



Alicorn Aviation

Aviation | Drone
www.alicornaviation.com

Our Legacy

Alicorn Aviation Pvt. Ltd. is the new face of DP Enterprise - an India-based company conceptualized and founded In 2010. Our services mainly consist of Aviation & Drone. Over the years, we've transformed from a proprietary company to a private limited company, providing bespoke solutions in the drone industry.

We began our journey when drone technology had just started to become more commercially accessible. Drones had started to replace helicopters and aircrafts in many fields such as oil & gas, infrastructure, mining, and the film industry. This allowed us to capitalize on the time and cost benefits provided by drones over traditional methods, enabling us to build a strong foothold in our field.

We have made it our mission to make the skies open and accessible for everyone. Trusted by users across various industries, we are transforming how businesses collect, manage, and interpret drone data. We provide timely support, innovative ideas, advanced technology, and clear communication. We're unifying the commercial drone industry under one roof by providing the platform to connect developers, hardware partners, and pilots with powerful tools to integrate aerial data into day-to-day operations.

Partners In Growth



Our Crew



Hardik Pancholi is the Chairman and Managing Director of Alicorn Aviation Pvt. Ltd. He started his entrepreneurial journey as the founder of DP Enterprise after many years of experience in the aviation industry. Being an aeronautics (AME) engineer was an advantage to flying drones. His job profile allowed him to work on Aircraft Power Plant (Engine) & Airframe Maintenance. He was already a hobby flyer, and had the knowledge to create his own aero-models and drones. This fuelled his desire to take on the upcoming industry at full throttle. In this endeavour, he is fortunate to have his father - Girish Pancholi's support and guidance. To add to his versatile experience, he is now also one of the first DGCA Certified Drone Instructors in the country.

Hardik Pancholi

Chairman &
Managing Director



Girish Pancholi

Director



Dipti Pancholi

Director



Madhavi Shah

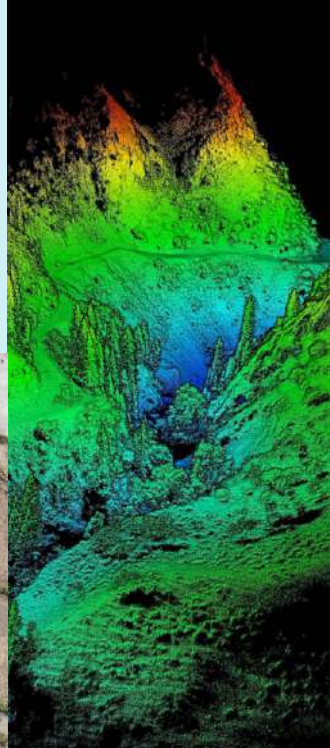
Director



**360° DEGREE
PANORAMIC
TOURS**



**AERIAL
PHOTOGRAMMETRY**



**AERIAL
PHOTOGRAPHY
- FILMING**



**THERMAL
IMAGING**



**LIDAR
SURVEY**

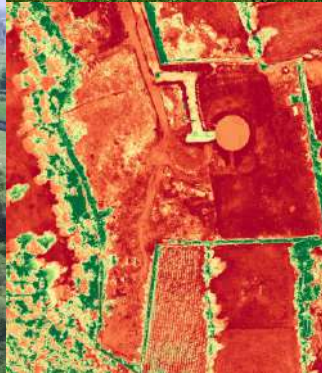


**BATHYMETRY
SURVEY**

**INDUSTRIAL
SURVEY
SOLUTION**



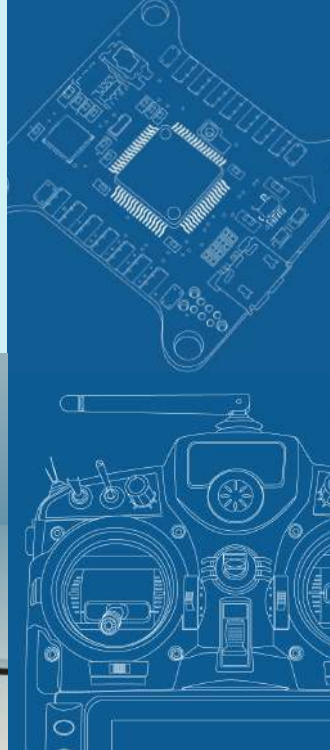
**AGRICULTURE
CROP SPRAYING/
CROP HEALTH
ANALYSIS**



**DRONE
DELIVERY**



**CUSTOMIZED
DRONE
SOLUTIONS**





Aerial Photography / Filming

Our aim is to bring the cinematic approach to every aerial shoot. We provide aerial Cinematography for corporate companies, professional firms, and private businesses.

