

# Cellular Automata Model, A New Approach in Urban Growth Simulation

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**Abstract:** Modeling and simulation of urban growth could be a good means for explaining the mutual relationship between the man made and natural environment, in order to assist planning decision makers in their decisions in complex situations. A cellular automaton is an effective method in explanation of urban growth processes and a useful means for evaluation of environmental and social consequences of various planning scenarios.

This article reviews the application of cellular Automata method in urban growth modeling. Firstly it introduces the model, its major elements and principles. Secondly the operation for urban growth simulation is explained. The purpose of this article is to suggest ways in which researchers can model urban phenomena with Cellular Automata approach.

**Keywords:** Urban growth modeling, Cellular automata model, Urban cellular automata model.