

### **Examination of Wireless Acceleration Measurement for Ballasted Track**

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Railway operators examine dynamic characteristics of ballast vibration using wired sensors. To improve the efficiency of maintenance works in track. In terms of prevent disconnection of sensor cables during tamping works, wireless measurement of the vibration is required. In this research we discussed specifications of wireless sensors such as an operation pattern and a radio system. We evaluated the wireless characteristics of some buried wireless devices in a ballasted track and confirmed that RSSI which is a wireless indicator exceeds the minimum received sensitivity. Furthermore, we confirmed the behavior of the buried sensors during a road railer run over them.