



Toru TAKEICHI

Deputy manager

tooru-takeichi@westjr.co.jp

<https://www.westjr.co.jp/global/en/>

Biography:

Toru TAKEICHI is a deputy manager at electrical technology research office in West Japan Railway Company (JR-West), and also a doctoral student in electrical and electronic engineering. He has 18 years of experience for railway signaling system, especially maintenance, planning, and research & development. Now, he is engaged in technology development for “change of maintenance system in railway” including condition based maintenance, labor saving and so on.

Academic qualifications :

He received a BS and MS degree in electrical and electronic engineering from Tokushima University, Japan in 1999 and 2001.

Title of presentation:

An indicator formulation method for effective level crossing protection device installation plan

Summary:

A level crossing protection device is an effective facility to prevent from accidents at a level crossing. Since an installation of the protection device requires a large amount of investments, the installation should be determined in order from that the potential level crossing have high accident prevention effect.

In this approach, first, the characteristics of level crossings where accidents have occurred in the past are analyzed. Secondly, the probability of an occurrence of the accident is calculated. Finally, a reference indicator to determine the priority of installation is formulated.

By classifying accidents following the type of the accidents and extracting features of level crossings where each accident is likely to occur, effective countermeasures can be formulated.

Actually, since FY 2009, we had been promoting installation of level crossing protection device based on the predicted value calculated by this research method.

As a result, the number of accidents had decreased to 14 in FY 2016, compared to 60 in FY 2007, representing a drop of 77% (a baseline for comparison).