

Date: 11/03/2017

Letter of Intent for Asset Mapping

Between

National Remote Sensing Centre, Hyderabad - 500037

ISRO, DOS

and

Alva's Institute of Engineering and Technology, Mijar, Moodbidri

ISRO has developed an online Portal - Bhuvan Panchayat (www.bhuvan-panchayat.nrsc.gov.in) with the space-based inputs towards resource-based and integrated spatial developmental planning of rural areas in a user-friendly enabling environment under the project 'Space based Information Support for Decentralized Planning (SIS-DP)'. In order to utilize the Portal for decentralized planning by Panchayat Raj Institutions (PRIs), ISRO has initiated a new project called Empowering Panchayati Raj Institutions Spatially (EPRIS) with the goal to empower PRIs by utilizing the Portal for developmental planning at Panchayat level. Towards achieving the goal, it is essential to have the information of existing assets so that one can assess the gap area and plan for new assets.

NRSC has initiated implementation of EPRIS project covering 10% of Panchayats with the help of Partner Institutions namely, SRSACs, NIRD and NGOs. Further to fasten the activity, the asset mapping workshop was conducted through distance learning from IIRS on 27th June 2016 to several academic institutions. During the workshop many academic institutions showed interest to participate in the asset mapping exercise. To carry out the asset mapping activity with Academic Institutions in a stipulated time of 3 months, ISRO has identified a nominal amount of Rs. 2000 per gram Panchayat for the logistics support. To avoid duplication of work, this Letter of Intent for asset mapping has been prepared for joint signature by NRSC & academic institutions.

In this Letter of Intent, National Remote Sensing Centre (NRSC) is the nodal agency for capacity building, asset mapping and activity planning for empowering PRIs, NRSC and Alva's Institute of Engineering and Technology, Mijar, Moodbidri, agree to exercise their best efforts in fulfilling the following obligations for asset mapping in the selected Gram Panchayats (as per list shown in Annexure-1):

1. All the community assets lying in the selected Gram Panchayat area are to be mapped using the latest version of Bhuvan Panchayat Asset Mapping Mobile App, freely downloadable from the Bhuvan Panchayat Portal (www.bhuvan-panchayat.nrsc.gov.in).
2. The asset mapping is to be done in co-ordination with the local Elected Panchayat Representatives / Panchayat functionaries and validated by the concerned Elected Panchayat Representative / Panchayat functionary.
3. The assets successfully mapped by the Bhuvan Panchayat Mobile App will be available on the Portal after moderation.
4. The following documents, available in Bhuvan Panchayat Portal for free download, may be referred for the detailed methodology: (i) Asset Directory and Mapping Guidelines, and (ii) Bhuvan Panchayat Asset Mapping App User Manual.
5. Remuneration will be paid to the University at the rate of Rs. 2000 per Gram Panchayat on signing of this Letter of Intent.

Dr. Ravi
20/3/17

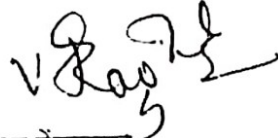
V. S.
27/3/17

[Signature]

6. University/Institutes should make their own arrangement for Smart phone(s) for collecting the asset data in the field
7. After successful mapping of all the assets utilization of fund with necessary certification by the Panchayat Representative/ Panchayat functionary need to be submitted to NRSC
8. After successful asset mapping, developmental activity planning using Bhuvan Panchayat platform will be planned separately by capacity building of the locals with the participated academic institutions at Panchayati Raj Institutions.

This letter of intent is valid until successful completion of the task as per the above obligations, or 3 months from the date of signing this letter, whichever is earlier. The obligations under this letter of intent can be nullified on mutual consent. This letter of Intent is not intended to and shall not constitute in any way a binding or legal agreement, or impose any legal obligation or duty on either party.

Signatures



वी. रघु वेंकटरामन
V. Raghav Venkataraman
National Remote Sensing Centre
CGM-RC, NRSC



Alva's Institute of Engineering and
Technology
PRINCIPAL
Alva's Institute of Engg. & Technology,
Mijar, MOODBIDRI - 574 225, D.K.



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Alva's Institute of Engineering & Technology

Shobhavana Campus, Mijar, Moodbidri, D.K - 574225

Phone: 08258-262725, Fax: 08258-262726

Circular

We are happy to inform to all the HOD's, Deans and staff that ISRO headquarter scientists conducting **Two Day Workshop On "Space Technology and Applications"** on 02-03 November 2017 at RRSC-South, NRSC, Bengaluru venue and also they are helping us to carry out research work.

