

Fuzzy Multi-objective Location-Allocation Plan for Post-quake Evacuation -A Case Study of Taichung City

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ABSTRACT

Earthquakes not only cause the building's structural damage, but also lead to serious loss of human and property. Proper evacuation should be executed on time so as to avoid the life loss in earthquakes. A fuzzy multi-objective location-allocation plan for evacuating refugees is proposed in this study. Since our model is a combinatorial optimization problem, solutions are found by genetic algorithm. Finally, Taichung city is demonstrated as a numerical example to validate our ideas.

Keywords : Fuzzy Multi-objective, Location-Allocation, Post-quake Evacuation, Genetic Algorithm

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