

عنوان مقاله:

Optimization of spherical parallel manipulator trajectory based on neural network

محل انتشار:

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خلاصه مقاله:

This paper presents a simple method for parallel manipulator trajectory with minimum path length between two initial and final poses. A modified 4-5-6-7 interpolating polynomial is used to plan a trajectory for a spherical parallel robot. The polynomial function which is smooth and continuous in displacement, velocity, acceleration and jerk is used to find a smooth path. An artificial neural network is implemented to solve forward kinematics of the manipulator to estimate the distance between gripper and singularity. Finally, it is observed that the proposed method finds which motors can be effective in desired motion. The simulating results prove the efficiency of the proposed method.

کلمات کلیدی:

Parallel manipulator, Trajectory planning, Neural networks

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