

## **Development of Potential and Current Distribution in Train Set due to Vehicle Ground Fault**

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When vehicle ground fault occurs, where vehicle short-circuited with power line, distribution of electric potential and return current within the trainset become abnormal, such as unusual rise of car body potential or current distribution. These may cause vehicle malfunction. On the other hand, if the potential and current distribution in a trainset caused by vehicle ground fault is predictable, it will be useful for development of ground fault detection method for a train itself, which cannot be realized for existing vehicle. For these reasons, we have developed the calculation model of potential and current distribution in a trainset at a time of vehicle ground fault.