Centurion University of Technology & Management

Department of Civil Engineering, Paralakhemundi

Workshop, February – 2023

Brief about the Workshop

The Department of Civil Engineering and Centre for Data Science & Machine Learning of CUTM organized a workshop entitled "**Drone Technology in Precision Agriculture" on 10/02/2023**, from 3.00pm to 5.00pm in Google Meet platform.

Resource persons/Trainers

1. Mr.Samkith Bagmar, Manager-Drone Solutions, Esri India Technologies Pvt.Ltd.

About the Speaker

Mr. Bagmar Business Developer working in the Geospatial/ Geomatics Industry. Completed his Civil Engineering with a Master's degree in Technology focused on Geoinformatics (GIS, Remote Sensing and Photogrammetry). Worked with multiple Drone companies in the past mostly for UAV based Aerial Surveys and Industrial Inspections. Have a good exposure and experience in working with visual, thermal, multi-spectral and Lidar sensors mounted over drones.

Working with multiple startups which gave him a wide opportunity to work in various roles such as technical GIS, Business Operations and Business Development. Currently, actively working on enabling Enterprises to adopt Drones for everyday inspection, monitoring and surveys.

The domains of focus include (not limited to)-

- Mining, Oil and Gas, AEC (Architecture, Engineering and Construction), Roads and Railway network, Powerline, Agriculture and Telecom

Objective and outcome of the Workshop

The overall workshop session was very much informative and hands on experience. The speaker's way of demonstrating was crystal clear and the participants were engaged in an interactive conversation. The speaker was informed about our universities Drone procuration and the way precision agriculture is a hot topic now a days where students and faculties are highly engaged. The speaker was very much impressed with department level activities and promised to be in touch with our university faculties and management authorities for further work in Drone imagery. The Speaker described how Drones enable data collection and resource-efficient nutrient application which facilitates crop production forecast, and evidence-based planning. Emerging technologies - Drones can be an effective enabler for mainstreaming emerging technologies such as yield estimation or insurance.

No of Participants: 70 internal participants (Students and Faculties from Paralakhemundi and Bhubaneswar Campus)

Photographs of the sessions/ Workshop Content Highlighted

1. Types of Payloads in Drones

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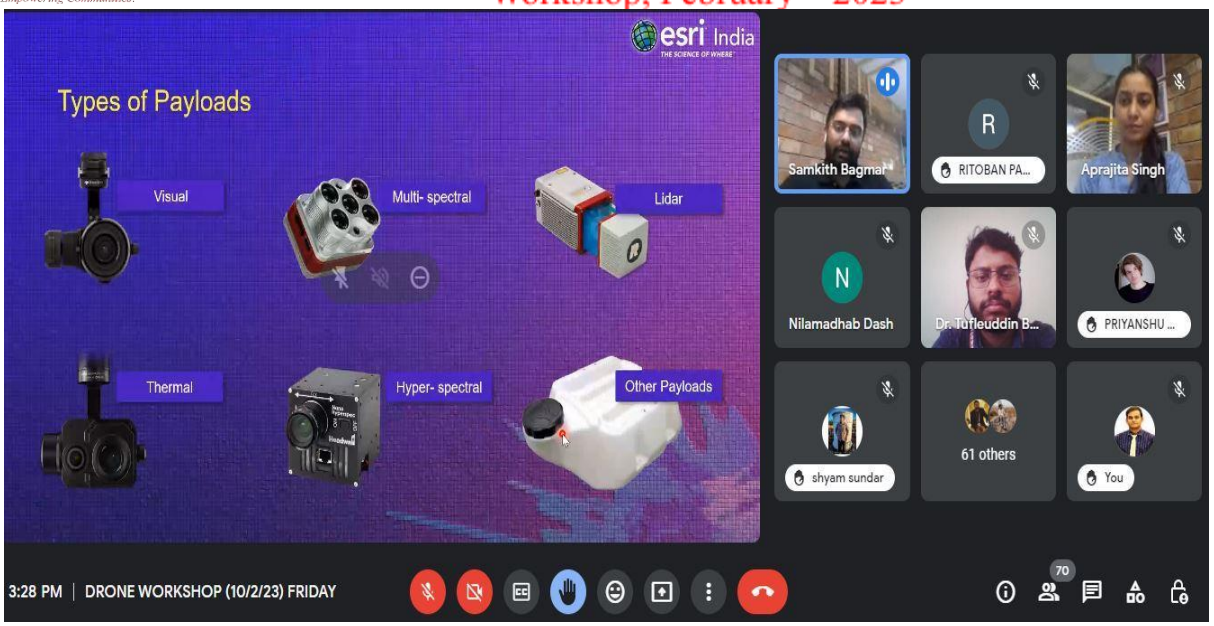
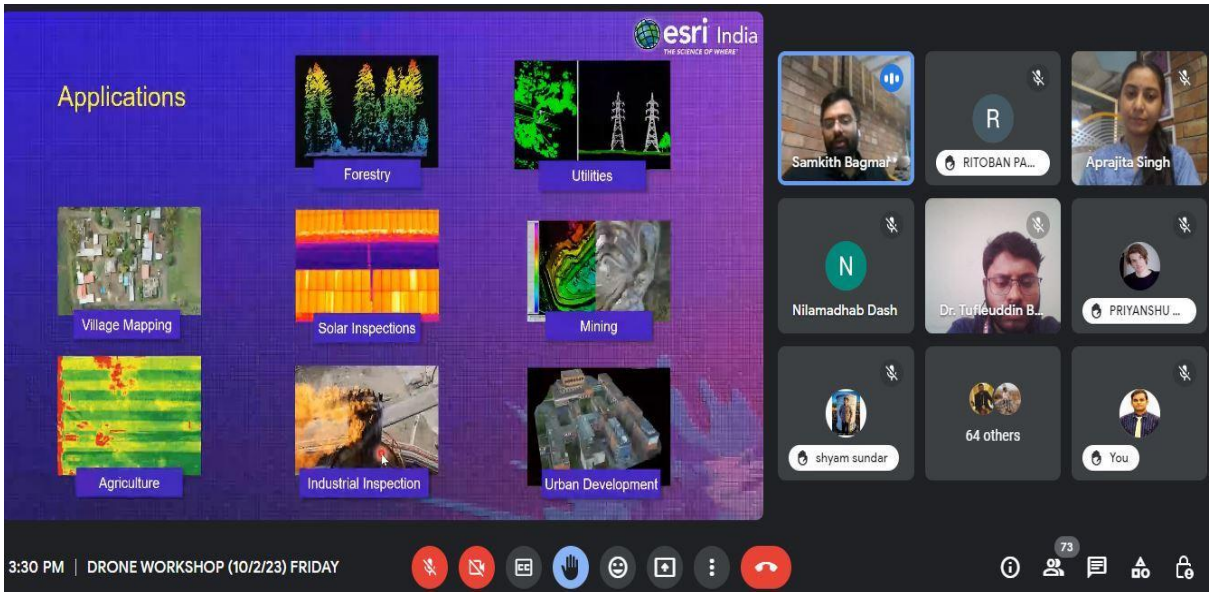


