

## **The Stability Analysis of Internal Overburden Dump Reinforced with Geosynthetic in Open Pit Mine "Kosova"**

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**Abstract.** This paper discusses the slope stability analysis of internal overburden dump called "East Dump" in open pit coal mine "Kosova". In this dump continually occurrence slide of the materials that have been dumped. For solution of the dump stability problem, firstly is analyzed current situation of the dump, then dump design and in the end dump design - slope reinforced with geosynthetic/geogrid. The primary aim of design of internal overburden dump is to provide effective stable working conditions for tow stackers. The slope stability and factory of safety was analyzed in selected location along the slope by using limit equilibrium method, such is Bishop's method. The analysis has been done using GGU-STABILITY software. Finally, a economical, sustainable and stable dump angle and height was analyzed for a safe dumping.

**Keywords:** *dump stability, factory of safety, Bishop's method, geosynthetic.*

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