

# **DRAWING UP THE NUMERICAL MODEL FOR THE FIELD RELIEF BASED ON THE DETAILED TOPOGRAPHIC ELEVATIONS PERFORMED IN THE UNDERGROUND PIPE DRAINAGE SYSTEMS**

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## **Abstract**

For The modern cartographic representations of field relief as plans and digital maps, and numerical models, respectively, require the existence of new topographic measurements made with modern methods. In this context, a series of hydroameliorative systems with underground pipe drainage are taken into consideration so that afterwards the fields can be exploited as agricultural fields. The case study included the execution of detailed topographic elevations on 210 ha that included a pipe drainage system. The area was situated in the Baia-Sasca, Suceava County, hydroameliorative system. For conducting the field works there were used GPS receivers, total measuring stations and the A class network of permanent stations from the GPS-GNSS national system. After the real time processing of the on field observations it resulted the plan metric and altimetric set of elevation points. Based on this set of points it was created the digital plan in the 1970 Stereographic projection system of coordinates and the numerical model of the relief in the normal heights system – 1975 Blank Sea.

**Key words:** digital elevation model, digital topographic plan, pipe drainage