2. Application of Drones



3. A Drone captured Image visualized in SiteScan ArcGIS platform.

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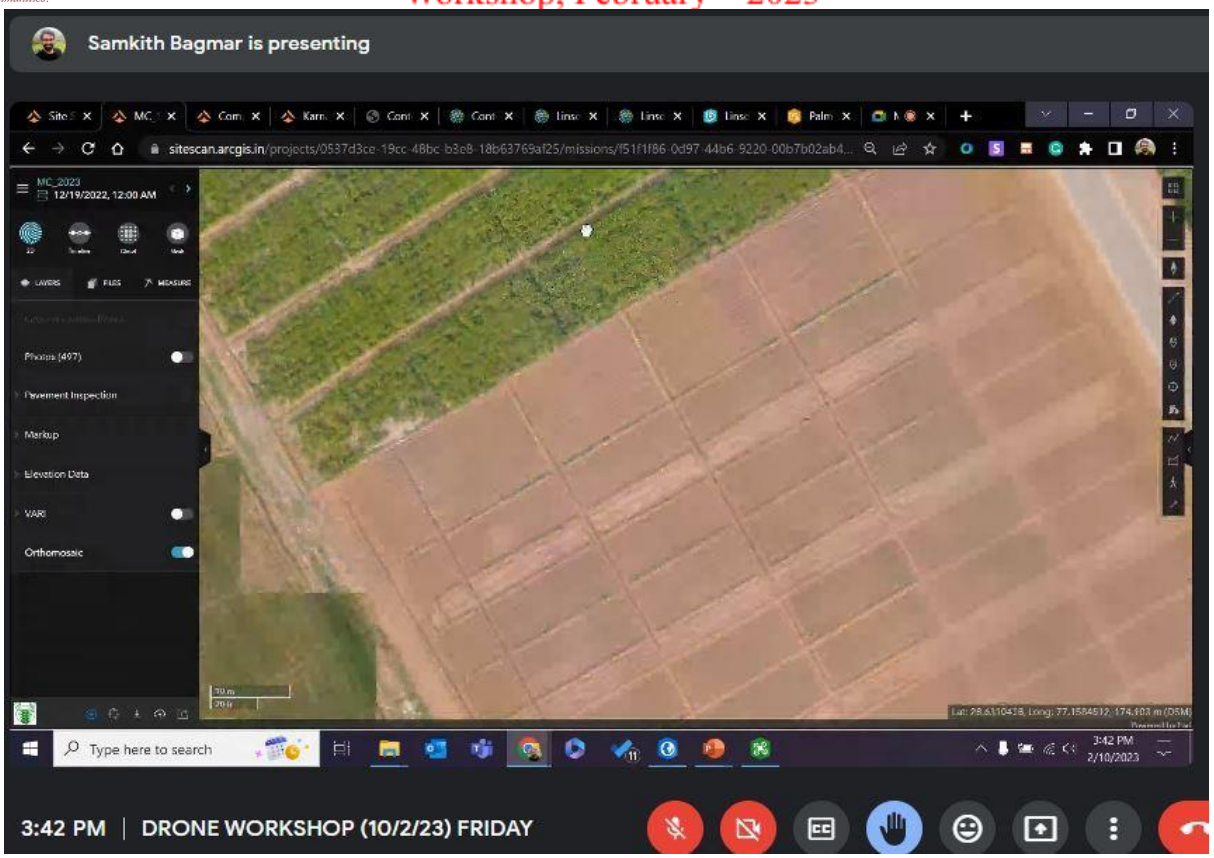
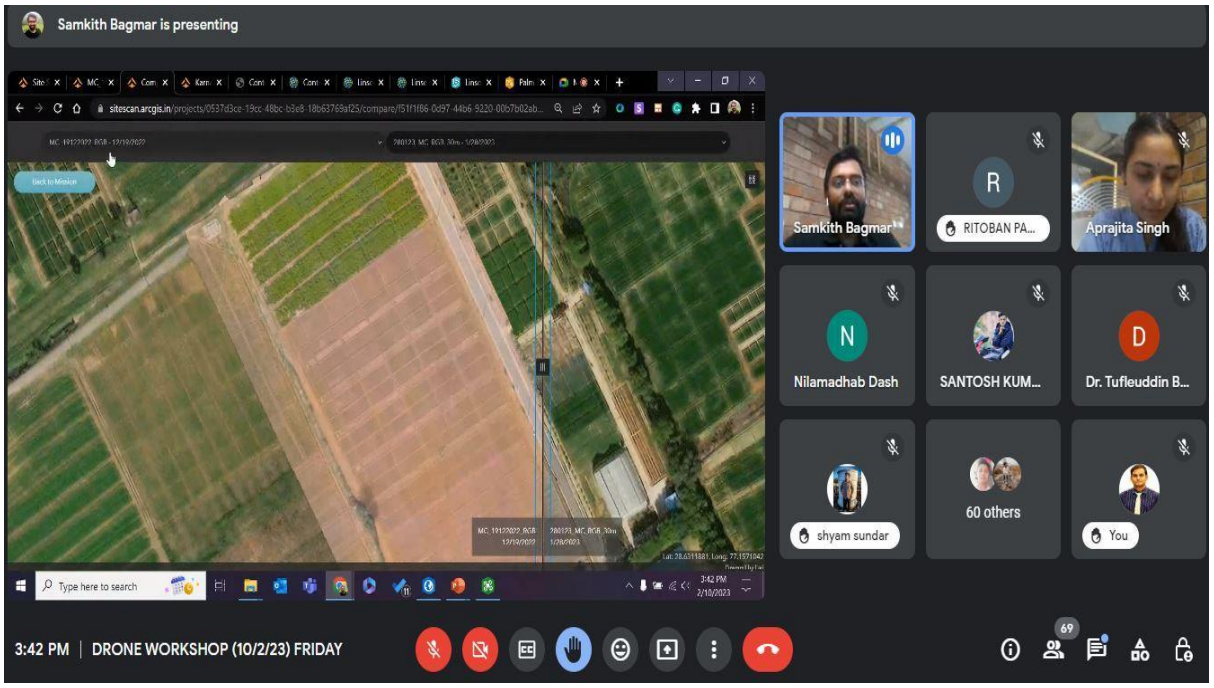


