

Estimation Method of Static Height of Contact Wire using Pantograph Contact Force

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For preventing accident occurring between overhead catenary system and pantograph, overhead catenary system must be carefully maintained, resulting in requiring heavy maintenance cost. The present on-board monitoring system for overhead contact lines mainly provides dynamic states of contact wire. However, its static states are intensively required for the maintenance work of the overhead contact line. Therefore, the authors have developed two methods which estimate static height of contact wire by contact force and pantograph height. This paper describes the new methods in detail and shows some simulation and experimental results.