

Master **Geographic Information Systems**

Department of Geography

March 2026

Master thesis / dissertation topics

Supervisor	Topic
Prof. univ. dr. habil. Lucian Drăguț	1. Mapping crop types with Satellite Image Time Series Analysis.
	2. Combining optical and terrain data for landslide inventory mapping.
Conf. univ. dr. Marcel Torok-Oance	1. Evaluating the transferability of the RAMMS avalanche simulation model to the Carpathian Mountains.
	2. Detection of avalanche paths affecting forested areas using remote sensing and terrain data.
Conf. univ. dr. Alexandru Onaca	1. Spatial downscaling of ERA5 climate data.
	2. Applications of UAVs in geomorphology.
Conf. univ. dr. Andrei Dornik	1. A geospatial integrated framework for the assessment of land suitability, land use optimization and real use compatibility.
	2. Geospatial assessment of soil property changes in Romania in the last two decades.
	3. Spatial downscaling of coarse gridded soil property maps to high resolution for landscape-scale analysis in Romania.
	4. Analysis of spatial associations between pedodiversity and geodiversity distribution in Europe.
Lect. univ. dr. Mircea Ardelean	1. DSM-Based Analysis of Conflicts Between Natural Terrain Conditions and Land Development. Area TBD with supervisor.
	2. A 3D Solar Radiation Model for Topoclimatic Analysis. Area TBD with supervisor.
Lect. univ. dr. Florina Ardelean	1. Data driven models for the analysis of avalanche susceptibility in Southern Carpathians.
	2. Assessment of burned area detection using REBAI and machine learning in grassland and forested areas in Romania.
Dr. Octavian Iercan	1. Location-Based Optimization of Parcel Assignment and Dynamic Routing for Locker and Pickup locations Network.
	2. Location Intelligence for Optimizing Last-Mile Delivery Zones in Medium-Sized Cities.