4. Orthomosaiking of Drone Imagery



5. A thermal view of Drone captured Imagery.

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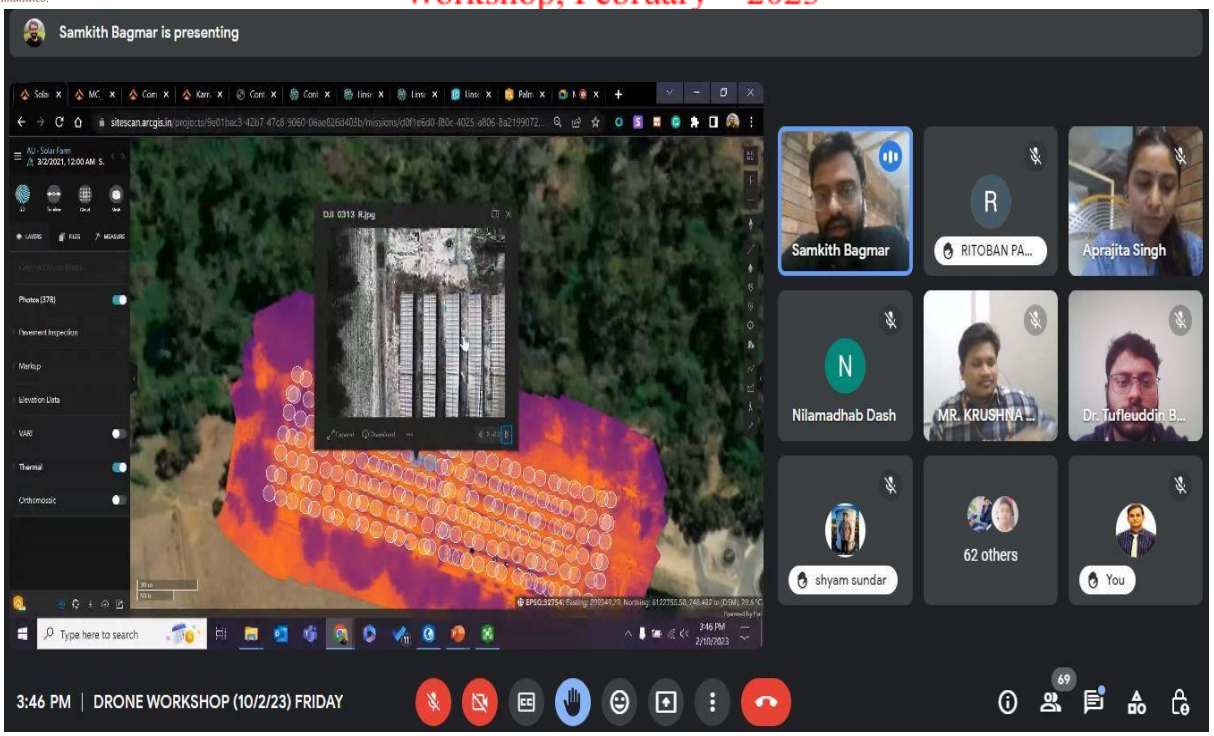
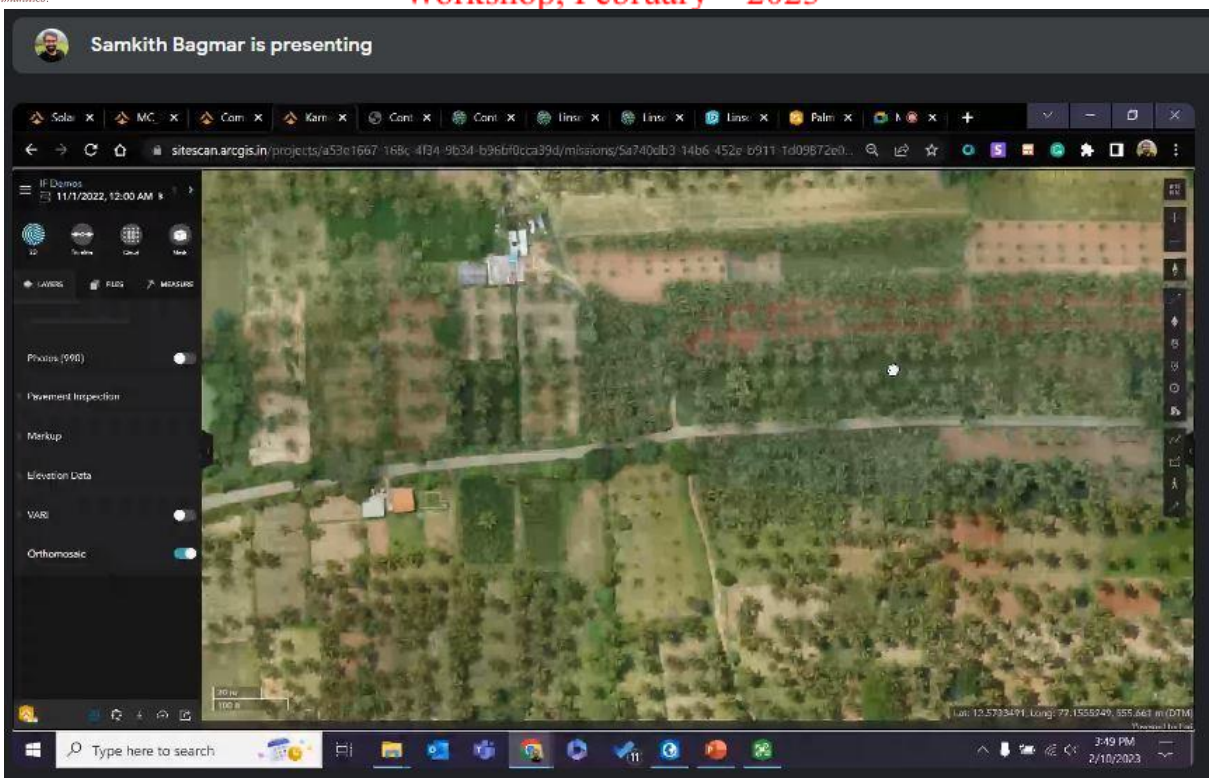
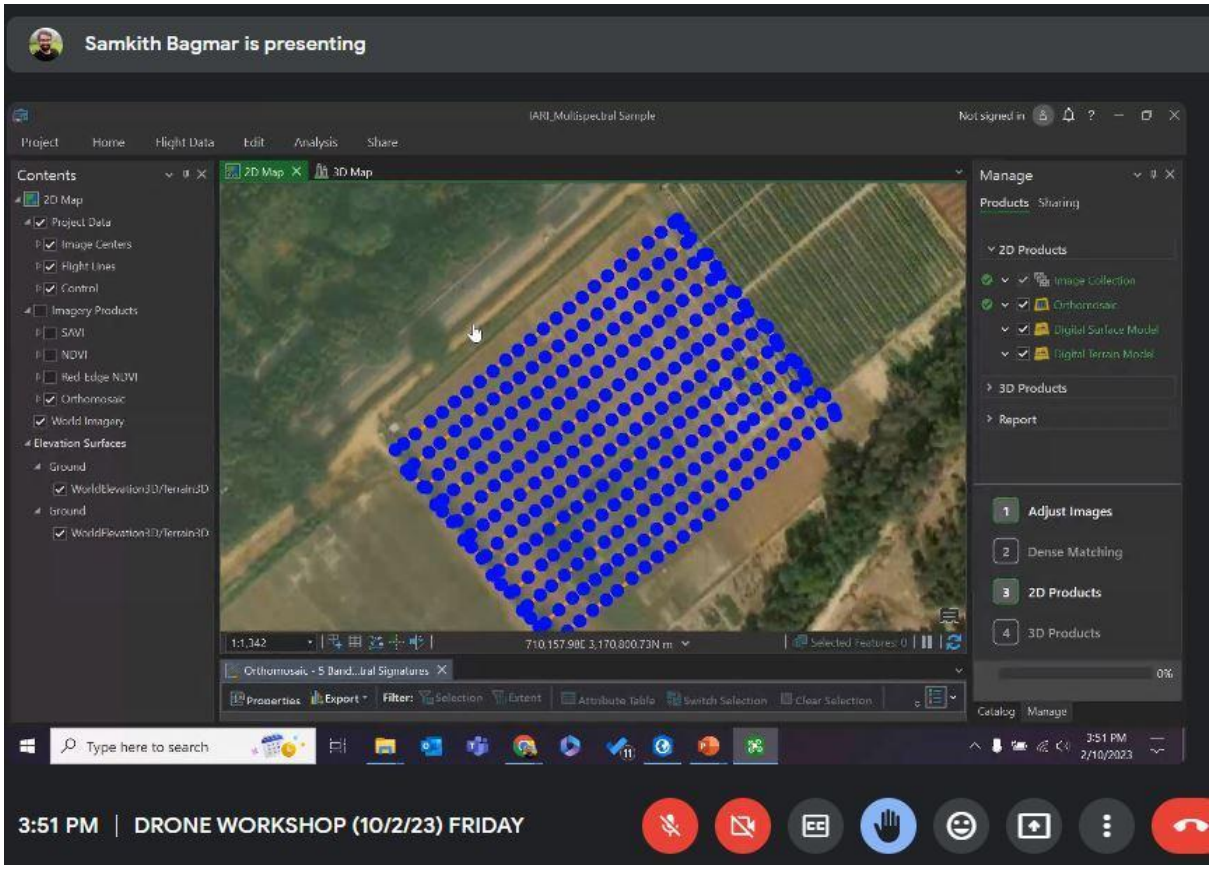


