

Health Monitoring System for Finishing Materials of Station Facilities

Seiji YAMADA Kunihiro KAWASAKI

Katsuyuki SHIMIZU Yasushi TAKEI

The damage of finishing materials used for station facilities occasionally becomes an obstacle of the train scheduling and the harm to passengers. Therefore we have proposed a damage detection algorithm using only output data of a vibration with the input of pressure variations at the time of the train passage. In addition, we have developed a vibration sensor utilizing material properties of a piezoelectric ceramics. In this paper, we show the results obtained by applying the proposed algorithm to a real-sized structure model, and also the results obtained when we installed the developed sensor at a real station.