

عنوان مقاله:

Solution of Bang-Bang Optimal Control Problems by Using Bezier Polynomials

محل انتشار:

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خلاصه مقاله:

In this paper, a new numerical method is presented for solving the optimal control problems of Bang-Bang type with free or fixed terminal time. The method is based on Bezier polynomials which are presented in any interval as $[t_o, t_f]$. The problems are reduced to a constrained problems which can be solved by using Lagrangian method. The constraints of these problems are terminal state and conditions. Illustrative examples are included to demonstrate the validity and applicability of the method.

کلمات کلیدی:

Optimal control, Bang-Bang control, Minimum-time, Bezier polynomials family, Best approximation

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