

## عنوان مقاله:

Trajectory Tracking Control of Nonholonomic Mechanical Systems in Presence of Model Uncertainties

## محل انتشار:

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## خلاصه مقاله:

This paper presents a robust adaptive feedback linearizing control law to solve the integrated kinematic and dynamic trajectory tracking problem of nonholonomic mechanical systems in presence of parametric and nonparametric uncertainties. An adaptive nonlinear control law is proposed based on input-output feedback linearization technique to get asymptotically exact cancellation of the parametric uncertainty in the system parameters. Then, a leakage modification is applied to modify integral action of the adaptation law to compensate for the nonparametric uncertainties due to friction and unmodeled dynamics. Simulation results are presented to illustrate the robustness and tracking performance of the proposed controller.

## کلمات کلیدی:

Feedback linearization, Parametric uncertainty, Robust adaptive, Nonholonomic system

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/95643>

