AeroMegh - Construction Industry Use Case

aeromegh

Transforming Drone Data Into Actionable Insights

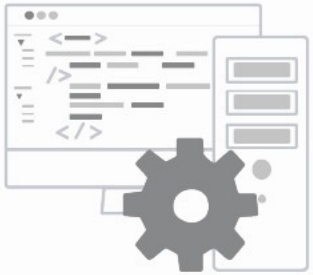
aeromegh

How AeroMegh SaaS Platform Works?

AeroMegh SaaS platform is designed to deliver an End-to-End stack for Flying and Capturing, Processing and Analysing. It helps to perform drone data analytics with utmost ease.

Fly & Capture with AeroGCS KEA

Fly large enterprise drone fleet & Capture Drone data like raw images and drone live video streaming and record videos using AeroGCS KEA, AeroStream, and AeroStack.



Process with DroneNaksha

Process raw images for creating orthomosaic images, DSM, DTM, 3D models, Vegetation Index using DroneNaksha SaaS service.

Analyze with PicStork

Analyse processed orthomosaic images using Artificial Intelligence Algorithms using PicStork to extract actionable results.

All above services work with each other seamlessly delivering delightful experience to end customer along with useful results.

Proposed Solution → Digital Transformation

Digital Transformation:

With AeroMegh platform helps customer to convert existing project management process into digital process. It helps to monitor entire project digitally where all information is shared with multiple shared holders simultaneously for better collaboration, better accuracy of information and transparency of work being done at the construction site.

Better realistic information helps to plan in better way and remove delays of the construction work thus saving money. Many times, it helps to save up to 10% delay in construction projects.

Solution Features

Ortho Super Images

AeroMegh helps to capture raw images, create super images to have larger view in less time.

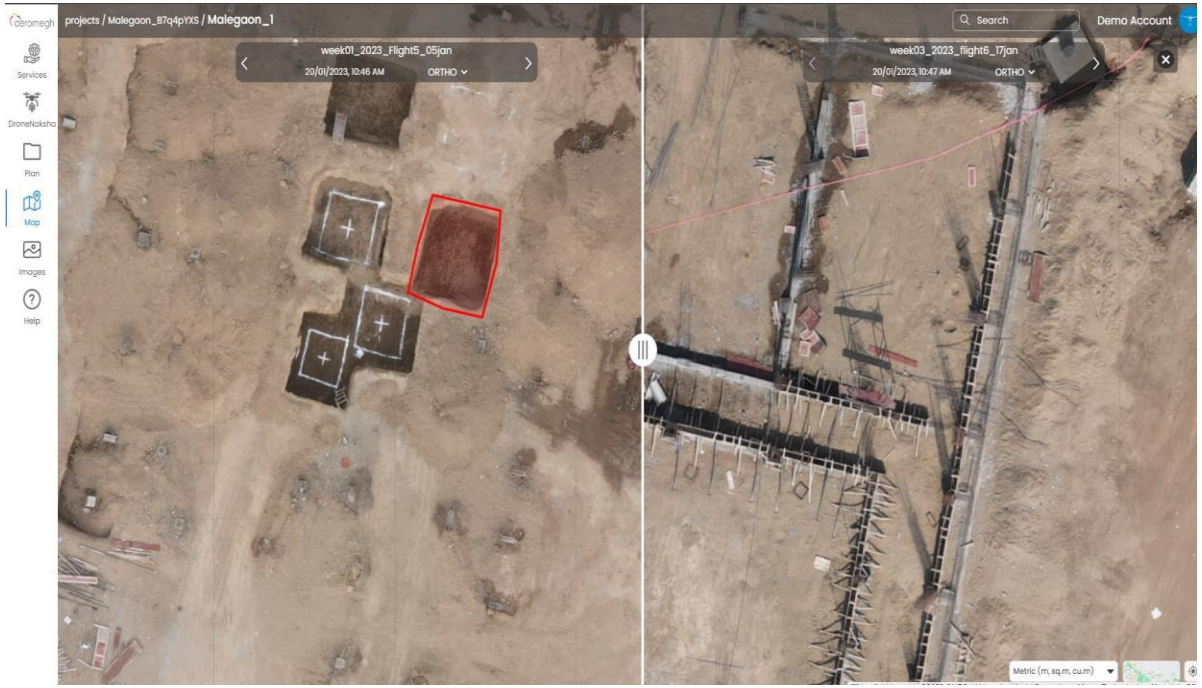
Progressive Data

AeroMegh helps to have progressive data to understand overall progress against plan and improve execution.

