

**Examination of Fundamental Characteristics of Vehicle Dynamics  
Using a Maglev Vehicle Model Experiment Apparatus**

Erimitsu SUZUKI    Ken WATANABE    Hironori HOSHINO

An experiment apparatus using a 1/12 scale model of a train car body was constructed to study the characteristics of vehicle dynamics of magnetically levitated high speed surface transport (Maglev) systems that differ from conventional railway systems. Consisting of six-axis parallel link motion bases to reproduce bogie motions, an aluminum car body, and secondary suspension units, this apparatus is expected to be useful in examinations of control methods to reduce vehicle vibrations and to generate data useful in eventually improving the precision of computer simulations. This report provides an overview of the Maglev vehicle model experiment apparatus and results of initial tests examining its fundamental characteristics.