

SUMMARY OF MASTER'S DISSERTATION

Student Identification Number	80833380	Name	Tomomichi Nakano
Title Agent Based Modeling for Urban Structure Design Considering Human Lifecycle.			
Abstract <p>Japan is facing a critical problem of how to enhance the quality of life of the elderly people who cannot drive a car. The problem is caused primarily by urban sprawl and also by lack of public transportation. In order to improve the current situation, it is necessary to design more compact urban structures with residents of well-balanced generations. It is also important to consider the allocation of public facilities so as to meet the requirements of living environment which are different according the life stages.</p> <p>The purpose of this paper is to analyze and design favorable urban structure using agent based modeling technique which considers human lifecycle. The author set up three different types of agent, 1) worker-agent who works and is unmarried, 2) family-agents who raises children and 3) elderly-agent who is over sixty-five. The developed simulator can vary agent's lifecycle, accessibility (movable range of agents), probability of moving residence and vary the number and placement of public facilities. It is also possible to evaluate each case of migration. The results of the simulation can be conclude as follows,</p> <p>(1)Improvement of accessibility would cause urban sprawl.</p> <p>(2)Support moving residence for elderly benefit for compact city and better balance of residential generation.</p> <p>(3)Making elderly live in the center of the city, is effective to make urban region compact and better balance of residential generation.</p>			
Key Words : Multi-Agent-Simulation, Urban Plannig, Ageing Society			