Project Videos

Project videos help to store records for long terms for further analysis

Proposed Solution → Weekly Progress Monitoring



Construction Progress Monitoring

AeroMegh helps to monitor the construction progress over the period of time. It helps to capture images over the period, crate ortho from it and then compare ortho super image of different dates to understand the overall progress and speed up the execution if there is any delay.

Solution Features

Date Wise

Compare construction State of any two dates of same project.

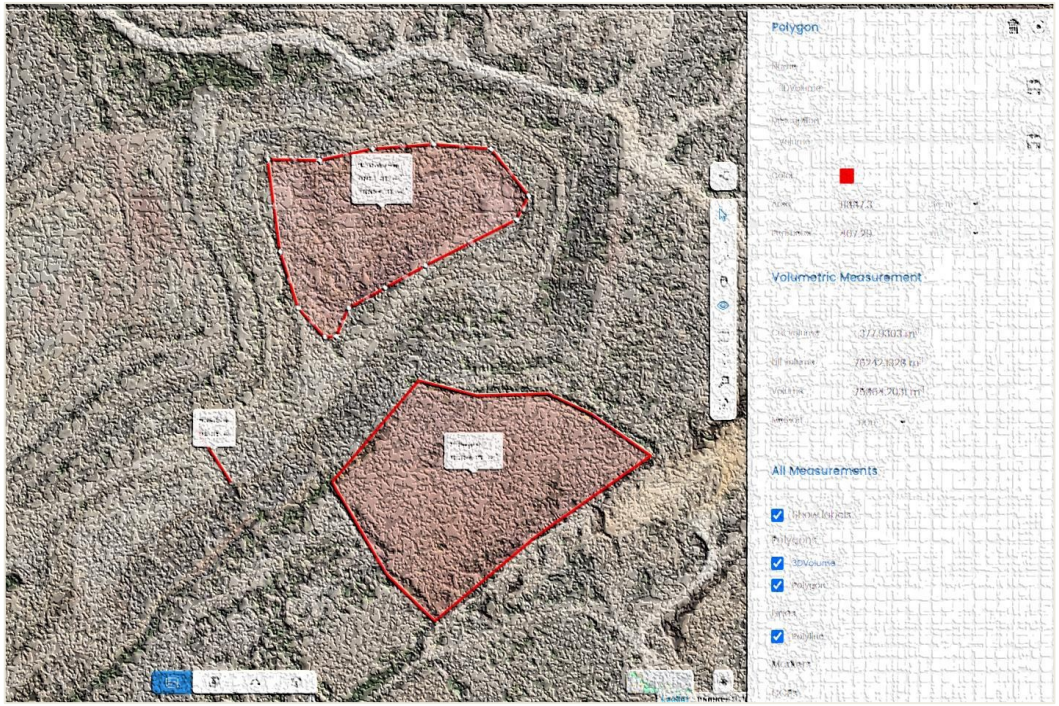
Visual Monitoring

Visual comparison Analysis and annotation on images wherever required.

Any State Comparison

Compare any date state of project and understand overall construction progress.

Proposed Solution → Accurate Digital Measurements



Digital Measurement Analysis:

Measurement analysis capability of AeroMegh platform helps to calculate volume of various objects also calculate area, distances wherever required on field map generated by ortho super images using drone images.

This simple capability of platform empower engineers and other stake holders to calculate various parameters and take further actions.

Solution Features

Length, Area and Elevation Calculations

Calculate Lengths, Area, Elevation on construction site using tools on ortho super map images.

3D Calculations

Calculate Measurements in 3D of construction site.

