

Abstract

Khaled M. Shawki

OPTIMAL ARRANGEMENT OF TEMPORARY FACILITIES IN CONSTRUCTION SITES

Site layout planning requires decision makers to identify the planned location of each temporary construction facility on site. These temporary facilities include site offices ,workshops and storage facilities. Their planned locations on site have a direct impact on the on productivity ,cost ,and duration of construction. This paper presents a computer model called "GASITE" helps construction decision makers to carefully evaluate all feasible locations for these temporary facilities and an optimal layout that minimize the cost and travel distance between facilities. The optimization problem has been solved using genetic algorithms as an optimization technique .Application of the model is illustrated using an example .The proposed model is efficient and easy to apply and as such should be of interest to construction engineers and practitioners.