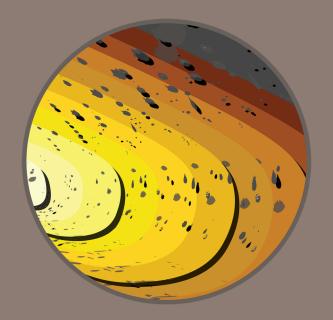


Measurments and monitoring of objects on planet Earth!

www.geomasiv.mk



## **Geomasiv**

Geomasiv DOOEL is a geodetic company founded in 2022 with the goal and vision of becoming one of the most trusted geodetic companies in the region.

Although founded in 2022, it brings together a team of professionals with over 10 years of experience in the field of geodesy.

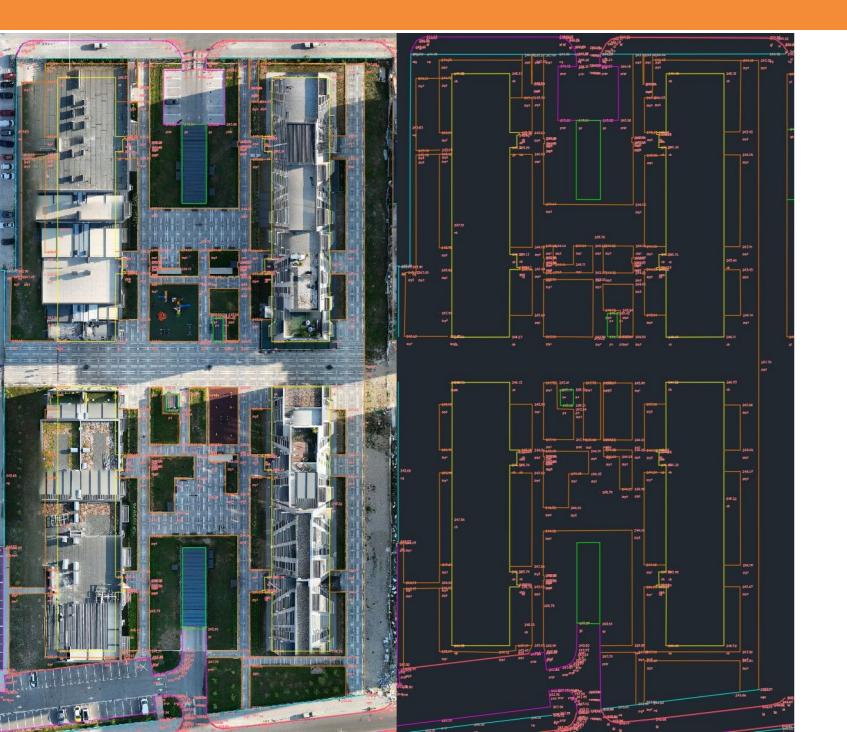
We are engaged in providing a wide range of services in the field of geodesy, using modern surveying technologies to ensure the spatial integrity of objects of interest.

Our company is equipped with high-quality, professional geodetic equipment of the latest generation, which enables precise measurements, efficient data processing, and reliable results, even under the most challenging field conditions.





# Our services



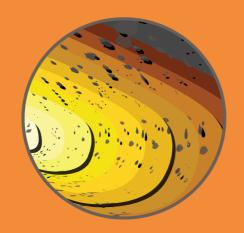
**(2)** Cadastral Services

**Engineering Geodesy** 

Digital Photogrammetry (UAV)

**©** LIDAR

Scan to CAD (space transformed into a digital drawing)



## Cadastral services



- Report for Numerical Data
- **Report for Physical Division of Cadastral Parcels**
- Marking of Cadastral Parcel Boundaries
- Identification of Cadastral Parcels
- **Preparation of Updated Geodetic Bases**
- **Measurement of Interior Areas**
- **Pre-marking of Future Construction**
- **Surveying of Infrastructure Objects**
- **Marking of Construction Parcels**
- **Surveying of Actual Terrain Conditions**
- **Report for Concessions and Long-term Leases**
- **Report for Merging of Cadastral Parcels**
- Report for Deletion of Object from a Cadastral Parcel
- Legalization of Illegally Constructed Buildings
- **All Types of Analyses**



