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Exchange · Promotion · Development



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

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联合国附属空间科技教育亚太区域中心(中国)

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# **Preface**

In the early morning, as the clock makes the first move on the dial plate, we welcome a new day. The sun is rising, the earth is waking up and everything revives with full of vitality. On the campus, the beautiful fallen leaves are chasing each other forward, and the shining yellow aspens are looking up to welcome the sun light. It is a great time to accumulating knowledge and pursuing dreams.

In August, the 1st Summer Camp for APSCO-SSS Project, hosted by APSCO and organized by the Centre came to a successful conclusion. As one important part of the APSCO-SSS Project, this training programme invited about twenty (20) leading experts at home and aboard to impart trainees with the professional knowledge and advanced skills through series of lectures, professional practice, technical visits and participant forum, which laid a solid foundation for the success of the SSS Project.

Featured with "One Rocket, Three Satellite, Formation Flying, Led by China and Completed by Eight Countries", this project aims to train the students and faculties from the Member States (MSs) of APSCO to study space technology and satellite engineering through practical design, development and flight test of satellites and meanwhile contribute to the development of space education systems in APSCO MSs. Beihang University, as the leading university, providing a sustainable platform for international cooperation and talent cultivation on space technology, becomes the focus of the whole world again.

Win-win cooperation is becoming the theme of world development, especially in the field of aerospace. It is inevitable to strengthen international cooperation and pursue peaceful exploration of outer space together in order to achieve sustainable development for the benefit of all humankind. As an important training center of fostering international talents in aerospace, the Centre has the obligation to promote joint development of space education and aerospace industry. In the future, the Centre will continue actively playing a leading role in the innovation of degree/non-degree programme and integration of good resources all over the world, contributing to space exploration and space technology development for the benefit of all humankind.

The autumn comes as the spring goes.

We will continue working hard for the better development of the Centre!

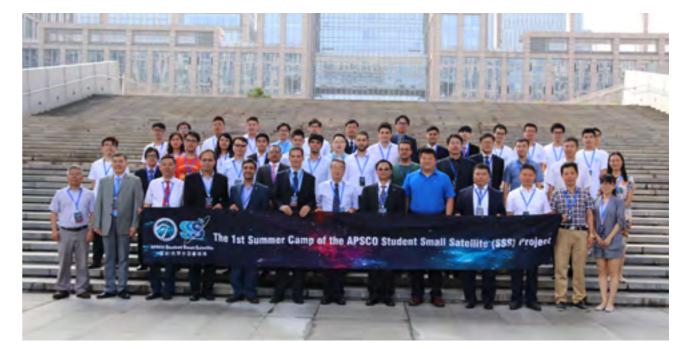
# Special Focus——

# The First Summer Camp of the APSCO SSS Project

## Overview

Asia-Pacific Space Cooperation Organization (APSCO) has initiated the Student Small Satellite (SSS) project, which is aimed to train the students and faculties from Member States (MSs) of APSCO to study space technology and satellite engineering through practical design, development and flight test of satellites, and meanwhile contribute to the development of space education systems in APSCO MSs. The ultimate goal of this project is not only to enable universities to undertake student satellite design and development, but also to impart space technologies through a satellite project as well as hands-on training. Therefore, one of the most important and special aspects of the project is training/education. This Summer Camp is just an important activity of training/education.

The training/education of the SSS project contains short-term trainings and long-term trainings. It has planned to arrange three (3) times of the short-team trainings that are Summer Camps of small satellite technologies in the three (3) summers of year 2017, 2018 and 2019. This is the First Summer Camp of SSS project. And the long-term trainings will be the Master programs for small satellite technologies at Beihang University, especially accept the students from APSCO MSs. The students who join the long-term Master program will conduct the hand-on small satellite design and development works under the guidance of professors of Beihang University as well as experts of China aerospace industry. The program enrollment of this year has be completed and new students will enter into Beihang in the coming September.



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The First Summer Camp of the APSCO SSS Project is arranged at Beihang University during 14<sup>th</sup> August to 2<sup>nd</sup> September, 2017, as a part of the training program of the SSS project. In this regards, three outstanding proposals were submitted to APSCO from Beihang University (China), Mongolia and Pakistan in earlier time of June this year. After careful examination of all three proposals and considering the preparation time is very limited, Beihang University was finally selected as the venue for holding the First Summer Camp by the Secretariat. All Member States are

requested to nominate four (4) students and one (1) faculty member (in total 5 nominations per MS) for the Summer Camp. Therefore, there would be totally forty (40) formal participants from eight (8) Member States, which are Bangladesh, Iran, Mongolia, Pakistan, Peru, Thailand and Turkey. Besides, China. Beihang University will send more students to join and serve the activity as volunteers, and many experts, professors as well as officials from different countries will be invited as trainers and distinguish guests.





# The 1st Summer Camp of the APSCO Student Small Satellite (SSS) Project

PSCO Student Small Satellite 亚太-大学小卫星项目

# **Opening Ceremony**

The opening ceremony of the First Summer Camp for APSCO-SSS Project was held on August 14th, 2017 at Beihang University. The opening ceremony was attended by trainees and more than sixty (60) guests from APSCO, China National Space Administration (CNSA), DFH Satellite Co., Ltd., China Academy of Launch Vehicle Technology, Technical University of Madrid, Beihang University, and addressed by invited VIPs including Mr. Li Xinjun, Secretary General of APSCO, Mr. Huang Haijun, Vice President of Beihang University, Mr. Xu Yansong, Director of Department of System Engineering,

China National Space Administration, Mr. Zhang Xiaomin, Vice President of DFH Satellite Co., Ltd., Mr. Gustavo Alonso Rodrigo, professor of Technical University of Madrid. The ceremony was hosted by Mr. Mohammad Ebrahimi Seyedabadi, Director General of Department of Education Training and Database Management of APSCO.

