Educational Training Program of RCSSTEAP in 2016

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Executive Director of UN Regional Centre (RCSSTEAP) China

February 23, 2016   Vienna, Austria
1. Background
2. Major Work in 2015
3. Programs in 2016
4. Way Forward
2nd Governing Boarding Meeting

Held on November 27th, 2015 in Beijing
Status of RCSSTEAP in 2015

Ten Contracting Parties
1 Background
2 Major Work in 2015
3 Programs in 2016
4 Way Forward
<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

K clause Schilling
Professor
German

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
Guests from CSSTEAP in India Visit RCSSTEAP

September 15th, 2015
Chinese Delegation Visit IIRS/CSSTEAP in India

January 4th-5th, 2016
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
# 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)</td>
<td>Common Platform Courses</td>
<td>Major courses</td>
<td>Pilot Project</td>
</tr>
<tr>
<td>(Leading to Course completion Certificate of Beihang University)</td>
<td>● Major courses</td>
<td>● Academic Lectures</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Common Platform Courses</td>
<td>● Professional visits</td>
<td></td>
</tr>
<tr>
<td></td>
<td>● Thesis Survey and Thesis Proposal</td>
<td>Midterm Assessment</td>
<td>Academic Activities</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Thesis Research</td>
<td>Thesis Defense</td>
</tr>
</tbody>
</table>

Phase II

Thesis Research: 6-12 months (in China or home country)
(Leading to Master's Degree in Engineering)

The program will begin in September 2016.
## 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**
3.1 Degree Programs

Capacity Building in GNSS

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

Experiment equipment

GNSS Smart Classroom
## 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

Faculty and Academic Staff

- The experts will come from the related University and research institution, and the most famous space law research institution, including McGill University Institute of Air and Space Law, Cologne University Institute of Air and Space Law, Leiden University International Institute of Air and Space Law, etc.
3.1 Degree Programs

• Scholarships

We will offer 3 Chinese Government Scholarship quotas of our Post-graduate programs for UNCOPUS member states.

Please visit http://www.rcssteap.org for more details and contact with us at
Ms. Guo Yuanyuan
Email: gyy@buaa.edu.cn
Tel: +86(10)82339734
3.2 Short Training Programs

Will focus on the following topics:

- Beidou/GNSS technology and applications
- RS-GIS application on disaster management
- Small Satellite Technology

Jointly organize with our partners APSCO, UNSPIDER Beijing Office, BeiDou Office, NDRCC, CAST, SAST, etc.
1. Background
2. Major Work in 2015
3. Program in 2016
4. Way Forward
Way Forward

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

• To deepen cooperation and development in education and research among our member countries to facilitate the “RCSSTEAP No.1 Small Satellite Project”

• To Build an online education environment for Space application education
In ancient, people explore the earth by standing on the land

古人坐地观天
Nowadays, we can explore the earth from the Sky

我们登天察地
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)