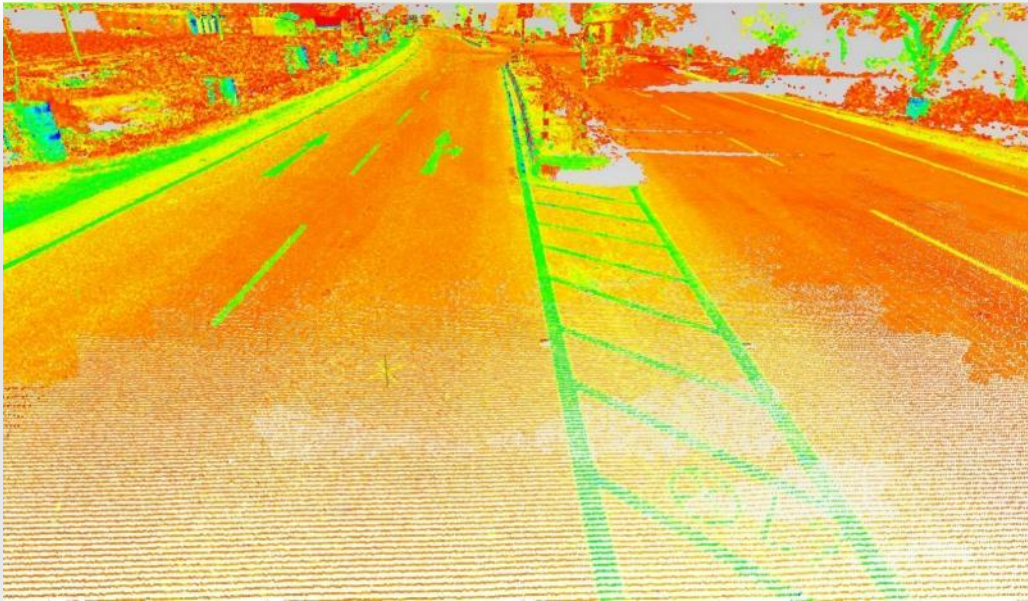




Goodland Surveys Pvt Ltd

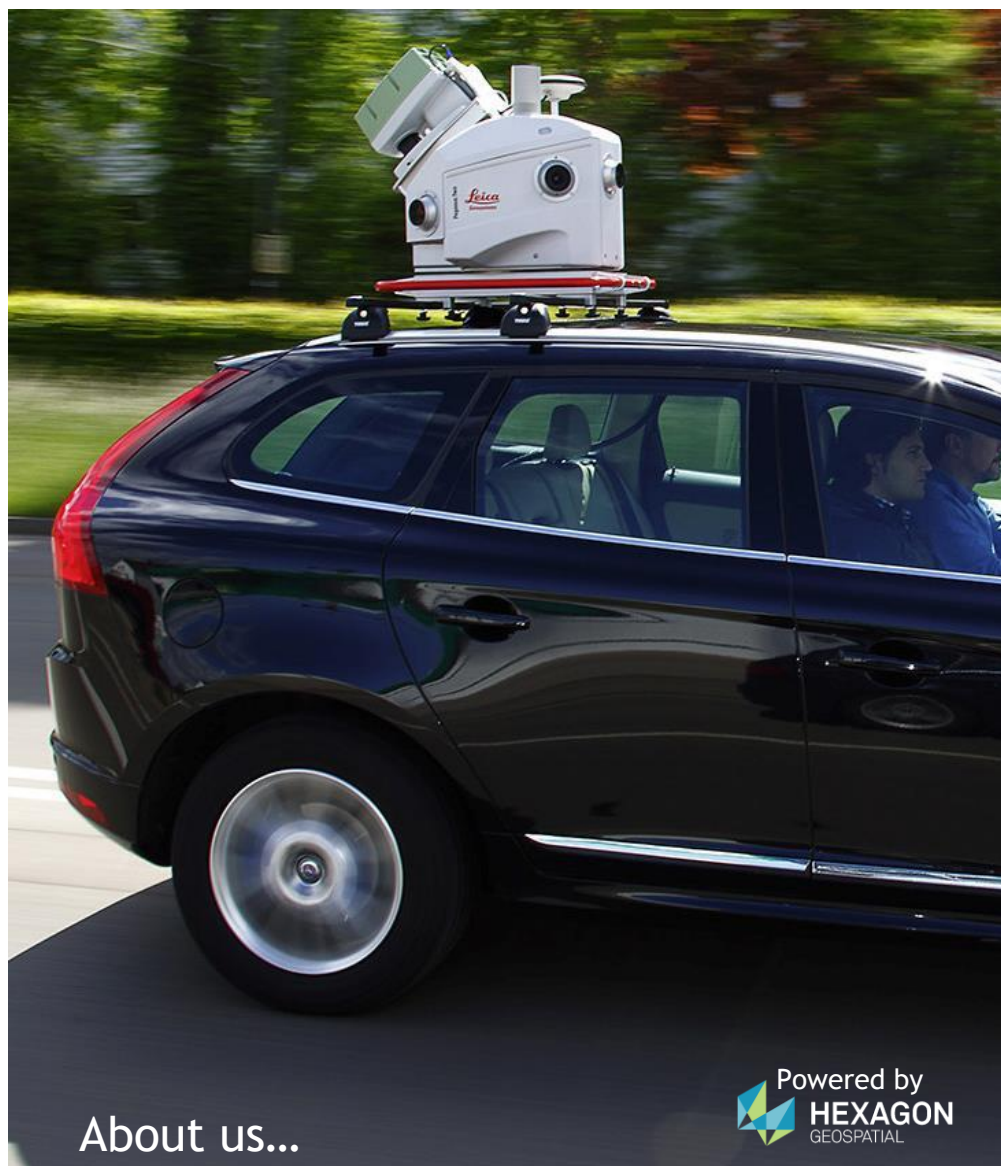
Land Profile to Your Desktop



LiDAR Surveying & Mapping



Land Survey, Redefined



About us...

Powered by
HEXAGON
GEOSPATIAL

We are countrywide leader for Engineering Surveying by using Mobile LiDAR, UAV LiDAR (Drone), UAV Photogrammetry, Differential GPS, Electronic Total Station and Auto Level. We are processing LiDAR Point Cloud and Drone Image Data Processing projects from Globally.

There are huge number of projects throughout India & few abroad projects are done in Gabon (Africa), Italy, Egypt & Brisbane (Australia). Goodland has turnover as follows

2016-2017	Rs.313.76 Lakhs
2017-2018	Rs.767.23 Lakhs
2018-2019	Rs.577.17 Lakhs
2019-2020 *	Rs.440.15 Lakhs

We offer Geospatial Services, Land Surveying, Roads & Railway surveying, Boundary Survey, Contour survey, Pipelines, Cable routes, Transmissions, Railways, Ports, Airports, Irrigation Projects, etc. by using LiDAR & DGPS



Our 16 Years of Experience in Surveying & Mapping helps our clients for Designing, planning Maintenance, Asset Management, Monitoring & Construction of ① Roads & Highways, ② Railways & High Speed Rail Corridors, ③ Smart Cities, ④ Large Land Parcels for SEZ & Industrial Land, ⑤ Airports, ⑥ Ports, ⑦ Irrigation Projects, ⑧ Oil, Gas Pipelines & Sewer lines, ⑨ Cable Routes and other utilities

Our Mission

“Bringing the Land Profile to your Desktop using latest technologies and provide a quality service, which fulfills customer’s requirements”

We pay undivided attention in executing each and every aspect of an assignment and adopt quality control measures from inception to completion. As a result, the customer gets a quality product right at first time. We have our own style of quality control by establishing adequate GCPs, traverse between DGPS Control Points, a closed fly level for benchmarks, cross verification with SOI-GTS, accurate data processing and site verification with draft drawings & generating contour/sectional maps for verify the ground levels and design aspects.

Company Datasheet

Established :	2003, From 2008 as a Private Limited Company
ROC :	U74900TN2008PTC069134
PAN :	AADCG2696J
GSTIN :	33AADCG2696J1ZF
Directors :	PK Samy & G Selva Kumar
Offices :	Chennai & Delhi
Employees :	165
Core Service :	Engineering Surveying Mobile LiDAR, Aerial (UAV) LiDAR Aerial Photogrammetry-PPK Outsourcing of LiDAR Data Post Processing



