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(54) **CONTROLLER**

(57) A control system which is capable of enhancing both the stability and the accuracy of control when the output of a controlled object is feedback-controlled by a plurality of control inputs. An ECU 2 of a control system 1 controls engine speed NE during idling by an ignition control input Usl_ig and an intake control input Usl_ar. The ECU 2 calculates a target engine speed NE_cmd according to an engine coolant temperature TW and the like (step 3), and determines the ignition control input Usl_ig and the intake control input Usl_ar with a plurality of predetermined target value filter-type two-degree-of-freedom sliding mode control algorithms [equations (1) to (12)] sharing one switching function σ_{ne} therebetween, such that the engine speed NE converges to the target engine speed NE_cmd (steps 4 to 7 and 9).

