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.
- 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.

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- 6. University/Institutes should make their own arrangement for Smart phone(s) for
- 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
- 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

Alva's Institute of Engineering and Technology PRINCIPAL

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

Annexure-1
Details of the selected Gram Panchavats

Clata		selected Gram Panchayat	
State	District Panchayat	Intermediate Panchayat	Gram Panchayat
			ADYAR
			AIKALA
			AMBLAMOGRU
			ATHIKARI BETTU
		34	BADAGAYEDAPADAVU
			BAJPE
		197	BALA
		. 📲	BALKUNJE
			BELMA
			BELUVAI
			BOLIYARU
		4	CHELAIRU
			DAREGUDDE
			GANJIMATA
			GURUPURA
	4,		HALEYANGADY
			HAREKALA
39			HOSABETTU
			IRUVAIL
1.		Mangaluru	JOKATTE
Karnataka	Dakshina Kannada	Mangalulu	KALLAMUNDKUR
			KANDAVARA
	- 21.2.0		KEMRAL
			KILPADY
		100	KINNIGOLI
			KINYA
,		1	KONAJE
			KONDEMULA
		100	KUPPEPADAV
-			MALAVURU
			MALLOORU
	1 200		MANJANADY
	A STORY		MENNABETTU
		7 -	MOODUSHEDDE
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			PADUMARNAD
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			PADUPANAMBUR
	1 18 14 The 11		PADUPERAR
			PALLADKA
		1 7	PAVURU
			PERMUDE
			PUTTHIGE
			SHIRTHADY
			SOMESHWARA
	I Louis		SURINJE
		1973 - N-	TALAPADY
		400	TENKAMIJAR
			UALIBETTU
	700 110 432		VALPADI
			YEDAPADAV
			YEKKARU

U.B. 19

PRINCIPAL

Alva's Institute of Engg. & Technology,

Mijar, MOODBIDRI - 574 225, D.K.

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# ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

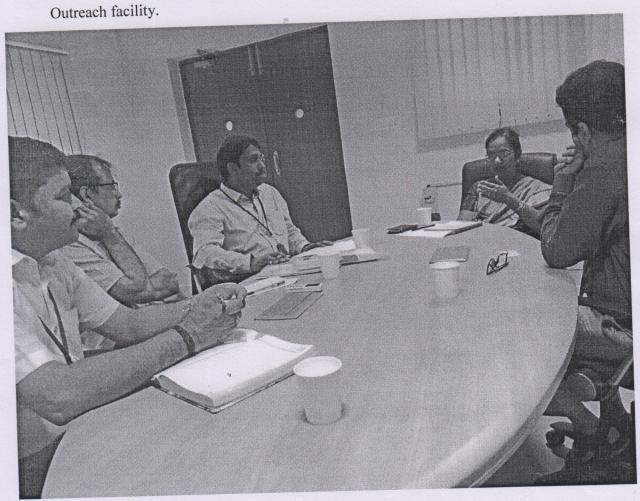


National Remote sensing Center (NRSC) - ISRO, Hyderabad

# Report on NRSC Hyderabad Visit on 5th Oct, 2018

Minutes of the Meeting with **Dr. Rajashree Bothle, General Manager**, Outreach Facility held at NRSC, Hyderabad. Dr.Manjunath Kotari, HOD CSE, Dr.Manjunath D V, HOD ECE, Dr. Dattathreya, Dean, Dr.Ajith Hebbar, HOD Civil, and Dr. Sathyanarayana, Scientist, NRSC were attended the meeting.

- > NRSC Hyderabad is working on Outreach Activity mainly concentrates on Knowledge sharing, Training and Academic Project Execution.
- > NRSC designed a 300 thin client systems lab in Jeedimetla, Hyderabad campus for Outreach facility.



