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# CONTACT

IIRS NEWS LETTER

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## EDITORIAL

Dear IIRS Alumni,

We are once again amongst you with the second issue of the IIRS Newsletter CONTACT. I hope the 1st issue could give you the intention of this newsletter i.e. keeping a close contact with ambassadors of IIRS. How you are utilising the training in the betterment of society and advancement of profession? Your response is our strength. Your contribution in the form of news, small article/abstract, data information is welcome.

Editor

### Editorial Committee

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IIRS Main Building

The Indian Institute of Remote Sensing is a premier institute for training of scientific and technical personnel in the application of remote sensing and geographical information system. It is a first and only institute of its kind in the entire south-east Asia. The institute was established in 1966 in collaboration with International Institute for Aero-space Survey and Earth science (ITC), Enschede, The Netherlands. The prime objectives of the Institute are training, education, research and consultancy in remote sensing application in various thematic disciplines. More than 4000 scientists and engineers including 350 from 45 developing countries of Asia, Pacific and Africa have graduated from this Institute. This institute offers more than 27 technology and application focussed courses with well defined target groups. At IIRS, around 50 highly qualified and experienced scientists impart training on the application of Remote Sensing and GIS to professionals and students from diverse fields. Since the institute transfers the State-of-the-Art technology to the personnel of user organisations, it is imperative to monitor the optimum utilisation and further transfer of technology. The demonstration of technology demands closer interaction with various user groups. Thereafter, a link between alumni and their *alma matar* is essential. This newsletter CONTACT is a step in that direction, which is two way flow of communication.

## NEWS BRIEFS

### Short course for CSSTE-AP

IIRS has conducting a short course of four weeks duration on digital image processing for CSSTE-AP. The participants were from Asia-Pacific region and Africa.

It started from 30<sup>th</sup> August to 24<sup>th</sup> September 1999.

In this 22 participants from 11 different countries were trained.

### Second phase of IIRS-ITC collaborative project extended.....

The present IIRS-ITC project for establishment of GIS facility and introduction of new courses is at the final stage of extension for the next five years.

### SPECIAL COURSE FOR DECISION MAKERS

Indian Institute of Remote sensing has conducted a short course on "Remote Sensing : an overview for Decision Makers" from 13th July to 16th July, 1999. The course was attended by senior officials of various govt. organisations. The course covered following themes a) Agricultural and Soils b) Forestry and Ecology c) Urban and Regional Planning. In this course these officials were exposed to various aspects of applications of Remote sensing & GIS techniques in the above themes.

## Guest Column

### Role of IIRS in Remote Sensing and GIS

Some Institutions are established with a far sighted vision. At a time when Satellite Remote Sensing was not known, aerial photography was the only tool available to the Survey of India to map the country in different scale. Though time consuming, there was no alternative. It is in 1966 that the Survey of India has set up the Indian Photo-interpretation Institute (IPI) with the help of the Dutch Government, specifically the ITC, the Netherlands, as a teaching/training Institute in Dehra Dun. Right from the beginning, all aspects of aerial photography were taught with emphasis on practicals and field visits making the trainees more application oriented. In 1980, the IPI got into the fold of Department of Space and later in 1983 renamed as the Indian Institute of Remote Sensing (IIRS). Since then IIRS has lived up to the Remote Sensing community in providing trained personnel in all/may application areas. GIS world-over has emerged and developed faster than Remote Sensing and no wonder it has overtaken Remote Sensing in its use in wider areas of practical interest such as oil pipe line laying, telephone networking, urban analysis, environmental strategies etc. It is a Yomen service IIRS has been doing to India and to a few foreign nationals too. IIRS staff are recognised internationally in many projects with ITC, JOFCA, GDTA etc. involving Remote Sensing and GIS. Many of the past students of IIRS have held/are holding high offices in India and abroad. IIRS seriously follows the saying "learning to teach and teaching to learn". With feed back from students as its main element and looking into the International status of the subject, IIRS continuously updates its syllabus and infrastructure.

Considering the upgrowth, expertise and quality of teaching and research by IIRS, the UN Committee which visited IIRS in 1994 decided to establish the Centre for Space Science and Technology Education in Asia and the Pacific (CSSTE-AP) in Dehra Dun. Since 1996, IIRS has been the host Institute for all CSSTE-AP courses, long and short. Also the staff have taken the responsibility to guide the 1 year project of the CSSTE-AP participants after the course at IIRS. It is a great asset to CSSTE-AP being located in IIRS Campus.

