



15th Meeting of the International Committee on
Global Navigation Satellite Systems



Update of BDS/GNSS International Education and Capacity Building

WENG Jingnong

Beihang University, Beijing, CHINA

2021-09-XX



01

International Education

02

Exchange & Cooperation

03

Capacity Building

04

Progress in COVID-19

01

International Education

01 International Education

1. Postgraduate Program

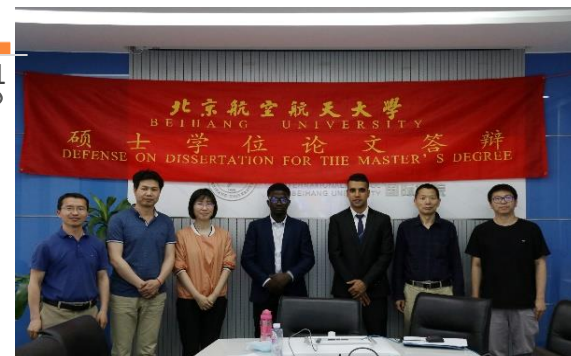
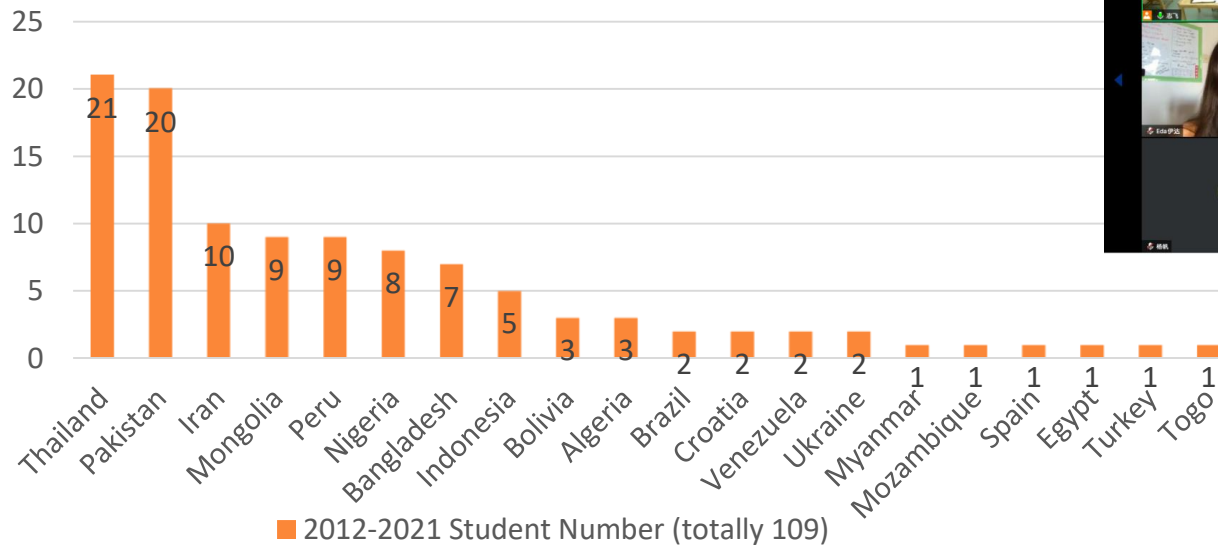
Year	Number	Countries of Participants
2012	20	Indonesia, Iran, Mongolia, Pakistan, Peru, Spain, Thailand
2013	15	Bangladesh, Indonesia, Iran, Mongolia, Pakistan, Peru, Thailand
2014	13	Bangladesh, Indonesia, Iran, Mongolia, Nigeria, Pakistan, Peru, Thailand
2015	11	Algeria, Bangladesh, Indonesia, Mozambique, Pakistan, Mongolia, Peru, Thailand
2016	16	Bangladesh, Bolivia, Brazil, Croatia, Indonesia, Iran, Nigeria, Peru, Thailand, Ukraine, Venezuela
2017	13	Bangladesh, Bolivia, Iran, Mongolia, Pakistan, Peru, Thailand, Turkey
2018	10	Ethiopia, Indonesia, Iran, Nigeria, Pakistan, Peru, Turkey
2019	15	Peru, Bolivia, Iran, Turkey, Mongolia, Myanmar, Nigeria, Pakistan, Togo, Egypt, Algeria
2020	11	Algeria, Bolivia, Brazil, Indonesia, Laos, Pakistan, Peru, Thailand, Turkey, Venezuela
2021	11	Algeria, Bolivia, Iran, Pakistan, Thailand, Turkey

