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A study on the effect of geobag connectors on the stability of geobag-reinforced slopes

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ABSTRACT

Geobag is often used to reinforce slope, particularly in the areas where vehicles are not accessible (e.g., mountain). In this study, we investigated the effect of geobag connectors in the slope stability. The geobag connector is placed at the interface of two geobags and strengthen the interface shear resistance. The study conducted two numerical analyses that are finite-element (FE) method and limit equilibrium method (LEM) not only to investigate the behavior of the geobag connector but also to quantitatively determine the safety factor of the reinforced slopes. In the FE analysis, seepage and unsaturated soil conditions were taken into account. The analysis results show the failure mechanisms of the geobag-reinforced slope due to rainfall. It is also concluded that the geobag connector effectively enhance the stability of the slope.

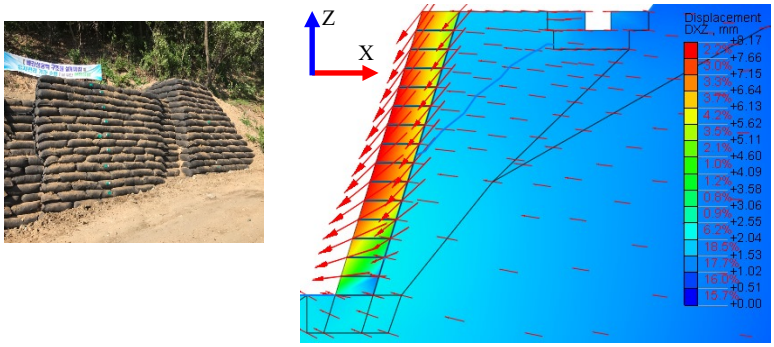

Fig. 1 Displacement analysis of the geobag-reinforced slope

REFERENCES

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