

## عنوان مقاله:

An Experimental Study of the Internal Space of Hand in Strength-grip Position for the Ergonomic Design of Hand **Tools** 

### محل انتشار:

كنفرانس دو سالانه بين المللي مكانيك جامدات تجربي (سال: 1398)

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#### خلاصه مقاله:

Having a better understanding of human-tools interaction factors could help innovators, engineers, and designers to offer more efficient ergonomic designs. This research has tried to obtain detailed information about the palm and fingers grabbing position, which could be used in precise ergonomic design procedures. Dimensional characteristics of the enclosed space inside of the hand that forms between the palm and the fingers in a strength-grip position have taken under study. An experiment among 40 men and women with hand height between 160-180 mm has been employed to clarify the main anthropometric features of this space. Three different profiles along the central axis of the internal space of hand were recorded for each person, and the common features of this space were investigated by comparing the profiles among the statistical population

# كلمات كليدى:

Ergonomic design, Hand tools, Experimental design, Strength grip

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