

Process Machine Interactions

Abstract

The aim of this paper is to provide some guidelines to achieve high performance machining represented by cutting and grinding shedding light on the process machine interactions. Among various kinds of interactions, an interaction mediated by machining force and elastic deformation of the machine tool system will be discussed. In addition, measures to attain higher machining accuracy with the aid of ultrasonic vibration and to increase the stability limit of the process will be described.