Abstract
The local variation of terrain properties causes profound changes in urban environment, influencing urban planning due to the restrictions imposed by the suitability of the terrains for a specific type of use (buildings, roads, green spaces location). With the dawn of computerized technology, the terrain is currently represented in a digital form only for large areas and new methods are needed to effectively describe, evaluate and quantify terrain properties, due to the terrain characteristics have an enormous impact on the natural environment and socio-economic activities. Taking into account that our town is located in an hilly area, the present study analyzes six morphometric parameters like: DEM, slope, aspect, hillshade, drainage density and depth and landslides areas for a better understanding of how urban terrain geomorphology influence some land uses, especially for buildings expanding in geomorphologic unfavorable areas (slopes over 18 degrees), using topographical plans,1964 edition.
Digital terrain data obtained from this analysis can be correlated with other spatial information in order to determine the influence of both land ecosystem properties with other variables, as well as better implementation in urban planning.

Key words: DEM, GIS, Iasi city, urban area, buildings