Research regarding design rationalization of ground structure by ground statistics

[Point]

In order to rationalize ground structure design, well grasping property space distribution, and based on it, examination of effect on ground structure safety is necessary. In this research, we aimed rationalization of ground structure design, using ground statistics method, and examined permeability of dam foundation as sample of property space correlativity. And next, from the observation value regarding permeability of dam foundation, applying ground statistics, we made permeability distribution model. Moreover, we proposed rational stability assessment method by applying ground statistics to strength space distribution of fill-dam ground foundation to extract mechanical weak layer.

Keyword: ground statistics, dam, permeability, strength, space correlativity