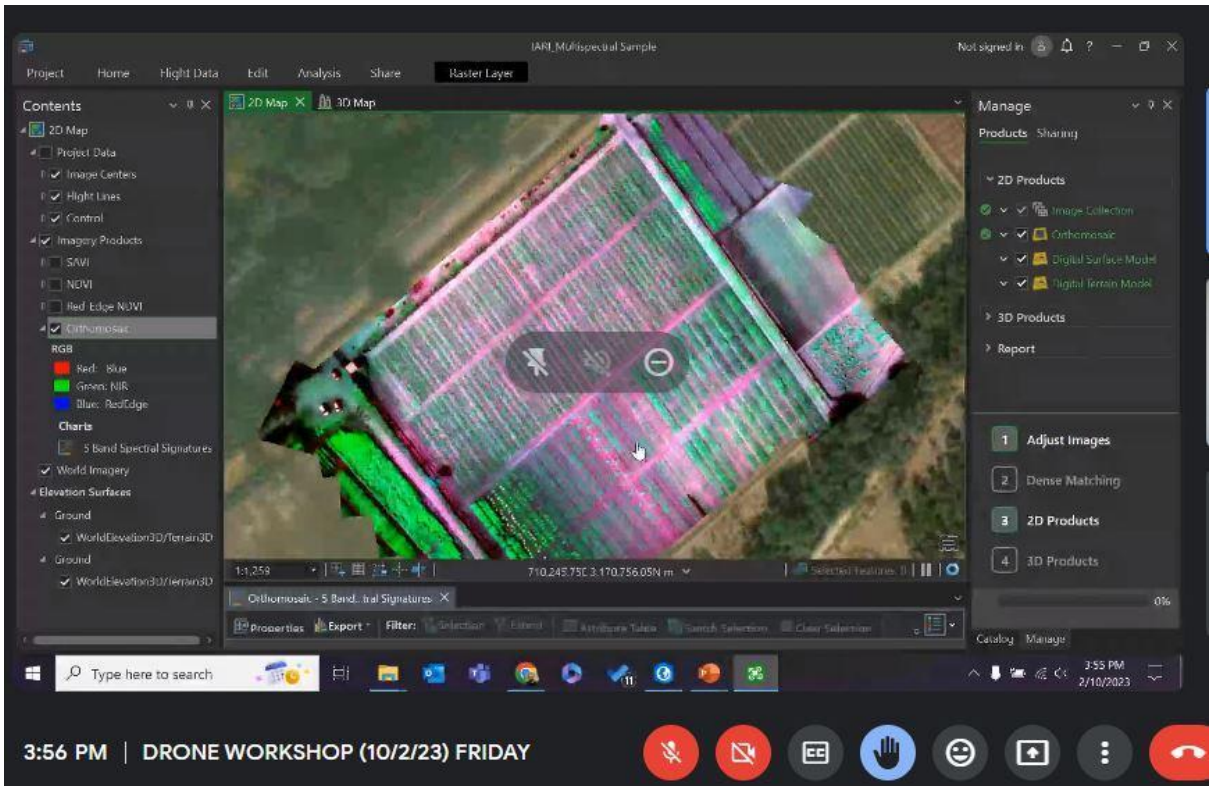
6. Visuals of the Drone captured Tree Plantation Imagery



