

## عنوان مقاله:

An Analysis and modeling of the Dynamic Stability of the Cutting Process against Self-Excited Vibration's

## محل انتشار:

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## خلاصه مقاله:

Chatter is a self-excited vibration which depends on several parameters such as the dynamic characteristics of the machine tool structure, the material of the workpiece, the material removal rate, and the geometry of tools. Chatter has an undesirable effect on dimensional accuracy, smoothness of the workpiece surface, and the lifetime of tools and the machine tool. Thus, it is useful to understand this phenomenon in order to improve the economic aspect of machining. In the present article, first the theoretical study and mathematical modeling of chatter in the cutting process were carried out, and then by performing modal testing on a milling machine and drawing chatter stability diagrams, we determined the stability regions of the machine tool operation.

## کلمات کلیدی:

machine tool vibrations; chatter; stability; Diagrams, Modelling

## لینک ثابت مقاله در پایگاه سیویلیکا:

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