

Evaluation Method of Running Safety and Strength of Turnouts based on Finite Element Analysis

Saki SHIMIZU Yuya OIKAWA Katsutoshi SHIOTA

In Japan, the turnouts are usually designed based on the verified experiences or according to the specifications adopted by JIS. An evaluation method for a new turnout structure has not yet been established. In this research, we have developed an evaluation method based for a new turnout on the dynamic analysis. Generally, in order to examine a new turnout structure, we have to evaluate its train running safety and a component material strength. In the proposed method, a train running safety and a component material strength are evaluated separately for work efficiency. The developed method is useful for efficient structure investigation by avoiding the ineffective work.