

on

## Remote sensing applications to Agriculture

### Space Observations for Agriculture

Agricultural production in India has significant share in India's Gross Domestic Product. This includes the production from MSP (Minimum Support Price) and non-MSP crops including horticultural produce. Indian agricultural average field sizes are generally less and production is constrained by fragmented land holdings. Crop diversity and shift in crop rotation are unique in Indian agriculture. Weather plays important role to take decisions on crop types, management practices and ultimately crop yield. Detection and quantification of abiotic and biotic stresses such as water, nutrient, heat, pest-disease at farm to regional scale are essential for crop monitoring, assessment and management.

In the last three decades, EO data acquired from sensors onboard orbiting polar and geostationary orbiting satellites and produced enormous data which have been utilized in many agricultural applications. Primarily, data from various Indian Satellites such as IRS and Cartosat Series, RISAT-1, KALPANA-1, INSAT 3A, INSAT-3D / 3DR, SCATSAT-1 and airborne AVIRIS-NG hyperspectral data have been used. ISRO is planning some advanced space-borne missions with Synthetic Aperture Radar (SAR), Hyperspectral and Thermal imaging payloads.

An umbrella programme on agricultural applications titled as "Space Technology Utilization for Food Security, Agricultural Assessment and Monitoring (SUFALAM)" has been recently conceived. The major agricultural applications include techniques development for regional-scale inventory of major field, fruit, fodder crops, crop yield modelling at various spatial scales, agricultural drought assessment, parameter retrieval using multi-spectral and hyperspectral observations, operational agro-met products, spatial forewarning of pests and diseases, crop damage assessment, site suitability mapping etc. However, there is an increasing demand of providing geospatial solutions at farm to block level at several facets of agriculture as mentioned above.

In view of increasing use of space based observations for agricultural applications and forthcoming new Indian EO Missions, Space Applications Centre, Ahmedabad, is organising a training programme on **Remote sensing applications to Agriculture** for Indian Participants. This programme aims to provide theoretical background with hands-on experience to the researchers, faculty members and scientists from universities, research institutes and government operational service agencies.

### Details of The Training Program

The training programme consists of forenoon lectures by eminent scientists working in related fields primarily in ISRO, followed by hands-on with satellite data for agriculture studies in the afternoon. No fees will be charged for the training. However, Participation certificates will be provided after completion of the training.

Date	09-11 December, 2020
No. of participants	25 (maximum)
Target Group	State/Central Government officials, Scientists, Research Scholars, Teachers and Faculties affiliated to recognized Universities and Research Institutions working in field of Remote Sensing, Agriculture and allied themes.
Pre-requisite	Basic knowledge of Remote Sensing and working knowledge of image processing software.

If more number of applications are received, the selection will be made on the basis of applicant's background experiences and qualifications.

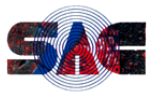
*Interested persons may send the filled-in application form by E-mail only (NO hard copy, please) on or before **November 30, 2020** to:*

**Dr. S. P. Vyas**

Head, ERTD/VRG/EP  
Space Applications Centre (ISRO)  
Bopal Campus, Ahmedabad - 380058  
Phone: 079-26916223 / 6224  
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Email : [trees@sac.isro.gov.in](mailto:trees@sac.isro.gov.in)

For further details please visit our website

<https://vedas.sac.gov.in/>



Space Applications Centre-ISRO, Ahmedabad

Application for TREES training on

Remote sensing applications to Agriculture

(09 - 11 December 2020)

(Last Date-30 November, 2020)-web based/Online

(Please type or write in CAPITAL Letters)



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Name : \_\_\_\_\_

Date of Birth (DD/MM/YYYY) : \_\_\_\_\_

Gender (Male/Female) : \_\_\_\_\_

Contact Information : \_\_\_\_\_  
(include Email, Phone, Fax details)

E-mail \_\_\_\_\_

Mobile \_\_\_\_\_

Designation with Name of Institute : \_\_\_\_\_

Educational Qualification : \_\_\_\_\_

Have you applied/ attended any other SAC Training programmes. (Tick) TREES, SMART, HRD/SAC or any other? \_\_\_\_\_

Research Interest (Mention your publications on Remote Sensing and Agricultural applications) : \_\_\_\_\_

Justify your Selection for the Training Programme (specify your experience in agriculture, Remote Sensing data handling, software used and intended future applications)\* : \_\_\_\_\_  
(\* Attach separate sheet if required)

Signature of the Applicant with date : \_\_\_\_\_

Recommendation from Head of the Department / Institution with seal if possible- (Optional) : \_\_\_\_\_

Send Scanned Signed Copy by e-mail only: [trees@sac.isro.gov.in](mailto:trees@sac.isro.gov.in)