

Determine of Design Variables and Target Reliability Indexes of Underground Structure

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Abstract : In Korea, a study on Limit State Design (LSD) for underground structures is being conducted in order to perform more effective design. In this study, as a result of MCS (Monte-Carlo Simulation) technique, failure probabilities of the structure during normal and earthquake are estimated in reliability analysis. Target reliability indexes are determined depending on load combinations for underground structure, and then, design variables such as load and material factors in LSD are decided. As a result, through the research in order to determine more reliable design variables, a specification of LSD for underground structures is able to be developed.

Keywords : design variable, limit state design, target reliability index, underground structure

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