Mr. Huang Haijun, on behalf of Beihang University, extended his warm welcome to the leaders, lecturers and students. He gave an introduction of Beihang University and expressed thanks to all the people involved in SSS Project.

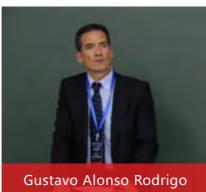
Mr. Li Xinjun said that the summer camp would provide the young people with a good opportunity to participate in the development of space technology, which would also lay a good foundation to APSCO-SSS Project. Mr. Xu Yansong introduced remarkable achievements in the field of small satellites and encouraged the participants to take an active part in the project.

Then Mr. Zhang Xiaomin and Prof. Gustavo Alonso Rodrigo gave a brief introduction to DFH Satellite Co., Ltd. and Technical University of Madrid respectively, and wished the summer camp a complete success. Mr. Weng Jingnong gave a demonstration of APSCO-SSS website and WeChat platform, which offered a more vivid description of this project. Mr. Huang Hai and Mr. Mohammad Ebrahimi Seyedabadi then gave a detailed introduction of the project including the background, objectives, progress and so on.

At last, representatives of the Member States expressed their expectation to learn more technical knowledge and valuable engineering experience in the coming days.

It is believed that this summer camp will provide a good platform for students and teachers to do research and exchange ideas, which will make a great contribution to space education development of the APSCO Member States.













## **Experts**



#### Gustavo Alonso Rodrigo

Professor, Deputy Director, the Technical University of Madrid, Faculty Aerospace Engineering (ETSIA/UPM). Research fields: aerospace technologies, environmental impact of air transport through the participation in research projects funded by public institutions (EU, Spanish government) and private companies.



## Hyun-Ung Oh

Associate Professor, Department of Aerospace Engineering, Chosun University. His research field includes: Cube Satellite System Development; Semi-Active/Passive Structural Control; Vibration Suppression of Large Flexible Space Structure, Satellite Launch Isolation, On-Orbit Micro-vibration Isolation; Smart Materials and Adaptive Structures for Space Application; Space Mechanism; Space Thermal Control; Satellite System Engineering; SAR (Synthetic Aperture Radar) Payload System Engineering; EO (Electro Optics)/IR (Infrared) Payload System Engineering.



#### Leonardo M. Reyneri

Prof. Reyneri is a full professor of Electronics at Politecnico di Torino, He is currently active in the design of low-cost space systems and modular micro and mini satellites for surveillance, environmental monitoring and disaster management. He is the leader of a group which gathers academic and industrial partners, aiming at the development of innovative techniques and circuits for low-cost modular space-borne systems.



#### Muhammad Usman Iftikhar

Dr. Muhammad Usman Iftikhar received his PhD degree from University of Paris-11, France. His major technical projects are related to the design and development of power subsystem for Communication satellites and Earth observation satellites. He has also served as system engineer for various micro-satellite projects of 100kg class and 50kg class for optical remotesensing applications. He is working as the platform design lead of Pakistan's National Student Satellite Project.



#### Chen Pei

Prof. Chen Pei is an associate Professor of School of Astronautics, Beihang University. His research fields are autonomous navigation of spacecraft, attitude and orbit dynamics of spacecraft, autonomous mission planning of spacecraft.



## Seyed Mostafa Safavi Hemami

Prof. Seyed Mostafa Safavi Hemami is a full professor of Amir-Kabir University of Technology in Tehran, Iran. He is the head of TT&C at Mesbah Satellite Project. And he is the official member of IEEE and AIAA. His research fields are Design and Evaluation of High Speed Telecom Switches (ATM), ISDN and Transmission Telecommunication Standards.



#### Chen Shenyan

Prof. Chen Shenyan is an associate Professor, School of Astronautics, Beihang University. Research fields: Spacecraft structure analysis and design, spacecraft structural optimization, composite structure analysis and design.



#### Huang Hai

Professor, Chair, Dept. of Spacecraft & Launch Vehicle Technology, School of Astronautics, Beihang University. Research fields: concept design of spacecraft, structural and multi-disciplinary optimization, adaptive/smart structures & mechanisms and control, and the related applications in aerospace engineering.



## Niu Jianwei

Prof. Niu Jianwei is a full professor of School of Computer Science and Engineering, Beihang University. His research fields are big data analysis and intelligence technology, embedded systems and mobile computing, and digital image analysis and processing.



## Qiu Yue

Dr. Qiu Yue is assistant project manager, DFH Satellite Co., Ltd.. He is major in control science and technology. His work experience is about space mission analysis and system design of small and micro satellites.



#### Shi Sihan

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Mr. Shi Sihan is the Deputy Chief Designer of the HOPE-2 satellite. He has long been engaged in the development and design of satellites. He has published a lot of technology monographs on small satellite affairs management and won many national patents.



