and advising international students.

Participants will be awarded with the Graduation Certificate of Beihang University and Doctoral Degree Certificate of the People’s Republic of China when fulfilling the required credits and passing the thesis defense.

Note: In general, the training program of DOCSTA is the same with other International doctoral programs of Beihang University. The major tasks for DOCSTA candidates are to conduct researches under the guidance of their supervisors. All courses and academic activities for MASTA candidates like technical visits, lectures are also open to DOCSTA candidates. The duration of study for DOCSTA is 3 to 4 years.

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.

Fees

- Tuition Fee: 42000 Yuan (RMB) per year;
- Insurance: 800 Yuan (RMB) per year;
- Accommodation: Double room, 750 Yuan (RMB) per month (not including costs like water, electricity, etc.).

Note: This program is mainly for directional enrollment. Students who are interested to do self-sponsor, please visit website (http://admission.buaa.edu.cn/) for further information.
Scholarship and Financial Support

1. The applicants are welcome to apply for the Chinese Government Scholarship (CSC Scholarship) at Beihang University. The Full CSC scholarship will cover the following items:

   • Tuition fee for study period (3-4 years) at the University;
   • Free accommodation during study at the University (not including costs like water and electricity, etc.);
   • Living allowance during stay at the University (3500 RMB/per month or according to standard by CSC);
   • Medical Insurance only for accidents and hospitalization treatments, according to the standard of CSC.

2. The applicants who fail to get the CSC Scholarship will have chance to get Beijing Municipal/Beihang Scholarship. Beijing Municipal/Beihang Scholarship will only cover tuition fee.

Application Procedures and Required Documents

Step 1: Apply online

Make the online application for Chinese Government Scholarship on the website of CSC (http://studyinchina.csc.edu.cn): fill up the Application Form, submit the completed Application Form and supporting documents online, and print the Application Form according to the requirements. Please note that the specialty should be chosen as “Space Technology Applications” and the language of instructions should be chosen as “English”. Please also note that the “Program Category” should be “Type B” and the “Agency Number” of Beihang University is 10006.

Step 2: Prepare documents

1. Application Form for Chinese Government Scholarship;
2. Highest Education Diploma (notarized photocopy or original one) or Certificate of Expected Graduation Date from the university studying currently;
3. Notarized Transcripts or Original Ones;
4. Study or Research Plan (no less than 500 words);
5. Two Recommendation Letters from Professors or Academic Experts;
6. The Results of TOEFL, IELTS or English Proficiency Certificates;
7. Photocopy of Physical Examination Form and the Report on Blood Examination;
8. Photocopy of First Page of Passport (the information page);
9. The List of Application Documents and Post Address confirmed.

Note: All the documents should be in duplicate. And the language of documents should be in English or Chinese or attached with translations in English or Chinese.

Step 3: Submit documents

Mail all required documents to the following address before 15th March, 2018.

Ms. Guo Yuanyuan
Address: International School of Beihang University, No. 37 Xueyuan Road, Haidian District, Beijing 100191, P.R. China.
Tel: +86-10-82339734, +86-13581523872

Note: In order to speed up your application process, scanned copies can be emailed to the Contact Person: gyy@buaa.edu.cn so that we can get your information in advance. And mail all the required documents to the Contact Person at RCSSTEAP(China) by the already set deadline (March 15, 2018). RCSSTEAP (China) and Beihang University will acknowledge the receipt of your application after evaluation. No application documents will be returned after submission.

Important Dates

• Applicants should mail the required applications documents to the Contact Person at RCSSTEAP (China) by March 15, 2018.
• The results of admission will be notified by stages from May 20 to early August, 2018.
• The Admission Notice and related documents will be mailed to the successful applicants before August 15, 2018.
• The program will start in early September 2018.

Contact Information

• Ms. Guo Yuanyuan, Program Director, RCSSTEAP(China)
• Address: East Wing of Library, No. 37, Xueyuan Road, Haidian District, Beijing, China, 100191, International School, Beihang University
• Telephone: +86-10-82339734
• E-mail: gyy@buaa.edu.cn
• Website of RCSSTEAP: http://www.rcsstea.org
• Website of International School, Beihang University: http://is.buaa.edu.cn
• Website of Beihang University: http://ev.buaa.edu.cn/
• Website of China Scholarship Council: http://studyinchina.csc.edu.cn
This issue records the main work of the Centre from November 2017 to January 2018, including the 3rd Governing Board Meeting of RCSSTEAP, Training on China Satellite Service and Big Data Analysis & Application for Remote Sensing, 2018 Degree Programs, etc.

The year 2017 is the 3rd anniversary of the establishment of the Centre, which is of great significance. After three (3) years’ growth, the Centre has made a lot of achievements while being faced with more opportunities and challenges. The year 2018 will be the 50th anniversary of the first United Nations Conference on the Exploration and Peaceful Uses of Outer Space. It marks a new era of space technology development. The Centre will persist in truth-seeking and pragmatic work style with the vision “Openness, Innovation, Inclusiveness”. The Centre will continue exploring and forging ahead with further cooperation and innovation. It will focus on team building, education and training, capacity building, visibility promotion to achieve sustainable development of the Centre, seeking to make a greater contribution to the peaceful exploration and uses of outer space.

Thank you for your concerns and support all the time. In the new year, we will start a brand new chapter of space technology education with efforts and perseverance.

Editor