

MIXED CONTROL OF MULTI-FINGERED HAPTIC INTERFACE ROBOT WITH OPERATOR'S UNEASY FEELING IN MIND

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This paper presents a mixed control of multi-fingered haptic interface robot consisting of a 6 DOF arm and a 15 DOF hand. The interface is placed opposite the human hand and presents force and tactile feeling to the fingertips. In order to reduce the uneasy feeling in the operator, a mixed control consisting of a finger force control and an arm position control intended to maximize the control performance index, which consists of the hand manipulability measure and the norm of the arm-joint angle vector, is proposed. Experimental results demonstrate the effectiveness of the mixed control.