B.L. Deekshatulu  
Director, CSSTE-AP, Dehra Dun

## INTERNATIONAL CONFERENCE (GEOINFORMATICS : BEYOND 2000)



As a part of a joint strategy, IIRS and ITC organised, *Geoinformatics : Beyond 2000*, an International Conference on "Geoinformatics for Natural Resources Assessment, Monitoring and Management", during 9-11 March, 1999 at IIRS, Dehradun, India. The prime aim of the conference was to deliberate on such issues which will guide the technology in the next millennium and discuss the challenges for the way ahead to make geoinformation available for one and all.

The main theme of the conference revolved around five technical sessions, i) Trends in Geoinformatics Technology; ii) Applications of Geoinformatics in Resource Management; iii) Spatial modelling & Decision Support System; iv) Geoinformatics for Disaster Management; and v) Geoinformatics into new millennium : Trends and Opportunities.

The three day long International conference began with a welcome address by Dr. P.S. Roy, Dean IIRS and was inaugurated by the Chief Guest, Dr. D.P. Rao, Director, National Remote Sensing Agency, Hyderabad, India. The Guest of Honour, Prof. Dr. Karl Harmsen, Rector, ITC, The Netherlands, presented the key note address on Developments in Geo-information Technology. As a special guest, Prof. Shunji Murai, AIT, Bangkok spoke on the occasion touching upon various issues related to the main theme of the conference and presented a new concept of Kansei Engineering for the virtual reality map simulation.

Eminent speakers from India and abroad have contributed technical papers demonstrating the capabilities of the technology. ITC delegation led by Prof. (Dr.) Karl Harmsen, Rector, ITC, was represented by Dr. Robert van Zuidam, Prof. (Dr.) J. Alfred Zinck, Prof. (Dr.) Andrea Fabbri, Prof. J.L. Van Genderen, Prof. A.M.J. Meijerink, Dr. Cees J. Van Westen, and Dr. Dhruva B.P. Shrestha, who have contributed significantly during technical proceedings of the conference. The conference received overwhelming response from contributing authors in India and abroad. In total 109 papers were presented in the technical proceedings of the conference. An Abstract Volume of all accepted papers (142 numbers), Pre-conference Proceedings Volume of selected 35 full-length papers and a Souvenir Volume were released on the occasion.

The conference was well attended by more than 300 delegates including 51 foreign participants from 19 countries, mainly from South-East Asian region. Additionally the conference was attended by more than 200 professional from various organisations from Dehradun and adjoining region as special invitees and visitors at the *Geoinformatics* technical sessions and *Geoinformatics* exposition.

### "NNRMS TRAINING PROGRAMME"

The Indian Institute of Remote Sensing organised two short courses sponsored by NNRMS. One training programme of 12-weeks duration was on "Application of Remote Sensing in Town & Country Planning", from 2nd July to 24th September, 99 while the other program of 10-weeks duration on Geoinformatics from 4th January to 12th March, 99. In the 1st programme 18 persons from all over the countries participated while in the 2nd program 16 persons participated. These programme were appreciated by the participants for their content and organisation.

### IIRS (INDIA) & GDTA (FRANCE) COOPERATION PROGRAM

A Memorandum of understanding has been signed on May, 1999 between Indian Institute of Remote Sensing (IIRS) and GDTA (France) for mutual cooperation in training, education and research in Remote Sensing and GIS applications to Natural Resource Managements.

Under the cooperation of IIRS-GDTA, IIRS will select one student each from the batch of April and August P.G. Diploma Course.

### ISPRS WORKSHOP

The working Group VII/2 of the International Society of Photogrammetry and Remote Sensing (ISPRS), under Chair of Dr. D.P. Rao, Director, NRSA, used the occasion of International Seminar to hold a special workshop on Environmental Modelling at IIRS. The workshop was well attended by foreign and Indian delegates, who were exposed to various aspects of technology and application potentials of Remote Sensing which are necessary for the understanding and implementation of sustainable development programs, viz., Overview of space technology for sustainable development, Role of remote sensing for land resource development, Soil mapping, Land degradation, Forest Ecosystem and Ecological Analysis, Hydrogeomorphological parameter for Ground Water Modelling, Artificial recharge and Water harvesting, Agricultural crop acreage and yield estimation, and Watershed management/planning. These topics were covered by experts of various units of Department of Space, viz., Space Application Centre, Ahmedabad; Regional Remote Sensing Service Centres, Nagpur and Dehradun; Advanced Data Processing Research Institute, Hyderabad; National Remote Sensing Agency, Hyderabad; Indian Institute of Remote Sensing, Dehradun; and Indian Institute of Science, Bangalore.

