Underground exploitation projects become more and more ambitious, increasing the threat of subsidence phenomena, as monitoring land near or above underground mines has become a mandatory process. The mining works, the mining constructions and surfaces, the ground surface constructions and other objects in the rock sliding area are subject to strains which oftentimes lead to their destruction. The process in which the surface (constructions and terrains) located above an underground mining site moves, is a continuous process, more or less noticeable visually or through classic means. The case study was performed at the former mining branch Iara, Cluj County. The choosing of the location was made while keeping in mind the devastating effects that the underground mining had on the surface, making it one of the most interesting and severe cases of sinking-collapsing in our country and not only. The paper reveals the results of the measurements concerning the creation of used to support network and structural deformation monitoring progress through technology GNNS, double stops, combined with triangulation measurements performed with total station TOPCON GTP 3102. The differences between the coordinates are also presented, both between the GPS measuring cycles and the station ones.