- 2012-2021, totally 135

01

International Education

2. Degree Award



01 International Education

3. Training Activities

Series of Lectures on Space Technology Applications

(by UN Regional Centres in China and Jordan, May 14-June 9 2020)



Totally **375** trainee from **21** countries (Algeria, Bahrain, China, Egypt, Ethiopia, India, Iraq, Jordan, Kazakhstan, Kuwait, Lebanon, Morocco, Nigeria, Oman, Russia, Saudi Arabia, South Africa, Sudan, Syria, Tunisia, United Arab Emirates,)

01 International Education

3. Training Activities

Workshop on BDS/GNSS Technologies and Applications in Fighting COVID-19

(by China-Arab BDS/GNSS center, July 6-7 2020)

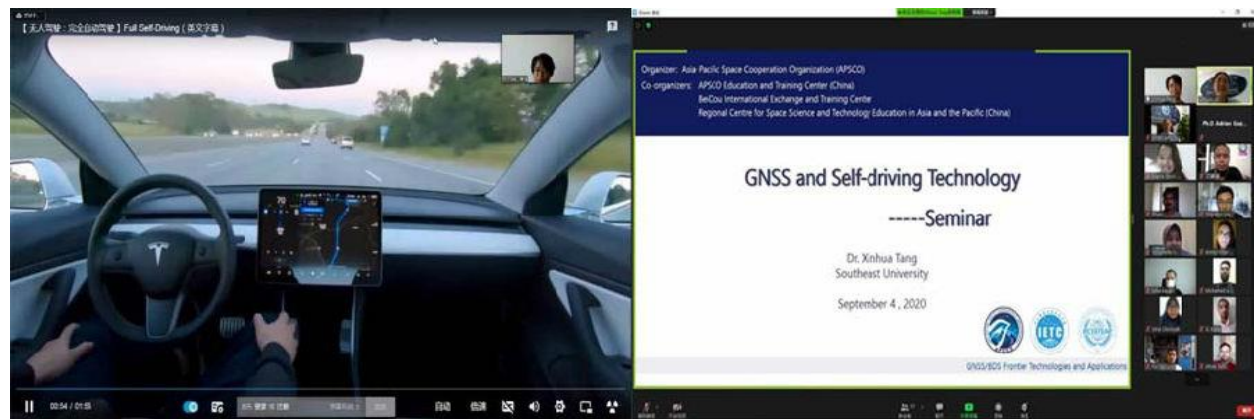


Totally **135** trainee from **17** countries (Algeria, Bangladesh, Egypt, Israel, Iraq, Libya, Morocco, Nigeria, Pakistan, Palestine, Saudi Arabia, Tunisia, United Arab Emirates, Jordan and China)

3. Training Activities

GNSS/BDS Frontier Technologies and Applications

(by APSCO, Aug. 24-Sep. 5 2020)



Totally 88 trainee from 19 countries (Algeria, Bangladesh, Bolivia, China, Ethiopia, Iran, Indonesia, Jordan, Mongolia, Myanma, Nigeria, Pakistan, Peru, Russia, Turkey, Togo, Uzi, Vietnam)

02

Exchange & Cooperation

Exchange & Cooperation

1. International Space Education Cooperation Forum (2019)

(Dec. 9, 2019 in Beijing)



Participants: Representative of UNOOSA, Directors of the UN Regional Centres, China National Space Administration, Beihang University

2. China-Russia Cooperation Committee on Satellite Navigation (2020)

(Sep. 11-28, 2020)



The 14th meeting of WG4



Subgroup meeting for Education and Training

02 Exchange & Cooperation

3. China-Arab BDS Cooperation Forum (2020)



Cooperation on training activities such as short-term training, summer school and degree Program.



4. China-Jordan Education Cooperation (2021)

THE ESTABLISHMENT OF THE CHINA-JORDAN JOINT BEIDOU/GNSS EDUCATION AND TRAINING CENTER AGENDA

WEDNESDAY, MARCH 24, 2021, 10 AM

- WELCOME SPEECH, DR. AWNI AL-KHASAWNEH.
- INTRODUCTION OF THE PROJECT BY DR. WENG
- DISCUSSION OF THE **PROPOSAL TO ESTABLISH THE CHINA-JORDAN JOINT BEIDOU/GNSS EDUCATION AND TRAINING CENTER**
- RECOMMENDATION AND CONCLUSION.