*180 Millions (INR)
turnover of Survey
& Mapping Projects*

*10000 + km of
LiDAR survey
drawings delivered*

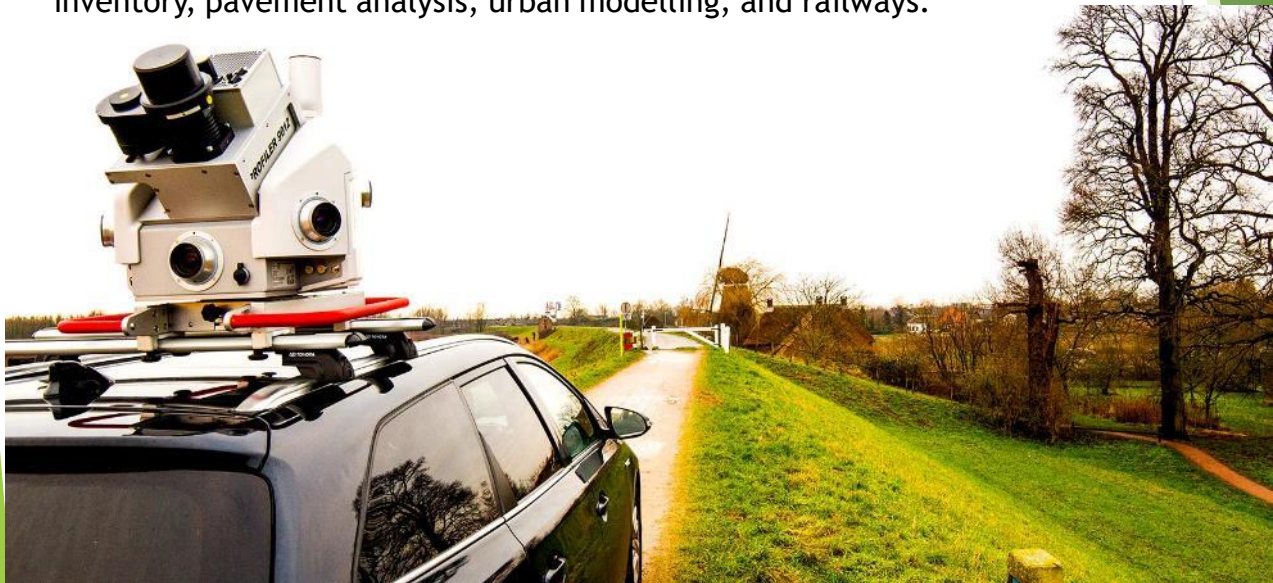


Mobile LiDAR Survey

Road Surveying Can Be Executed at Vehicle Speed and Precise Georeferenced Cartography of Railways, Non-Intrusive Preventative Maintenance Is Made Easy Whilst Reducing Surveying Time And Balancing Staff Requirements

Mobile LiDAR surveying facilitates the collection of spatially correct data on a large scale. Rather than survey individual buildings or areas, mobile mapping systems can be deployed to map entire cities or hundreds (even thousands) of kilometers of transportation corridors. Mobile LiDAR technology presents multiple benefits to transportation agencies, including safety, efficiency, accuracy, technical, and cost. It can simultaneously acquire imagery and scan data.

Mobile LiDAR Systems can provide survey/engineering quality data faster than static scanning. Airborne systems generally do not provide survey/engineering quality data. Mobile LiDAR systems have been utilized along navigable corridors for a variety of applications including earthwork quantities, slope stability, infrastructure analysis and inventory, pavement analysis, urban modelling, and railways.



‘Leica Pegasus Two’ - Vehicle Mounted Mobile Mapping Sensor, With Survey Grade Accuracy

TYPICAL ACCURACY

Horizontal accuracy 0.020 m RMS
Vertical accuracy 0.015 m RMS
Without control points, open sky conditions

EXPORT OPTIONS*

Images JPEG and ASCII for photogrammetric parameters
Point cloud Binary LAS 1.2. X,Y,Z, intensity, RGB values Colourisation by camera pictures Hexagon Point Format, Recap

GNSS/IMU/SPAN SENSOR

Includes triple band - L-Band, SBAS, and QZSS for GPS, GLONASS, Gaileo, and BeiDou constellations, single and dual antenna support, wheel sensor input, tactical grade - no ITAR restrictions, low noise FOG IMU.

Scanner frequency 1,000,000 points per second

Image distance 2.5 / 3 m

Driving speed 40 km/h

Laser scanner ZF 9012

Max baseline length 3.2 km

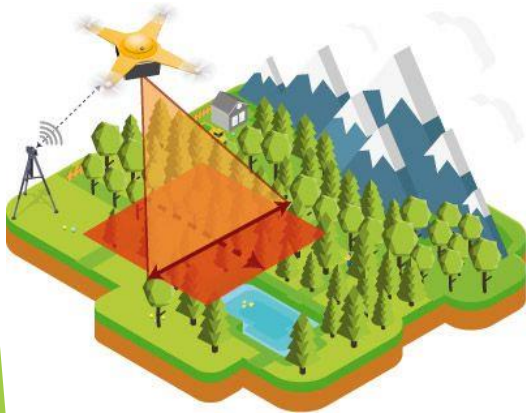
UAV based Aerial LiDAR Survey



UAV LiDAR offers significant savings over ground survey methods. By using a method of detecting distant objects such as buildings, surface area, shrubs, trees and even grass, LiDAR can determine their position, velocity, and other characteristics by analyzing pulsed laser light reflected from an object's surface. This gives a 3D model of topographic terrain contours that ground operators can work from.