# **Engineering services**



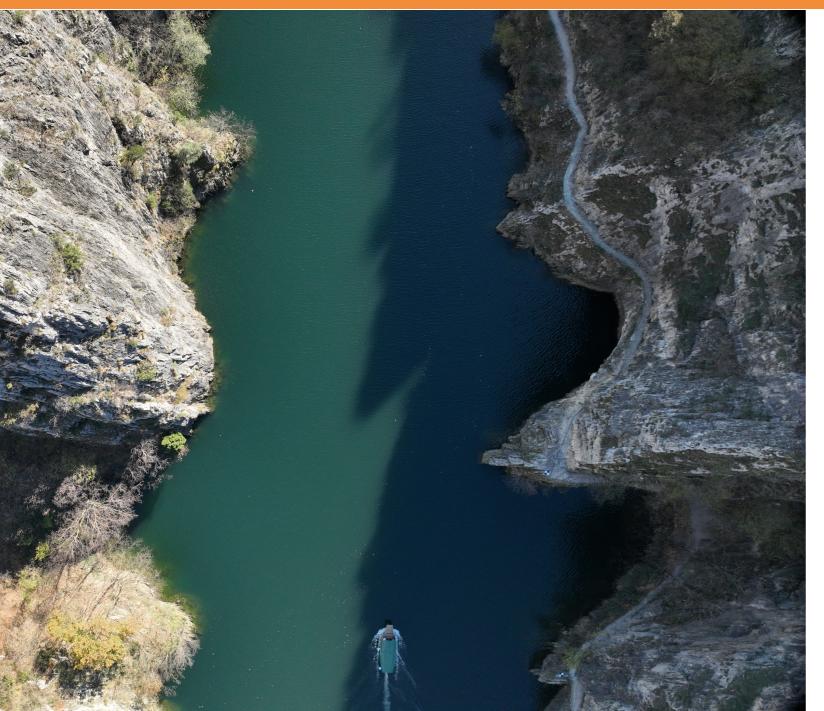
- **Optimization and Implementation of Geodetic Micro Networks**
- **Geodetic Monitoring and Observation of Structures**

(Monitoring deformations of dams, tunnels, roadways, bridges, etc.)

- **Creation of Digital Geodetic Bases**
- **Updated Bases for Design Purposes**
- Creation of 3D Terrain Models (DTM)
- **Volume Calculations**
- **Creation of Longitudinal and Cross Profiles**
- **►** Horizontal and Vertical Marking of Structures
- **Virtual Tours with Interactive Maps**
- **AS BUILT Survey of the Actual Construction After Completion**
- **Establishment of Operational Polygon Networks for Linear Structures**



# Digital photogrammetry



Using UAV (drone) technology, aerial photogrammetric surveying is carried out, allowing the collection of a large number of overlapping high-resolution photographs. Then, through sophisticated photogrammetric algorithms and software (Structure from Motion - SfM), various three-dimensional models and cartographic products are generated.

### **Where is UAV Photogrammetry Applied?**

Urban and Spatial Planning

Cadastral and Property Surveys

Construction and Progress Monitoring of Buildings

Agriculture and Crop Monitoring

Mining and Volume Analysis

Environmental Protection and Erosion Monitoring

Monitoring of Deformations and Landslides

Cultural Heritage Protection



# Digital photogrammetry



### **Output Products of Digital Photogrammetry**

Orthophoto – Georeferenced, high-precision image of the terrain

**DTM** (Digital Terrain Model) - Represents the natural "bare earth" surface (without vegetation or objects)

**DSM** (Digital Surface Model) - Displays objects, vegetation, and other above-ground structures

**Point Cloud** 

Volume Analysis - Cut and fill calculations

Delivery Formats:

GeoTIFF, LAS/LAZ, SHP, DXF, OBJ, KML, PDF



## LiDAR



# **■** LiDAR Technology - Precise 3D Representation through Laser Scanning

LiDAR (Light Detection and Ranging) is an advanced technology for measuring distances and generating highly accurate 3D terrain models through laser scanning from the air (LiDAR drones) or from the ground (terrestrial and mobile scanners).

