

**An Evaluation of Road Pricing Policy considering both Car and Transit Network Congestion**

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In this study, we build multi-modal urban travel model system which considers travelers mode choice, route choice and multi-modal network equilibrium for the evaluation of road pricing policy in Tokyo Area. We have some interesting results presented in quantitative way with this evaluation. Although road traffic and environmental situation will improve greatly after the policy, the railway congestion get worsen in the peak periods. The road pricing policy reduces almost all the users \$B!G (B utility, but there are some users who benefits after the policy. The results imply the careful treatment of use of pricing revenue is needed to recover the loss of user benefits.

**TAMA Urban Monorail in Regional Context: Travel Behavior and Land Use Pattern**

Sadatsugu NISHIURA

TAMA Urban Monorail was expected to play a role as a regional ring line and have a significant impact on its future transformation. The monorail line is in the western part of Tokyo Metropolis where the residential land use is dominant. However, a mixed land use of commercial, office and residential would be a possible choice for a future land use strategy for monorail station areas.

**Comparative Evaluation of the Bicycle road network planning by the index of accessibility, safety and CO2**

Yasutsugu NITTA & Junghoon HWANG

This kind of road spaces for bicycle in towns are provided through the network composed of bicycle path, bicycle lanes and the mixed lanes with traffic and pedestrians. However, what kind of road space allocation for bicycle and which type of road network are suitable for residents and environment in town, from points of view of accessibility, air pollution and safety, have not been clarified in previous studies. Therefore, in this study, the desirable alternatives of road network including bicycle path and bicycle lanes are proposed for a virtual district of town and evaluated by indexes of accessibility, CO2 and safety using computer simulation. As a result, it was clarified that bicycle road measures to create bicycle path by the reallocation of road space and to form bicycle exclusive network was effective.

**Considering the Distribution of Public Facilities in A Land Use-Network Design Model**

Jen-Jia LIN & Cheng-Min FENG

The development map in urban planning represents the layouts of a physical plan. However, the process of generating sketches has long been considered to be a "black box". Feng and Lin (1999) developed the Sketch Layout Model (SLM) to improve the efficiency and quality of layout tasks. The model is a nonlinear, multi-objective programming, which can be used to analyze the integrated layout of land use and transport network. Although the SLM

can be applied to real cases, it neglects facilities' service areas and does not enable community facilities to be well arranged. This study developed the SLM-ill by integrating the SLM-II and the Maximal Covering Location Problem (MCLP) to analyze all of the major sectors in a physical plan. The improved model can be used to analyze the integrated layout of land use, public facilities and transport network. A numerical example will be analyzed to confirm the operational feasibility and identify the characteristics of the model.