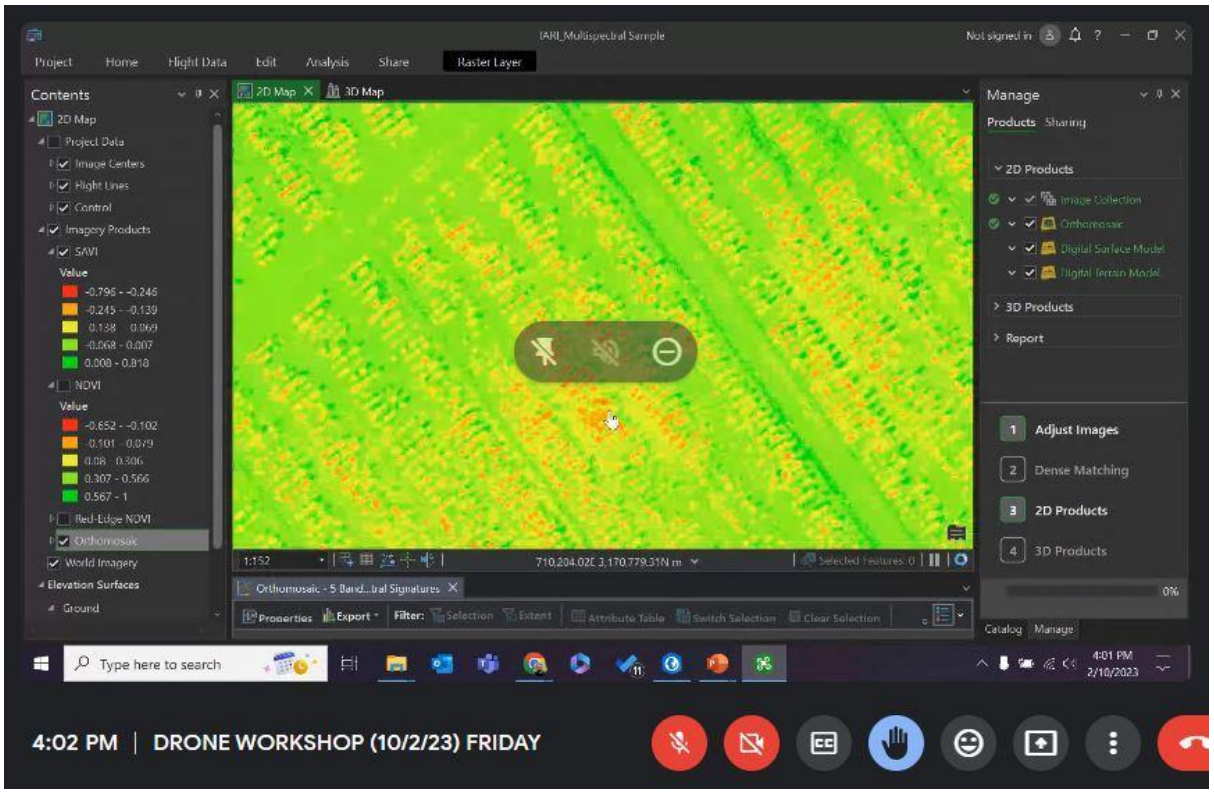
7. 2D map view and Image centers of the Drone captured Imagery.



