SKILLDEVELOPMENT TOUSE SPATIAL DATA FOR NATURAL RESOURCES MANAGEMENT IN AGRICULTURE

Hands on Training on Remote sensing and GIS Software

(31st Aug 2022 – 20th Sep2022)

N◊HÉP

Centre for Advanced Agricultural Sciences and Technology

**NATIONAL AGRICULTURAL HIGHER EDUCATION PROJECT
COLLEGE OF AGRICULTURAL ENGINEERING,
JAWAHARLAL NEHRU KRISHIVISHWA VIDYALAYA
JABALPUR, MP, 482004**

Project website: www.nahep-jnkvv.org

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About Jawaharlal Nehru Krishi Vishwa Vidyalaya, Jabalpur

Jawaharlal Nehru Krishi Vishwavidyalaya established on October 2, 1964, is a forerunner university located in Jabalpur, Madhya Pradesh. The university is awarded Sardar Ballabh Bhai Patel Outstanding University Award for the year 2018 by the Indian Council of Agricultural Research, New Delhi. The university has various constituent colleges, Agricultural Research Stations, and Krishi Vigyan Kendra's. The University offers Bachelor's, Master's, and Doctoral degrees in the Faculty of Agriculture and the Faculty of Agricultural Engineering. The University also offers diploma courses of two years in "Seed Production" and "Nursery Management" at Horticulture Vocational Education Institute, Garhakota, Sagar, MP.

About NAHEP

NAHEP is designed to strengthen the national agricultural education system in India with overall objective to provide more relevant and high-quality education to agricultural university students. This programme has been promoting efficiency and competitiveness through changes in working mechanism of agricultural universities, raising the teaching and research standards through improved research and teaching infrastructure and enhanced faculty competency and commitments, and making agricultural education more attractive to talented students. There are four key components under NAHEP, namely; Institutional Development Plan (IDP), Centers for Advanced Agricultural Sciences and Technology (CAAST), ICAR to support excellence in agricultural universities (AUs), and ICAR Innovation Grants to AUs

Skill Development to use Spatial Data for Natural Resource Management in Agriculture

Objectives:

- To build basic capacity for using RS & GIS techniques applied for betterment of Natural Resource Management particularly in Agriculture and allied sectors.

- To identify appropriate techniques for integration of spatial and ground data to realize problems related to land, water and vegetation.

- To develop user friendly spatial data products using identified technologies for policymakers, researchers, field workers and farmers.

About the 21 Days Hands-on training on RS & GIS

The Online training is intended to cover the basics of RS & GIS as well as empowering participants to efficiently do the hands-on on RS & GIS software's like ERDAS IMAGINE and ArcGIS and prepare the important thematic maps which can be very useful for various agriculture planning purposes.

Address for Correspondence

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Participants

University Teachers/Faculty Members/Scientists/Technical staff/PG & PhD students are invited to participate in this offline training program for 21 days. The participants have to nominate themselves from their **Head of the Institution/ Department.**

Registration Details:

The candidates have to confirm their interest for attending the training on following link, Participants also have to upload their nomination to the given link:

https://forms.gle/g25nj8RqirzqFLUdA

In case of any difficulty in uploading the Nomination, The interested candidate can send their nomination at sdnahep@jnkvv.org .

The last date to fill this registration form will be 25 Aug 2022 at 5.30 pm. After that, applications will not be considered.