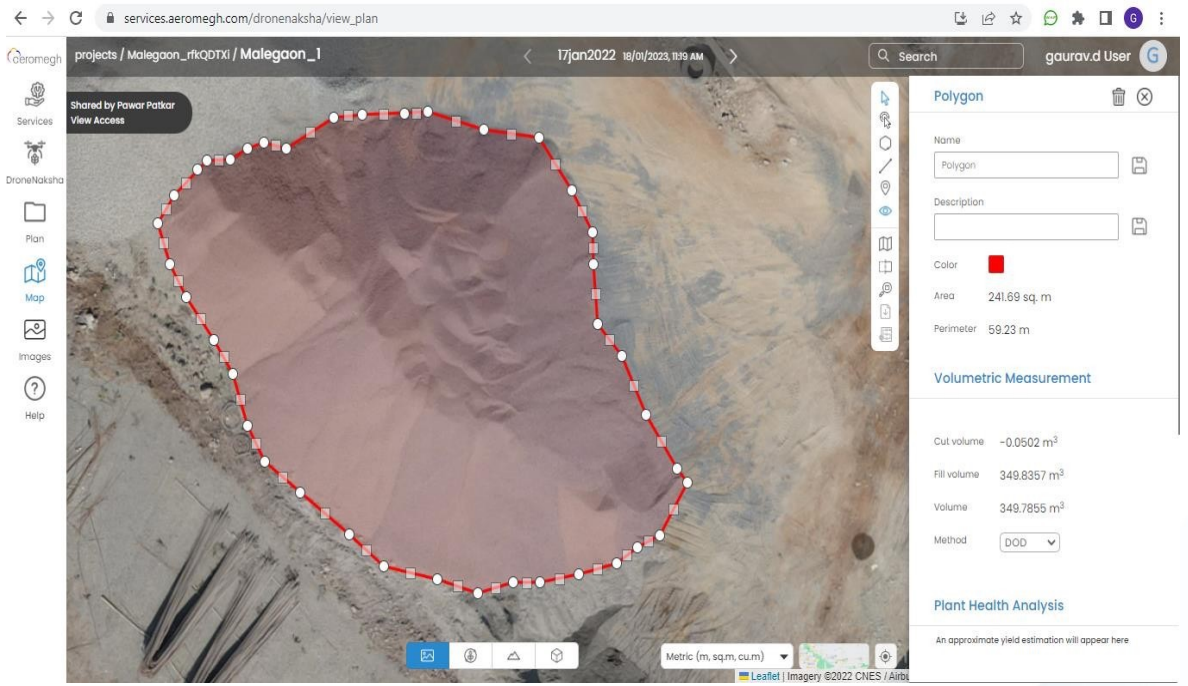
Volume Calculations

Calculate volume of stockpiles, digging and others using drone ortho super images.

Proposed Solution → Accurate Measurements

Use Case : Volumetric Calculations, 10mm Metal

Photo of actual 10mm metal on site.



AeroMegh Digital Measurements

Measurement on AeroMegh- 349.8357Cu.m.
Calculation in Brass- 349.8357*35.31/100Cu.ft.
=123.52698567 Brass

Proposed Solution → Accurate Measurements

Use Case : Volumetric Calculations, 20mm Metal

Photo of actual 20mm metal on site.