*Discussion on the Establishment of
China-Jordan joint BDS/GNSS
Education and Training Center (Jordan)*



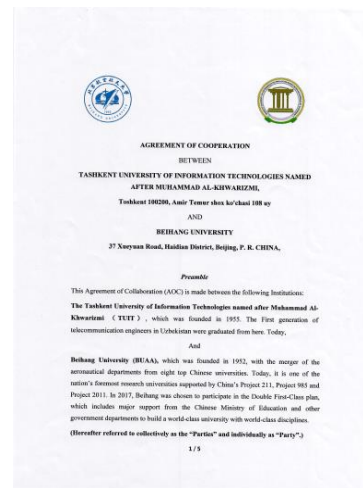
5. Education Cooperation with other countries

- **China-Uzbekistan Cooperation (2020)**

- ✓ Joint GNSS Lab in TUIT
- ✓ Network education and training platform
- ✓ Degree program and training activities

- **China-Pakistan Cooperation (2021)**

- ✓ For the past 10 years, 74 Pakistan graduates have got their degrees from Beihang University, 25 majoring in GNSS.
- ✓ Co-construction BeiDou Belt & Road School with NUST
- ✓ Cooperation with Institute of Space Technology (IST)



03

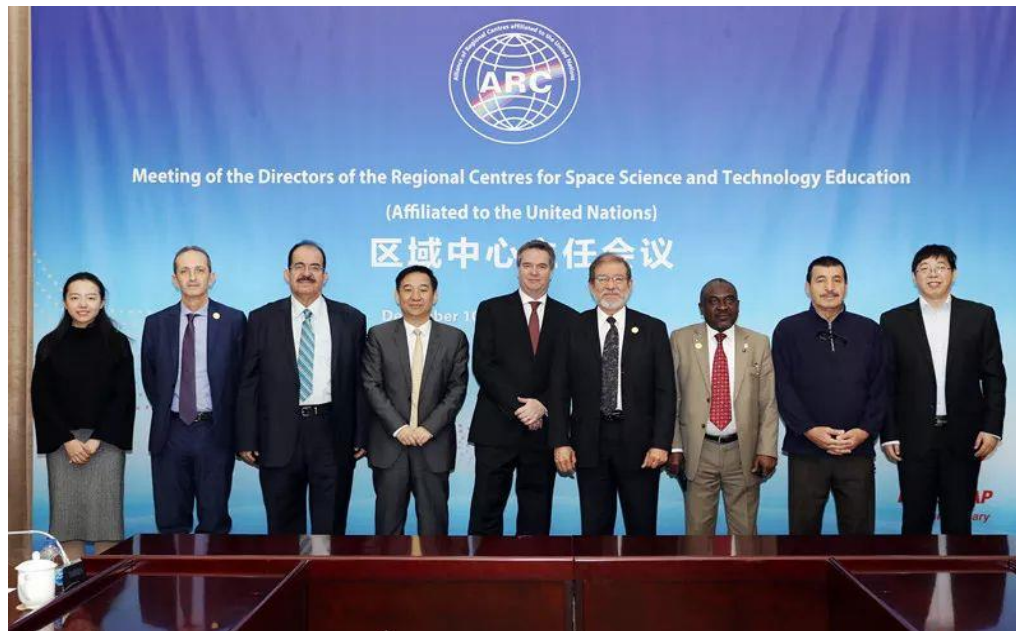
Capacity Building

1. ICG Information Centre: RCSSTEAP (China)



The 4th meeting of the Governing Board and the 5th Anniversary Celebration of RCSSTEAP (China)
(Dec. 9, 2019)

2. Alliance of Regional Centres (ARC)

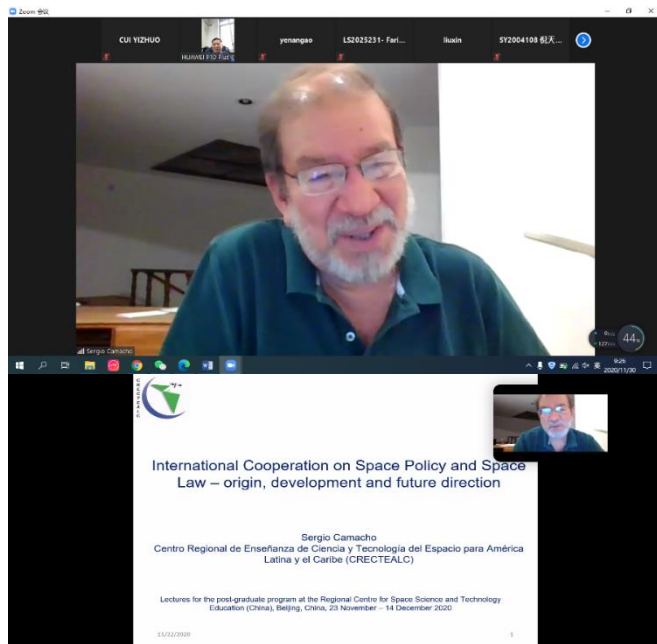


Meeting of the Directors of the UN-Reginal Centres
(Dec. 10, 2019)