Following are the conditions for the Project student groups:-

- The NRSC Hyderabad is providing student Projects with a minimum duration of 3 months period without any break.
- ❖ Students with First Class in 10<sup>th</sup>, 12<sup>th</sup> & B.E only are allowed do projects at NRSC.
- Students should have prerequisite knowledge in Latest Mat lab 18.0 and Python Programming, are only allowed to do the project at NRSC.
- The Foreign Nationals are not allowed
- ❖ For the forthcoming January/Feb month only 3 batches are allowed from Civil, CSE & ECE disciplines, from AIET.
- > Industry Visit to NRSC Hyderabad can be arranged for B.E students.
- ➤ We also met Dr. Uday Raja, CGM-RC, NRSC on 5<sup>th</sup> October and discussed with ISRO Bhuvan and Navic Project.
  - **Details**: Dr. Uday Raja was telling all of us that the bhuvan project mapping which we did afew months back can be taken further for data analytics and for further planning and improvement of the mapped villages of Dakshina kannada (He told he will talk to faculty and students during his visit to AIET). He was telling about Navic project to be studied properly.
- Finally we invited Dr. Uday Raja, CGM-RC, NRSC, to AIET and he agreed to visit AIET somewhere in the next month.

#### Activities under MoU for the Academic Year 2017-18 BHUVAN PANCHAYAT PROJECT

AIET had MOU with NRSC, Hyderabad to for the asset survey of Dakshina Kannada District, the process involved is explained below

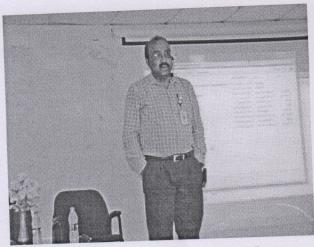
1. About Asset mapping

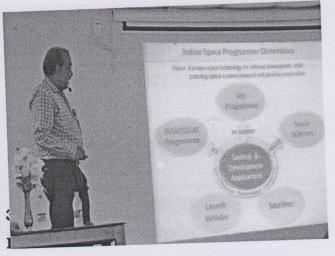
Awareness of the assets available at the region is a pressing need towards an effective planning and development at grass root level. Considering the efforts toward creation of Asset Directory at Panchayat/village level, a participatory approach through crowd sourcing is followed. The assets can be spatially mapped by any registered citizens or Panchayat Raj Institution (PRI) representatives.

Asset Directory is the comprehensive compilation of different type of assets/resources available in different parts of the country which are created / being created under various schemes of Government of India, States and communities by themselves to facilitate the local population. Every asset type is identifiable with a unique code. For facilitating the asset mapping directly from the field with geo location and photograph, Bhuvan Panchayat mobile application is developed.

### 2. Training at Hyderabad

Bhuvan Panchayat Project- the Asset Mapping initiative of NRSC began with the visit of two (Dr. Dattathreya, Prof. Sanjay S) faculty members of Alva's Institute of Engineering & Technology (AIET), Mijar, Moodbidri, along with six students to NRSC, Hyderabad on 23rd Feb 2017 for a discussion and training with Dr. A T Jeyaseelan, Retired Scientist, NRSC on Bhuvan Panchayat Android application.





As per the direction of Dr. A T Jeyaseelan to have a discussion about Asset mapping program with Zilla Panchayat, Dakshina Kannada District.

Managing trustee of AEF Mr. Vivek Alva along with two faculty members and few students of AIET visited Zilla Panchayat office to brief Dr. M R Ravi, CEO-ZP, Dakshina Kannada about Asset mapping program.

After the discussion with Dr. M R Ravi, he suggested to have a three-party MOU with NRSC Hyderabad, Zilla Panchayat- Dakshina Kannada District and AIET- Moodbidri.



## 4. MOU between NRSC-ISRO, Zilla Panchayat and AIET

During the MOU discussion, Zilla Panchayat suggested to undertake technical assistance from AIET students to carry out the Asset Mapping program.



## 5. Orientation Program for PDO's at Mangalore

An orientation program about Asset mapping for all the PDO's of Mangalore taluk was arranged by Zilla Panchayat to brief them about the Asset mapping Program. All the PDO's were trained on Bhuvan Panchayat android application by NRSC and AIET team.

In the meeting it was decided to divide 55 Grama Panchayats into 11 clusters, each cluster consisting of 5 Grama Panchayats, Each cluster consisted of a team of 5 faculty members and 30 students from AIET.



