

## عنوان مقاله:

Optimal design of two, three and four legs 3-DOF planar parallel manipulators

## محل انتشار:

سومین کنفرانس ملی سیستم های مکانیکی و نوآوری های صنعتی (سال: 1393)

تعداد صفحات اصل مقاله: 4

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## خلاصه مقاله:

In this paper, the optimal designs of three planar 3-DOF parallel manipulators with 4-RPR, 3-RPR and 2-RPR structures are compared. The optimization of the manipulators are performed based on dexterity index, subject to constant orientation workspace. The optimizations are performed using particle swarm optimizer with Semi-active congregation which improves the performance of PSO with passive congregation. Finally, it is shown that the 4-RPR parallel manipulator has a better performance than 2-RPR and 3-RPR manipulators according to the dexterity index.

## کلمات کلیدی:

Manipulator, dexterity, optimization, semiactive congregation

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/540841>

