

## عنوان مقاله:

Optimal Load of Flexible Joint Mobile Robots Stability Approach

## محل انتشار:

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## خلاصه مقاله:

Optimal load of mobile robots, while carrying a load with predefined motion precision is an important consideration regarding their applications. In this paper a general formulation for finding maximum load carrying capacity of flexible joint mobile manipulators is presented. Meanwhile, overturning stability of the system and precision of the motion on the given end-effector trajectory are taken into account. The main constraints applied for the presented algorithm are torque capacity of actuators, limited error bound for the end-effector and overturning stability during the motion on the given trajectory. In order to verify the effectiveness of the presented algorithm, a simulation study considering a compliant joint two-link planar manipulator mounted on a differentially driven mobile base is explained in details.

## کلمات کلیدی:

Optimal Load, Overturning Stability, Base Mobility, Joint Elasticity

## لینک ثابت مقاله در پایگاه سیویلیکا:

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