Proposal of Unsupported Sleepers Detection Method and Utilization for Track Maintenance

Daiki YAMAOKA Masanobu KUSUDA Hirofumi TANAKA Mami MATSUMOTO Hiroo KATAOKA

It has been pointed out that the unsupported sleepers existing in the ballast track can induce rapid track subsidence and decrease the safety margin against lateral stability of the track. Until now, there has been no method to accurately locate the unsupported sleepers, and the actual circumstance of the unsupported sleepers is unknown. This situation makes us to propose a new detection method for unsupported sleepers. Since the accuracy of the unsupported sleepers detection method is good, we investigate the actual circumstance of the unsupported sleepers.