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Galevarz landslide geotechnical studies in Rudbar Freeway, North of Iran

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The study area is located in the north of Iran and it is a part of new freeway between capital city and southern part of Caspian Sea. Freeway cross the Alborz mountain belt and it can be operating new landslides and rock falls along the Freeway. Some of the landslides are old and reactive and rest is new. Along the Freeway, between Rudbar to Rostamabad, 13 landslides were happened that 6 of them are reactive. Our study focused on a new landslide that was happened in Galevarz village. This landslide has 180 meters length by 170 meters width and 15 meters average depth. Galevarz landslide occurred in White river alluvial sediments. Slope of old rocks below the alluvial sediments and weak contact, irrigation of olive gardens above it and rain water channels in alluvium can be important parameters to happen this landslide. We drilled two boreholes in Galevarz area to find mechanical characteristics, internal friction resistance and cohesion coefficient. We got different internal friction resistance, and cohesion coefficient values from top to bottom. We used these data to find slope stability and to design fender wall in some places. Also, 8 meters vertical walls by 1 meter horizontal flats can be controlled Galevarz landslide and some drainage system is made above landslide to control it.