Research on economical evaluation of ITS introduction

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In modern society, the number of cars increases, therefore traffic is also increasing. The occurrence of traffic congestion and accident is also increasing every year by the increase in traffic. In recent years, in Japan, introduction of ITS started to solve such a problem.

ITS is the general term of the social system which introduces the state-of-the-art technology, builds “people”, ”road”, and”vehicles” as one, and raises efficiency, safety, and comfort.

Since the Japanese government announced “the whole plan about ITS promotion” in 1996, they has invested in about 15billion of yen in research and development, maintenance of an infrastructure every year. The amount of investment is increasing every year. Despite the immense amount of the investment, the economical effect of ITS has not announced till now. While comfortable and safe driving brings about social convenience good, it raises queries what do verify analyses of Ministry of Load, Infrastructure and Transport office, and how do evaluate ones from the angle of economy, the explains the social convenience good of declaring half of now by 10 years after and becoming untied by 30 years after. Economical evaluation of ITS is an important subject in connection with continuous development of ITS.

In this research, in order to evaluate ITS economically, a traffic model is created and a traffic simulation is performed using a multi-agent simulator. For clarifying the social convenience good by ITS technology from the angle of time expense, it verifies economical assessment of ITS that comparing pre-introduced traffic simulations with post-introduced ones.