

**Development of the Body-mounted Track Measuring Device
with the Inertial Mid-chord Offset Method**

Yosuke TSUBOKAWA Eiji YAZAWA
Kiyotaka OGISO Toshiaki NANMOKU

We have developed a prototype track measuring device adopting the inertial mid-chord offset method, which can be mounted on commercial railway vehicles. For testing the device, we set the device on a track inspection car and executed the running test for evaluating its practical measuring accuracy and durability for a long term. It should be mentioned that the measuring accuracy is not so high when the device is used under the condition of low speed. Therefore, we investigated a method for compensating the accuracy during the time when the inspection car runs with low speed. This paper describes the outline of the developed car body mounted device, the results of running test on commercial lines and the compensation method ensuring higher track measuring accuracy even under the condition of low speed.