

Development of an On-board Autonomous Train Control System

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As a basic technology for realizing autonomous train operation, we propose two functions: a function to create a running profile on board a train and a function to directly control wayside equipment from a train. The function to create a running profile onboard a train generates a running pattern to recover from delays caused by abnormalities, based on information such as timetables that is acquired and held by the onboard train. On the other hand, the function to directly control ground equipment from the vehicle is to set the train's path by the on-board equipment, switch the necessary turntable machines, and control level crossing warning.