#### Su Zhenhua

Mr. Su Zhenhua is the satellite test commander in DFH Satellite Co., Ltd.. He has the electrical test experience for more than 4 small satellites.



#### Wang Haiming

Mr. Wang Haiming is the Vice Director of Mechanical and Thermal Engineering Department, DFH Satellite Co., Ltd.. He got the master degree from China Academy of Space Technology (CAST). He has been engaged in environment test of satellite for long time, especially focus on small satellite.



#### Wu Shufan

Prof. Wu Shufan is currently working in the Shanghai Jiao Tong University (SJTU), School of Aeronautics and Astronautics, as a chair professor and the director of Smart Satellite Technology Centre (SSTC), focusing mainly on micro/nano satellite technologies and applications.



#### Zhang Xiaoli

Ms. Zhang Xiaoli graduated from flight vehicle and applied mechanics department of BUAA with a master degree. She has worked for structure design of spacecraft at CAST about 15 years, and been in charge of the structure design of multi small satellites.



#### Zhang Xiaomin

Dr. Zhang Xiaomin got his PhD degree from Beihang University and did his postdoctoral research in Tsinghua University.

He is devoted to astrodynamics and spacecraft system design, especially on small satellite. Now Dr. Zhang Xiaomin is the Vice President of DFH Satellite Co., Ltd.



#### Zheng Ruhua

Ms. Zhen Ruhua is the CTO of Beijing TianLian TT&C Technology Co. Ltd.. Her research interests focus on TT&C system of the LEO satellites. And she is the chief engineer of LEO remote sensing satellite TT&C system.

# Participant Forum

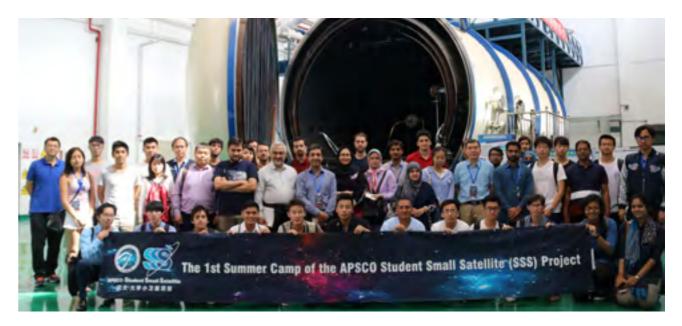
In order to encourage communication among the participants, Participant Forum was arranged in this summer camp, in which representatives from Bangladesh, China, Iran, Mongolia, Pakistan, Peru, Thailand, Turkey made small presentations respectively on the progress of APSCO-SSS Project in their own countries and gave their own answers to the summer camp trainee survey.





## **Technical Visit**

On August 29<sup>th</sup>, 2017, the participants of the first summer camp for APSCO-SSS Project were organized to visit Vacuum Plume Laboratory on Shahe Campus, Beihang University. Mr. Huang Hai, professor of School of Astronautics, gave a detailed description of this laboratory including the research focus of Beihang University, the simulation software, the experimental systems, relative applications in TG-1 Space Lab, SZ Spaceship rendezvous and docking, etc.







In the afternoon, the participants visited China Aviation Museum, which represented the rapid development of China's aerospace industry. There was a collection of aircraft, ground-to-air missiles, radars, anti-aircraft artillery, weapons, etc. The participants saw it as a rewarding visit and hoped that they would have more chances to visit more places in China in the future.



The participants expressed their thanks to the organizers for providing the chance of professional visit, through which they got a better understanding of what they had learned from the class. Abdurrahim Muratoğlu, a participant from Turkey said that it was his first time to come to China, and he liked it very much. He learned a lot from today's visit and hoped that he would have chance to study cutting edge technologies in aerospace in the future in China and make a positive contribution to the cooperation between Turkey and China.

## **Closing Ceremony**

The closing ceremony of the First Summer Camp for APSCO-SSS Project was held on September 1st, 2017 at International School, Beihang University. It was attended by Mohammad Ebrahimi Seyedabadi, Director General of Department of Education and Training and Database Management of APSCO, Mr. Seyed Mostafa Safavi Hemami, professor of Amir-Kabir University of Technology, Mr. Niu Jianwei, Vice Dean of School of Computer Science and Engineering, Beihang University, teachers from APSCO, School of Astronautics, International School and all the participants of this summer camp. Guided by Mr. Weng Jingnong, Dean of International School and Deputy Director of Regional Centre for Space Science and Technology Education in Asia and the Pacific (China) (affiliated to the United Nations), all the participants visited the Centre and got a general understanding of it before the ceremony.



At the ceremony, Mr. Mohammad Ebrahimi Seyedabadi was firstly invited to deliver a speech. He expressed his congratulations on the full success of this summer camp and felt grateful for the strong support from Beihang University. He was very glad to see that the participants from different countries had established a good relationship in these days,

which would positively advance the APSCO-SSS Project and promote the development of space talents.



Then, Mr. Mohammad Ebrahimi Seyedabadi, Mr. Seyed Mostafa Safavi Hemami and Mr. Niu Jianwei awarded certificates to the participants and volunteers. They appreciated the participants' outstanding performances and volunteers' great efforts in this summer camp.