All pre-production and site risk analysis are done by our experienced production team, Shoot conducted by DGCA approved Drone Pilot and any post-production work is also handled by our own editors and digital artists. It is now possible to create aerial 360° panoramic tours from a unique perspective... The Sky! Offering the viewer a full 360° horizontal view as well as a vertically 180° view up and down.

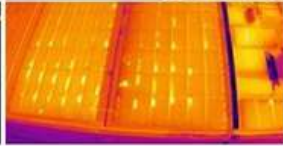
Advantages

It provides a birds-eye view of the terrain. This type of photography is time-saving and economical. It has a time-freezing ability. It permanently preserves the existing ground conditions at a particular time. It can provide a stereoscopic view of the terrain. Three-dimensional view. Aerial photography provides timely information. Safer & cheaper than conventional surveying. It is accessible to remote and difficult areas such as high mountains, dense forests. Worldwide coverage is easily available at different scales. It provides a current photographic view of the ground that no map can equal. The photograph may be in the hands of the user within a few hours of it being taken.

Thermal Imaging



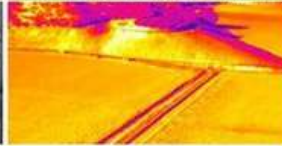
POWER LINE INSPECTION



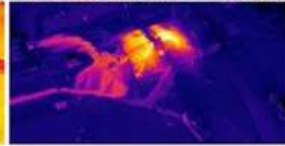
SOLAR PANEL INSPECTION



SEARCH AND RESCUE



PRECISION AGRICULTURE



FIRE FIGHTING

Thermal Imaging

UNLOCK THE POSSIBILITIES OF SIGHT

Thermal imaging from the air has never been as easy as now. The ultimate solution for rapid and reliable aerial thermal imaging. Capture faster, with pinpoint precision, over large areas, then save them for analysis and reporting.

Aerial Photogrammetry

Work Smarter with Drone Data



Solutions can be provided for:

Construction

Land Survey

Agriculture

Mining & Aggregates

Solar Energy

Roofing Inspection

Insurance Inspection

Aerial photogrammetry is a division of aerial photography. It is the practice of determining the geometric properties of objects from photographic images. With aerial photogrammetry, we combine aerial photographic shots to create 2D or 3D models. Specifically, cartographers will combine the aerial shots, as long as the shots feature at least two different angles of the same general area. This guideline will go for the use of aerial photogrammetry and how the photographs for photogrammetry are obtained. Photogrammetrists analyse aerial and terrestrial photographs to obtain information about physical objects and the environment.



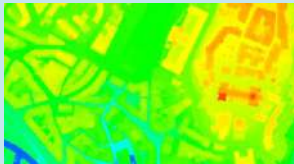
Color point cloud

The color point cloud uses RGB data from a raster for colorization. Each point of the point cloud receives the RGB value of the raster pixel that has the same location.



Orthomosaic

2D image map geometrically corrected such that the scale is uniform. Color balanced to be visually pleasing.



Digital surface model (DSM)

2.5 D model of the mapped area that contains (X,Y, Z) information, but no color information.



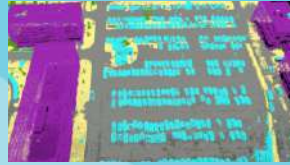
3D Textured Mesh

A representation of the shape of the model that consists of vertices, edges, faces and the texture from the images that is projected on it.



Reflectance Maps

A reflectance map compiles the reflectance values of each pixel and geometry into a single function.



