

Divisino of Environmental Design	Research field	Urban Planning and Planning support system	Lab. ID
			ED07
Laboratory web site	http://webserv.ce.t.kanazawa-u.ac.jp/kawakami/		
Research subjects			
<p>Urban and regional planning</p> <p>Urban planning and design including historical restoration, disaster prevention and so on.</p> <p>Planning support system for public participation on the Internet</p> <p>Planning support system using GIS and AI for environment conservation</p> <p>Comparative study of Japan-China urban planning systems</p>			
Master/Doctor course: Education policy, curriculum, typical activity in the laboratory			
<p>Regional municipalities in Japan are endeavoring to improve public involvement in decision-making processes for urban planning and design, such as urban master plans, district plans, and townscape design (Machizukuri). To support public participation, we are conducting research into developing planning support systems using WEBGIS and VR technology on the Internet environment.</p> <p>Environment plan based on analysis of geography information is an important theme. Urban models employed in the allocation processes of land use have taken into account land use demand, supply and competition, and a new approach considering environmental impact from urban activities is also introduced to urban and regional planning. We are conducting land use simulations using CA and MAS based on the behaviors of different autonomous agents to represent a "bottom-up" decision-making process. As well, by introducing ecological networks into urban and regional planning, we are developing a new type of planning support system for environmental conservation.</p>			
Daily life in the laboratory, etc.			
<p>We are conducting research from multi-approach, such as field survey, spatial analysis, making design and planning proposals, project evaluation. For those works, we try to find the solutions via Geovisualization and Geosimulation. We are organizing international workshop every year and active in international communication.</p>			
Message or comments by the laboratory faculty staffs			
Students who are interesting in GIS and VR technology are welcome to join our lab from all of the world.			
Recent Master theses in these 3 years (+ more if appropriate)			
year.month	Thesis title (including English translation of Japanese thesis title)		
2017.9	Visualization of Building Form Regulation in Japan and Building Form Legality Check Based on Procedural Modeling for Planning Support		
2016.9	Planning assessment of Tsunami Evacuation Plan and Living Quality Improvement in Accommodation Shelta		
2016.9	Design parameters of residential building for improving performance of RHS, a case study in Fuzhou city, China		
2016.3	Estimating Ability of Accommodation Shelters Focusing on Capacity for Earthquake Disaster —A case study of Kanazawa City, Japan—		
2015.9	Critical Threshold Analysis of Green Network Connectivity in an Urban Environment using Volunteered Geographic Information: Auckland, New Zealand		
2015.9	Agent-Based Simulation of the Effects of an Environmental Tax Policy on Residential Gas Use and CO2 Emissions: Kanazawa city		
2014.9	Prediction of Green House Gas Emissions in Rubber Cities Based on Agent-based Simulation Approach: Nathawi District, Thailand		
2014.3	Comparison of planning and design for environmental preservation industrial parks between Japan and China		
2014.3	Application of Solar Distributed Generation System in Urban Regeneration Projects, A case study in Ho Chi Minh City, Vietnam		
2013.9	An agent-based decision supporting system on urban water resource conservation planning		
2013.3	Planning regulation impacts on Middle-high rise building construction		
2013.3	Comparative Study on Urban Land Use Planning and Public Participation between Vietnam and Japan		
2013.3	Comparison of reconstruction of residential areas after earthquake between Japan and China		
2013.3	Visualization of design guidelines for green Building and green city planning using CG technology		
2012.9	An agent-based model for simulating location of community-based facilities: A case study of day-care centers in Kanazawa City		
2012.9	Visualization of planning and design of pedestrain bridge using cloud-computing VR		
Recent Doctoral theses in these 3 years (+ more if appropriate)			
year.month	Thesis title (including English translation of Japanese thesis title)		
2017.9	GIS-BASED SIMULATION FOR EVACUATION PLANNING SUPPORT IN CASE OF EARTHQUAKE		

2017.9	The Possibility of Big Data Spatio-Temporal Analytics for Understanding Human Behavior and Their Spatial Patterns in Urban Area
2017.9	Agent-based Simulation of Impact of Environmental Policies on Greenhouse Gas Emissions
2016.9	Application of Cloud-based Virtual Reality Integrated Automatic Presentation Script for Understanding Urban Design Concepts
2014.9	Cloud-based Virtual Reality Technology for Representing Design Guideline of Urban Residential Environment
2014.9	Residential Land use and Housing Development in Indonesia from the Perspective of Sustainable Urban Form
2013.3	Land use and control in suburban areas based on local planning regulations
2012.9	Simulation Systems for Planning Support of Sustainable Urban Development
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