This summer camp, a key part of APSCO-SSS Project, provided a series of excellent lectures, project practice, technical visit, idea exchange class, etc. It covered basic knowledge of satellite technology, engineering development, testing process, SSS Project design, frontier fields of small satellite and the like. In the part of technical visit, the participants were organized to visit Air&Space Museum, Vacuum Plume Laboratory and Electric Propulsion Laboratory on Shahe Campus, Beihang University, cleaning room for small satellite, which gave a more intuitive demonstration of aerospace development of Beihang University through a variety of tests. In addition, APSCO-SSS Website and WeChat Public Platform were also established for better information sharing and international cooperation among the different countries.

# RCSSTEAP (China) Activities

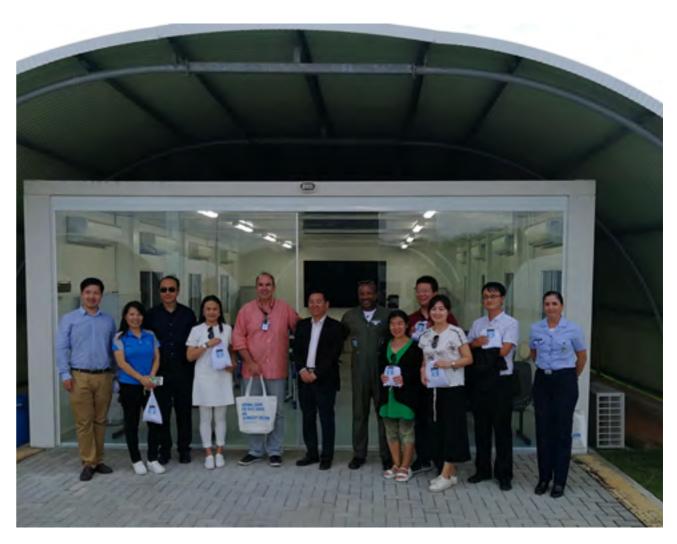
# Southern Hemisphere Space Technology Application and Education Forum was Successfully Held in Brazil

During August 21st to 24th, 2017, "Southern Hemisphere Space Technology Application and Education Forum" was held successfully in Brazilian Space Agency (AEB) and University of Brasilia. The forum was hosted by Beihang University, University of Brasilia, RCSSTEAP, RCSSTEALC, Brazilian Space Agency and National Institute for Space Research together. A delegation led by Mr. Weng Jingnong, Deputy Director of RCSSTEAP, Dean of International School, attended the forum.

Taking sharing knowledge, promoting space exploration and international cooperation as missions, the forum aims at improving space technology, promoting space technology applications, popularizing space technology education, increasing exchange and cooperation of the member states of UNOOSA, and making contributions to the peaceful exploration and use of outer space.

This forum had four (4) main themes, including UNOOSA Programs on Space Technology Applications, Current Situation and Future Development of Space Technology Education and Applications, Curriculum Development of Space Tecnology Application Programs, Developing Vocational and Educational Platforms for the Youth, which mainly opened for Brazil, Peru, Bolivia and other South American countries. The delegation included representatives from Beihang University, Fengtai District Institute of Education, No.12 High School, Beijing No.18 High School, Donggaodi Science and Technology Museum of Fengtai District, nine (9) people in total, and experts from departments of Brazilian Space Agency, six (6) aerospace related Brazilian universities, Peru and Bolivia. They did reports based on the four (4) themes mentioned above and had extensive exchange and experience sharing with each other.





During the forum, the representatives also visited University of Brasilia and the Vocational Space Camp (CVT-E), and had a deep discussion with the experts on the topics of student/teacher exchange, establishment of RCSSTEAP Youth Space Base and co-launching micro-satellites together. Mr. Jin Tian, Associate Professor of School of Electronic and Information Engineering, Beihang University was invited to deliver a report to the students of University of Brasilia.

As an important partner of China in aerospace, Brazil has a history of cooperation with China for about thirty (30) years, making a lot achievements on aerospace as such as launching China-Brazil Earth Resources Satellite. In addition, as a

Member State of RCSSTEAP, Brazil keeps good relationship with Beihang University. One newly graduated student, Mr. DE OLIWIVA NOGUEIRA PEDRO HEWWQUE, has already been employed in Brazilian Space Agency, and has become the backbone of the micro-satellite project in AEB.

The preliminary agreement of this forum was reached at the meeting of the Governing Board and Advisory Committee Meeting. The success of the forum symbolized that the two-year work plan determined at the 2<sup>nd</sup> meeting of the Governing Board has been completed successfully. It also laid a solid foundation for the 3<sup>rd</sup> meeting of the Governing Board which would be held at the end of 2017.

# Welcome Meeting for 2017 MASTA & DOCSTA Participants

On September 18th, 2017, the welcome was held in Room 505, International School, Beihang University.

At first, Mr. Weng Jingnong, Deputy Director of the Centre, gave a general introduction of the Centre as well as its development history and organizational framework. He expressed his welcome and expectations to the new participants, and encouraged them to dare to question without blind obedience, eager to explore with perseverance, willing to be creative without fearing the difficulties. He hoped that they would take advantage of the Centre and reach out to the world.





After the participants' self-introduction, Ms. meeting for 2017 MASTA & DOCSTA participants Guo Yuanyan, Program Director of the Centre, introduced the training plan, course arrangement and practical activities of MASTA and DOCSTA Programs. She also hoped that the participants could form good learning and living habits and adjust to the new environment as soon as possible.