03 Capacity Building

3. Online Lectures

Online Lectures on the Frontiers of Space Technology Applications



No.	Course Name	Date
1	International Cooperation on Space Policy and Space Law-origin, development and future direction	Nov. 23-Dec. 14, 2020
2	Writing a Research Paper	April 14, 2021
3	The Space-time References of Beidou System	April 15, 2021
4	GNSS Reflections and Its Applications	May 13, 2021
5	Beidou High Precision Positioning: Progress and Application	May 20, 2021

4. Experimental equipment



GNSS Simulator



RTK Antenna



GNSS Signal Collector

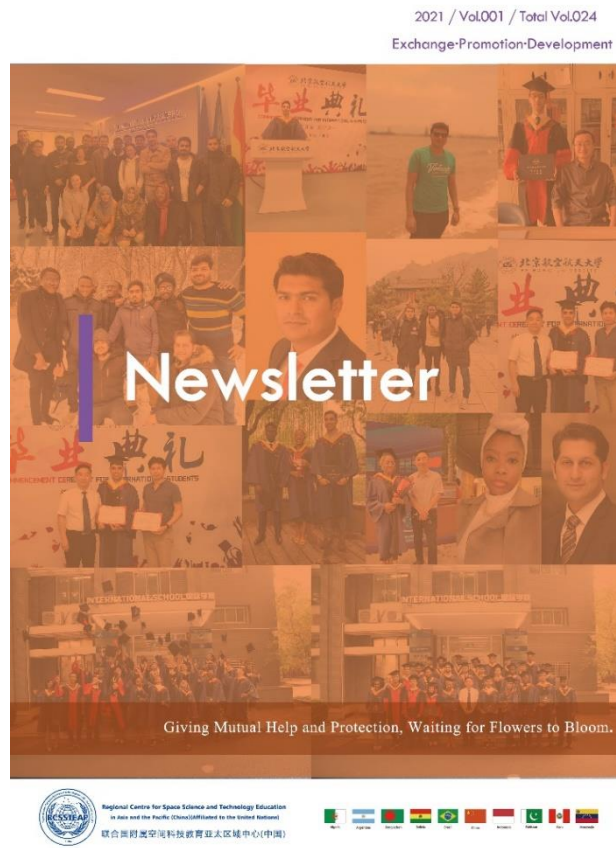


SLAM Platform



UAV System

5. Publications



04

Progress in COVID-19

04 Progress in COVID-19

1. Enrolment & Graduation

SC&GNSS

Satellite Communications
and Global Navigation Satellite Systems



MASTA&DOCSTA
Admission Announcement **2021**



Video Interview

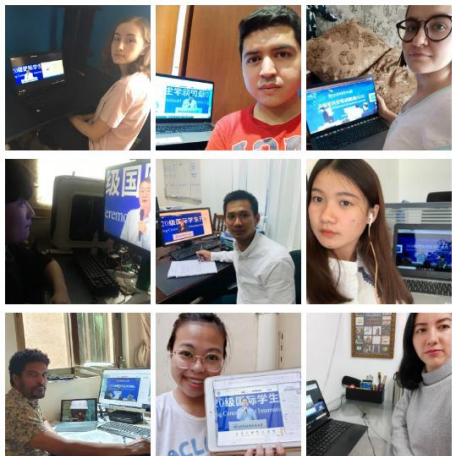


Online + Offline Defense

04 Progress in COVID-19

2. Management & Services

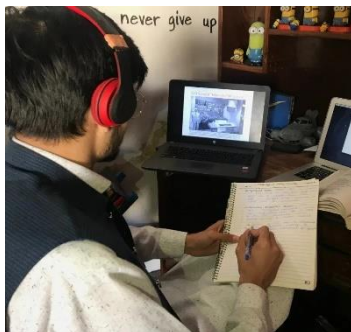
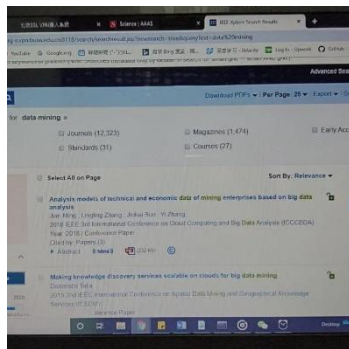
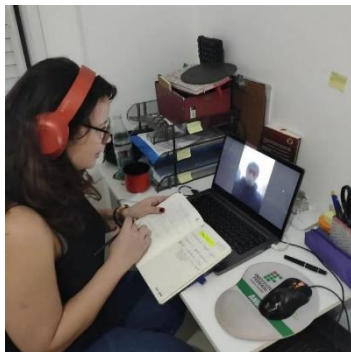
- ✓ Health Daily Report
- ✓ Open Ceremony
- ✓ Regular class meetings



