

Analysis and prediction of Spatial Temporal Models

Dr. Raziye Rezazadeh

Mehrdad Mirahmadi

Iran University of Science and Technology

Rapid growth of cities and their citizens mostly in the developing countries needs a systematic and scientific understanding of the complex process of the growth of cities and their models. To have the management of a stable city growth and planning for the development of cities, one needs to understand the models of city growth. Since different elements with different behavioral models affect on the system of city growth, the Complexity Model can be a good base for a scientific understanding of city growth models. This article studies the complexity theory and the complex system of city growth. It then explains Cellular Automata Model as a new process for city model-making, based on the complexity theory. The writers of the article also study the system of city development for the city of Mashhad and predicting its spatial temporal growth models.

Keywords: Complex system, Cellular Automata Model, spatial temporal growth, SLEUTH Model.