> At last, Ms. Cui Yizuo, Program Coordinator, built a WeChat group for timely information sharing. Then, four (4) monitors were selected by the participants in different majors respectively.

> From 20th to 21st, the Centre also organized the meet up of 2017 new participants with their supervisors. The majors were introduced in detail at the meeting. Through the communication with their supervisors, the participants got a better understanding of their majors and had a clearer view of their research directions.

> In September 2017, the Centre has enrolled fifty-two (52) participants majoring in GNSS, RS&GIS and Micro-satellite Technology in total, with forty (40) in MASTA Program and twelve (12) in DOCSTA Program. The participants are mainly recommended by ASPCO and related space departments of RCSSTEAP Member States. Being the professionals or the backup talents in related fields of their home countries, these participants are from twelve (12) different countries including Algeria, Bangladesh, Bolivia, Brazil, Iran, Mongolia, Nigeria, Pakistan, Peru, Thailand, Turkey and Venezuela.



# Mr. Sergio Camacho, the Former Director of UNOOSA, Giving Lectures at the Centre

From 15th to 27th September, 2017, Mr. Sergio Camacho, the former director of UNOOSA, and General Secretary of Regional Center for Space Science and Technology Education for Latin American and the Caribbean (CRECTEALC) was invited by the Centre to give lectures on The Peaceful Use and International Exchange of Space Technology for the participants registered in 2017.

This series of lectures, providing a great platform for the latest knowledge of outer space affairs, attracted participants from different countries and different majors. The participants listened carefully and thought profoundly during the class, and actively exchange ideas with Prof. Sergio Camacho after class. When the lectures came to an end, the participants appreciated the rich and diverse content as well as the teaching methods, which made them gain a deeper understanding of the mechanism of UNOOSA, international treaties of outer space and many related hot topics.

On the afternoon of 15th, Mr. Sergio Camacho attended the opening ceremony for 2017 new international students and gave an educational lecture. Mr. Sergio Camacho introduced the positive effects and significance of space technology in the development of human societies from the aspects of sustainable development goals, space technology applications, exploration of human capability, international cooperation and the like. He also shared his own study and working







experiences in order to encourage the students to work hard, think more, dare to innovate and be able to "choose one career for one life time and make it perfect" in professional field.

On the afternoon of 21st, Mr. Sergio Camacho was invited to visit No.18 High School. He visited the teaching building, laboratory, stadium, technology exhibition hall, reading room and so on, and had a profound talk with representatives of the school. Mr. Sergio Camacho gave high praise to the teaching philosophy of the school "Lay the foundation of lifelong happiness". In addition, he talked kindly with students, and encouraged them to study hard to become the professional successors in the field of peaceful use of space technology for outer space affairs. In the exhibition hall, Mr. Sergio Camacho was surprised at the plane models and spacecraft models made by the students, and showed his appreciation to the school's advanced teaching philosophy of cultivating student's thinking ability and bravery to explore the space.

During the visit, Mr. Sergio Camacho also discussed with representatives from the Centre and Law School of Beihang University on the topics of the development of Alliance of Regional Centres (ARC) and construction of space law and policy programme, and exchanged ideas on further cooperation between RCSSTEAP and CRECTEALC.

Additionally, Mr. Sergio Camacho also gave a lecture on Evolving Space Law - the Importance of Building Capacity to the Law School students, which received warm responses.

Mr. Sergio Camacho said that, this visit was very meaningful, the talent and smartness of the participants left him a deep impression. He also expressed his willingness to continue to give lectures to the participants at the Centre, helping more backup talents in space technology broaden international horizon and enrich knowledge on outer space affairs.





# Participants of the Centre Were Invited to Attend IAC 2017

International Astronauts Foundation (IAF) is always trying to provide better opportunities and platforms for researchers and industries to show their talent. The 67th International Astronautical Congress 2017 (IAC-2017) was the part of these efforts. IAC-2017 was held from 25th to 29th September, 2017 at Adelaide, Australia. It was a great event with four thousand and five hundred (4500) delegates almost from all over the world. A wonderful opening ceremony, excellent plenaries and highlight lectures, a packed program in the Global Networking Forum, several thousand technical presentations, a well-planned exhibition and a memorable Gala Dinner were designed for the busy week. Three (3) participants of the Centre, Mr. SAQIB NISAR, Ms. JAGIRANI AISHA and Ms. VARGAS CUENTAS NATALIA INDIRA were invited to attend it.

On the technical forum, seven (7) papers written by three (3) participants of the Centre were accepted. Mr. SAQIB NISAR, a participant from Pakistan, gave a presentation on his paper "An Integrated Space Technology and Global National Satellite Systems Application for Agriculture Monitoring". Ms. JAGIRANI AISHA, a participant from Pakistan, gave presentations



on her two (2) papers, "Role of International Inter-governmental Organizations in Promoting International Cooperation in Outer Space: A Case study of APSCO and APRSAF (Comparative Analysis of Formal and Informal Mechanism of Cooperation)" and "Promoting Space Education and Awareness in Pakistan-Initiatives, Achievements, Challenges and Issues". Ms. VARGAS CUENTAS NATALIA INDIRA, a participant from Bolivia, gave presentations on her four (4) papers "The Space Technology to Solving Societal Issues In Bolivia: An Overview", "Use of Satellite Images for Droughte Studying: The Bolivian Case", "Epidemiology Study of the Chagas Disease in Bolivia Using Remote Sensing Data", "Analysis of Landslide in Chosica Using Satellite Images".

