

## عنوان مقاله:

(Maximum Allowable Load On Wheeled Mobile Manipulators (RESEARCH NOTE

## محل انتشار:

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## خلاصه مقاله:

This paper develops a computational technique for finding the maximum allowable load of mobile manipulators for a given trajectory. The maximum allowable loads which can be achieved by a mobile manipulator during a given trajectory are limited by the number of factors; probably the dynamic properties of mobile base and mounted manipulator, their actuator limitations and additional constraints applied to resolving the redundancy are the most important factors. To resolve extra D.O.F introduced by the base mobility, additional constraint functions are proposed directly in the task space of mobile manipulator. Finally, in two numerical examples involving a two-link planar manipulator mounted on a differentially driven mobile base, application of the method to determining maximum allowable load is verified. The simulation results demonstrates the maximum allowable load on a desired trajectory has not a unique value and directly depends on the additional constraint functions which applies to resolve the motion redundancy.

## کلمات کلیدی:

Given Trajectory, Load Carrying Capacity, Base Replacement, Manipulator

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/1415907>

