

ABOUT US

GeoloGIS is a spin-off of the University of Messina, integrated within the Department of Mathematical and Computer Sciences, Physical Sciences and Earth Sciences (MIFT), created to implement the University's research and consultancy action in the area of sustainable spatial planning, through smart and green solutions.



The spin-off operates in the environmental field, dealing with coastal area management, precision farming and contrasting coastal erosion. Thanks to SAPR (multirotor and fixed-wing drones, ENAC approved), equipped with special thermal sensors and laser scanners, photographic surveys are carried out in the visible, thermal or multi-spectral ranges, both on flat and vertical surfaces.

We take care of:

- Plano / altimetric surveys management aimed at the generation of DEM (Digital Elevation Model);
- Data acquisition and cartographic digitization in GIS and CAD environment;
- Processing and visualization of 3D Maps;
- Drafting of thematic maps aimed at territorial planning: various planning, VIA - VAS - VINCA - Civil Protection - Hydrogeological Risk, Precision Farming.

OUR ACTIVITIES

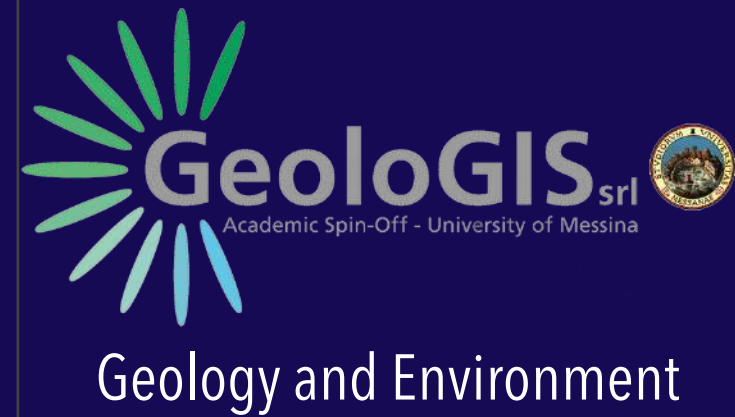
- Terrestrial and marine-coastal surveys;
- Compatibility analysis of materials aimed at identifying and using useful materials for nourishment of resilient coastlines;
- Geomorphological cartography;
- Monitoring of architectural assets aimed at checking and diagnosing the structure;
- Seismic Microzonation Investigations



Automatic systems for detection of evolution, of deformation and the variation of structures, to be connected to predefined threshold levels, to send any alerts, via sms or email, or to arrange the automatic activation of acoustic and optical alarms or the command of remote actuators, such as signals for blocking vehicular traffic, movement of bars, etc. .

Remote monitoring of:

- Beaches and cliffs;
- Bridges, viaducts and overpasses;
- Buildings and monuments;
- Quarries and mining structures
- Water levels of rivers, water courses, etc.
- Weather station



ENAC REGISTERED COMPANY

Scientific Coordinator
Prof. Giovanni Randazzo



www.geologis.it

ENVIRONMENTAL ANALYSIS

The management of the environment and the territory represents an imperative priority, the widespread hydrogeological instability in our country has often generated dramatic consequences.



GeoloGIS, a university spin-off, avails itself of the best professionals linked to the professional and academic world who are able to manage the many problems related to the themes of the territory.

GeoloGIS employs advanced in research in the areas of basic and applied ecology with particular reference to coastal and transitional marine ecosystems, as well as inland waters. GeoloGIS has advanced and very high precision acoustic instruments for the execution of georeferenced morpho-bathymetric surveys and for the creation of high resolution thematic maps.

- Preliminary investigations for maritime works design
- Studies on bathymetric variations of the seabed
- Coastal monitoring, coastal defense works, etc.
- Biological investigations (monitoring posidonia meadows, etc.)
- Wreck detection and archaeological research
- Inspections with ROV port works and artifacts
- Inspections with ROV for photographic and television shooting
- Services for fishing and aquaculture and site suitability assessment

PRECISION FARMING

Precision agriculture is a very broad concept that deals with optimizing the available resources in order to maximize agricultural fields. A scientific and engineering principle is therefore applied to address problems that arise in the management of farming in its entirety.



Among the many innovative tools available today to pursue this concept of modern and more sustainable agriculture, the drone is certainly one of the most important. The drone is profoundly changing agricultural techniques, making man's approach to the environment and agriculture more intelligent and economical.

DRONE SENSOR EQUIPMENT

- Multispectral Micasense Red Edge MX
- Multispectral Tetracam ADC -Lite
- Optris PI-450 radiometric thermal
- Zenmuse XT2 radiometric thermal
- Lidar Yellowscan Mapper scanner
- Zenmuse X5S HD camera
- Asselblad HD camera on Mavik 2 Pro
- Sony A5000

SOME OPERATIONAL SECTORS



PHOTOVOLTAIC WIND ENERGY

Surveys with thermal chambers, 30x zoom for structural analysis and hot point identification.



ECOLOGY & ENVIRONMENT

Surveys with thermal, multispectral and Lidar chambers, chemical and biological analyzes, landfill and industry waste disposal plans, search for illegal landfill.



PHOTOGRAMMETRY

Surveys and processing using drones and ground stations with differential GPS for the production of orthophotography, DEM, DTM, and 3D models.

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