EXPLORING URBAN CONFIGURATIONS FOR A WALKABLE NEW TOWN USING EVOLUTIONARY ALGORITHMS

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Abstract

Multi-objective evolutionary algorithms have been successfully applied within various design domains in order to explore the trade-offs between conflicting design criteria. This research investigates how evolutionary algorithms can be used to develop urban configurations for walkable new towns, focusing in particular on the trade-off between travelling time using public transport and accessibility to open space. A population of optimised urban configurations was evolved and analysed, resulting in the identification of three differing typologies for walkable new towns.

Open to all faculty members and graduate candidates at the School of Design and Environment

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