Introduction to the UN regional Centre at Beihang University, China

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1 Background
2 Major Work in 2015
3 Programs in 2016
4 Way Forward
Established in Nov.17, 2014 in Beijing

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

The Establishment of RCSSTEAP: November 17, 2014

Mission: Promoting the peaceful use of space technologies for the benefit of all humankind.

Vision: Openness, Innovation, Inclusiveness

Principle: Down to the Earth while Aiming High

2013.2
Application
Making a proposal at the 50th session of Scientific and Technical Subcommittee of UN COPUOS

2013.9
Passing Evaluation Mission by UNOOSA Expert Group (experts from Greece, India, Iran, Japan, Mexico, Pakistan)

2014.6
Attending the Director Meeting of UN-Regional Centres as an observer

2014.9
Organizing International Space Education Forum at the 65th International Astronautical Congress (IAC), Toronto

2014.11
The Inauguration Ceremony
The 1st Meeting of the Governing Board

2013.6
Approved by the Subcommittee of COPUOS at the 56th session of COPUOS

2014.3
Approved by the State Council of China

2014.7
Organizing a training course for Morocco (CRASTE-LF)

2014.10
Signing agreements with contracting parties.
1 Background
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Work plan in 2015

1. Construction of personnel and system to facilitate the sustainable development of the Centre
2. Organizing education and training to serve the Centre member countries and other developing countries.
3. Capacity building of the Centre for Space Application programme
4. Organizing Activities for Promoting Visibility of the Centre
5. Publications
### RCSSTEAP Main Work in 2015

<table>
<thead>
<tr>
<th>Month</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan.</td>
<td>• Signed cooperation agreement with Shenzhou Institute of China Academy of Space Technology</td>
</tr>
<tr>
<td>Apr.</td>
<td>• Training program on Satellite Navigation Technologies was held</td>
</tr>
<tr>
<td>Jun.</td>
<td>• “Painting Exhibition on China’s Space Exploration in Vienna International Center</td>
</tr>
<tr>
<td>Jul.</td>
<td>• 25 postgraduates graduated and granted the Master's Degree on space technology applications</td>
</tr>
<tr>
<td>Aug.</td>
<td>• Recruited 42 postgraduates on space technology applications</td>
</tr>
<tr>
<td>Sept.</td>
<td>• Training programs on “Earth observation technologies for earthquake damage and loss assessment” and “Space law and policy” were held at Beihang University</td>
</tr>
<tr>
<td>Oct.</td>
<td>• “RCSSTEAP No.1” Micro-Satellite Project Initiative was officially launched</td>
</tr>
</tbody>
</table>
International Experts in 2015

Kclause Schilling
Professor
Germany

Niklas Hedeman
Doctor
UNOOSA

Armel Kerrest
Professor
France

Stephan Hobe
Professor
Germany

Renato Filjar
Professor
Croatia

Macabiau Christophe
Doctor
France

Zhao yun
Professor
Hong Kong

Joanne abrynowicz
Professor
U.S.A

Andrea arringdon
Doctor
Canada

Ling Keck Voon
Professor
Singapore
Attended the SCTC meeting, UNCOPUS 2015
Painting Exhibitions in Vienna, June, 2015
Painting Exhibition on China’s Space Exploration

Flying with the wings of art

“让太空探索插上艺术的翅膀” 中国航天成就绘画作品展
Art and science is the wheels of the car and the two wings of a bird.
Mr. Ma Xinmin, Head of the Chinese delegation requests the pleasure of your company at a Reception/Painting Exhibition at Mozart Room, Vienna International Center

At 13:00 pm on Wednesday June 17, 2015
Introduction to the RCSSTEAP in China
Introduction to the RCSSTEAP in China
Introduction to the RCSSTEAP in China

1. Background
2. Major Work in 2015
3. Programs in 2016
4. Way Forward
3.1 Degree Programs

Postgraduate Degree Education Programs

- Global Navigation Satellite System (GNSS) - 2016
- Remote Sensing and GIS (RS & GIS) - 2016
- Space Law and Policy - 2016

Doctoral Program on Space Technology Application

Applicants Total: 73
Accepted Total: 49
### 3.1 Degree Programs

#### Training Procedures of Master’s program

<table>
<thead>
<tr>
<th>Phase I</th>
<th>Module I</th>
<th>Module II</th>
<th>Module III</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course Study in China: 9 months (at Beihang University) (Leading to Course completion Certificate of Beihang University)</td>
<td>Common Platform Courses</td>
<td>Module II</td>
<td>Module III</td>
</tr>
<tr>
<td></td>
<td>● Major courses</td>
<td>● Pilot Project</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Academic Lectures</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Professional visits</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Phase II</th>
<th>Thesis Research: 6-12 months (in China or home country) (Leading to Master’s Degree in Engineering)</th>
</tr>
</thead>
</table>