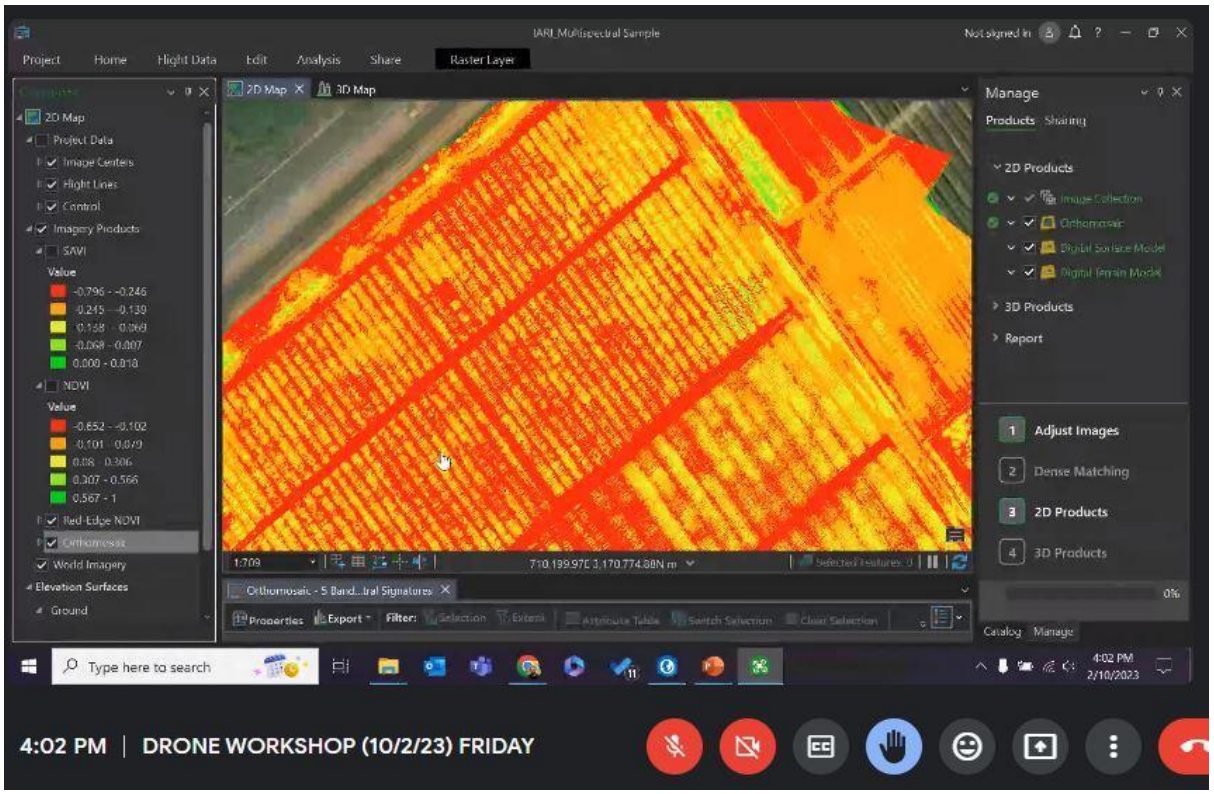
8. RGB view of the Drone captured imagery.



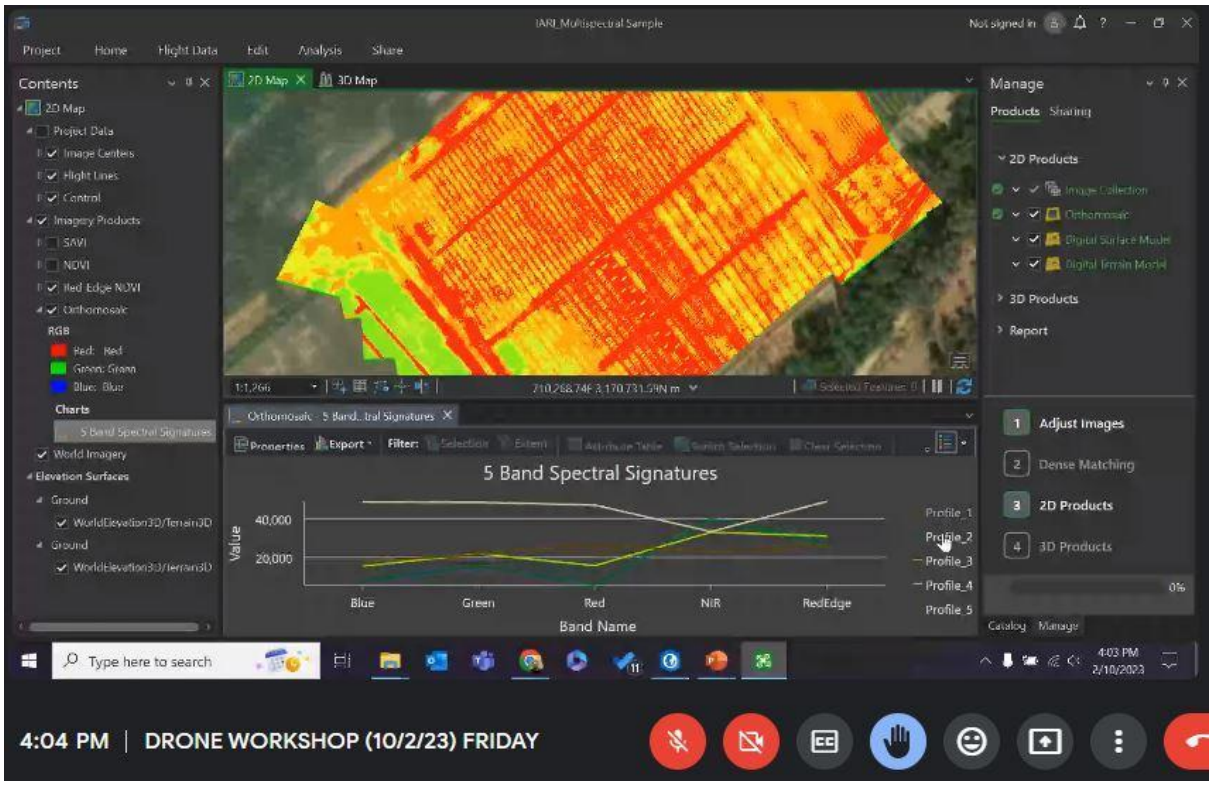
9. NDVI processed of the Drone captured imagery.



