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Associate Professor in Structural Geology, Active tectonics, Geomorphology and Volcano tectonics
University of Catania.

The main field of interest is represented by studies on structural and regional geology on the Mediterranean region. The research has been aimed to the Geodynamic processes through the velocity vectors obtained by geodetic and topographic surveys in areas affected by active tectonics and volcano tectonics deformation.

Knowledge of I.T. Mastery of the following applications: G.I.S software platform: Mapinfo, ARC/GIS and GEOMEDIA; software mapping: Rockworks, Surfer and Autocad; Remote sensing: ER Mapper; digital photogrammetry: RFD GEOTOP; topography: Magnet Tools, Meridiana and Mercurio.

He coordinates a research team (GeoDynamic and GeoMatic Laboratory), specialised in project and implementation of GNSS geodetic network, processing of GNSS data - GipsyX and Gamit-Globk softwares; Synthetic-aperture radar (SAR) data processing - SNAP, StaMPS/MTI, SNAP2StaMPS; Unmanned Aerial Vehicle (UAV) survey - pix4d, photoscan, Cloud Compare, UgCS softwares.

Scientific production: nr. 54 scientific articles in international indexed journals, h-index 20 and 1236 citations <https://www.scopus.com/authid/detail.uri?authorId=7003777254>.

MAIN SCIENTIFIC AND PROFESSIONAL COLLABORATIONS

2015 - Project assignment SpinOff EcoStat s.r.l. of the University of Catania; monitoring of the evolution of the surface deformation field after the "mud volcano eruption" occurred on 27 September 2014 in the Macalube area in the municipality of Aragona (AG).

2017 - Scientific collaboration agreement between the Municipality of Caltanissetta Sicily and the University of Catania. Study and monitoring of the Santa Barbara "mud volcano" and its influence on the surrounding territory

2017 - Topographical survey of the island Lachea near Acitrezza,(CT) development of 3D mesh DEM representations.

2017 - UR UNICT PRIN 2017-2022 - Overtime tectonic, dynamic and rheologic control on destructive multiple seismic events - Special Italian Faults & Earthquakes: from real 4D cases to models; Geodetic GNSS monitoring of IGM95 benchmark;

2018 - INTERREG V-A Italy-Malta 2014-2020 Project "SIMIT-THARSY" (Tsunami HAZard Reduction System). Geodetic topographic surveys of the of coastline in the Marzamemi area (SR) Sicily

2018 - Agreement for scientific collaboration aimed at the S.A.P.R. (Sistemi Aeromobili a Pilotaggio Remoto) aerophotogrammetric survey of the calaforno archaeological area, located in Giarratana (RG), between the departments of (DSBA) and (DISUM) of the University of Catania.

2018 - Monitoring and study of the surface deformation processes related to the volcanism-sedimentary Macalube of Santa Barbara (Caltanissetta).

2020 - Position as a member of the CRUST Advisory Council (CC). Interuniversity Center for 3D Seismotectonics with territorial applications CRUST is an Italian Interuniversity Center aimed to promote research and teaching in the field of Seismotectonic, meant as the analysis of long-term and present tectonic processes operating at a wide range of temporal and spatial scales, in order to understand seismogenic process controlling seismicity

2022 - Scientific coordinator of the project PON "Research and Innovation" 2014-2020 (PON R&I) Actions IV.4 "Doctorates and research contracts on innovation themes" and Action IV.6 "Research contracts on Green themes" including the Project "Analysis and comparison of topographic-geodetic data (GNSS, InSAR and Geometric levelling), in relation to physical-tectonic criteria, for the definition of a subsidence model valid for the coastal areas of south-eastern Sicily subject to marine invasion".

2022 - senior geologist, involved in project actions D1, D2, from 01.04.2022 to 31.12.2026 research project LIFE20 NAT/IT/001468 -LIFE SEEDFORCE, for the years 2022-2026: Using SEED banks to restore and reinFORCE the endangered native plants of Italy: UAV monitoring of native plants; UAVs monitoring for rare plant conservation: study case of *Silene hicesiae* and *Cytisus aeolicus*.

2022 - Part of UR UNIFE PRIN 2022-2025 - Geodetic GNSS monitoring of IGM95 benchmarks; PRIN project: Fault segmentation and seismotectonics of active thrust systems: the Northern Apennines and Southern Alps laboratories for new Seismic Hazard Assessments in northern Italy (NASA4SHA). Geodetic GNSS monitoring of IGM95 benchmark