

以層級分析法探討建築物基礎開挖工程之研究

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摘要

In order to improve the quality of life, urban development in metropolitan areas has gone towards the sky or under the ground. The building structure is one of such examples. The tall buildings generally have a large and deep basement foundation to be excavated. The assessment, planning and design of foundation construction methods, foundation excavation and ground improvement will influence the duration, cost, safety and risk of the subsequent foundation excavation. The purpose of this research is to select the proper foundation excavation method to be used in building construction to ensure safe, fast and economic foundation excavation.

This research first investigates the foundation excavation methods to be considered in the Taipei metropolitan area and determines the criteria and sub-criteria to be used in foundation excavation, and then it establishes the final assessing framework by using the Delphi Method. Furthermore, the Analytic Hierarchical Process is used to determine the relative weights of elements of each level in the hierarchical structure of assessed framework.

關鍵字：Foundation Excavation Methods, Analytic Hierarchical Process, Building Construction