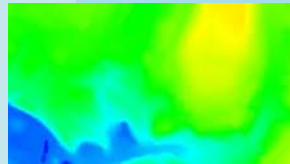
Classified point cloud

The point cloud is classified in 5 predefined groups: ground, road surface, high vegetation, building, human made object. The results of the classification are used for the DTM generation.



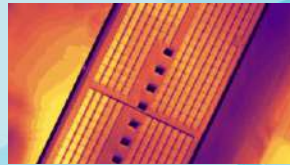
Contour lines

These are lines connecting points of equal elevation. They allow to better understand the shape of the land surface (the topography) on a map.



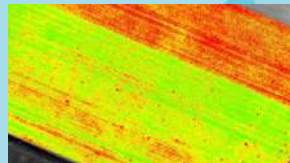
Digital terrain model (DTM)

Digital elevation model (DEM)
2.5 D model of the mapped area after filtering out objects such as buildings, that contains (X,Y, Z) information but no color information.



Thermal Maps

Thermal maps are 2D maps displaying the thermal information from infrared imaging cameras for each pixel.



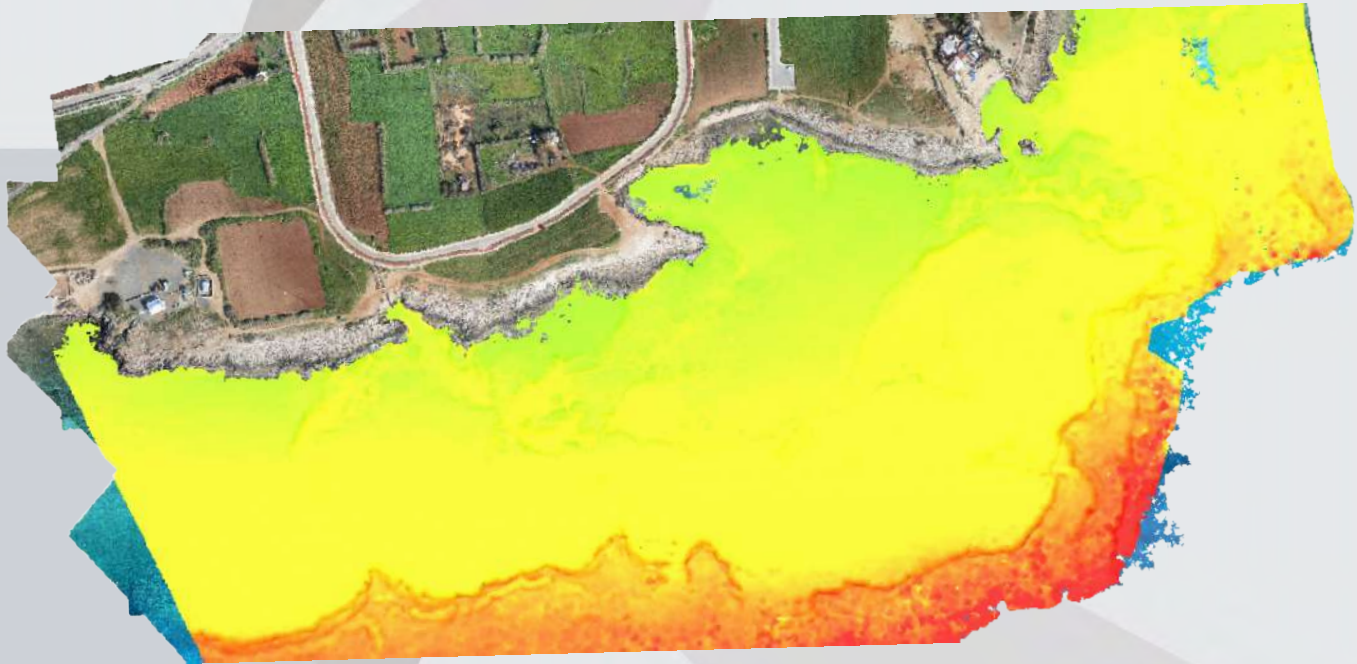
Index Maps

Each index is associated to an index map. For each pixel on this map, the value of the pixel is derived from the associated reflectance maps.

