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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V.B. 29/3/17

- And

- 6. University/Institutes should make their own arrangement for Smart phone(s) for 7. After successions
- After successful mapping of all the assets utilization of fund with necessary certification by the Panchayat Representative/ Panchayat functionary need to be submitted to
 After any After any applications.
- 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.

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National Remote Sensing Centre

Alva's Institute of Engineering and Technology PRINCIPAL

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

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भारत सरकार अंतरिक्ष विभाग भारतीय अंतरिक्ष अनुसंधान संगठन राष्ट्रीय सुदूर संवेदन केंद्र क्षेत्रीय सुदूर संवेदन केंद्र- दक्षिण आईसाईट परिसर, मारतहल्ली आउटर रिंग रोड़ बेंगलूरु-560 037, भारत दूरभाष: 080-61456022, फैक्स: 080-61456025



Government of India Department of Space Indian Space Research Organisation National Remote Sensing Centre Regional Remote Sensing Centre-South ISITE Campus, Marathahalli Outer Ring Road Bengaluru- 560 037, India Phone: 080-61456022, Fax: 080-61456025

RC BG: 13.3

Dec 21, 2020

<u>CERTIFICATE</u>

This is to certify that the following students of ALVA's Institute of Engineering and Technology, Moodbidri, Dakshina Kannada have satisfactorily completed the project work entitled 'Automatic Apple Fruit Detection Using Deep Learning' at Regional Remote Sensing Centre-South, NRSC/ ISRO, Bengaluru during January to February 2020, in partial fulfilment of the requirements for the award of Bachelor of Technology (Computer Science and Engineering) under the guidance and supervision of the undersigned.

> 1. Ms. Jayalakshmi M (4AL17CS035)

Guided by

P.V. Vinod

Scientist/ Engineer 'SD' RRSC-South, Bengaluru

General Manager

Dr. K Ganesha Raj

RRSC- South, Bengaluru

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