

**The Development of the Monitoring System for Railway Infrastructures with the Aim
to Assist the Inspection in the Ordinary Time and after the Event of Disasters**

Michiko NOZUE Ryuji TSUCHIYA Masahiro SHINODA
Yoshihiro WATANABE Norio SATO

Recent progress in information and sensing technologies accelerated the emergence of various types of monitoring systems for use in the maintenance of social infrastructures. This paper covers the sensor network system which we are currently developing for monitoring railway facilities including various types of civil-engineering structures and tracks. Some sensors are developed for assisting the ordinary inspection and the others are particularly used for the inspection after some event of disasters. The particular focus is on the practical methodologies for integrating a variety of sensors and several communication media into a unified network system while satisfying the requirements from typical monitoring applications.