#### What is a Digital Twin?

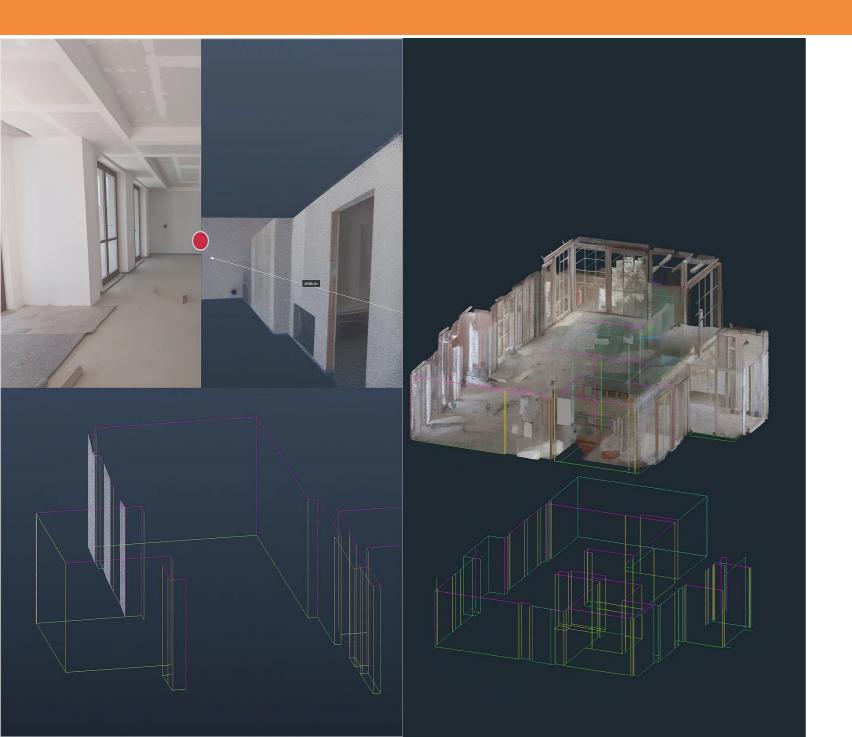
A digital twin is a virtual replica of a real object or system.

It is used for:

- Real-time data visualization
- Monitoring of condition and behavior
- Predicting failures or maintenance needs
- Process improvement through analysis and simulations



## Scan to CAD



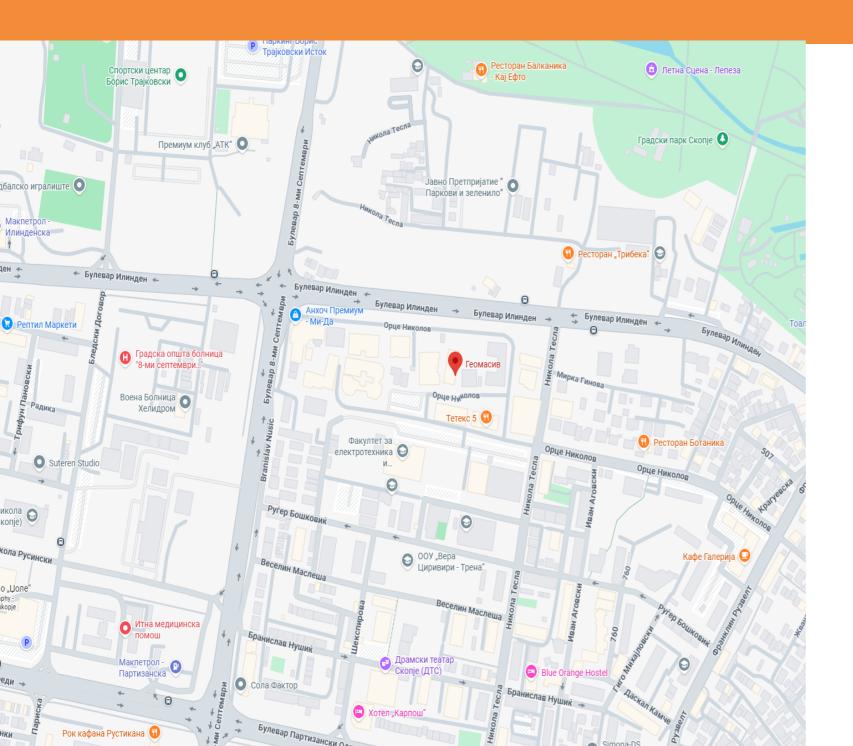
### From Reality to Precise Drawings with Scan to CAD

With modern 3D scanning, every detail of a space can be captured and transformed into accurate digital drawings.

- Fast and precise measurements
- ✓ No missed details
- Clear plans for renovation, redesign, or design



## Contact





#### **Contact Us!**

If you have any questions, need additional information, or would like a consultation for your project – feel free to contact us.

Our team is available for:

Technical advice and guidance

**Service quotations** 

**Demonstrations of UAV/LiDAR technologies** 

**Scheduling field surveys** 

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