In this regard, informed to all the staff members (mentioned below) are attend the same. Bus Schedule will be informed at the earliest.

Address - ISRO, Headquarter, Antariksh Bhavan, New BEL Road, Bengaluru, Karnataka -31

Principal
PRINCIPAL

**Alva's Institute of Engg. & Technology,
Mijar, MOODBIDRI - 574 225, D.K.**

Copy to

Principal Desk

Mr.Vivek Alva, managing Trustee AEF

All Deans and HOD

Principal Alva's Degree College

TWO DAY WORKSHOP ON "SPACE TECHNOLOGY AND APPLICATIONS"

Date: 02-03 November 2017

Venue: RRSC-South, NRSC, Bengaluru

Participants: Faculty members of Alva Institute of Engineering and Technology
(AIET), Moodbidri, Karnataka

DAY 1: 02 NOVEMBER (THURSDAY), 2017	
09.30 AM- 09.35 AM	Welcome by Dr.K.Ganesha Raj, General Manager, RRSC-South
9.35 AM -10.30 AM	"Overview of Indian Space Programme" by Dr.P.G.Diwakar, Scientific Secretary, ISRO
10.30 AM - 10.45 AM	High Tea
10.45 AM - 12.00 PM	"Remote Sensing Platforms/Sensors" by Shri.T.Shamsudheen, EOS, ISRO HQ.
12.00 PM - 13.00 PM	"Digital Image Processing" by Shri.K.Nagajothi, Scientist, RRSC-South
13.00 PM - 14.00 PM	Lunch
14.00 PM - 15.00 PM	"Landscape Analysis & Biodiversity Characterization" by Dr.B.K.Ranganath, ANTRIX Corporation Ltd., Bengaluru.
15.00 PM -15.15 PM	Tea break
15.15 PM - 16.00 PM	"Soil Resources" by Dr.S.Ramasubramoniam, Scientist, RRSC-South
16.00 PM -17.00 PM	"Weather and Climate Studies" by Dr.D Jagadeesha, Scientist, EOS, ISRO HQ.
DAY 2: 03 NOVEMBER (FRIDAY), 2017	
09.30 AM - 10.30 AM	"Geohazards (Landslides & Earthquakes)" by Dr.John Mathew, EOS, ISRO HQ.
10.30 AM -10.45 AM	Tea break
10.45 AM - 11.30 AM	"Digital Elevation Model and its Applications" by Smt.A.Vidya, Scientist, RRSC-South
11.30 AM -13.00 PM	Visit to Lab and facilities at RRSC-South, (Smt.T.R. Nagashree & Shri.B. Chandrasekaran, Scientists, RRSC-South)
13.00 PM - 14.00 PM	Lunch
14.00 PM - 15.00 PM	"Water Resources" by Dr.K.S.Ramesh, Scientist, RRSC-South

15.00 PM -15.15 PM	Tea break
15.15 PM -16.00 PM	"Space based Navigation and Applications" by Dr.V.Poornapava, Scientist, RRSC-South
16.00 PM -17.00 PM	"Geospatial Platform (Bhuvan)" by Shri.T. Shamsudheen, Scientist, EOS, ISRO HQ.
17.00 hrs	Valedictory and Vote of Thanks

Faculty Name list

Sl.No	Name of the Faculty	Qualification	Department	Mbl. no
1	Mr. Vivek Alva	MBA	Managing Trustee, AEF	9945630301
2	Dr. Dattathreya	Ph.D	Electronics and Communication Engineering	9481582906
3	Dr. Praveen. J	Ph.D		8884767555
4	Prof. Shankar B.B	MTech(Ph.D)		7892658494
5	Prof. Parvez	MTech(Ph.D)		7829200515
6	Prof. Manjunath Kotari	MTech(Ph.D)	Computer science and Engineering	9449586008
7	Dr. Badusha	Ph.D		8122572250
8	Dr. Sumitha	Ph.D		9986672329
9	Dr. Umesh Chandra	Ph.D	Civil Engineering	9449574120
10	Prof. Sanjay	MTech(Ph.D)		9964051896
11	Prof. Ajith Hebbar	MTech(Ph.D)		9448582073
12	Dr. Basavaraju.B	Ph.D	Engineering Chemistry	941727797
13	Dr. Ravi kumar.C	Ph.D		8892540530
14	Dr. Pavitra.G.P	Ph.D		9739315602
15	Dr.Shashi Kumar.K	Ph.D	Engineering Physics	8971826021
16	Dr. Roopalakshmi. R	Ph.D	Information Science	9940200752
17	Dr. Rama Bhat	Ph.D	Bio-Technology, Alva's Degree college	9480228391
18	Dr. Sathyanarayana	Ph.D	Mechanical Engg Engineering	9964810960
19	Ashwin Jain	PG	Journalism	9900648252



ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY
Regional Remote Sensing Centre-South, NRSC - ISRO,
Bangalore



Brief Report

on

**'Two days Workshop on Space Technology and
Applications'**

conducted by

NRCS, Bengaluru

attended by

Dr.S.Mohideen Badhusha

Professor/CSE, AIET, Mijar

Two days workshop on **Space Technology and Applications** was conducted on 2 & 3 november, 2017 at NRSC – south , Bengaluru. The workshop was of immense use to understand the role of the Space technology and its applications in various fields. The following topics have been covered in the workshop

1. **Hyperspectral Remote Sensing**
2. **Remote Sensing Applications for Land Resources Management**
3. **Geo-Spatial Technology Applications**
4. **Satellite communication for disaster management**

Hyperspectral Remote Sensing

Imaging spectroscopy has been used in the laboratory by physicists and chemists for over 100 years for identification of materials and their composition. Spectroscopy can be used to detect individual absorption features due to specific chemical bonds in a solid, liquid, or gas. Recently, with advancing technology, imaging spectroscopy has begun to focus on the Earth.

Observation : The session was very useful one which helps to understand how the Hyperspectral remote sensing can be used in space technology

Remote Sensing Applications for Land Resources Management

Land management is the process of **managing** the use and development (in both urban and rural settings) of **land resources**. **Land resources** are used for a variety of purposes which may include organic agriculture, reforestation, water **resource management** and eco-tourism projects.

Observation : The session focuses on how the land resources such as agriculture, reforestation and water management system can be managed by remote sensing

Geo-Spatial Technology Applications

Geospatial technology involves GPS (global positioning systems), GIS (geographical information systems), and RS (remote sensing). **GPS** stands for Global Positioning System. **GPS** uses satellites that orbit Earth to send information to **GPS** receivers that are on the ground. The information helps people determine their location. ...**GIS** is a software program that helps people use the information that is collected from the **GPS** satellites.

Observation : The session focuses on how to receive the data from satellites using GPS technology and how it is disseminated to different computers to process the information using GIS

Satellite communication for disaster management

India is one of the most disaster prone countries in the world with increasing vulnerability to cyclones, floods, landslides, droughts and earthquakes.

The Disaster Management Support (DMS) Programme of ISRO, provides timely support and services from aero-space systems, both imaging and communications, towards efficient management of disasters in the country. Remote sensing has enabled mapping, studying, monitoring and management of various resources like agriculture, forestry, geology, water, ocean etc. It has further enabled monitoring of environment and thereby helping in conservation. In the last four decades it has grown as a major tool for collecting information on almost every aspect on the earth. With the availability of very high spatial resolution satellites in the recent years, the applications have multiplied. In India remote sensing has been used for various applications during the last four decades and has contributed significantly towards development.

Observation : The session focuses on the role of the Satellite Communication in rural development and disaster management yet there is a great need of awareness of Satellite Communication tools among general population so that they may use this technology effectively and properly to cope with issues related to disaster and manage themselves.

Conclusion : The sessions were handled by ISRO scientists and research scholars working in ISRO. The sessions were conducted effectively with PPT. They demonstrated each session with minute details and data set. The dataset which is used in the session are real data . From the workshop, it is understood how the different applications of space technology can be implemented for the benefit of the society.

S. Mohi-ud-Din
[Dr. S. Mohi-ud-Din Badhanke]

M. O. D. / 12
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nrsc

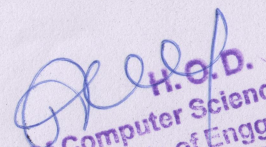
**Regional Remote Sensing Centre-South
Bengaluru**



CERTIFICATE

This is to certify that **Dr.S.Mohideen Badhusha** of **Alva's Institute of Engineering and Technology(AIET), Moodbidri** has attended **"Two day workshop on Space Technology and Applications"** conducted at Regional Remote Sensing Centre-South, NRSC, ISRO, Bengaluru, during 2-3 November 2017.

November 03,2017


H.O.D.
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Dr. K Ganesha Raj
GM, RRSC-South