Terms and Conditions

- **Only nominated candidate will be considered for this 21-Days training program.**

- **Second class to-and-fro fare will be provided to participants attending this training after producing their relevant tickets. In case, If the participants have been entitled for higher class travel, it may be considered by the project as applicable.**

- **Free of cost boarding and lodging will be provided to selected participants in University Guesthouse.**

- **Training seats are limited, the selection of participants will be finalized by project administration based on their eligibility and experience.**

Training Title: Hands-on Training on Remote sensing and GIS Software
21 Days training schedule (31st Aug 2022 – 20th Sep 2022)

Date	10.30–11.30 AM	12.00 PM– 1.30 PM	3.00-5.30 PM
31-08-2022	Registration and Inauguration Pre Assessment	Basics of Remote Sensing and its application in agriculture **Dr. R.K. Nema**	Introduction to GIS **Dr. S.K. Sharma**
01-09-2022	Satellites, Sensors, and Resolution **Er. Anjali Patel**	Visual Interpretation of Satellite Imagery **Dr. Sourabh Nema**	Special Lecture
02-09-2022	An introduction to different Geoportals (Earth explorer, Bhuvan, Copernicus ESA, etc.). **Dr. Sourabh Nema**	Special Lecture	Special Lecture
03-09-2022	Introduction of Satellite image processing software **Dr. Sourabh Nema**	Downloading process of satellite images **Dr. Sumit kakade**	Special Lecture
04-09-2022	Practical Assignment	Practical Assignment	Practical Assignment
05-09-2022	Layer stacking of different bands **Mr. Om Prakash Prajapati**	Layer stacking of different bands **Mr. Om Prakash Prajapati**	Practice Session
06-09-2022	Mosaicing of Satellite Image **Dr. Devendra Vasht**	Subset satellite data with AOI (Area Of Interest) .**Dr. Devendra Vasht**	Practice Session
07-09-2022	Lecture on Introduction to Land Use Land Cover Classification **Dr. Umakant Rawat**	Land use Land cover classification (process) **Dr. Umakant Rawat**	Practice Session
08-09-2022	Land use Land cover classification (Recoding) **Dr. Devendra Vasht**	Area calculation of classified data **Dr. Devendra Vasht**	Practice Session
09-09-2022	Georeferencing of Map in Arc GIS software Dr. PS Pawar	Generation of vector features such as Point, Line, and Polygon, **Dr. PS Pawar**	Practice Session
10-09-2022	Arc GIS vector operations **Dr. PS Pawar**	Process to fill data in the attribute table and area calculation. **Dr. PS Pawar**	Practice Session
11-09-2022	Practical Assignment	Practical Assignment	Practical Assignment
12-09-2022	DEM data processing **Er. Aniket Rajput**	Thematic map preparation (Elevation, Slope, Aspect, contour generation) **Er. Aniket Rajput**	Practice Session
13-09-2022	Creation of Map layout in Arc GIS software **Dr. PS Pawar**	Creation of Map layout in Arc GIS software **Dr. PS Pawar**	Practice Session
14-09-2022	Introduction to different instrument used for spectral measurement in field **Dr. Sumit kakade, Er. Alok Rajpoot , Er. Krishna Singh, Er. Rachit Nema , Om Prakash Prajapati**	Field Visit **Dr. Sumit kakade, Er. Alok Rajpoot , Er. Krishna Singh , Er. Rachit Nema , Om Prakash Prajapati**	Field visit & Practical
15-09-2022	Introduction to different instruments used for spectral measurement in the field **Dr. Sumit kakade, Er. Alok Rajpoot , Er. Krishna Singh , Er. Rachit Nema , Om Prakash Prajapati**	Field Visit **Dr. Sumit kakade, Er. Alok Rajpoot , Er. Krishna Singh , Er. Rachit Nema , Om Prakash Prajapati**	Field visit & Practical
16-09-2022	Introduction to Crop Map Classification **Dr. Devendra Vasht**	Crop Map Classification **Dr. Devendra Vasht**	Practice Session
17-09-2022	Introduction to Crop Yield Estimation using RS & GIS **Er. Anjali Patel**	Crop Yield Estimation **Er. Anjali Patel**	Practice Session
18-09-2022	Practical Assignment	Practical Assignment	Practical Assignment
19-09-2022	Project work	Project work	Project work
20-09-2022	Post Assessment	Project presentation	Feedback and valedictory