They were very thankful to their supervisors and the Centre for providing them an excellent chance to attend and present at this forum. Ms. VARGAS CUENTAS NATALIA INDIRA said that the

experience enriched her own professional life and was also beneficial for her personal growth because she could know people from different places of the world with the same purpose - the space technology, which was an inspiration for her. She realized that different people from all over the world, with different customs and languages, could unite their minds and their efforts to have one thing in common: the space!

Additionally, in the exhibitions, the representatives were allowed to peep through different space agencies and other related companies' profile and their working mechanism. It was also a great chance to share, exchange and gain knowledge as well as contact information.

IAC-2017 provided a very good platform for representatives from all over the world to exchange ideas, which is meaningful for sustainable use of space in the future.



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# The 1st Class Meeting for Fall Semester 2017

On October 12<sup>th</sup> and October 18<sup>th</sup>, 2017, the Centre held class meetings for new students and upper grade students for the first time in this new semester. The class meeting was hosted by Ms. Wu Ke and Ms. Cui Yizhuo, student coordinators of the Centre.

Firstly, in order to liven up the atmosphere while strengthening the class cohesion at the same time, we had an ice breaker activity. In this activity, each participant got a slip of paper with different sentence starters on it, and they shared their personal stories with the sentence starters they got. As participants actively participated in the activity, the activity received the expected effects.

Then, the student coordinators introduced the upcoming Ability-Training Workshop activity, and had the participants fill in the needs assessment through which we can better learn participants'

needs and interests and design different activity respectively. In addition, the student coordinators mentioned the essay contest for the Centre's 3<sup>rd</sup> anniversary, and encouraged the participants to contribute their ideas and do something for the Centre's development.

In order to provide better studying environment for all participants, the Centre upgraded and rebuilt the teaching facilities, like classrooms, computer labs and library, which got high praises from the students. The student coordinators introduced the brand-new equipment for the participants and answered their question about study and life with patience.

Regular class meeting this semester was decided to held at the Centre, which would not only offer better student service, but also let the staff know more about the participants' thoughts and strengthen class cohesion.



Representatives and Participants of the Centre Attended the United Nations International Conference on Space-Based Technologies for Disaster Risk Reduction —"Building Resilience through Integrated Applications"

The United Nations International Conference on Space-Based Technologies for Disaster Risk Reduction –"Building Resilience through Integrated Applications" was held by Ministry of Civil Affairs and United Nations Office for Outer Space Affairs, at Jianguo Hotel Beijing of Beijing Institute of Technology, during October 23<sup>rd</sup> to 25<sup>th</sup>. More than one hundred (100) international scholars, educators and researchers on Space Technology and Disaster Reduction attended the conference. Professor Weng Jingnong, Deputy Director of RCSSTEAP and Dean of International School, Beihang University, Professor Tan Yumin from School of Transportation Science and Engineering, Beihang University and five (5) participants of the Centre were in attendance.

The Conference consists of five (5) main sessions, including policy and institutional arrangements for integrating "space" in DRR decision making, integration of space and in-situ data for disaster risk reduction, technology integration for disaster risk assessment and emergency response,

integrated applications of Earth observation, global navigation satellite system and telecommunication constellations for disaster risk reduction and climate change related extreme hazards, and networking and engagement with the UN-SPIDER network.

Professor Weng Jingnong, Executive Director of RCSSTEAP, Dean of International School, Beihang University, gave a report on *UN affiliated regional centre for space science technology education: China* in the conference, which received warm response.

The conference was indeed a great platform for Space Technology and Disaster Reduction experts, researchers, educators and students to learn, interact and network. Participants of the Centre in attendance were grateful for this massive opportunity to learn and interact with colleagues from other Institutes, and this conference also enlightened them to relate their professional knowledge to other fields to help solve practical issues.



# International Training Course on *Integration of Multisource Earth Observation Data for Disaster Damage Assessment*

From October 25<sup>th</sup> to 31<sup>st</sup>, 2017, International Training Course on *Integration of Multisource Earth Observation Data for Disaster Damage Assessment* was held by Asia-Pacific Space Cooperation Organization (APSCO), United Nations Office for Outer Space Affairs (UNOOSA) and Regional Centre for Space Science and Technology Education in Asia and the Pacific (China), at International School, Beihang University.

The one-week training course which started on the 25<sup>th</sup> of October focuses on improving the ability of integrating space technology to disaster management, as well as promoting exchanges and cooperation among different countries. The training course includes the hot topics, like remote sensing, multisource earth observation data, 3D

modeling and disaster damage assessment. It is worthy of noting to say that seven (7) experts of related UNOOSA, Indian Institution of Remote Sensing, Disaster Reduction Center of Ministry of Civil Affairs and Beihang University were invited to give lectures in training program. Forty six (46) participants from seventeen (17) countries (Bangladesh, China, Fiji, Ghana, India, Indonesia, Iran, Kenya, Mongolia, Mozambique, Myanmar, Nigeria, Pakistan, Peru, Sudan, Thailand, Turkey) participated in the training. Seven (7) participants of the Centre also attended the training course, and they said, they were really thankful to get such an opportunity to learn the practical use of space technology in disaster management field and broaden their horizon as well.



