

## Evaluation method of Maglev for introducing urban transport in Japan

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Maglev'02(Magnetic Levitation Vehicle conference  
( 3 , September , 2002)

Maglev has many merits in introducing urban transport in Japan, for examples, low noise, comfortable riding, high performances of acceleration and etc. However, in comparison with other conventional urban transports, it is difficult to clarify and determine merits quantitatively because there are many competitive items. Therefore, in this paper, we express simulation and evaluation method for comparing with several urban transportation systems through calculating running data and evaluation items. Through this method, we can extract merits of Maglev quantitatively for introducing in Japan. For this purpose, we developed new simulation method for calculating several evaluation items. This simulator realizes the several transportation systems can run on the road map set for appropriate route in accordance with each performance. By this simulator, each transportation system runs on the estimated route and we can see the real speed of train and energy consumption at the time simultaneously on the monitor. Through these simulations, we can evaluate several items for examples, running time and energy consumption quantitatively on the supposed route. By this, we can find and prove the merits quantitatively for introducing urban Maglev in Japan. Especially, we need the clear reasons for choosing new transportation systems in Japan because there are several transportation systems in several areas. Therefore, these quantitative evaluation data can make good help to realize urban Maglev system. In fact, as the result of competition among several transportation systems through this simulation, HSST was chosen and will start revenue service at the north-east side of Nagoya in 2005. This result shows the usefulness of this simulation.