

## ABSTRACT

### Analysis of soil slope stability of Bahram Beigi area

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#### Abstract:

Qanat village (Bahram-Beigi area) is located at 65 Km west of Yasuj city in Kohgiluyeh & Boyerahmad province. The terrain has a relatively high slope which is resulted from erosion of core anticline named Pataveh. Types of formation are Pabdeh and Gourpey with lithology of marl, shale, and layers of fine-grained impermeable clay. The high raining rate and uprooting of trees by locals intensify landsliding in beigi area. Shear parameters are determined by automated drilling of 5 boreholes with depth of 15m and performing Sieve analysis, Plasticity Index, Direct shear CD and 3Axial UU tests. The slope stability status was investigated by using two software, the Geoslope and Plaxis2D. The results show that the safety factor is low and if with surface and depth draining, groundwater table was lowered, the safety factor would rise above the allowable minimum (1.5). Also fuzzy logic was used owing to uncertainty of the results obtained

Key words: Bahram beigi area, Analysis of slope stability, Safety factor, Fuzzy logic, Stabilization of slope

### Passing under YangTse River with modern TBM devices

#### Abstract:

Coinciding with the World Expo 2010 in Shanghai, two 7.47 kilometer long, three-lane motorway tubes are to be opened to traffic. The tunnels will connect the Pudong district with the river island of Changxing, whose 600,000 inhabitants have so far had to rely on ferries to take them to the mainland. Since the YangTse River is one of the busiest shipping routes in China, it was vital that construction work should not disrupt domestic maritime traffic. For that reason, it was decided to bore a tunnel deep under the river, by mechanized drilling. Since September / December 2006, largest 15.43 meter diameter tunnel boring machines are at work underground in Shanghai, respectively, at depths of up to 65 meters and water pressures of 6.5 bar. The project is on a colossal scale: about 1,500 people are employed at the large construction site, 2.7 million cubic meters of earth will have to be removed and approximately 7,500 segment rings installed. It is expected that the first gigantic TBM will reach the target shaft on Changxing island, on the Yangtze river, at the end of 2008.

