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(54) **PLANT CONTROL DEVICE AND CONTROL METHOD USING MODULATION ALGORITHM**

(57) There is provided a control method for sufficiently compensating the non-linear characteristic for a plant having a strong non-linear characteristic and satisfying the follow-up and stability for a plant having a large control amount fluctuation. There is provided a plant control device using modulation algorithm. The control device includes: means for calculating a temporary control input for controlling the plant output to a target value; means for dividing the temporary control input into a plurality of components; means for modulating at least one of the components; and means for adding the modulated component to another component so as to generate a control input. Thus, it is possible to minimize the input fluctuation caused by modulation while maintaining the compensation ability of the non-linear characteristic such as plant friction and hysteresis attributed to the conventional modulation algorithm. Accordingly, even in a plant in which the temporary control input is greatly changed, it is possible to prevent oscillation of the output, thereby improving the controllability.

