

ABSTRACT OF THE DISCLOSURE

A control constant identification system which comprises a command generation section for generating a speed command V_{ref} , a speed control section for determining a torque command T_{ref} by the speed command V_{ref} and actual motor speed V_{fb} and controlling motor speed, an estimation section for simulating the speed control section according to a model and outputting an estimated torque command T_{ref}' , and an identification section for identifying inertia J according to a ratio between a value ST_{ref} resulting from time integration of the torque command T_{ref} output by the speed control section at a predetermined interval $[a, b]$ and a value ST_{ref}' resulting from time integration of the torque command T_{ref}' output by the estimation section at the predetermined interval $[a, b]$. To accurately find the inertia J by executing a small amount of operations, the predetermined interval $[a, b]$ and the speed command V_{ref} are set so that the actual motor speed V_{fb} and motor speed V_{fb}' found by the estimation section become the same non-zero values at the time b .