The current state of rehabilitation and modernization of geodetic and topographical networks

Cristian HUŢANU - USAMV Iasi
Gheorghe NISTOR - Universitatea Tehnica "Gh. Asachi" Iasi

The case study was done by measuring the area of 111.06 hectares of a vineyard unit, located in the North West outside of the city of Iasi. The measurements necessary to achieve a thicker network of points and topographical mapping in stereograph projection system 1970 were performed with TC 705 total station, the Leica Geosystems. The thickening of the planimetrical support network was done based on the old geodetic points of the 4th and 5th order, from the existing triangulation network of the stereograph projection system 1970 of Iasi. As a feature of the execution of polygonal course were included in measurements both two ordinary landmarks and two GPS landmarks from the main network of Iasi. All topographic measurements were made to update the site plan and cadastral mapping for vineyard establishment on a scale of 1:5000. Pulling out of the data resulted in getting a clear picture of distribution of land use categories within the growing unity, indicating the number of parcels, the area in hectares and the percentage of occupancy. Characterization of the land depending on the slope shows that the surface of 2.18 ha of arable land area and the surface of 0.33 ha of pasture land is heavily slanted, so the anti-erosion works should be made by growing rows parallel to the level curves direction.