10.Red-Edge NDVI processed of the Drone Imagery



11.Spectral Signature of the Red-Edge NDVI imagery product



12.Demonstration of Imagery in SiteScan software

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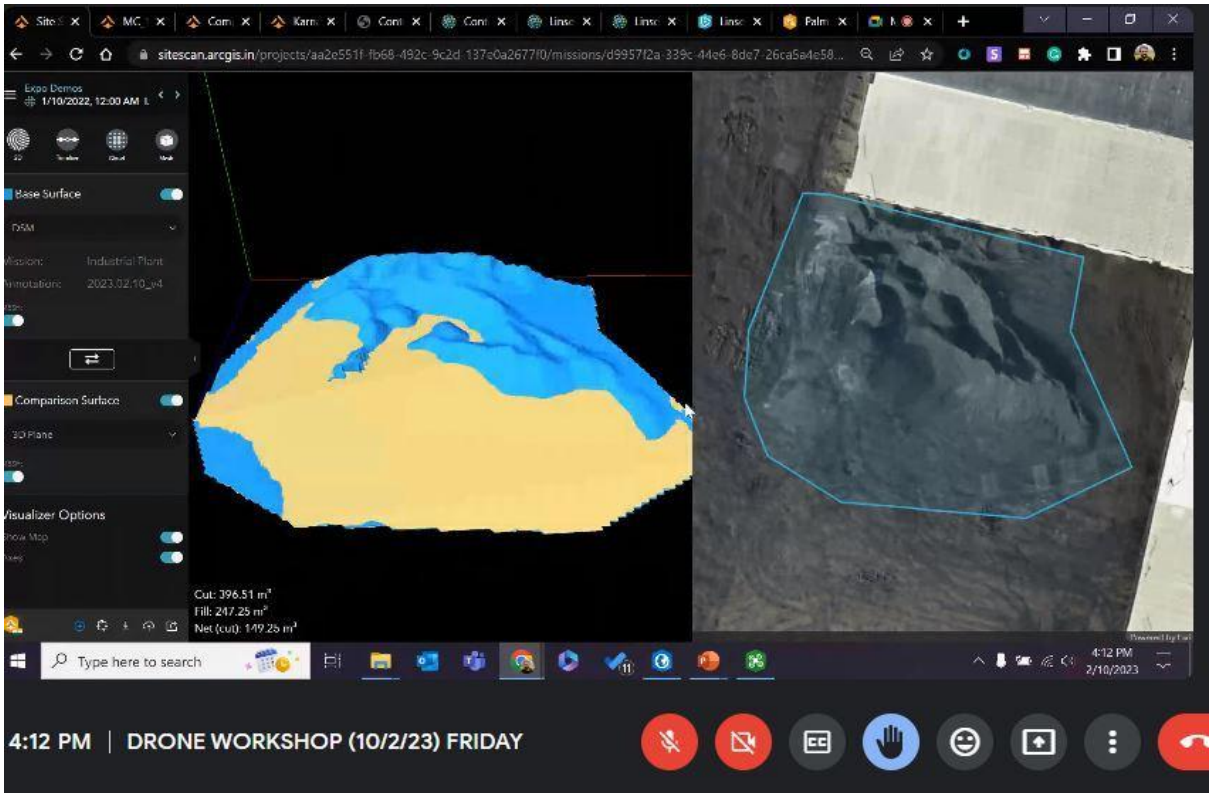

