عنوان فارسی مقاله:
آزمایشات تجربی برای ترانشه‌های لنگرگاه ژئوانتیک

عنوان انگلیسی مقاله:
Experimental tests for geosynthetics anchorage trenches
6 CONCLUSIONS

This experimental study has illustrated a number of important features of deformation and failure for anchorage in trench. The mechanisms are complex and fluctuate with the mobilisation of the tensile force: the normal stresses acting on the interfaces can be very different at failure comparing with the initial stresses, the friction at the soil/geosynthetic interface may be only partially mobilised if the failure occurs in the soil. When designing the anchorage, it is therefore not merely sufficient to consider the geometry of the problem and the interface characteristics: mechanical properties of the anchoring soil must be taken into account.

Comparing anchor trenches for a fixed length of geotextile or for a given space at the top of the slope showed that whatever the chosen criterion, the V-shaped trench appears to have the lowest anchorage capacity. The trapezoidal trench is easier to set up than the others and its anchorage capacity is nearly the same than the rectangular one; but it is important to notice that the maximum value for the trapezoidal trench corresponds to a larger displacement of the geosynthetic. After these tests, we will perform new calculations in order to try to propose new formulae to designers; in addition, it will be necessary to improve the choice of the displacement criterion and to think about the proposal of safety factors.