

VULNERABLE POINT DETECTION METHOD AND REINFORCEMENT METHOD FOR RIVER LEVEES

Abstract : This research tried to improve the evaluation method of the stability of river levees and develop reliable designing for river levee reinforcement methods against seepage. The precise vulnerable point detection process is proposed combining the micro geomorphology analysis and the geophysical exploration with the conventional evaluation method. In addition, three dimensional seepage analysis was conducted to evaluate the effect of the landform or the reinforcement method. The result indicated that not only the seepage flow of the cross section but also that of the longitudinal section has a possibility to affect the stability of river levees.

Key words : river levee, seepage, topography, reinforcement method, three dimensional seepage analysis