



# ❖ CSSTE-AP Newsletter ❖

Centre for Space Science and Technology Education in Asia and the Pacific (Affiliated to UN)

Volume 1 Issue 1

March, 1998

## *From the desk of the Chairman, Governing Board*

I am very happy that the Centre for Space Science and Technology Education in Asia and the Pacific (CSSTE-AP), which is affiliated to the United Nations, is starting a Newsletter - the inaugural issue of which is being issued in March, 1998. The Centre, which came into existence in November, 1995, has made great strides in the area of imparting high quality education in Space Science and Applications. The ultimate goal of the Centre is to ensure that the benefits of space technology are maximised within each of the member countries of the Asia Pacific region. If this has to succeed then there is an urgent need for the development of high level knowledge and expertise in space technology fields. This is possible when proper educational opportunities, imparting fundamental education knowledge, in the space science area is dovetail into the programme structure of the space activities of each country.

The Centre has already completed two courses and the third one is already ongoing at Dehradun. Now the fourth one is being inaugurated in March, 1998 - taking the total tally of students benefiting from the course to about 70. This is a creditable number and is a reflection of the large support by the member states in the region to the activities of the Centre.

The Centre is just in its beginning and with the dawn of the new millenium, the Centre has a challenging task ahead. The Centre aspires to be an institution of excellence in the areas of space technology education in this region. With educational programmes at the core of its activities the Centre also envisages to be a hub for region specific research and consultancy activities. The support and guidance of the countries of the region, the United Nations - particularly the Office for Outer Space Affairs and the Economic and Social Council for Asia and the Pacific and my colleagues in the Governing Board is very much essential to achieve the goals set out by the Centre. Apart from this, there are many other international agencies in the region (i.e. ICIMOD etc.) and in India that are participating and supporting the activities of the Centre.

I hope this Newsletter will serve as a medium of exchange of information and also for widening the awareness of the Centre to a larger community. The Newsletter needs to also emerge as an interaction medium for the students so that they are in constant touch with the activities of the Centre. I wish this endeavour of the Centre all success and will look forward to the issues of the Newsletter.



*Dr. K. Kasturirangan  
Chairman,  
Governing Board*

*The ultimate goal of the Centre is to ensure that the benefits of space technology are maximised within each of the member countries of the Asia Pacific region*

<i>Inside This Issue</i>	<i>Page</i>
From the desk of the Chairman, GB	1
Background of CSSTE-AP	2
DOS centres hosting the training programmes	2
Projects of course participants	3
This year's events	3
Announcement of 3rd PG course in RS/GIS	3
Director speaks	4
Governing Board	4

## Background of CSSTE-AP

In response to the UN General Assembly Resolution (45/72 of 11th December, 1990) endorsing the recommendations of UNISPACE-82 the United Nations Department of Outer Space Affairs prepared a project document (A/AC.105/534) envisaging the establishment of Centres for Space Science & Technology Education in the developing countries. The objective of the Centres is to enhance the capabilities of the member states in different areas of space science & technology that can advance their social and economic development. The first of such centres, named as Centre for Space Science & Technology Education in Asia & the Pacific (CSSTE-AP) was established in India for Asia Pacific region during November, 1995. Under a host country agreement, the Department of Space, Govt. of India has made available appropriate facility and expertise to the Centre at the Indian Institute of Remote Sensing (IIRS), Space Application Centre (SAC) & Physical Research Laboratory (PRL). The Centre is an education and research institution that is capable of high attainments in the development and transmission of knowledge in the fields of space science & technology. The initial emphasis of the Centre shall be to concentrate on in-depth education, research and applications programmes, linkages to the global programmes/databases, execution of pilot projects, continuing education and awareness and appraisal programmes. The Centre offers Post Graduate level courses in the fields of (a) Remote Sensing and Geographic Information System, (b) Satellite Communications, (c) Satellite Meteorology and Global Climate, (d) Space Sciences. Towards running these courses a set of standard curricula was developed by the United Nations at a workshop hosted at Granada, Spain during March, 1995. The Centre is affiliated to the United Nations and its education programmes are recognised by Andhra University, India. As of now, the Centre has already conducted one PG course each in Remote Sensing & GIS and Satellite Communications. The 2nd course in RS/GIS is in progress while PG courses in Satellite Meteorology & Space Sciences are scheduled to commence during 1998.