- ✓ Free masks providing
- ✓ Online outpatient appointments
- ✓ Online psychological counseling
- ✓ Door-to-door photo collection

04 Progress in COVID-19

3. Online Teaching Scheme

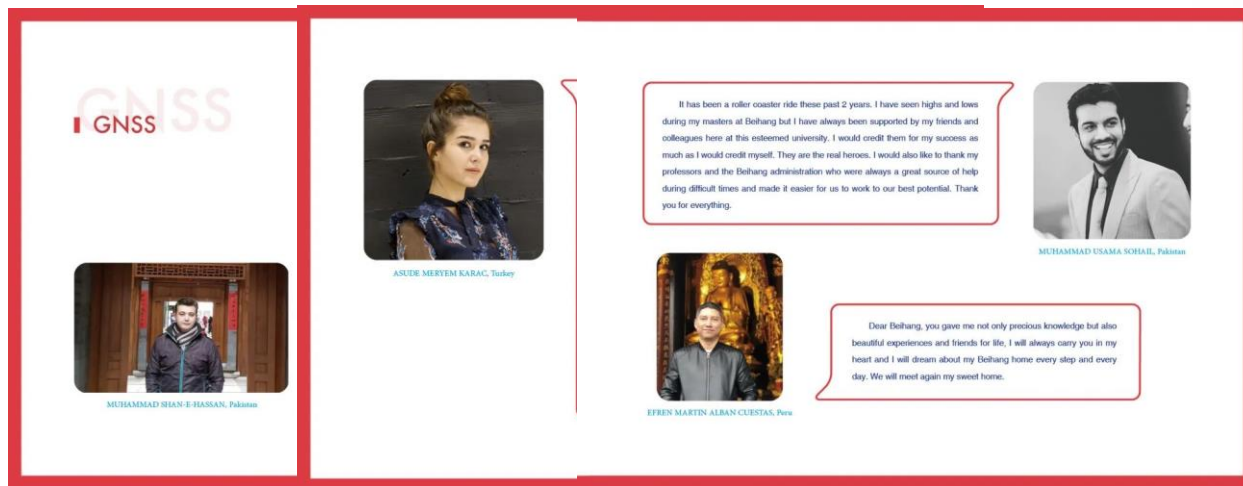


- Live broadcasting online
- Video recording
- MOOC
- WeChat/learning materials

No.	Course	Hours	Score
1	Satellite Navigation Data Processing	32	2
2	GNSS Applications	16	1
3	GNSS New Technologies	16	1
4	Principle of Global Navigation Satellite Systems	32	2
5	GNSS Receiver Principles and Design	32	2
6	GNSS/INS Integration Navigation	16	1

4. Online activities

- Long-Distance Book Club
- A Food Trip Around the World
- Studying at Beihang - Days of Fighting the Epidemic


APSCO
 ASIA-PACIFIC SPACE COOPERATION ORGANIZATION

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 E-mail: secretariat@apsco.int

April 15, 2020

 Dr. Huang Haijun
 Vice President of Beihang University

 CC: Dr. Weng Jingnong
 Dean of the International School, Beihang University
 Fax: +86 10 82339326
Dear Dr. Huang Haijun,

Greetings from APSCO Secretariat!

On behalf of APSCO, I would like to express my deep appreciation for your strong support and contribution for the outstanding success of the management of international students in Beihang University, since the outbreak of the COVID-19.

I would also like to convey my appreciation to all resource people from Beihang University, who have made invaluable contribution for the success of the students management during the outbreak of the COVID-19.

I believe that we can work closely to better protect the students and create safe environment, and I make sure that we will have more fruitful and reciprocally beneficial collaboration between our two organizations in the future.

Sincerely Yours,

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

<http://www.apsco.int>

The background is a dark blue gradient. In the center is a realistic illustration of the Earth, showing continents and clouds. Surrounding the Earth are several concentric elliptical orbits. Numerous satellite icons, representing the Beidou constellation, are positioned along these orbits. The satellites have different colored solar panels (blue, white, and gold) and are connected by a network of thin lines, suggesting global connectivity.

Thank you

<http://en.beidou.gov.cn>