# The 65<sup>th</sup> Anniversary Space Technology Applications Forum

On the occasion of the 65<sup>th</sup> anniversary of Beihang University, a Space Technology Applications Forum was held by the Centre on October 27<sup>th</sup>, 2017. More than thirty (30) people including teachers and student representatives were invited to attend. The forum was hosted by Mr. Weng Jingnong, Deputy Director of the Centre and Dean of International School, Beihang University.

On the forum, Mr. Chalermchon Satirapod, Head of Survey Engineering Department, Chulalongkorn University (Thailand), Ms. Lu Xiaochun, Deputy Director of National Time Service Center, Chinese Academy of Sciences and Deputy Director of BeiDou International Cooperation Research Center (China), Mr. Sheikh Tawhidul Islam, Professor and Director of IRS-JU, Jahangirnagar University (Bangladesh), Mr. Jing Guifei, Dean of BeiDou Belt & Road School, Beihang University (China) delivered reports respectively, introducing the current situations and development visions of China, Thailand and Bangladesh on Global Navigation Satellite System (GNSS) and Geospatial Information Application, especially on Precision Location Services Network of the Belt and Road and long-term plan of BeiDou Belt & Road School.







# RCSSTEAP

In order to celebrate the 65<sup>th</sup> anniversary of Beihang University, this forum provided a great platform for international exchanges on space technology applications. It also sent a message to the world that Beihang University would building an open, innovative and internationalized school

through collaboration with leading universities in the Belt and Road countries, which was expected to nurture interdisciplinary talents with proficient expertise and cutting-edge skills in satellite navigation and related fields for different countries in the world.







# **Education and Training Programs**

# Midterm Assessment of the Participants in Space Law and Policy

On September 20th, 2017, the midterm assessment of the participants who registered in 2016 majoring in Space Law and Policy was held in International School, Beihang University according to the regulations of the UN "Programme on Space Applications". Mr. Sergio Camacho, Former Director of UNOOSA, Mr. Weng Jingnong, Deputy Director of the Centre, Mr. Gao Guozhu, Ms. Xia Chunli and Mr. Bo Shousheng, the supervisors of the participants, attended the midterm assessment. It was hosted by Mr. Gao Guozhu, senior expert in Space Law and Policy of the Centre.

Three (3) participants majoring in Space Law and Policy did reports on the progress of their thesis based on research background, research goals, research methodology, expected results and other aspects.

Then, Mr. Sergio Camacho and the supervisors gave their comments and advice according to the participants' reports, answered their questions, and encouraged them to concentrate on research with clarified thoughts and determination, which would lay a solid foundation for the following thesis writing.

RCSSTEAP is the first UN Regional Centre setting up the degree program of Space Law and Policy, which is of great significance to the development and promotion of space technology applications. 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 in September 2016. 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.



NEWSLETTER (Serial No. 011) | A New Semester, A New Start

# Opening Ceremony for 2017 New International Students, Beihang University

On September 15<sup>th</sup>, 2017, opening ceremony for 2017 new international students was held successfully in Main Building-M101, Beihang University. Mr. Huang Haijun, Vice President of Beihang University, leaders of International School, Beihang University, the staff and all the new students attended the ceremony. Mr. Sergio Camacho, Former Director of UNOOSA was also invited to attend the ceremony. The opening ceremony was hosted by Ms. Yi Xiaosu, Vice Dean of International School.



At the opening ceremony, Mr. Huang Haijun, Vice President of Beihang University, welcomed all the new international students from all over the world on behalf of the staff and students of Beihang University. He welcomed all of the new students to China to learn the profound Chinese culture, and also welcomed all of them to infuse new energy into Beihang University. Mr. Huang Haijun said that Beihang University had been attached great importance to international education since its establishment. In addition, BeiDou International



Exchange and Training Centre, APSCO Education and Training Centre in China, and Regional Centre for Space Science and Technology Education in Asia and the Pacific (China) had been established in International School, Beihang University, which aimed at actively promoting the development of international student education. He hoped that the new students could take advantage of these platforms and become a great Beihang generation, adhering to Beihang motto "Morality before brilliance, knowledge and action together".

Mr. Weng Jingnong, Dean of International School, introduced the situation of Beihang



University and its international education. He hoped all the new students would be innovative, cherish time, and be grateful all the time, and make contributions to the common development of humanity by enhancing exchange among different civilizations and strengthening friendship among peoples of different countries.

Ms. Liu Na, Vice Dean of International School, introduced the rules and regulations to the students, hoping everyone would become a good student understanding and obeying the rules.



Ms. Liew Yingjia, an undergraduate student from Malaysia, delivered a speech on behalf of all current international students. She reviewed what she gained at Beihang University, sincerely thanked all her teachers for their devotion, and gave her best wishes to all the new students as well.



Mr. Dos Santos Oliveira, Luan Henrique, a Brazilian new students delivered a speech on behalf of all the new students. He expressed his longing for the university life, his resolution of working hard and his belief of achieving better. Additionally, he said that he hoped to become an ambassador of promoting exchange and cooperation between Brazil and China, and make contributions to the development of all humankind.



Mr. Sergio Camacho, Former Director of UNOOSA did a report on Space Science and Technology in Achieving Sustainable Development Goals. He introduced the positive effects and significance of space technology in the development of human societies from the aspects of sustainable development goals, space technology applications, exploration of human capability, international cooperation and the like, which received warm response.