### Centres of Department of Space, Govt. of India hosting the training programmes of CSSTE-AP



The **Indian Institute of Remote Sensing (IIRS)** is a premier house of training in remote sensing and GIS applications. In the last three decades, it has trained about 4000 scientific personnel from India and abroad in almost all earth science disciplines. The institute is the principle host institution for CSSTE-AP and conducts its annual training programmes in Remote Sensing & GIS.

The **Space Applications Centre (SAC)** is specialised in conceptualising and conducting research programmes that are enabling application of space technology for the socio-economic benefits of the country. Towards achieving these goals, the Centre has two major thrust areas, viz., satellite communications and remote sensing/satellite meteorology. It has been the obvious choice to host CSSTE-AP's training activities in Satellite Communications and Satellite Meteorology.



The **Physical Research Laboratory (PRL)** is the nodal centre for space sciences in India. The laboratory has one of the longest series of ozone measurements and radio sounding data of the ionosphere. All activities of CSSTE-AP in space sciences are planned to be conducted at PRL.

#### International Awareness Programmes of CSSTE-AP

The Centre conducted a programme on Satellite Communications during January, 1997 which was attended by 22 participants from 11 countries. A similar programme in Satellite Meteorology is planned for March, 1998.

## Projects of Course Participants

Country Name of the Candidates	Remote Sensing & GIS	Satellite Communications
<b>Bangladesh</b> Ittikhar Uddin Sikder Nagma Yasmin	DSS for village amenities DSS for village amenities	
<b>China</b> Jiang Yulin Li Fabin	Alpine pasture studies EIA on watershed	
<b>DPR Korea</b> Jo Il-Gwang Hong Yong Il Kim Byong Ho Kim Ryong Chol	Landuse planning Watershed prioritization	Design of digital modem GPS receiver subsystem
<b>India</b> Pondari Saryanarayana Jagjeet Chand Sharma Rajesh Kumar Uppal	Water resources planning Watershed prioritization	Mobile satellite network
<b>Indonesia</b> Edwin Winarno		Data collection system network
<b>Iran</b> Mosaafa Torabian Naser Shaibani		Earth station reliability Sat. based comp. network
<b>Republic of Korea</b> Min. Kyung Hym		Rain attenuation at Ku band
<b>Kyrgyzstan</b> Ainora B. Nazarkulova Uzak Muzzbekovich	DSS for rail network	CBT on SATCOM
<b>Mongolia</b> Narangereel Davvasuren Sharav Minichnyra	Forest fire risk modelling Mountain goat habitat study	
<b>Myanmar</b> Kyi Kyi Thee Nyunt Maing	Crop inventory Forest resource management	
<b>Nepal</b> Hriday Lal Koirala Trilok Man Tamrakar Deepak Mani Dhital Dinesh Dev Pant	Urban environment Urban expansion trend	Radio & TV broadcasting VSAT network
<b>Pakistan</b> Khurshid Ahmad	Pasture development	
<b>Philippines</b> Salvador G. Quizmit Joseph Florano Lita	Climate change analysis Forest fire risk modelling	
<b>Sri Lanka</b> Samith Kodikara Udaya Gamiwa Senarath Lassara Weeraratne M. Saman H. Cooray	Urban planning Ground water potential	Voice coding & decoding Video & data compression
<b>Thailand</b> Aroon Sankwan	Climate change analysis	
<b>Uzbekistan</b> Ruzieva Gulbakhor Usmonov Botir, S	Salt affected soil studies	Earth station antenna CAD
<b>Vietnam</b> Nguyen Thi Bich Thuoc Do Xuan Lan Tran Tuan Dung	Land hazard zonation Landuse/landcover mapping Land hazard zonation	

## Announcement

### 3rd PG course in RS/GIS

The 3rd PG course in RS/GIS will commence from 5th October, 1995 at IIRS, Dehradun, India. Sponsored nominations are invited from candidates from Asia Pacific region. The first phase of course will be for 9 months in India followed by a one year project work in the home country of the participant. Minimum qualification for the course is Master degree in any field of natural resources or environment and proficiency in English. Last date to receive application at the centre is 30th June, 1998. For application material, please write to Director, CSSTE-AP.