LiDAR drone incorporated a GPS/GNSS system in order to determine its exact position, along with an inertial measurement unit (IMU) to calculate for the movement of the Drone (in terms of pitch, roll and yaw as it bounces in the air). It is powered by LiDAR sensor for dense-point-cloud capturing, Sony Alpha 6000 mirrorless camera for Point cloud colorizing and necessary software for flight planning, data acquisition, Post Processing and cloud platform.

LiDAR technology can penetrate vegetation. It is able to get through gaps in the canopy and reach the terrain and objects below, so it shall be useful for generating Digital Terrain Models. LiDAR is also particularly useful for capturing narrow objects such as power lines or telecom towers as photogrammetry might not recognize narrow and poorly visible objects.



Specification - LIAIR V70

Manufacturer	: GreenValley Intl, USA
Model	: V70
Laser Sensor	: Livox AVIA
Range Accuracy	: ± 2 cm
Detection Range (@100 klx)	: 190 m @ 10% reflectance 230 m @ 20% reflectance 320 m @ 80% reflectance
System Accuracy	: ± 5 cm
POS Sys Performance	: Attitude: 0.008° (1σ) Azimuth: 0.038° (1σ)
Camera	: Sony A5100
Weight, excl. battery	: 1.1 kg (Incl. Camera) Dimensions
	: 110 * 81.6 * 140.2 mm
Route Planning	: LiPlan (proprietary)
Acquisition/PP POS	: LiAcquire web & LiGeoreference
Field of View	: (Repetitive Scanning Pattern) 70.4°
Scan Rate	: 240,000 pts/s (first return) 480,000 pts/s (dual return) 720,000 pts/s (triple return)



Powered by

 GreenValley International

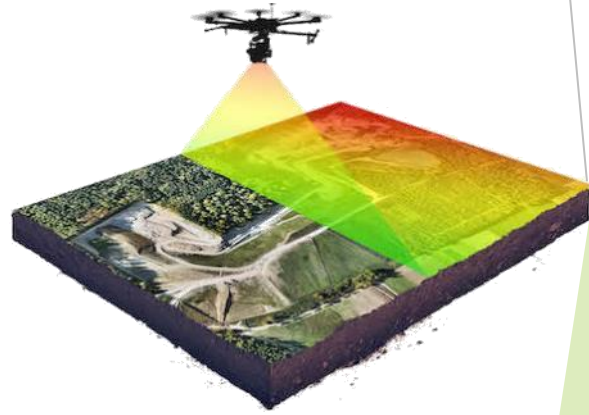
PPK Aerial Photogrammetry Survey

We have completed 2000+ kms of Green Field NHAI Projects in Andhra Pradesh, Maharashtra, Rajasthan, Orissa, Jharkhand, Kerala and Tamil Nadu. Addu City, Maldives is entirely surveyed and mapped by using PPK Drone . RTK/PPK enabled survey grade drone for achieving accuracy of 5 ~ 10 cm according to Field condition.



Deliverable

- Raw data as jpeg Images
- Drone Video (mp4) of project corridor.
- Orthomosaic Images (a georeferenced image, so measurable in real scale)
- Point Cloud Data (.las) large data sets composed of 3D point data
- Ground Classified Point Cloud Data (as it is needed to create a DTM)
- AutoCAD compatible Survey Drawing includes location of DGPS, other & Control Points & Survey Report



DJI Phantom 4 RTK built for surveying, the GS RTK app allows to control the drone, with multiple planning modes, including Photogrammetry (2D and 3D), Waypoint Flight, Terrain Awareness, Block Segmentation, and more.

Specification

GNSS	: GPS+BeiDou+Galileo+GLONAS
GSD	: Approx. 3 cm from 110m height, Approx 5 cm from 182m height
Camera	: 1" CMOS; Effective pixels: 20 M
Shutter Speed	: 8 - 1/2000 s (Mechanical) / 8 - 1/8000 s ((Electronic)
Video Rec Mode	: H.264, 4K : 3840×2160 30p
Photo Format	: jpeg
Gimbal	: Stabilization 3-axis (tilt, roll, yaw) Pitch -90° to +30°

Technology

Mobile LiDAR & UAV
LiDAR
DGPS (RTK/Static)
Total Station
Auto/Digital Level
GPR
Echo sounder



Software for Mapping

- Leica Geo Office & Leica Infinity
- Inertial Explorer & RedCatch Red Tool Box
- Leica Pegasus Manager & Leica MapFactory
- LiDAR 360 & LiMapper
- AutoCAD, ZWCAD, Autodesk Civil 3D, Recap
- CADTools
- Pix4D Mapper
- TerraPack
- In house software for CAD works

Prestigious Clients



L&T



KIIFB



Helica, Italy



Louis Berger



AECOM



EGIS India

Contact Us



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Goodland Geospatial Pvt Ltd

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