

ABSTRACT

A wearable action-assist device includes a biosignal detection unit detecting a biosignal from a wearer, an action-assist wearing tool having a drive source supplying a torque acting on the wearer around each joint of the wearer as an axis of rotation, a control unit controlling the drive source to generate the torque according to the detected biosignal, a drive torque estimation unit estimating a drive torque generated by the drive source, a joint-angle detection unit detecting an angular displacement of the joint, and a parameter identification unit identifying kinetics parameters concerned by substituting the estimated drive torque and the detected angular displacement into an equation of motion of an entire system including kinetics parameters intrinsic to the wearer. The control unit is configured to control the drive source according to a predetermined control method based on the equation of motion into which the identified parameters are substituted.