## This year's events

**23/25 February, 1998**

Visit of Latin American delegation to the Centre to study the initiatives

**1st March, 1998**

Beginning of first PG course in Satellite Meteorology at Ahmedabad

**9th to 12th March, 1998**

International workshop on emerging trends in satellite meteorology at Ahmedabad

**10th March, 1998**

3rd Meeting of the Governing Board at Ahmedabad

**1st June, 1998**

Beginning of the first PG course in Space Sciences at Ahmedabad

**30th June, 1998**

Passing out of the 2nd RS/GIS course at Dehradun

**5th October, 1998**

Beginning of 3rd PG course in RS/GIS at Dehradun

**30th November, 1998**

Passing out of the 1st PG course in Satellite Meteorology at Ahmedabad

**30th November, 1998**

Passing out of the 1st PG course in Space Sciences at Ahmedabad

### *Director speaks*

We are passing through a very critical phase in the history of space science and technology and are witnessing developments that are phenomenal in speed and scope. On the other hand, we also feel that the encashment of these developments for social benefit is rather slow and more so in developing countries which have not had in the past, the kind of needed self reliance. In order to bring about this self reliance in all space science related matters, the United Nations prepared a project for establishing the Centres for Space Science and Technology Education (A.AC.105/534 of January, 1993). The first Centre for Asia Pacific region (CSSTE-AP) started functioning in India at Dehradun from November, 1995 with generous support from Department of Space and assistance from several international organisations.

At the time of my writing, the Centre has had modest international achievements, thanks to the Governing Board for guidance and support. It has already completed conducting post-graduate courses in RS/GIS and SATCOM. The second RS/GIS course is in progress. In 1998, the third RS/GIS programme, a new PG course each in SATMET and Space Sciences, are in the offing. These courses are interspersed with short term training programmes and workshops. For all these, the Centre has excellent access to the state of the art facility available at various centres of Department of Space, Government of India.

With more than 60 alumni already cherishing the benefits of the Centre's initiative in 20 countries of the region, we have high hopes for the new millennium. A new journey has begun in the quest of knowledge. Even as we progress towards excellence, we vow to spread the fruits of our efforts to accommodate a wider horizon of capacity bulding.



**Prof. B.L. Deekshatulu,  
Director, CSSTE-AP.**



**CSSTE-AP (Affiliated to UN)  
IIRS Campus, 4, Kalidas Road  
Dehradun 248001, INDIA**

#### **Governing Board**

Dr. K. Kasturirangan, Chairman, India  
 Dr. Chose Tae Song, DPR Korea  
 Prof. H. Wiryosumarto, Indonesia  
 Dr. Y.K. Akynzhznov, Kazakastan  
 Mr. Tynmbek Ormonbekov, Kyrgyzstan  
 Mr. Dunstan Melling Undau, Malaysia  
 Prof. R. Sanjaasuren, Mongolia  
 Mr. Kartar Singh Bhalla, Nauru  
 Mr. Rambhakta PB Thakur, Nepal  
 Dr. Moon Shin Haeng, Republic of Korea  
 Prof. Sam Karunaratne, Sri Lanka  
 Dr. Kamol Muminov, Uzbekistan  
 Dr. N. Jasentuliyana, United Nations



**Members of the Governing Board during the 2nd Meeting**

CSSTE-AP welcomes the views and opinions of the readers of the newsletter. Short communications on space science and technology education which may be relevant to Asia Pacific region are also welcome. Views expressed in the articles of the newsletter are those of the authors and do not necessarily reflect the official policies of the Centre