The degree programs begin in September each year.
### 3.1 Degree Programs

**Global Navigation Satellite System (GNSS)**

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Class Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GNSS Reference System</td>
<td>18</td>
</tr>
<tr>
<td>Principle of Global Navigation Satellite Systems</td>
<td>32</td>
</tr>
<tr>
<td>GNSS Navigation Signal</td>
<td>18</td>
</tr>
<tr>
<td>GNSS Receiver Principles and Design</td>
<td>32</td>
</tr>
<tr>
<td>GNSS/INS Integration Navigation</td>
<td>32</td>
</tr>
<tr>
<td>Global Satellite Navigation System Applications</td>
<td>18</td>
</tr>
<tr>
<td>Satellite Navigation Data Processing</td>
<td>32</td>
</tr>
<tr>
<td>GNSS Experiment</td>
<td>18</td>
</tr>
<tr>
<td>GNSS New Technologies</td>
<td>18</td>
</tr>
</tbody>
</table>

- **System level**
  - Duration: 9 months + 1 year
  - 09/2016 — 06/2018
- **User level**
- **Applications level**
- **Operational level**

**Introduction to the RCSSTEAP in China**
3.1 Degree Programs

Capacity Building in GNSS

BeiDou Satellite Navigation System
Exhibition Hall (Located at Beihang Aerospace Museum)

GNSS Smart Classroom

Experiment equipment
### 3.1 Degree Programs

#### Remote Sensing and GIS (RS & GIS)

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Class Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Remote Sensing Image Visual Interpretation</td>
<td>16</td>
</tr>
<tr>
<td>Geographic Information System: Theory and Application</td>
<td>48</td>
</tr>
<tr>
<td>Physical Principles of Remote Sensing</td>
<td>32</td>
</tr>
<tr>
<td>Introduction to Photogrammetry</td>
<td>18</td>
</tr>
<tr>
<td>Remote Sensing Image Processing and Software Application</td>
<td>48</td>
</tr>
<tr>
<td>Remote Sensing Test and validation Workshop</td>
<td>16</td>
</tr>
<tr>
<td>Case Studies in the Applications of RS &amp; GIS</td>
<td>18</td>
</tr>
<tr>
<td>Geographic Information System: Design and Practice</td>
<td>32</td>
</tr>
<tr>
<td>Natural Disaster Remote Sensing</td>
<td>18</td>
</tr>
</tbody>
</table>

**Duration:**

- 9 months + 1 year
- 09/2016 — 06/2018
3.1 Degree Programs

Capacity Building in RS&GIS

Ground Station for Remote Sensing
Satellite Data Receiving

Remote Sensing & Geographic Information System Lab

Distance Education & Video Conference Lab
3.1 Degree Programs

- Space Law and Policy - 2016

<table>
<thead>
<tr>
<th>Core Courses</th>
<th>Class Hrs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic concepts of international law and space law</td>
<td>32</td>
</tr>
<tr>
<td>National Space Policy</td>
<td>16</td>
</tr>
<tr>
<td>National Space Legislation</td>
<td>32</td>
</tr>
<tr>
<td>Legal Issues related to RS&amp;GIS</td>
<td>16</td>
</tr>
<tr>
<td>Legal Issues related to Satellite Communication</td>
<td>16</td>
</tr>
<tr>
<td>Legal Issues related to GNSS</td>
<td>16</td>
</tr>
<tr>
<td>Space commercialization and the development of Space Law</td>
<td>16</td>
</tr>
<tr>
<td>Policy and Legal Issues on Peaceful Use of Outer Space</td>
<td>4</td>
</tr>
<tr>
<td>Soft Law and new trend of Space Law</td>
<td>4</td>
</tr>
<tr>
<td>UNPSA and related legal Issues</td>
<td>4</td>
</tr>
<tr>
<td>Hot Topics on Space Technology Applications</td>
<td>4</td>
</tr>
</tbody>
</table>

Duration: 9 + 6 months
09/2016 — 12/2017
3.1 Degree Programs

Space Law and Policy
Degree Program
Short Training Program
1 Background
2 Major Work in 2015
3 Programs in 2016
4 Way Forward
Way Forward

- Plan a joint action to contribute UNISPACE 50+ in 2018

- Development Book Series on Space Science, Technology and Law together with the UN Regional Centres and UNOOSA

- To prompt students/faculty exchange and teaching resource sharing among the UN Regional Centres

- To Build an online education environment for Space application education
Thank you for your attention

联合国附属空间科学与技术教育亚太区域中心（中国）
Regional Centre for Space Science and Technology Education in Asia and the Pacific(China)
(Affiliated to the United Nations)