Analysis was conducted to suggest unwanted situations that may arise during the pumping Natural disasters, which hit Serbia in May 2014, caused heavy damage to the Kolubara Mining Basin. More precisely, Kolubara River and its tributaries flooded open cast mines. It is estimated that 180,000,000 cubic meters of water poured into the Tamnava-West Field preventing further normal production of this mine in the long run. In order to continue the production, water together with the sludge had to be pumped out. Although the actual pumping is not a complicated process, its consequences surely require serious analysis. Accordingly, slope stability was analyzed in view of the water pumping from this open cast mine, primarily with the aim to suggest any unwanted situations that may arise in the process. In addressing this issue, at the 11th International Conference on the surface mining OMC 2014, held on Zlatibor, Branko Petrovic, M. Sc. from the Kolubara Mining Basin presented his paper entitled Tamnava-West Field Dump Site Slope Stability Analysis in view of the Water Pumping. It should be noted that Branko Petrovic's analysis is only a preliminary consideration, informing more complex and comprehensive investigations, coming after the verification of the physical-chemical properties of the operating environment which has considerably been altered under the influence of water.
The author concluded that water will positively affect slope stability until a certain pumping level. However, after this, it impact will be diminished, leaving mining benches unstable. This analysis was conducted for one profile, while more detailed considerations should include other Tamnava-West Field profiles to cover and define the entire mine area. Nevertheless, prior to this exercise, physical-chemical properties of the dumped masses need to be verified and groundwater levels defined. This may be achieved through additional investigations, exploratory and geo-mechanical boreholes. Simultaneously, to ensure bench movement monitoring, a network of benchmarks should be set up to provide daily monitoring, by installing inclinometers to register the position of the sliding planes. This analysis aims to present the expected bench displacement and collapse caused by water pumping from the open cast mine, as well as to confirm that any improvisations during these works should be avoided and only scientific and professional principles applied.