Opening Ceremony for 2017 New International Students was successfully ended. Best wishes for all new students!











# **Editor's Note**

In September, the Centre welcomed fifty-one (51) new participants from thirteen (13) different countries including Algeria, Bangladesh, Bolivia, Brazil, Iran, Mongolia, Nigeria, Pakistan, Peru, Thailand, Turkey and Venezuela. They are all the reserve talents of the world aerospace development and will become the leaders of promoting the construction of "Space-based Silk Road" in the future. They thank Beihang University for making their space dream come true and will work hard to be a space ambassador.















# A New Semester A New Start







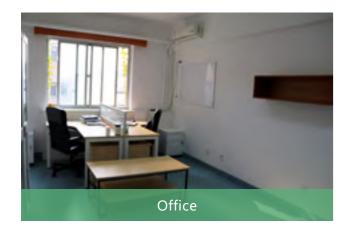


# **Capacity Building**

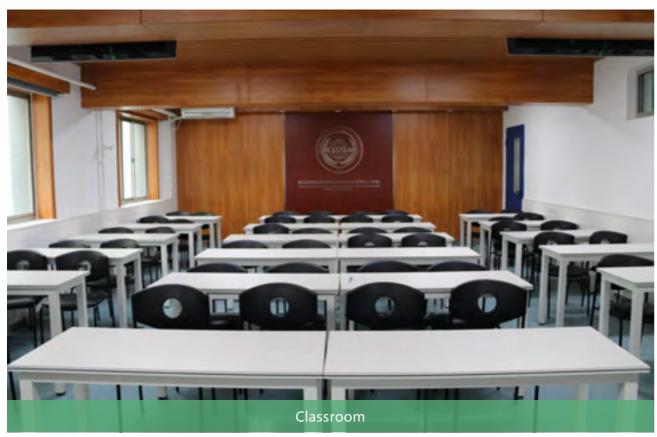
# **Environment Perfection**

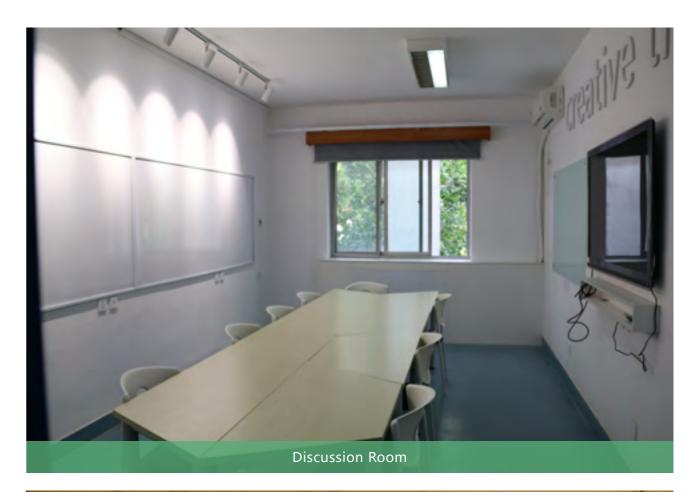
In this summer vacation, the Centre upgraded the environment of classrooms, library and offices in order to provide a better international environment for studying and teaching. This environment construction lasted for six (6) months with design and construction teams working closely. It has been carried out safely with elaborate layout and polishing details.

In September, the Centre welcomed the 2017 new international students with a brand new look.







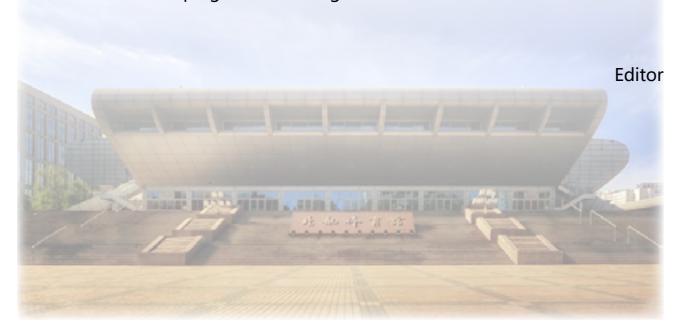




NEWSLETTER (Serial No. 011) | Additional Words

This issue records the main work of the Centre from August to October in the year of 2017, which includes Southern Hemisphere Space Technology Application and Education Forum, the First Summer Camp of the APSCO-SSS Project, the 65<sup>th</sup> Anniversary Space Technology Applications Forum, etc. It is worth mentioning that Mr. Sergio Camacho, the former Director of UNOOSA and Secretary General of Regional Centre for Space Science and Technology Education for Latin America and the Caribbean (CRECTEALC) was invited to visit the Centre for the second time. During his visit here, he offered courses on "Peaceful Use and International Cooperation on Space Technology" to the participants of the Centre, and gave the first educational lecture for 2017 new international students on the Opening Ceremony, which received warm response.

Thank you for your support to the Centre all the time. Your precious suggestions and comments are always highly welcomed. We will work harder to make the Newsletter better and better by insisting on our features, enriching the content and keeping on innovating.



# 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 Bakth	Male	Bangladesh	Chairman of Bangladesh Space Research and Remote Sensing Centre
5	Member	Jaime Antonio Mendoza Gonzales	Male	Bolivia	Space Segment Enginee 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