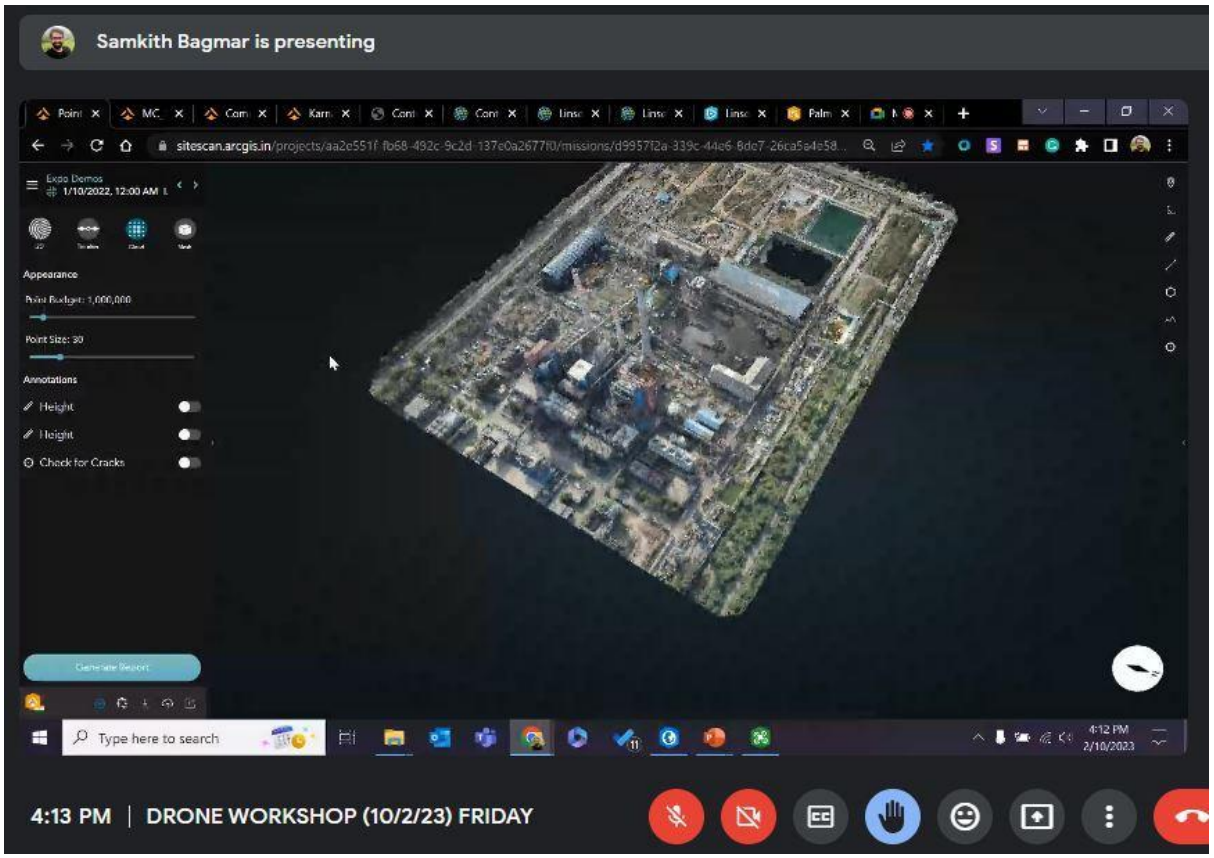

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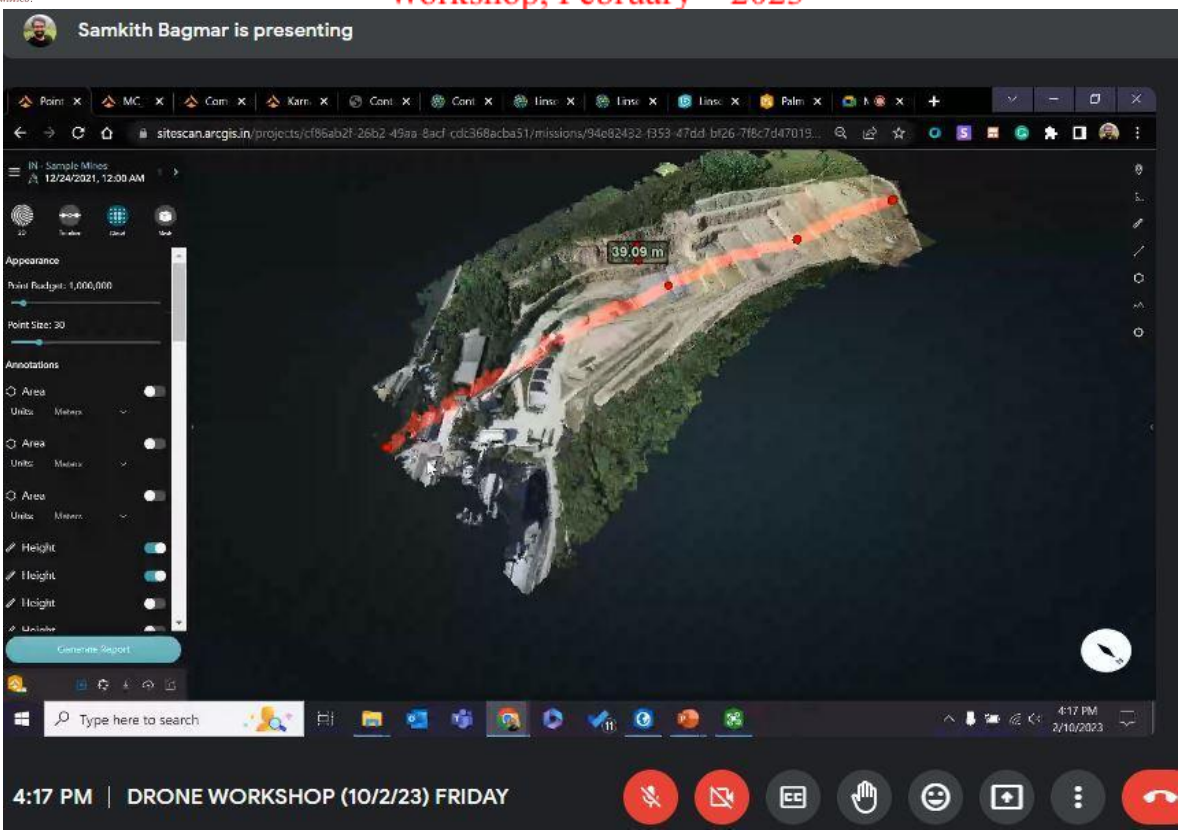

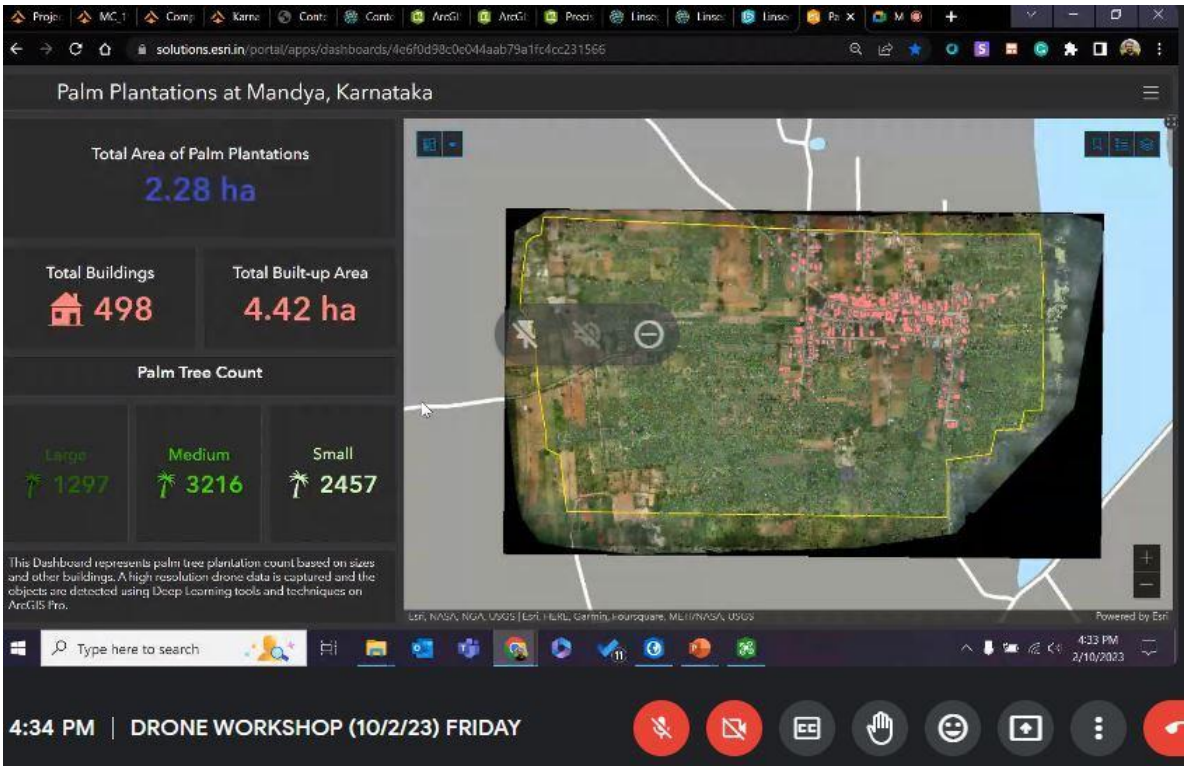

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Brochure:

(Workshop Coordinator)

(Workshop Coordinator)