### CELEBRATIONS

#### HINDI FORTNIGHT

Indian Institute of Remote Sensing celebrated Hindi Fortnight from 14th to 28th September 1999. Various competition and program were organised to inculcate the use of Hindi in day to day official work. Letter-writing, debate, essay writing were organised in which both Hindi and non-Hindi speaking staff and Officer-trainees took part with enthusiasm. On the concluding day a "Kavi Sammelan" was organised in which eight renowned poets entertained the audiences. Four staff members also recited their poem which were of high standard. Dean IIRS distributed the prizes to the winners and also honoured the guest poets.

#### REMOTE SENSING DAY

On 12th August 1999 "Remote Sensing Day" was celebrated in IIRS Campus. Various activities like Quiz Competition, Hindi & English Debate, Open Forum were organised for officer trainees, staff and faculty members. Dr. M.L. Manchanda, Head RRSSC-Dehra Dun, inaugurated the function by lighting the lamp and delivered inaugural speech. Dr. P.S. Roy, Dean IIRS, distributed the prizes to the winners of different activities and delivered the valedictory speech.

## Important Projects and Research Programme

- \* Ministry of Water Resources, Govt. of India has sponsored two consultancy projects named Jamuna Command Area and Sukla Command Area. Under these projects there are 14 irrigation command areas. IIRS is carrying out consultancy work in two such irrigation command areas titled 'Satellite Remote Sensing based Evaluation studies of irrigation projects' covered under CAD programme.
- \* A National project on Biodiversity Characterization at Landscape level using remote sensing and GIS has been taken up at the instance of Department of Biotechnology by Department of Space. The project is being coordinated from IIRS. Leading national institutions are also participating in the project. The database will be used for Biodiversity Conservation Planning and Bioprospective of biological wealth.
- \* Under ISRO-GBP project IIRS is working on a project, title "Biome Level Classification of IRS WiFS data".
- \* Ministry of Environment and Forest, Govt. of India under a Standing committee on Bioresources has sanctioned a project on Grassland Mapping in Himachal Pradesh at 1:50,000 scale for the whole state.
- \* A collaborative project between IIRS and Space Application Institute (Italy) titled "Augmentation of Tropical Forest Cover Information in the parts of India and Myanmar" for TREES project using the Indian Remote Sensing Medium resolution Data (WiFS) is being carried out in the north-east India.
- \* Under IGBP (ISRO-DOS) the Agriculture and Soils Division carried out an important project titled "Impact of Climatic Change on Land Degradation - Remote Sensing and GIS based Modelling Approach". The area of the project is Raru Watershed in Ranchi, Bihar.
- \* "GIS Aided Land Evaluation Modelling Based on Biophysical Characteristics using Temporal Satellite Data" is yet another RSAM Project in progress in the Agriculture and Soils Division. The Study area is spread over part of Haridwar and Saharanpur districts of Uttar Pradesh. Fund has been provided by NRSA for this project.

### COURSE CALENDER

1. Post graduate Diploma course in (a) Geology, Geomorphology and Hydrogeology (b) Environmental Geology and Natural Hazard Survey (c) Human Settlement Analysis.  
Duration : 3.4.2000 to 2.2.2001                      Seats : 5 - 10
2. Three months certificate course in basic Photogrammetry and Remote Sensing  
Duration : 3.4.2000 to 3.6.2000                      Seats : 5
3. Three months certificate course in Marine Sciences  
Duration : 3.1.2000 to 31.3.2000                      Seats: 5
4. Four months Geoinformatics course in (a) Geoinformatics (b) Geosciences (c) Land Information System (d) Soil/Landuse Planning  
Duration : 6.3.2000 to 7.7.2000                      Seats : 5 each
5. Eight weeks short course on digital image processing  
Duration : 3.1.2000 to 28.2.2000                      Seats : 20
6. Short photography course in Aerial and Satellite photo processing  
Duration: 10.1.2000 to 28.2.2000                      Seats : 8