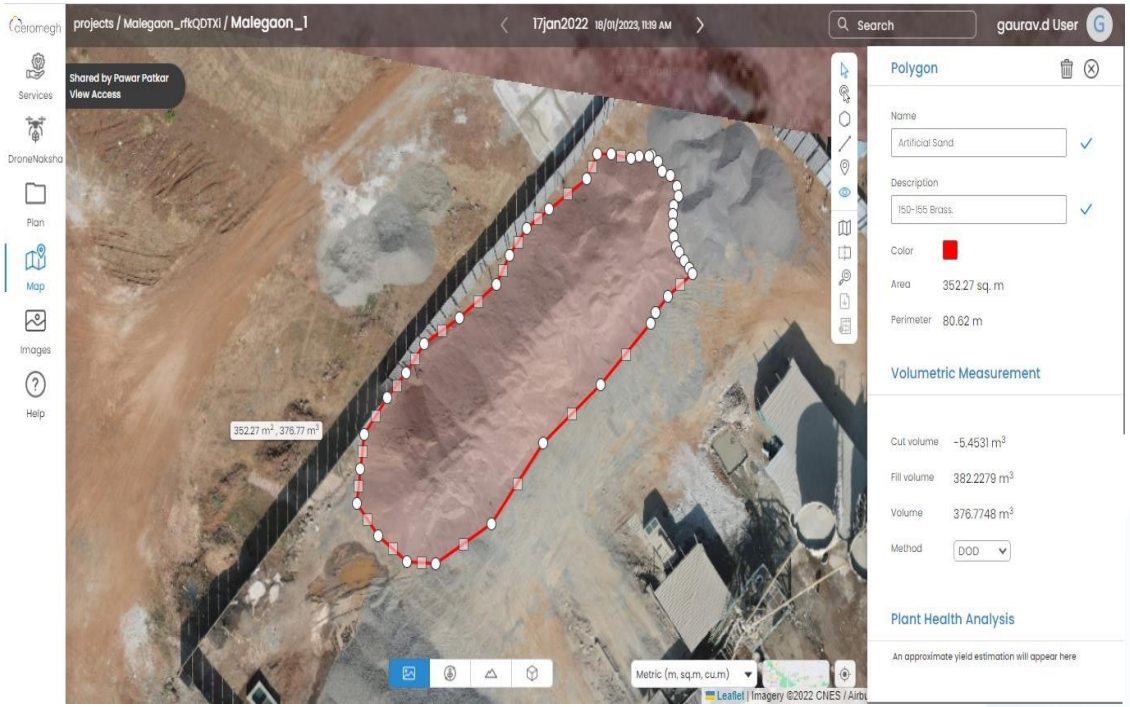
AeroMegh Digital Measurements

Measurement on AeroMegh:
415.4631.Cu.m. = 146.70002061 Brass

Proposed Solution → Accurate Measurements

Use Case : Volumetric Calculations, Artificial Sand

Photo of actual artificial sand on site.