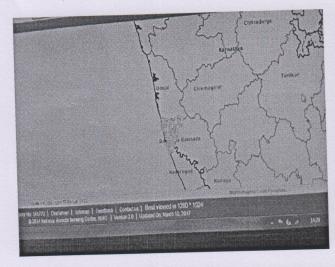
# 6. Orientation to Gram panchayat members of each Cluster by AIET Team.

Gram Panchayat members were trained by 5 faculties and 30 students from AIET at each cluster on 3<sup>rd</sup> and 4<sup>th</sup> May 2017. PDO's suggested to each

Gram Panchayat members to assist AIET team during their visit for Asset mapping work.

7. Asset mapping in each cluster by AIET students and Faculties. Asset mapping was carried out by a team of 55 faculties and 330 students for period of 25-days and mapped nearly 5000 Assets.









# 'ಭುವನ್' ಪಂಚಾಯಿತಿ ಮೊಬೈಲ್ ಆ್ಯಪ್

ಆನುಷ್ಠಾನ: ರಾಜ್ಯದಲ್ಲಿಯೇ ದ.ಕ.ಜಿಲ್ಲಾ ಪಂಚಾಯಿತಿ ಮೊದಲ ಪ್ರಯತ್ನ

१९ प्रतेषिक इतासका श्राप्तेक का स्पेतिक कर्णासका अला स्था वर्षेत्र श्रुपंत स्त्यं श्रुपंत ಹಿಕಿ ವ್ಯಾಪ್ತದ ಮಾಗಳೂರು ಶಾಲ್ಯೂ ಈ ನೋಟ್ಟಲ್ ಮತ್ತು 330 ವಿದ್ಯಾಪ್ರೀಗೂ 25 ದಿನಗಳ "ಭಾವಣ್ ಪರ್ಭಾಯಿತಿ ಮಿಲ್ಯೂಸ್ ಕ್ಷಮ್ಟ್ರ್ಯ ಮತ್ತು 330 ವಿದ್ಯಾಪ್ರೀಗೂ 25 ದಿನಗಳ "ಭಾವಣ್ ಪರ್ಭಾಯತಿ ಮಿಲ್ಯೂಸ್ ಕ್ಷಮ್ಟ್ರ್ಯ ಮತ್ತು 330 ವಿದ್ಯಾಪ್ರೀಗೂ 25 ದಿನಗಳ "ಭಾವಣ್ ಪರ್ಭಾಯತಿ ಮಿಲ್ಯೂಸ್ ಕ್ಷಮ್ಟ್ರ್ಯ ಮತ್ತು 330 ವಿದ್ಯಾಪ್ರೀಗೂ 25 ದಿನಗಳ "ಭಾವಣ್ ಪರ್ಭಾಯವಿ ಮಾರ್ಥ್ಯ ಕ್ಷಮ್ಟ್ರ್ಯ ಪರ್ವಭಾಯತಿ ಮಾರ್ಲಿಸ್ ಆತ್ರಿ ಕ್ಷಮ್ಟ್ರ್ಯ ಪರ್ವಭಾಯವಿ ಪರ್ವಭಾಯವಿ ಪರ್ವಭಾಯವಿ ಮಾರ್ಲ್ಯ ಕ್ಷಮ್ಟ್ರ್ಯ ಪರ್ವಭಾಯತಿ ಮಾರ್ಲಿಸ್ ಆರ್ಥ್ಯಾಪ್ರ್ಯ ಪರ್ವಭಾಯವಿ ಪರ್ವಭಾಯವಿ ಮಾರ್ಥ್ಯಾಪ್ರ್ಯ ಪರ್ವಭಾಯವಿ ಮಾರ್ಥ್ಯ ಕ್ಷಮ್ಟ್ರ್ಯ ಪರ್ವಭಾಯವಿ ಪರ್ವಭಾಯವಿ ಪರ್ವಭಾಯವಿ ಪರ್ವಭಾಯವಿ ಪರ್ವಭಾಯವಿ ಪರ್ವಭಾಯವಿ ಪರ್ವಭಾಯವಿ ಮಾರ್ಥ್ಯ ಕ್ಷಣ್ಣಿಸುವ ಪರ್ವಭಾಯವಿ 'ಯವರ್ ಮಹಾಯಿತಿ ಮೊಬೈಲ್ ಡಾ. ಎಂ.ಆರ್ ಆಪಿಕೇಶನ್' ಅಮ್ಮ ಅನುಷ್ಕಾನಕ್ಕೆ ರವಿ ಆರಂಭಿಗದ ಎಂದು ಜಿಲ್ಲಾ ಸಂಚಾಯಿತಿ ಮ್ಯಾನನ್ನೂ ಮೊಬ ಕರ್ಡರಾ, ಎಂ.ಆರ್ ರವಿ ತನಿವಾರ ಪತ್ರಕಾಗೋಷ್ಠಿಯಲ್ಲಿ ತಿಳಿಸಿದರು.

