



VisionDynamix

visiondynamix.com



Bilateral Meetings

- (11a.m. - 1p.m.)

Description

We are newly formed spin-off company. **The main activity of our company is design, project planning and implementation of our product which is a system for simultaneous localization and 3D mapping**, called Terra Mapper. The secondary activity is aerial imaging and mapping.

The product we are developing is autonomous system that uses SLAM (simultaneous localization and mapping) algorithm which is subject to large number of scientific research in the area of autonomous navigation and mapping which we improved and implemented as a part of a master thesis. The system is consisted from two parts: Hardware and software. The hardware part is consisted of unmanned aerial vehicle - drone with autopilot, which we plan to acquire and configure for the specific needs of this application, system for data acquisition and processing which will be placed on the drone, consisted of embedded computer, RGB camera, gyroscope, accelerometer, barometer and real time kinematic GPS receiver.

The software part is consisted of two modules. One is for sensor integration and fusion and the other is for 3D map creation.

Our company is consisted of two parts.

The first one is for research and development of our new product Terra Mapper.

The second part of the company will be involved in providing service: terrain imaging and 3D map creation for our potential customers. This activity will cover few industries from which most relevant are:

GIS systems. Creation of high precision three dimensional maps in real-time.

Monitoring and inspection of industrial installations, plants and objects with difficult access such as bridges, chimneys, transmitters, power lines, etc.

Construction industry. Measurement and creation of three dimensional volumetric structures which can be imported in a CAD software for further analysis.

Agriculture, image capturing and analysis of crop estimation, crop scouting, crop health, water treatment, biomass estimation, etc.

Organization Type

Company

Organization Size

1-10

Founding Year

2016

Country

Macedonia

City

Skopje, Ruger Boskovik [Google map](#)

Areas of Activities

Software and hardware companies

Offer

Aerial Imaging

The aerial imaging and precision agriculture services are available in whole Balkan.

It includes:

- Monitoring and inspection of industrial installations, plants and objects with difficult access such as bridges, chimneys, transmitters, power lines, etc.
- Measurement and creation of three dimensional volumetric structures which can be imported in a CAD software for further analysis.
- Agriculture, image capturing and analysis of crop estimation, crop scouting, crop health, water treatment, biomass estimation, etc.

Keywords: aerial imaging computer vision uav drone precision agriculture IR

Cooperation Offered

1. Technical co-operation

Idea

3D aerial mapping

The Terra Mapper product that we are developing represents system for creation of 3D aerial high-precision maps. We expect that the system accuracy to be in range with the laser scanners but the price of the system to be much lower and the speed of data processing higher.

The product can be used in different sectors and industries, some of most notables are: GIS systems, geodetic measurements, cartography and urban planning. Main clients of our product will be geodetic companies which are working with digital photogrammetry, geodesy and cartography companies, as well as construction companies and

government institutions.

Some of the benefits that our clients will get from the product are:

- Creation of aerial 3D map with high accuracy from object or location of interest.
- Integration of that map with the existing GIS systems.
- Making of 3D structure from objects such as: buildings, dams, bridges, etc.

The end benefit is that they will be able to develop their geodetic or construction projects with higher precision and in shorter time frame.

Keywords: uav drone 3d map aerial imaging precision agriculture monitoring inspection computer vision

Cooperation Offered

1. Outsourcing co-operation
2. Technical co-operation

Cooperation Requested

1. Sales / Distribution
2. Investment/Financing