## عنوان مقاله:

Gait Planning, Complete Dynamic Modeling and Online Neural Network Control of a Biped Robot

## محل انتشار:

اولین کنگره مشترک سیستم های فازی و سیستم های هوشمند (سال: 1386)

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## خلاصه مقاله:

Control of biped robots based on designated smooth and stable trajectories is a challenging problem that is the focus of this paper. A desired trajectory for the lower body will be designed to alleviate the impacts due to contact with the ground. This is obtained by fitting proper polynomials at appropriate break points. Then, the upper body motion is planned based on the Zero Moment Point (ZMP) criterion to provide a stable motion for the biped robot. Next, dynamics equations will be obtained for both single support phase (SSP) and double support phase (DSP). Finally, the online Neural Network Control (NNC) approach is applied for both SSP and DSP. Obtained results show the successful performance of this kind of controller on a biped robot.

## کلمات کلیدی:

biped robots, stability, gait planning, neural network controller

## لینک ثابت مقاله در پایگاه سیویلیکا:

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