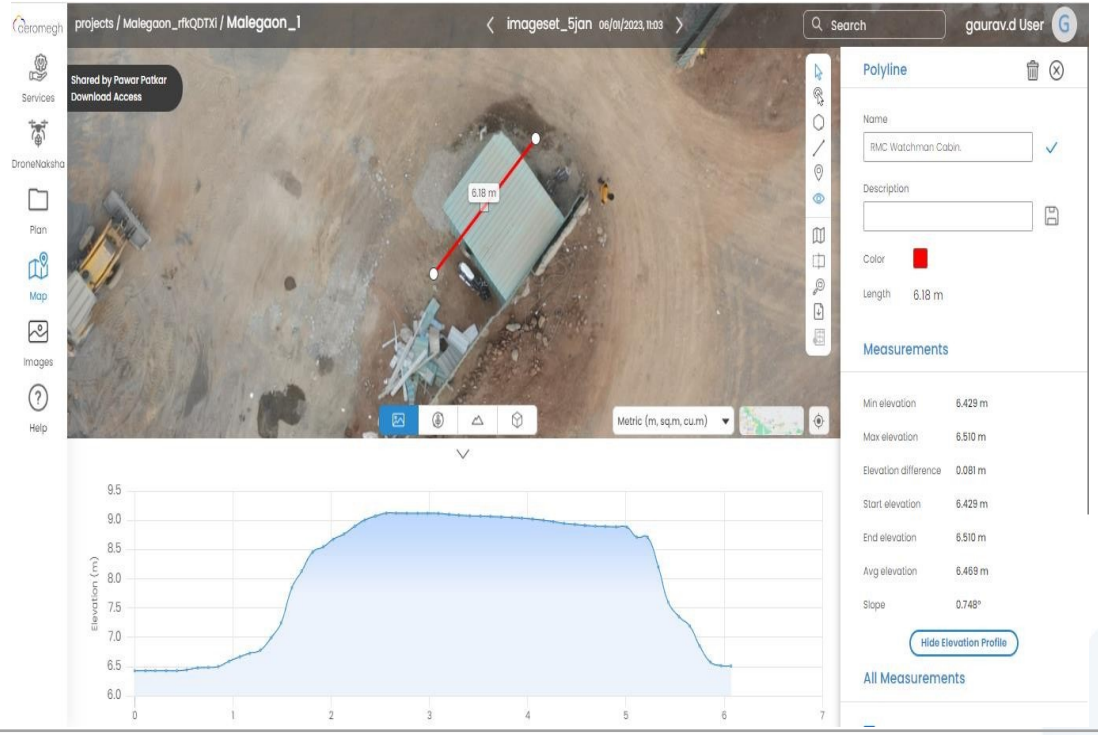
AeroMegh Digital Measurements

Measurement on AeroMegh
376.7748.Cu.m. = 133.03 Brass

Proposed Solution → Accurate Measurements

Use Case : Volumetric Calculations, 10mm Metal

Photo of actual RMC plant cabin



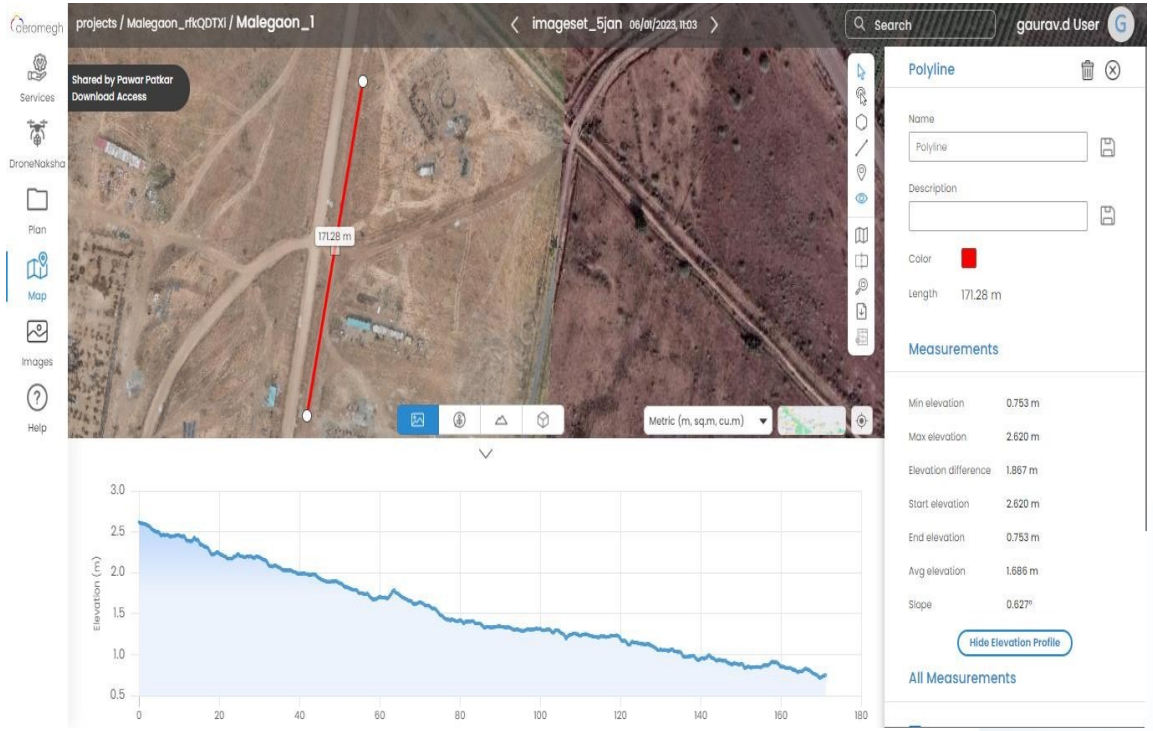
AeroMegh Digital Measurements

Measurement on AeroMegh-
Height: 2.6m Approx
Width: 3.4m Approx.

Proposed Solution → Accurate Measurements

Use Case : Elevation Profiling (Measurement)

Photo of actual elevation measurements
Plinth level 1 – 99.00
Plinth level 2 – 96.90
Elevation Difference- 2.1m



AeroMegh Digital Measurements

Measurement on AeroMegh-
AeroMegh Elevation Measurement: **2.1m**

Proposed Solution → Accurate Measurements

Use Case : Elevation Profiling (Measurement)

Photo of actual construction area being done.

AeroMegh Digital Measurements

AeroMegh Measurement:
1066.97.Sq.m (Selected Area)

Proposed Solution → Safety Compliance Inspections

People Safety

AeroMegh offers AI based analytics where it can be applied in images / videos captured from drones or other cameras we well.

AeroMegh can be trained with machine learning for detecting various objects on the construction site and generate workflows to trigger actions accordingly. For example, it can be configured to monitor helmet and other safety equipment and if there is non-compliance, it can be used for generating alarms.

Solution Features

Machine Learning

Configure AeroMegh for various object training using Machine Learning.

Object Detection

Configure to detect various training objects from ortho super Images.

Alerts

Configure Alerts for various objects detection as alarm or reporting.

Proposed Solution → Better Collaboration

Better Collaboration

AeroMegh platform helps team to collaborate better since its provides real and accurate information of site work done to everybody in depth. It helps team to come together virtually and share their views on the progress of site.

AeroMegh help in sharing information with everyone simultaneously with same content.

Solution Features

Right Information

AeroMegh helps to share right genuine digital information with everyone about progress.

Simultaneously

AeroMegh helps to share same information with everyone same time to avoid delays.

Transparency

AeroMegh helps to bring transparency at work as right information is shared with everyone.

Proposed Solution → Better Collaboration

Digital Transformation

AeroMegh Platform will help to start managing your site construction projects in more digital format and analyze it better for various benefits.

Time Saving

AeroMegh platform will start saving site construction time as it will provide better clarity of site work to everybody.

Cost Saving

AeroMegh platform will help to save cost of the project as it will provide information in collaborative method to everyone.

Faster Delivery

AeroMegh will help the Industry to deliver projects faster to their end customers / users by tracking everything digitally.

Green Environment

AeroMegh will help the Industry to achieve green environment targets as it will help to complete project faster.

Employee Safety

AeroMegh platform will help to improve overall construction employee safety.

Thank You!

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