ಪತ್ರವರ್ಷಭೂಲ್ ತಿಕಿಸಿದರು. ಆಧ್ಯಕ್ಷರು ಗ್ರಾಮ ಪಂಚಾರುತಿ ನಡೆಸಲಾಗುತ್ತದೆ ಮಾರಿಸ ದಿನಗಳಲ್ಲಿ ಇದೆ ನಿಂದು ಅತ್ಯನ್ ಸಂಸ್ಥೆಯ ಟ್ರಸ್ತಿ ಸಂಸೂಧ ಪ್ರಾಮ ಅಧ್ಯಕ್ಷಗು ಪ್ರಧಿಯಲ್ಲಿ ಪುನ್ನೇತ್ರವ ಪ್ರಭಾವ ಪ್ರಾಮ ಪರಿಸ್ತರಿ ಕಾರ್ಯವರ್ಷ ಪ್ರತ್ಯಾಗಿ ಪ್ರತ್ಯಾಗಿ ಪ್ರಾಮ ಪರ್ವಹಿತ ಪರ್ವಹಿತ ಪ್ರಮುತ್ತಮ ಪರ್ವಹಿತ ಪರವಹಿತ ಪರ್ವಹಿತ ಪರ್ವಹಿತ ಪರವಹಿತ ಪರ್ವಹಿತ ಪರ್ವಹಿತ ಪರ್ವಹಿತ ಪರ್ವಹಿತ ಪರ್ವಹಿತ ಪರ್ವಹಿತ ಪ್ರವಹಿತ ಪರ್ವಹಿತ ಪರ್ವಹಿತ ಪ್ರವಹಿತ ಪರ್ವಹಿತ ಪ್ರವಹಿತ ಪ್ರವಹಿತ ಪ್ರವಹಿತ ಪರವಹಿತ ಪ್ರವಹಿತ ಪ್ರವಹಿತ

ಪ್ರಾಸಕ್ಕು ಮೊದಲು ತಾಲೂಕಿನ ಎಲ್ಲ ಮೂಡಿಸುತ ಮಹತ್ವದ ಉದ್ದೇಶಿಸುವ ಗ್ರಾಮ ಪಂಚಾಯಿಕಿ ಸದಸ್ಯರು, ಇಂತಹ ವಿಸ್ತರ್ಣ ಪ್ರಯತ್ನ ಆಧ್ಯಕ್ಷರು, ಗ್ರಾಮ ಪಂಚಾಯಿಕಿ ನಡೆಸಲಾಗುತ್ತಿದೆ ಮುಂದಿನ ದಿನಸಲಲ್ಲಿ

ಜಿಲ್ಲಾ ಪರೀಸ್ ಅವರು ತಿಳಿಸಿದರು. ಸೇರಿಸಬಹು ಯತಿ ಆಕ್ರಯದಲ್ಲಿ ಆಚ್ಚಾಸ್ ನನ ಪ್ರಾಧ್ಯಾಪಕರು ತಿಳಿಸಿದರು.

ಗೊಳಿಸಲಾಗಿದೆ. ಆಧಾರಿಕವಾಗಿ ದಾಖಲಿಸಲಾಗಿದೆ. ಇದರ ಆನು ಗ್ರಾಮಿಣ ಭಾರತದ ಪರಿಕಲ್ಪಕೆ

ದಕ್ಷಿಣ ಕನ್ನಡ ತರಭೇತ ನೀಡಲಾಭುತ್ತು, ಅಂದು ಯಾವಾಗ ಭೇಣದರೂ ಪೋರ್ಗನ್ನ