

ABSTRACT

AUTOMATIC TRAIN CONTROL DEVICE

In an automatic train control device (501, 701, 901) including a vehicle property learning unit (505, 702, 902) that learns vehicle property based on speed of own train and braking command for controlling travel of the own train, the vehicle property learning unit (505, 702, 902) includes a vehicle property estimating unit (507) that estimates the vehicle property and a vehicle property reflecting unit (508) that reflects the vehicle property in a braking command to be newly calculated, and the vehicle property estimating unit (507) calculates generated deceleration that has been actually generated in the own train, calculates commanded deceleration that has been commanded to the own train based on the braking command, makes an evaluating function using difference of waveform obtained when the generated deceleration having been calculated is displaced in the time axis direction and the deceleration axis direction and waveform of the commanded deceleration, and calculates a displacement amount, as a vehicle property value, in the time axis direction and the deceleration axis direction that minimizes the evaluating function.

(Figure 6)