Bathymetric Survey

A new approach for simple and fast deployment

When characterising water-body beds, lakes and/or rivers, the acquisition of bathymetric data is an entryway for many studies: dredging, determination of water depths, cartography...



WHY BATHYMETRIC WITH UAV

Bathymetric drone maps water depths and sediments much faster and cost-efficient. It is easy to deploy and has the ability to operate at hard to reach locations, unsafe or hazardous environment.

The drone makes bathymetric surveys 10 times faster and 2 times more cost-efficient compared with a standard approach using a ship, a boat or an unmanned surface vehicle.

ADVANTAGES OF THE BATHYMETRIC DRONE

- Absence of people on the water safety.
- Quick launching and from any type of bank.
- High manoeuvrability.
- Automation of operations.

DELIVERABLES

- Digital Terrain Model, isobaths.
- Profiles.
- Bathymetric differential, erosion/filling...
- Calculations of volumes, changes to sediment stocks.
- Study of the volume of water remaining.
- Morphodynamic study.

Industrial Survey Solution

Offshore Rigs

Oil rigs and mines located offshore may attest to be a tedious and visibly hazardous operation as a consequence of the high risks and dangers of oil tanks and infrastructure. Besides, oil leaks, operational delays, equipment damage are few of various factors that go on to show the complications associated with offshore oil rig inspections. Profound and exhaustive yet detailed surveillance and analysis of offshore oil platforms, oil leakage, gas emission monitoring and most essentially security are the vital and advantageous services that are entailed by the utilisation of drone.

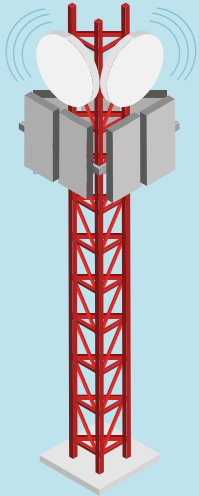


Refinery

Being a prominent aspect of the oil and gas companies and the said industry, oil refineries have to be under continual and constant monitoring. Inspection of oil refineries require the use of highly thermo - sensitive devices that can freely navigate without many limitations. This, quintessentially, gives way to the use of drones by the virtue of their thermo -sensors and aerial flight capabilities. Reduced risks, reduced costs and heightened efficiency prove to be favourable to the oil and gas industry, as a whole.

Chimney/ Silo Stack

As a means of convenient application of resources, drones in the spheres of chimney and smoke stacks, vitally reduces human risks. More so, features of good lighting, thermal cameras and sensors, data review services, accurate measurements testify drones to be a valuable inspection tool. Ease of access to inaccessible areas of survey and decremental costs for inspection also justify the same.



Telecommunications Tower

Autonomous commercial drones are changing the way cell tower companies are auditing and inspecting wireless infrastructure by enabling the rapid, repeatable, and safe collection of high resolution imagery and video of tower structures and equipment. Solution for cell towers helps operators and service providers safely operate drones, meet compliance requirements, and integrate aerial data with GIS and other business systems.

AGRICULTURE CROP SPRAYING

& ANALYSIS

Solution For Your Farm



Precision Crop Spraying



Fertilizer

Giving your crops the boost, they need to thrive, fertilizers are a great way to maximize your yields. Spraying drones can spread fertilizers faster and more efficiently when compared with traditional methods.



Herbicide

Weeds and invasive plants can choke out your crops, gobble up your soil's nutrients, and eat into your profits. Specifics, targeted spraying of herbicides to just the spots that need it can help reduce your costs, while also protecting healthy plants from excess exposure to chemicals.



Pesticide

Pests eat both your crop and your profits. Using a drone to spray specific spots with pesticides can protect your yields, while also reducing hazardous man-hours.



Fungicide

Excess moisture can compromise your plants defences allowing mold and fungi to quickly spread from plant to plant. Quick and precise application of fungicide from your spray drone can stop the spread of mold before it decimates your harvest. healthy plants from excess exposure to chemicals.

Crop Health Analysis



Vegetation Indices



Crop Health Assessment



Irrigation Analysis



Soil Analysis

Our Clients



HESTER



Our Clients



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