Evaluation Method of Grounding Characteristics for Railway Telecommunication Systems

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In recent years, the introduction of deep grounding for reducing the ground resistance value and equipotential bonding is studied in railway telecommunication systems. In this paper, first, a calculation method of estimating the earth resistance and the potential interference coefficient is shown, and the development of the calculation tool for estimating characteristics of deep grounding is described. Secondly, on the basis of the estimated characteristics of deep grounding by using the tool, the equipotential bonding with deep grounding for railway telecommunication systems is proposed, which realizes both reduction of grounding resistance and equipotential bonding. Finally, the future study on the proposed grounding configuration is shown.